



# MIDIRS Search Pack

## Search Pack M74 Midwifery in Asia

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**Date created:** 06/23/2026

## M74 - Midwifery in Asia

(551)

### 990114-034

**Working with the traditional indian village dai.** Smith D (1998), *Midwifery Today* no 48, Winter 1998, pp 49-57

A Canadian midwife describes her experiences working for a non-governmental organisation, Jagori, conducting residential training for dais (midwives) in rural India.

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### 960729-015

**Midwives' experiences of safe motherhood programmes.** Hird C (1996), In: *The art and science of midwifery gives birth to a better future. Proceedings of the International Confederation of Midwives 24th Triennial Congress, 26-31 May 1996, Oslo.* London: International Confederation of Midwives 1996, pp 57-59

Midwives worldwide have been involved in Safe Motherhood Programmes. They have been involved in teaching, administration, and implementation of these programmes. This paper addresses the impact of Safe Motherhood programmes on midwives' practices and on maternal mortality. Midwives from developing countries in Africa, South East Asia, and the Asia Pacific region have been surveyed. The author reports results from a survey of midwives from the developing world. Socio-economic and cultural factors influencing the effectiveness of these programmes are discussed. (Author)

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### 950403-067

**Midwifery in rural India: a study of traditional birth attendants in Tamil Nadu, India.** Mulder S (1995), *Australian College of Midwives Incorporated Journal* vol 8, no 1, March 1995, pp 24-30

Report of a study undertaken while working as a volunteer with the Centre for Rural health and Education in India. The aim of the study was to understand the roles and skills of the dais and to encourage their reevaluation. (KL)

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### 2026-06342

**Midwifery in Indonesia.** Adnani Q, Amelia NA, Lumsden E (2026), *International Journal of Birth and Parent Education* vol 13, no 3, April 2026, pp 30-33

Indonesia's complex geography and diverse population create significant barriers to delivering equitable, high-quality midwifery care. Although the Midwifery Act 2019 strengthened regulation and aligned education with international standards, challenges persist in training quality, clinical exposure, and workforce distribution. Recent research indicates that midwifery students can lack confidence and competence due to limited practice opportunities and gaps between theoretical knowledge and clinical reality. Broader issues of retention, professional recognition, and unequal access to continuing professional development impact service provision. Strengthening education, leadership and system-level support offer opportunities to improve outcomes for women and families.

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unless otherwise stated.)

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### 2026-06053

**Pregnancy-Related Risk and Birth Setting Trends: Insights From Indonesian Demographic Health Survey Data.** Hodgkin K, Joshy G, Lokuge K (2026), *Birth* 26 March 2026, online

#### Background

Most maternal and neonatal deaths occur in low- and middle-income countries and are largely preventable with quality care. In Indonesia, 98% of pregnant people receive antenatal care, and birth commonly occurs in community settings or hospitals. Outside of high-income countries, few studies identify where women with pregnancy-related risk factors give birth. Accurate identification of pregnancy risk factors and referral to an appropriate birth setting is considered an essential element of quality antenatal care, though its efficacy in Indonesia is unknown.

#### Methods

This study aimed to identify suitable indicators of pregnancy risk for Indonesia and examine population-level patterns in pregnancy-related risk, care, and appropriateness of birth setting. Risk factors in pregnancy based on internationally

relevant referral guidelines were identified through a literature search and mapped to available indicators. Using self-reported data from three waves of the Indonesian Demographic Health Survey (2007, 2012, 2017) a representative survey of women aged 15–49 years we examined receipt of maternity care, prevalence of pregnancy risk factors, and time trends in birth setting, overall and by presence of risk factors.

## Results

In this weighted sample (n = 43,846), one quarter of women reported pregnancy risk factors. From 2002–2017, the number of births in hospitals doubled and births at home have halved. However, the proportions of women with pregnancy risk in each setting remained largely unchanged.

## Discussion

Our findings suggest that there remain opportunities for shifting care in Indonesia to ensure women are receiving the appropriate level of care at birth. (© 2026 The Author(s). Birth published by Wiley Periodicals LLC.)

Full URL: <https://doi.org/10.1111/birt.70069>

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### 2026-05391

**Midwifery across borders: A journey through Jakarta's midwifery-led community care.** (2026), Australian Midwifery News vol 44, no 1, Autumn 2026, pp 24-27

In November and December 2025, ten midwifery students and two academic staff from The University of Queensland's School of Nursing, Midwifery and Social Work embarked on a month-long clinical placement in the vibrant metropolis of Jakarta, Indonesia. Supported by the Australian Government's New Colombo Plan, we travelled with open minds and full hearts, ready for the once in a lifetime experience that awaited us. We are delighted to share this transformative journey with our colleagues and friends through the ACM.

(© Australian College of Midwives)

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### 2026-05203

**Improving person-centred maternity care in Sri Lanka through co-creation: Utilising women's perceptions and stakeholder opinions.** Rishard M, Ziyad Mohamed AF, De Abrew A, et al (2026), Midwifery vol 153, February 2026, 104689

#### Introduction

There is a lack of studies documenting the utilisation of different views of person-centred maternity care (PCMC), such as maternal perceptions, views of health professionals, and women's advocates, to co-create interventions to improve the quality of care (QoC) in Sri Lanka.

#### Methods

The study was conducted at a referral maternity care centre in Colombo. It involved 87 stakeholders in four phases. We conducted the study in phases to optimize logistics and feasibility. Therefore, it was conducted in a phase wise manner. Phase I: Perceptions of PCMC among 39 mothers who delivered vaginally were explored through focus group discussions (FGDs). Phase II: Delphi rounds with 25 healthcare providers were conducted to identify and prioritise interventions. Phase III: Intervention priorities were revised based on feedback from a group of 23 women's advocacy group (WAG), using the Nominal Group Technique. Phase IV: the Nominal Group Technique was utilised to obtain the views and consensus of the women included in Phase I.

#### Results

Phase I revealed five key topics: 1) care and attention; 2) companions in labour; 3) respect, dignity, privacy, and communication; 4) awareness of autonomy; and 5) general safety and cleanliness. In Phase II, ten possible interventions to improve PCMC were identified, with improving staff communication skills and empowering women on their rights being the highest priorities. In Phase III, the WAG revised the priority list, with the top priorities being improving infrastructure and the organisation of care and appointing more staff. In Phase IV, the majority (94 %) of the women agreed that the proposed prioritised interventions would improve maternal healthcare services.

#### Conclusion

This study revealed gaps in PCMC but demonstrated that in a setting like Sri Lanka, views of service users, healthcare providers, and advocacy groups can be successfully used to co-create context-specific interventions for improving QoC. We recommend further implementation research to obtain data on the feasibility, sustainability, and challenges of the identified interventions.

#### What is already known on this topic

There is limited evidence documenting the utilisation of different views in improving person-centred maternity care in LMIC.

#### What this study adds

A participatory approach involving care seekers, WAG representing the public, and healthcare providers was useful in co-creating a list of prioritised interventions to improve the quality of maternity care services in a low-resource setting.

How this study might affect research, practice, or policy

The findings highlight the importance of further exploration and engagement with local stakeholders, including healthcare users, providers, and advocacy groups, to co-create context-specific interventions to improve PCMC. This study's methods can serve as a model for identifying and prioritising such interventions in similar settings. (© 2025 Published by Elsevier Ltd.)

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## 2026-02752

### **The State of Asia's Midwifery 2024 report: Implications for regional and national midwifery workforce policy and practice.**

Nove A, Calvert B, Maurizio F, et al (2026), *Women and Birth: Journal of the Australian College of Midwives* vol 39, no 1, February 2026, 102165

#### Background

Investment in the midwifery workforce is a key element of strategies to improve sexual, reproductive, maternal, newborn and adolescent health outcomes. To document progress and identify challenges in Asia, United Nations Population Fund (UNFPA) recently published a regional midwifery workforce report. The aim of this paper is to make the findings, and their policy and strategy implications, more visible and accessible.

#### Methods

The report contained information from 21 Asian countries. The two main data reporting mechanisms were the World Health Organization National Health Workforce Accounts platform and a survey of stakeholders in participating countries, facilitated by UNFPA.

#### Results

Policy and regulatory frameworks are strong, but often restrict the services that midwives are authorised to provide. Most countries have enough midwives to meet population need for essential care, but some have shortages and/or structural barriers to midwives meeting that need. Most midwife education programs meet global standards for course duration and have curricula guided by national standards, but few align fully to global quality standards. Few countries deploy midwives strategically through data-driven workforce planning, have retention strategies, or midwives in senior leadership positions responsible for setting strategic directions for midwifery.

#### Conclusion

The Asian region has made considerable progress in advancing midwifery as a profession, but sustained action is needed to build on that progress, including: accelerate midwife production in countries with a shortage, align education curricula with global quality standards, expand the midwife's scope of practice to align with global standards, and invest in data-driven workforce planning, deployment, and retention. (© 2026 The Authors. Published by Elsevier Ltd on behalf of Australian College of Midwives.)

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## 2026-01732

### **Midwifery Capacity Building Partnerships in Timor-Leste.**

Adeleye A, Jennings B, Chee R, et al (2025), *The Practising Midwife Australia* vol 4, no 1, Spring 2025, pp 19-23

Maternal mortality rate in Timor-Leste is higher than the regional average despite its improvement in recent years. Hence, Australian Rotary clubs, in partnership with Rotary International, saw the need to address this ongoing issue. A strategic partnership between the Rotary International clubs in District 9560 (North Australia and Timor-Leste) and Central Queensland University, Australia, resulted in the delivery of a five-week residential immersion maternal and newborn training program for Timorese midwives and nurses in 2023. The program aimed to advance skills, foster critical thinking and develop research skills to build change agents who could improve maternity care and health systems in Timor-Leste. (© Copyright 2026 All4Maternity)

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## 2026-00676

### **Association between healthcare providers type and maternal-child healthcare services utilization in Pakistan: evidence from 2018 DHS using generalized structural equation modelling.**

Nawaz R, Gong S, Anjum R, et al (2025), *BMC Pregnancy and Childbirth* vol 25, no 1, 30 December 2025, 1355

#### Background

Healthcare provider's distributional shortages, especially in developing countries, result in a slowdown in progress towards better healthcare outcomes and achieving the Sustainable Development Goals (SDGs-3). The objective of

current research is to examine the influence of professional and non-professional healthcare provider distribution on maternal and child healthcare services among married women who may face structural and social barriers that limit their autonomy in seeking skilled maternal care in Pakistan.

#### Methods

Bivariate and multivariate regression models were used for the 2018 Pakistan Demographic and Health Survey (PDHS) (N = 8287 women aged 15–49). The association between the distribution of healthcare providers, antenatal care visits (ANC), place of delivery, and postnatal care visits (PNC) for mothers and children was measured by three types of healthcare provider's distribution, including no care, non-professional, and professional healthcare providers. All the investigations were performed using STATA V.16.1.

#### Results

Around 50.7% of mothers have less than three ANC visits, and 49.3% of women have four or more ANC visits. 67% of women have medical facility delivery, whereas the remaining 33% have non-medical facility delivery. Around 69.9% of women have no PNC visit, 5.8% visited non-professional, and the remaining 24.3% visited professional healthcare providers for PNC visits individually. The regression outcomes revealed that professional healthcare providers were positively and significantly associated with the increased number of ANC visits, medical facility delivery, and postnatal checks for mothers and children. Additionally, non-professional healthcare providers were also positively and significantly connected with the number of ANC visits and postnatal checks for mothers by non-professionals.

#### Conclusion

Our findings demonstrate that professional healthcare provider's distribution indicates a positive and significant association with maternal and child healthcare outcomes. This suggests the need for tailored interventions for the distribution of healthcare providers and promoting maternal education, empowering women's decision-making especially in remote areas, to improve maternal and child healthcare utilization services (MCH) and healthcare outcomes. (© 2025, The Author(s))

Full URL: <https://doi.org/10.1186/s12884-025-08488-x>

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#### 2026-00421

**Antenatal care interventions in Afghanistan from 2000 to 2024: a rapid realist review.** Naseri S, Durand MA, Arifi F, et al (2025), *BMJ Open* vol 15, no 11, November 2025, e102454

**Introduction** In response to the high maternal mortality in Afghanistan, the government emphasised enhancing antenatal care (ANC) coverage to improve skilled birth attendance and reduce maternal mortality. This study aimed to explain how and why ANC interventions worked, for whom, and under what circumstances in Afghanistan between 2000 and 2024.

**Methods** A rapid realist review was conducted to identify underlying programme theories and examine contextual factors and key mechanisms influencing ANC outcomes, with input from a panel of national experts. Data were extracted using context–mechanism–outcome (CMO) configurations to develop and refine theories for policy recommendations.

**Results** From 3502 papers, 1860 duplicates were removed, 63 were screened for full text and 25 were included in the final review. In total, 29 CMOs were inferred across nine interventions, classified at individual, interpersonal, community and institutional levels. We found that ANC interventions could work best by empowering women and healthcare workers (HCWs), involving husbands, hiring female community health workers (CHWs), ensuring regular contact with the same HCWs, endorsing health messages by the government, incentivising CHWs and designing and implementing interventions using participatory approaches. Interventions are less successful when there is a lack of community trust in service quality or HCW qualifications, low decision-making ability among women, discomfort during travel to health facilities, adherence to traditional practices and beliefs, hiring CHWs from outside the community, chronic stress and lack of support among HCWs and unrecognised incentives.

**Conclusion** Our evidence synthesis can inform donors, policymakers and implementers on how to design more effective ANC interventions to achieve better health outcomes in Afghanistan. By emphasising intervention evaluation and ANC quality improvement, it highlights the importance of key social elements, such as cultural norms, power dynamics, relationships, beliefs and trust, which are likely to maximise impact. Community involvement is essential for designing and implementing effective and sustainable ANC interventions. (© 2025, The Author(s)).

## 2026-0093

### **Strengthening the first antenatal visit to improve maternal health: results from a cross-sectional study in Bantul, Indonesia.**

Iskandar SI, Aryanto S, Prawitasari S, et al (2025), BMC Pregnancy and Childbirth vol 25, no 1, 1 September 2025, 911

#### Background

Antenatal care (ANC) is an evidence-based intervention aimed to improve mothers' and newborns' health, but its effectiveness depends on service quality at each visit. This study aims to assess the quality of integrated ANC and associated factors in public health centers (PHCs) in Bantul, Indonesia.

#### Methods

A facility-based cross-sectional study was conducted from February to April 2024. A total of 444 study participants out of 17 PHCs were selected using a cluster random sampling technique. We collected data on service quality structures, processes, and output. We analyzed visit time, visit initiation, waiting time, consultation duration, and satisfaction with the quality of integrated ANC. Data were collected through observation and interviews with pre-tested structured questionnaires. Bivariate and multivariable logistic regressions were used to analyze the relationship between the outcome and predictor factors.

#### Results

A total of 293 (66%) of pregnant women received a good integrated ANC. The majority of respondents were between the ages of 20-35 (86.71%), had a low level of education (67.34%), and had insurance (88.74%). Based on input variable observations, five PHCs (29.41%) did not offer psychological services due to a lack of psychologists. ANC visits (aOR 2.57; 95% CI 1.67-3.95), insurance ownership (aOR 2.47; 95% CI 1.31-4.68), and education (aOR 0.50; 95% CI 0.31-0.80) were significant predictors of ANC quality.

#### Conclusion

Two-thirds of pregnant women received high-quality integrated ANC in Bantul. The initial visit is a good predictor of ANC quality. Educational promotion, partnerships with local leaders, PHC capacity building with appropriate resources, and insurance coverage are crucial for improving the initial ANC visit.

(© 2025 The Author(s).)

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## 2025-11438

**Webinar: Are Midwives Prepared, Protected, and Supported? Insights from Crisis-affected Settings.** Evidence & Impact for Mothers & Newborns Living in Conflict (EQUAL), International Confederation of Midwives (2025), International Confederation of Midwives, The Hague, 30 June 2025. Running time: 1 hour, 28 minutes, 54 seconds

On Monday, 30 June, EQUAL and the International Confederation of Midwives (ICM) hosted a webinar on Midwifery in Crisis-Affected Contexts. The webinar focused on the transition from education to early practice for midwives working in some of the world's most fragile health systems. Colleagues in Afghanistan, Sudan, Somalia, and Nigeria, shared evidence and lived experiences on the realities midwives face—and the urgent need for improved protection, support, and investment. (© International Confederation of Midwives)

Full URL: <https://www.youtube.com/watch?v=epuyMhbg8KQ>

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## 2025-11069

**The Perinatal Committee report: Review of the progress of obstetric healthcare in Japan.** Satoh S, Itakura A, Ikeda T, et al (2025), Journal of Obstetrics and Gynaecology Research vol 51, no 7, July 2025, e16354

#### Background

Japan's maternal mortality rate and perinatal mortality rate have shown one of the world's most significant declines, positioning Japan at the global forefront of the lowest levels. The nearly logarithmic annual decline in maternal and perinatal mortality rates suggests that, in addition to advances in medicine and healthcare, various types of care for mothers and newborns have played a crucial role in this achievement.

#### Method

From the period of World War II to the postwar era, up to around 1980, and then every decade thereafter, the events

and movements surrounding perinatal healthcare in each era were examined from the perspectives of epidemiology, medical/healthcare advancements, and institutional/policy trends.

## Results

The major events in each era are outlined as follows:

**Until around 1980:** After World War II, in 1948, several laws were enacted to protect mothers and fetuses, including the Maternal and Child Health Handbook, in 1966. The number of births experienced a baby boom for about 10 years following 1945, peaking in 1973. Birthplaces shifted from home deliveries to medical facilities, with doctors becoming the primary birth attendants. Academically, the Japan Association of Obstetricians and Gynecologists (JAOG) for Maternal Protection and the Japan Society of Obstetrics and Gynecology (JSOG) were established in 1949. In the medical field, neonatal intensive care units (NICUs) were introduced and neonatal transport systems became well-established by the 1970s. In 1976, the limit of viability was revised from under 28 weeks of gestation to under 24 weeks. The late 1970s saw the fetal heart rate monitoring, the heartbeat detection using Doppler ultrasound and the ultrasound imaging techniques.

**1980s:** The perinatal medicine became well established, leading to hold The Japan Society of Perinatal Medicine. For fetal management, the fields of fetal diagnosis and fetal treatment entered their early stages with the widespread use of fetal heart rate monitoring and ultrasound imaging. In neonatal care, neonatal transport systems to NICU facilities were enhanced. A major breakthrough in this field was the discovery and widespread use of pulmonary surfactant. Two key concepts that emerged and advanced during this period were maternal transport systems and the Perinatal Maternal and Child Center initiative. In 1987, cases of hepatitis caused by non-heat-treated coagulation products became a major issue. As a result, informed consent affecting mothers and fetuses became a significant point of discussion. The Obstetrics and Gynecology Specialist system was introduced, along with the regular publication of Training Notes for Obstetricians and Gynecologists and Glossary of Obstetrics and Gynecology Terms. As a result of these efforts, both the perinatal mortality rate and the maternal mortality rate were reduced by approximately half over the course of 10 years.

**1990s:** In 1991, the limit of viability was revised to 22 weeks of gestation. In terms of maternal care, nutritional management guidelines for general pregnant women were introduced. In fetal medicine, major topics included the administration of steroids to the mother to promote fetal lung maturation, as well as direct fetal treatments such as shunt procedures and needle aspirations. In neonatal care, inhaled nitric oxide therapy and extracorporeal membrane oxygenation treatment became more widely adopted. Following the Great Hanshin-Awaji Earthquake, in 1995, led to the development of the Disaster Medical Assistance Team and the establishment of Perinatal Maternal and Child Medical Center. In 1996, the Maternal Protection Law was enacted, and the Japan Council for Quality Health Care (JCQHC) was founded to standardize medical care. Asia & Oceania Federation of Obstetrics & Gynecology Journal and Journal of Obstetrics and Gynecology Research were launched as English-language academic journals.

**2000s:** Japan's perinatal mortality rate became the lowest in the world, but the maternal mortality rate was still struggling. Obstetric care changed significantly after an obstetrician was arrested for causing a maternal death during a cesarean section. The JSOG and the JAOG developed practice guidelines describing standard obstetric diagnosis and treatments, and the JCQHC established the Japan Obstetric Compensation System for Cerebral Palsy. In addition, a project to report on maternal deaths by JAOG was also launched, and the combination of these measures led to form a framework of professional autonomy for obstetricians. During this period, brain hypothermic therapy for brain injury was developed.

**2010s:** The Great East Japan Earthquake in 2011 led to major changes in disaster medical planning. This included the introduction of training programs for disaster medical coordinators and the development of disaster-time pediatric and perinatal liaisons. To enhance medical safety, JAOG launched an incidental case reporting system in 2004. Additionally, in 2010, a maternal mortality reporting system was introduced, followed by the maternal severe complications reporting system in 2021. The Japan Council for Implementation of Maternal Emergency Life-Saving System was established, along with the Japan Association for Labor Analgesia, a collaborative council for academic societies and organizations related to painless delivery. Suicide as a significant cause of maternal death led to the establishment of the "Mother and Child Mental Forum" academic conference, which later evolved into the Mental Health Care for Mother & Child training program. In the field of prenatal testing, non-invasive prenatal testing was introduced as a clinical research initiative.

**From 2020 onward:** The year 2020 began with the global outbreak of COVID-19. Until 2023, numerous issues arose due to repeated pandemics, including delivery methods and locations for COVID-positive pregnant women, standard precautions during labor, mother-infant separation after birth, vaccination, so on. JSOG and JAOG worked together to address these challenges. The most pressing issue in the perinatal field is the declining birth rate. Alongside an aging workforce of physicians and a shortage of successors, the decrease in new obstetric clinic openings has become a major concern. By 2024, the decrease in the number of full-time obstetricians and the overtime work limits in Medical



Care Act are making it necessary to reconsider the structure of obstetric medical services. Japan's perinatal care system, which has maintained the highest global standards, now stands at a major crossroads.

#### Conclusion

Researchers (clinicians), academic societies, and professional organizations, centered on the mother and child, have collaborated with support from the government, making progress and building the current safe pregnancy and childbirth management system. However, significant issues remain that need urgent attention, including regulations on overtime work, securing obstetrician numbers, the rapid decline in childbirth facilities, and the functional collapse of perinatal maternal-child healthcare centers. These are critical challenges that must be addressed promptly. (© 2025 The Author(s))

Full URL: <https://doi.org/10.1111/jog.16354>

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#### 2025-10848

**The professional experience of rural midwifery in China during the transition from traditional to modern birth practices (1950s–1970s): A qualitative study.** Chen M, Zheng Q, Zheng S, et al (2025), *Women and Birth: Journal of the Australian College of Midwives* vol 38, no 5, September 2025, 102090

#### Background

Although home births have been largely discontinued in contemporary China, traditional birth attendants (TBAs) historically played a pivotal role in enhancing maternal and child health, particularly in rural areas.

#### Aim

This study explored the transformation of TBAs in China from the 1950s to the 1970s, focusing on their gradual shift from traditional to modern midwifery practices. By drawing on oral histories from TBAs, the research seeks to enrich the historical understanding of midwifery development in China.

#### Methods

A descriptive phenomenological methodology was adopted to explore the professional experience, perspectives, and sociocultural contexts of TBAs. Data were gathered through semi-structured, in-depth interviews.

#### Findings

Analysis yielded five major themes and four sub-themes: (1) Intentional staff selection; (2) Purposeful pre-service training, with two sub-themes including (a) variation in training duration and the rarity of retraining, and (b) a predominantly practical, hands-on focus; (3) Accumulation of practical experience, with two sub-themes including (a) advocacy for natural childbirth with minimal intervention, and (b) practicing based on experience and contextual adaptation; (4) In-home postpartum care; (5) Recognition of professional value.

#### Conclusions

During the transitional phase from traditional to modern midwifery in China, TBAs were provided with limited yet pragmatic training before assuming their roles. Despite the inherent safety risks and a lack of formal medical oversight, TBAs made critical contributions to maternal and neonatal health in the context of severely limited medical infrastructure. Their presence and practices not only addressed urgent reproductive health needs in underserved areas but also gradually facilitated the shift of childbirth from the domestic sphere to institutional hospital settings. (© 2025 The Authors. Published by Elsevier Ltd on behalf of Australian College of Midwives.)

Full URL: <https://doi.org/10.1016/j.wombi.2025.102090>

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#### 2025-10037

**Returning Power to Women: Midwives and Post-Abortion Care.** Mankani N (2025), *International Confederation of Midwives* 10 September 2025

The author discusses the role of midwives in providing safe, respectful, and evidence-based post-abortion care in Pakistan. (MB)

Full URL: <https://internationalmidwives.org/returning-power-to-women-midwives-and-post-abortion-care/>

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#### 2025-09237

**Midwifery service and midwifery human resource demand in western China: a cross-sectional study.** Zhou N, Lu H, Zhao H, et al (2019), *The Lancet* vol 394, October 2019, S34

#### Background

China has made impressive progress in improving maternal and child health nationally, although national progress might conceal inequality across regions within China. Mortality ratios in western counties remains high, and midwives in western areas are in extreme shortage as guarantors of maternal and child safety. This study aims to investigate the current situation for the midwifery service in western China and to explore the demand for midwifery human resources in the area using the Birthrate Plus workforce planning methodology.

## Methods

First, we did a cross-sectional survey in 28 hospitals in three western provinces—Yunnan (southwest China), Inner Mongolia (northern China), and Xinjiang (northwest China)—to investigate the status of the midwifery service and midwifery human resources using a tailored questionnaire. We selected two tertiary hospitals in each province, as well as eight secondary hospitals in Yunnan, six in Inner Mongolia, and 14 in Xinjiang, to reflect population sizes (according to the National Health and Family Planning statistical yearbook). Questionnaires were sent to midwifery managers in the 34 hospitals, and 28 returned the questionnaire (all six tertiary hospitals, seven secondary hospitals in Yunnan, five in Inner Mongolia, and ten in Xinjiang). Second, we analysed medical records from all women attending the midwifery departments of the 28 hospitals ( $n=18\,520$ ) who received midwifery services in 2017 and 2018, and the Birthrate Plus workforce planning methodology was used, with modifications, to calculate demand for midwives in each hospital. Women were divided into five categories according to the Birthrate Plus guidelines (of which categories I and II were natural deliveries with no need for intervention, and categories III–V required different levels of intervention). Two core elements were analysed: the percentage of maternity patients in each category and midwifery service time (time in the delivery suite, from admission in labour to leaving for the postnatal unit or operating room for caesarean section) in each category. Each hospital gave informed verbal consent. The study was approved by the Peking University institutional review board office.

## Findings

The maximum and minimum annual delivery volumes per hospital were 12 048 and 192, respectively. The highest and lowest caesarean section rates were 59.00% (472 of 794) and 20.86% (907 of 4345), respectively, and the average caesarean section rate was 38.49% (SD 10.33). A total of 476 midwives in 28 hospitals were included. 94.34% (417 of 476) of the midwives had an initial educational level below a bachelor's degree, and 69.75% (332 of 476) had less than 10 years of work experience. Data from a total of 18 520 maternity patients from 28 hospitals were eligible for analysis. According to the Birthrate Plus results, 37.2% (6890 of 18 520) maternity patients were in category I/II (grouped together for comparison), 42.1% (7804 of 18 520) in category III, 18.1% (3343 of 18 520) in category IV, and 2.6% (483 of 18 520) in category V, and midwifery service times of each category were 6.79 h, 9.92 h, 9.89 h, and 11.93 h, respectively. The actual number of midwives in the majority of hospitals (67.86%, 19 of 28) exceeded the calculated demand, while that in 21.43% of hospitals (six of 28) was less than the calculated demand, and in 10.71% of hospitals (three of 28) the actual number of midwives was consistent with the calculated demand.

## Interpretation

The midwifery service varied between hospitals in western China. Given that inexperience or lack of education negatively affect the core competencies of midwives, it is likely that these factors affected the midwifery service that patients received. Efforts are needed to promote the construction of midwifery teams. Most maternity patients belonged to categories I–III, and gave birth naturally or with less need for interventions. However, women in categories IV and V, who represented a small proportion of the overall data set, experienced pregnancy complications or required more interventions than those in categories I–III, and thus tended to require longer midwifery hours. The surveyed hospitals varied in type (general hospitals, and maternity and child health hospitals) and level, and provided services for different numbers of each category of maternity patient, and thus the midwifery service time varied accordingly. For example, there were more maternity patients in categories IV and V in general hospitals than in maternal and child health hospitals, which suggests that more midwives may be required in general hospitals to care for the same number of maternity patients. Therefore, it is necessary to fully consider the service characteristics of hospitals when allocating midwifery human resources. Our findings suggest that Birthrate Plus workforce planning methodology can be used to accurately assess workload of midwives based on the status of the midwifery service in China. Its applicability as a midwifery demand assessment tool in western China should be explored further.

## Funding

This study was funded by the UN Children's Fund (Maternal and Child Health Management Information System).

## Contributors

NZ and HL conceived and designed the study. NZ, HZ, FL, and MY participated in the data collection and data analysis. NZ and HL wrote, reviewed, and revised the Abstract. All authors saw and approved the final version of the Abstract for publication.

## Declaration of interests

We declare no competing interests.

## Acknowledgments

This study was made possible by funding from the United Nations Children's Fund. We also thank all of the individuals who contributed to data collection and all of the midwives involved in this study. (Copyright © 2019 Elsevier Ltd. All rights reserved.)

2025-09236

**Application of the birthrate plus (BR+) methodology to identify midwifery workforce shortages in China: a retrospective multisite study.** He H, Lu H, Wang Y, et al (2023), *Interdisciplinary Nursing Research* vol 2, no 2, May 2023, pp 100-106

Objective:

The goal of this study is to apply Birthrate Plus (BR+) methodology in Chinese midwifery settings to assess the midwifery workforce status and to calculate the potential demand for more midwives.

Methods:

This was a retrospective multisite study using 12,443 maternal medical records from 49 midwifery settings in Zhejiang Province, China. Data needed in the BR+, including the types of childbearing women and the number of midwifery service hours, were extracted and then calculated to assess the estimated demand and shortage of midwives.

Results:

The study included 599 midwives across 49 settings, with a range of 1–35 full-time equivalent midwives per setting, totaling 465 full-time equivalent midwives. Using BR+ methodology, the analysis revealed a shortage of midwives in 61.2% of the surveyed settings and a surplus in 22.4%. The shortage varied significantly across different levels of settings ( $H=6.505$ ,  $P<0.05$ ).

Conclusions:

Overall, the midwifery services provided were significantly insufficient in the surveyed regions, and workforce allocation was unbalanced among different areas. (Copyright © 2023 by Interdisciplinary Nursing Research.)

Full URL: [https://journals.lww.com/inr/fulltext/2023/05000/application\\_of\\_the\\_birthrate\\_plus\\_br\\_.6.aspx](https://journals.lww.com/inr/fulltext/2023/05000/application_of_the_birthrate_plus_br_.6.aspx)

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2025-07021

**Leveraging health financing, digital health and self-care approaches to strengthen maternal health journeys in India: perspectives from Assam.** Ramesh S, Warren CE, Bellows B, et al (2025), *Frontiers in Global Women's Health* 9 April 2025, online

Maternal morbidity and mortality in India continue to be high in populations and places with limited access to quality health services. Major barriers include out of pocket expenditure, lack of autonomy and information around maternal health services and weak implementation of pro-poor policies. Addressing demand-side barriers and enablers is critical to improving healthcare uptake and healthcare adherence along the pregnancy-postnatal continuum. This paper describes three well known operational spaces, maternal health financing, digital health, and self-care interventions within the Indian context including pro-poor maternal health policies, mobile health ecosystems and networks, and self-care opportunities that promote women's knowledge, choice, self-efficacy, and autonomy. These are expanded on to identify additional opportunities to improve access to MH services. Finally, the authors describe a new digital health intervention using a chat-based digital support system that has the potential to reduce barriers that women face in seeking and receiving quality MH services in Assam and elsewhere. Future work on how to implement such a combined approach need to account for multiple contextual factors, including understanding the nature and success of national pro-poor MH policies in each state, how the public and private health systems function and interact, social determinants of health as well as engaging women in the process to improve maternal and newborn health outcomes. (©Author)

Full URL: <https://doi.org/10.3389/fgwh.2025.1469328>

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2025-05345

**Pregnancy outcome after first trimester exposure to domperidone—An observational cohort study.** Hishinuma K, Yamane R, Yokoo I, et al (2021), *Journal of Obstetrics and Gynaecology Research* vol 47, no 5, May 2021, pp 1704-1710

Aim

To assess the teratogenic risk of domperidone by comparing the incidence of major malformation with domperidone to a control.

Methods

Pregnancy outcome data were obtained for women at two Japanese facilities that provide counseling on drug use during pregnancy between April 1988 and December 2017. The incidence of major malformation was calculated among infants born to women taking domperidone ( $n = 519$ ), nonteratogenic drugs (control,  $n = 1673$ ), or metoclopramide (reference,  $n = 241$ ) during the first trimester of pregnancy. Using the control group as reference, the crude odds ratio (OR) of the incidence of major malformation in the domperidone and metoclopramide groups was calculated using

univariable logistic regression analysis. Adjusted OR was also calculated using multivariable logistic regression analysis adjusted for various other factors.

#### Results

The incidence of major malformation was 2.9% (14/485, 95% confidence interval [CI]: 1.6–4.8) in the domperidone group, 1.7% (27/1554, 95%CI: 1.1–2.5) in the control group, and 3.6% (8/224, 95%CI: 1.6–6.9) in the metoclopramide group. The adjusted multivariable logistic regression analysis showed no significant difference in incidence between the control and domperidone groups (adjusted OR: 1.86 [95%CI: 0.73–4.70],  $p = 0.191$ ) or between the control and metoclopramide groups (adjusted OR: 2.20 [95%CI: 0.69–6.98],  $p = 0.183$ ).

#### Conclusions

This observational cohort study showed that domperidone exposure during the first trimester was not associated with increased risk of major malformation in infants. These results may help alleviate the anxiety of patients who took domperidone during pregnancy. (© Author)

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#### 2025-05342

**Influence of prominent immunomodulatory cytokines TNF- $\alpha$ 308 G>A (rs1800629) and TGF $\beta$ 1 G>C (rs1800471) sequence variations as an important contributing factor in etiopathogenesis of recurrent miscarriages in Kashmiri women (North India).** Manzoor U, Pandith AA, Amin I, et al (2021), Journal of Obstetrics and Gynaecology Research vol 47, no 5, May 2021, pp 1686-1693

#### Aim

We aimed to evaluate the genetic variation of tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ) 308 G>A (rs1800629) and transforming growth factor (TGF)  $\beta$ 1G>C (rs1800471) to confer risk in patients with recurrent miscarriage in highly consanguineous population of Kashmir (North India).

#### Methods

A total of 200 women who experienced two or more recurrent miscarriages (along with 100 spouses, 60 products of conception, and 240 healthy controls) with two or more full-term pregnancies were recruited from the same geographical region and evaluated by polymerase chain reaction-restriction fragment length polymorphism method.

#### Results

TNF- $\alpha$  308 G>A variant genotype (AA) was significantly associated with recurrent miscarriage cases (2.5% vs. 0.4% controls, respectively;  $p < 0.05$ ) and its per copy allele A also presented more in cases (32% vs. 24% in controls;  $p < 0.05$ ) that showed a risk of 1.5-fold for cases ( $p < 0.05$ ). The difference of variant genotype GA was observed to be significant among recurrent miscarriage cases and product of conception: 60.5% vs. 83%, respectively ( $p < 0.05$ ) wherein variant TNF- $\alpha$  GA genotype conferred 3-fold risk ( $p < 0.05$ ). On the other hand, TGF  $\beta$ 1 G>C showed no association with recurrent miscarriage cases in our population.

#### Conclusion

The study found both TNF- $\alpha$  308 G>A variants are significantly associated with an increased susceptibility for recurrent miscarriages to cause pregnancy losses but on the other hand TGF  $\beta$ 1 does not seem to impact the outcome of pregnancy in our population. (© Author)

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#### 2025-04792

**COVID-19 testing of pregnant women in Japan.** Orisaka M, Kawamura H, Yoshida Y (2021), Journal of Obstetrics and Gynaecology Research vol 47, no 1, January 2021, pp 464-464

No abstract is available for this article. (Author)

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#### 2025-04791

**Case report of Langerhans cell histiocytosis in a fetus detected by magnetic resonance imaging.** Bao Z, Deng M, Zou Y, et al (2021), Journal of Obstetrics and Gynaecology Research vol 47, no 1, January 2021, pp 456-462

Langerhans cell histiocytosis (LCH) is a rare disease, and the diagnosis of LCH is mainly based on clinical manifestation, imaging and pathological examinations. But during pregnancy, imaging examinations especially play an important role in the diagnosis and prognostic assessment of fetal LCH. Up to now, there has been no report about magnetic

resonance imaging (MRI) features of fetal LCH. We reported a 32-year-old woman at 36 weeks' gestation took fetal MRI because of fetal anomalies diagnosed by ultrasonography. On the fetus's MR images, the thymus was slightly enlarged with smooth or lobulated contour in supra anterior mediastinum, displayed heterogeneous signals and contained multiple small cysts on T2WI. Innumerable irregular nodules and patchy shadows were present throughout both lungs. Pulmonary lesions were bilateral and diffuse with relative sparing of the costophrenic angles. The margins of these lesions were fluffy and indistinct. These lesions showed heterogeneous signals on T2WI. MRI showed no lesions in skin region. After birth, lots of round or oval skin lesions distributed all over the baby's body presenting as ulcerated or blister-like rashes. The chest computer tomography (CT) showed punctate calcification and heterogeneous enhancement in the thymus and bilateral diffuse reticular or reticulonodular opacities in both lungs with fluffy and indistinct margins. Pathological finding was consistent with LCH. Through reporting MRI features of LCH in one fetus, this study aims to improve awareness of fetal LCH in radiologists and clinicians, to improve the prenatal diagnostic rate of this disorder. (Author)

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#### 2025-04790

**Broad ligament pregnancy: A case series and literature review.** Gao J, Liu L, Fang J, et al (2021), Journal of Obstetrics and Gynaecology Research vol 47, no 1, January 2021, pp 442-445

Broad ligament pregnancies are rare and are often misdiagnosed, leading to serious consequences. In our hospital, we have treated six broad ligament pregnancies since 2000. They were diagnosed and operated on promptly, and treatment was successful. Ultrasound can detect early ectopic pregnancies promptly and effectively, avoiding advanced ectopic pregnancies. Early broad ligament pregnancies should be operated on promptly, and laparoscopic therapy is preferable. During the operation, attention must be paid to avoid massive bleeding and protect the ureter, because the ectopic gestational sac is located near the uterine artery and the ureter. (Author)

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#### 2025-04789

**Differences in laboratory reporting standards leading to a difficult prenatal diagnosis for a patient with suspected 4p duplication.** Shinsaka M, Takai Y, Shigematsu K, et al (2021), Journal of Obstetrics and Gynaecology Research vol 47, no 1, January 2021, pp 436-441

Not all obstetric care facilities offer sufficient genetic counseling in Japan. When necessary, patients are referred to tertiary perinatal care centers for genetic counseling and further testing. Because each facility typically has an exclusive contract with a laboratory, the additional testing required may be performed at a different laboratory. With no reporting standards for normal chromosomal variants, differences between laboratories impede result interpretation, and clinical errors may occur. We present a case of a patient diagnosed with 46,XX,?dup (4)(p12p12) variant over two pregnancies. During the first pregnancy, the variant was determined to be a de novo, leading the parents to terminate the pregnancy. During the second pregnancy, further analysis revealed no 4p duplication, and we diagnosed as a normal variant, 4cenh+, inherited from the mother. Differences in reporting standards for a normal variant made evaluation of this patient difficult. Medical staff should be aware of this issue, and reporting standards should be standardized. (Author)

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#### 2025-04787

**Missing decidual Doppler signals as a new diagnostic criterion for placenta accreta spectrum: A case described using superb microvascular imaging.** Horinouchi T, Yoshizato T, Kojiro-Sanada S, et al (2021), Journal of Obstetrics and Gynaecology Research vol 47, no 1, January 2021, pp 411-415

We present a case of a 34-year-old pregnant woman with a prior cesarean delivery presenting with placenta previa. Placenta previa accreta was diagnosed from missing decidual flow signals using superb microvascular imaging (SMI). At 31 weeks' gestation, B-mode ultrasonography showed that the placenta was attached to the anterior uterine segment, extending over the internal cervical os. In normally appearing myometrium, SMI demonstrated double layers of flow signals underneath the placental basal plate, corresponding to myometrial and decidual flows. The thin myometrium located on the bladder where sonolucent zones were not visible revealed three different flow patterns in the Doppler signals underneath the basal plate as follows: double layers (both myometrium and decidual tissues present); a single layer (myometrium alone) or no layers (decidual tissues missing). A cesarean hysterectomy was performed at 37 weeks, and histology confirmed the presence of placenta accreta. (Author)

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#### 2025-04786

**First report in Japan of a delivery of a woman with the 2019 novel coronavirus disease.** Mochizuki J, Nakamura M, Iwahata S, et al (2021), Journal of Obstetrics and Gynaecology Research vol 47, no 1, January 2021, pp 407-410

On April 2, 2020, we received a maternal transport from a local city hospital of a pregnant woman (38 weeks and 0 days of gestation) in her 20s, who had the 2019 novel coronavirus disease (COVID-19). We performed an emergency cesarean section with spinal anesthesia because of an abnormal fetal heart rate pattern. A healthy 3106-g male baby was delivered. All the severe acute respiratory syndrome coronavirus 2 polymerase chain reaction tests of nasal and oral discharges, anal swabs and blood samples of the neonate at 9 h, 30 h and 4 days after birth were negative. Because the mother was diagnosed as having COVID-19 pneumonia, the neonate was given formula milk. The mother's nasal discharge samples at 20 and 21 days were negative. The mother first held her baby in her arms on the 22nd day after birth, and they were discharged on the following day. To the best of our knowledge, this is the first report in Japan of a delivery of a baby from a woman infected with COVID-19. (Author)

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### 2025-04783

**Trimester-specific reference intervals of TAT, TM, tPAI-C and PIC for healthy Chinese pregnant women.** Wu Y, Qiao Y, Zhang Y, et al (2021), *Journal of Obstetrics and Gynaecology Research* vol 47, no 1, January 2021, pp 368-374

#### Aim

Pregnancy is a hypercoagulability state, the aim of this study was to observe the changes of thrombin–antithrombin complex (TAT), thrombomodulin (TM), tissue plasminogen activator-inhibitor complex (tPAI-C) and plasmin- $\alpha$ 2–antiplasmin complex (PIC) during pregnancy and establish trimester-specific reference intervals for Chinese healthy pregnant women.

#### Methods

In total 190 Chinese healthy pregnant women (first trimester 59 cases, second trimester 60 cases and third trimester 71 cases) were recruited in North China. TAT, TM, tPAI-C and PIC were processed on Sysmex HISCL 5000 automated chemiluminescence immune detection system. Trimester-specific reference intervals were established with the 2.5th and 97.5th percentile of the distribution.

#### Results

The reference intervals for TAT, TM, tPAI-C, PIC at trimester 1 were 0.40–3.65 ng/mL, 4.85–8.80 TU/mL, 1.75–6.40 ng/mL, 0.25–1.05  $\mu$ g/mL, respectively. At trimester 2, the reference intervals were 1.65–8.61 ng/mL, 5.70–9.93 TU/mL, 2.91–7.71 ng/mL, 0.33–2.02  $\mu$ g/mL, respectively. At trimester 3, the reference intervals were 3.16–12.68 ng/mL, 5.50–14.24 TU/mL, 2.70–10.69 ng/mL, 0.24–1.54  $\mu$ g/mL, respectively.

#### Conclusions

The changes of TAT, TM, tPAI-C, PIC during pregnancy are presented, and trimester-specific reference intervals for healthy pregnant women are described. The levels of TAT, TM, tPAI-C were increased gradually from trimester 1 to trimester 3, while the PIC level remains stable during all trimesters. (Author)

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### 2025-04781

**Are the Institute of Medicine guidelines for optimal gestational weight gain in twin pregnancies applicable to Japanese women?** Shimura M, Obata S, Misumi T, et al (2021), *Journal of Obstetrics and Gynaecology Research* vol 47, no 1, January 2021, pp 337-342

#### Aims

To investigate whether the Institute of Medicine (IOM) guidelines for optimal gestational weight gain (GWG) in twin pregnancies are applicable to Japanese women.

#### Methods

This was a retrospective study involving women who delivered full-term twins at our tertiary center diagnosed with a normal prepregnancy body mass index. The women were divided into two groups, according to the optimal GWG recommended by the IOM (16.8–24.5 kg): the adequate GWG (AGWG) group with GWG meeting the guidelines and the low GWG (LGWG) group with GWG below the guidelines. Next, the women were divided into two groups according to birthweight: a group with both twins born appropriate for gestational age (AGA group) and a group with one or both twins born small for gestational age (SGA group). Their GWG as well as their pregnancy outcomes were compared.

#### Results

A total of 265 women were included. The AGWG group had a significantly higher proportion of hypertensive disorders of pregnancy than the LGWG group. There was no significant difference in the proportion of women with both twins born AGA or the rate of admission to the neonatal intensive care unit. Meanwhile, the median GWG in the AGA group

was 13.6 kg, which was significantly higher than 12.0 kg in the SGA group. And even the median GWG in the AGA group was below the lower limit of the IOM guidelines.

#### Conclusion

The optimal GWG for Japanese women with twin pregnancies may be below the IOM guidelines. (Author)

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#### 2025-04769

**Efficacy and safety of controlled-release dinoprostone vaginal delivery system (PROPESS) in Japanese pregnant women requiring cervical ripening: Results from a multicenter, randomized, double-blind, placebo-controlled phase III study.** Itoh H, Ishii K, Shigeta N, et al (2021), *Journal of Obstetrics and Gynaecology Research* vol 47, no 1, January 2021, pp 216-225

#### Aims

Low density lipoprotein receptor-related protein 6 (LRP6) has been demonstrated to control trophoblast cell invasion, but its regulatory gene remains undefined. In this study, microRNA (miR) regulating LRP6 were explored to elucidate the potential mechanism of preeclampsia (PE).

#### Methods

Firstly, the expression of LRP6 in PE tissues was detected by immunohistochemical staining and quantitative real-time polymerase chain reaction (qRT-PCR) assay. Prediction software predicted that LRP6 might be the target gene of miR-95-5p, and verified by double-luciferase reporter analysis. qRT-PCR assay measured the expression of miR-95-5p in PE tissues and trophoblast cell lines. Then, we transfected miR-95-5p mimic, inhibitor, LRP6, or mimic plus LRP6 into trophoblast cell lines, and analyzed their influences on cell migration and invasion by wound healing and Transwell experiments. The expressions of matrix metalloproteinase (MMP)-2, MMP-9 and tissue inhibitors of metalloproteinase (TIMP)-1 in transfected cells were examined by western blot (WB) analysis.

#### Results

LRP6 was low-expressed in PE tissues, while miR-95-5p expression was high-expressed. MiR-95-5p negatively regulated the LRP6 expression in trophoblast cells. Both up-regulated LRP6 and down-regulated miR-95-5p can not only promote the migration and invasion of trophoblast cells, but also raised the expressions of MMP-2 and MMP-9 and inhibited the expression of TIMP-1. The over-expression of miR-95-5p suppressed the metastasis of trophoblast cells and rescued LRP6-induced increase of MMP-2 and MMP-9 and reduction of TIMP-1.

#### Conclusion

MiR-95-5p involved in the migration and invasion of trophoblast cells by targeting LRP6, which might be a potential therapeutic target for PE. (Author)

**Full URL:** <https://doi.org/10.1111/jog.14472>

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#### 2025-04768

**MiR-95-5p involves in the migration and invasion of trophoblast cells by targeting low density lipoprotein receptor-related protein 6.** Ni H, Wang X, Qu H, et al (2021), *Journal of Obstetrics and Gynaecology Research* vol 47, no 1, January 2021, pp 184-197

#### Aims

Low density lipoprotein receptor-related protein 6 (LRP6) has been demonstrated to control trophoblast cell invasion, but its regulatory gene remains undefined. In this study, microRNA (miR) regulating LRP6 were explored to elucidate the potential mechanism of preeclampsia (PE).

#### Methods

Firstly, the expression of LRP6 in PE tissues was detected by immunohistochemical staining and quantitative real-time polymerase chain reaction (qRT-PCR) assay. Prediction software predicted that LRP6 might be the target gene of miR-95-5p, and verified by double-luciferase reporter analysis. qRT-PCR assay measured the expression of miR-95-5p in PE tissues and trophoblast cell lines. Then, we transfected miR-95-5p mimic, inhibitor, LRP6, or mimic plus LRP6 into trophoblast cell lines, and analyzed their influences on cell migration and invasion by wound healing and Transwell experiments. The expressions of matrix metalloproteinase (MMP)-2, MMP-9 and tissue inhibitors of metalloproteinase (TIMP)-1 in transfected cells were examined by western blot (WB) analysis.

#### Results

LRP6 was low-expressed in PE tissues, while miR-95-5p expression was high-expressed. MiR-95-5p negatively regulated the LRP6 expression in trophoblast cells. Both up-regulated LRP6 and down-regulated miR-95-5p can not only promote the migration and invasion of trophoblast cells, but also raised the expressions of MMP-2 and MMP-9 and inhibited the expression of TIMP-1. The over-expression of miR-95-5p suppressed the metastasis of trophoblast cells and rescued LRP6-induced increase of MMP-2 and MMP-9 and reduction of TIMP-1.

#### Conclusion

MiR-95-5p involved in the migration and invasion of trophoblast cells by targeting LRP6, which might be a potential therapeutic target for PE. (Author)

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#### 2025-04767

**Epidemiology of pregnancy-associated pulmonary embolism in South Asian multi-ethnic country: Mortality trends over the last four decades.** Tan TC, Goh CMY, Tan SSX, et al (2021), Journal of Obstetrics and Gynaecology Research vol 47, no 1, January 2021, pp 174-183

#### Objective

To determine the cumulative incidence, time of occurrence and risk factors of pregnancy-associated pulmonary embolism (PE) in Singapore, and to review the maternal mortality ratio of PE over the last four decades.

#### Study design and setting

In this retrospective epidemiology review, women with pregnancy-associated PE were identified via International Classification of Diseases codes and included if they had been objectively diagnosed on imaging with PE during pregnancy or within 6 weeks postpartum from 2004 to 2016 at KK Women's and Children's Hospital (KKH) and Singapore General Hospital (SGH) in Singapore. The medical records were reviewed and the time of occurrence of confirmed PE cases and risk factors for PE were noted.

#### Results

There were 18 PE cases out of 174 708 deliveries, of which two were fatal, giving a cumulative incidence of PE at 1.03 per 10 000 deliveries and a mortality rate of 11.1%. The maternal mortality ratio is 1.14 per 100 000 deliveries, the lowest compared to that of the previous three decades (2.5–4.9 per 100 000 deliveries). Majority of PE (66.7%) occurred during the first 2 weeks postpartum. Cumulative incidence of postpartum PE was four times more in caesarean section compared to vaginal delivery at 1.58 per 10 000 deliveries and 0.40 per 10 000 deliveries, respectively.

#### Conclusion

Although the cumulative incidence of pregnancy-associated PE in Singapore is low, it is comparable to the United Kingdom (UK) and United States (US). Risk assessment and thromboprophylaxis have decreased PE mortality significantly during this period. (Author)

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#### 2025-04758

**Second-trimester acute fatty liver disease of pregnancy: A brief review of the literature and a case report.** Ramadan MK, Khaza'al J, Cha'ar D, et al (2021), Journal of Obstetrics and Gynaecology Research vol 47, no 1, January 2021, pp 34-43

Acute fatty liver disease of pregnancy (AFLP) is a rare life-threatening medical emergency unique to pregnancy. It is characterized by progressive microvesicular fatty infiltration of maternal hepatocytes, but the exact etiology has yet to be elucidated. AFLP typically manifests in late third trimester or immediately postpartum and seldom during second trimester. Prompt delivery, irrespective of gestational age or severity, is crucial for arresting the insult and permitting recovery. We hereby report a 21-year-old Lebanese second-gravid woman at 20 weeks' gestation diagnosed with AFLP depending on clinical features and compatible laboratory studies (score of 8 on Swansea criteria), in spite of early occurrence. A review and analysis of early AFLP (second trimester) compared to late (third trimester) was also presented. AFLP appearing during second trimester is as serious as the disease manifesting in late third trimester, with similar diagnostic difficulties, less association with hypertension, but with greater hesitation of obstetricians to affect prompt delivery and higher adverse perinatal outcome due to added effect of premature delivery in second trimester. (Author)

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#### 2025-04757

**Current update of first trimester preeclampsia screening in Asia.** Lin T-Y, Huang H-Y, Chan K-S, et al (2021), Journal of

In consideration of high prevalence of preeclampsia, enormous studies attempted to look for strategies in early gestation. Hence, a powerful screening should be built up in first trimester. Then, Aspirin could be administered for proper prevention. The objective of this article is reviewing the screening for preeclampsia in first trimester recently. To identify the high-risk group precisely, an effective model should be recommended to Asian population. Articles related to first trimester screening of PE in Asia from databases of PubMed, ScienceDirect and Scopus were searched for this narrative review. The criteria included randomized clinical trials, observational prospective and retrospective cohort studies, case-control studies, systematic review and meta-analysis and professional review articles. Screening models combining maternal factors, biophysical factors, ultrasound studies and biochemical factors achieved high predictive performance of preeclampsia. In Asia, the detection rate of the Fetal Medicine Foundation is superior to those of the American College of Obstetricians and Gynecologists and the National Institute for Health and Care Excellence. Consequently, this effective model from the Fetal Medicine Foundation should be continuously used for screening in first trimester for the Asian. (Author)

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#### 2025-04755

**Successful outcome in a rare case of live post-term ovarian pregnancy.** Agarwal N, Shekhar S, Goyal M, et al (2020), Journal of Obstetrics and Gynaecology Research vol 46, no 12, December 2020, pp 2691-2695

Ovarian ectopic is a rare form of ectopic pregnancy and reaching up to term is an extreme rarity. It is usually diagnosed incidentally when a cesarean section is done for other obstetric causes. Being highly vascular, it may result in obstetric catastrophes. We report first live post-term ovarian pregnancy well managed with multidisciplinary approach. A 35-year multigravida at 44 weeks presented with a diagnosis of placenta percreta. Magnetic resonance imaging suggested abdominal pregnancy with a live fetus. On laparotomy, it was live ovarian ectopic with placenta attached to left infundibulopelvic vessels and later confirmed on histological examination. Ovarian ectopic is best diagnosed in the first trimester by ultrasound and managed by laparoscopy or laparotomy. It is usually misdiagnosed as an abdominal pregnancy at term even with the use of high-end technology. It always poses a dilemma for clinicians. Preoperative magnetic resonance imaging helps in the planning of surgery with all precautionary measures and counseling of patients. (Author)

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#### 2025-04754

**Peculiar blood flow profiles among placental chorionic villous vessels of an abnormally thick placenta in a case of systemic lupus erythematosus characterized using microvascular imaging.** Inoue A, Horinouchi T, Yoshizato T, et al (2020), Journal of Obstetrics and Gynaecology Research vol 46, no 12, December 2020, pp 2684-2690

We present a patient with systemic lupus erythematosus receiving long-term steroid therapy, who had myometrial thinning, markedly thickened placenta, and fetal growth restriction (FGR). Blood flow profiles of the myometrium, decidua and placental villous vessels (VV) were described using superb microvascular imaging (SMI) at 35 weeks' gestation. Images showed no decidual blood flow underneath the placenta sitting on a thin myometrium and sparse VV distribution and non-visualization of peripheral VV flow. Emergency cesarean hysterectomy was performed at 36 weeks. Histological findings showed missing decidua on the thin myometrium, which indicated placenta accreta spectrum, and massive perivillous fibrin deposition and increased numbers of syncytial knots in the placenta. We speculated that the thick placenta and peculiar VV flow profiles resulted from congestion of the intervillous space and intervillous underperfusion/low intraplacental oxygenation, respectively, resulting in FGR. Superb microvascular imaging is useful for diagnosing placenta accreta spectrum and understanding the pathophysiology of thick placenta and FGR. (Author)

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#### 2025-04753

**Association between maternal height and mode of delivery in nulliparous Japanese women.** Kuritani Y, Hayashi S, Yamamoto R, et al (2020), Journal of Obstetrics and Gynaecology Research vol 46, no 12, December 2020, pp 2645-2650

##### Aim

The primary aim of this study was to examine the association between maternal height and mode of delivery in nulliparous Japanese women. The secondary aim was to examine the association between maternal height and maternal and neonatal morbidities.

##### Methods

This retrospective cohort study included women who gave birth at Osaka Women's and Children's Hospital, a tertiary perinatal center in Japan, from January 2015 to December 2017. Nulliparous Japanese women with singleton

gestation, who went into labor at term were included in the study. The primary outcome was mode of delivery, and the secondary outcomes were maternal and neonatal morbidities. The relationships between maternal height and the outcomes were evaluated using multivariate logistic regression analysis adjusted for potential confounders. Maternal height was categorized into five groups with 5-cm increments for the analysis.

#### Results

A total of 1593 women were analyzed in this study. Shorter women had higher rate of cesarean delivery (CD) than taller women. There were no significant differences in the rates of operative vaginal delivery, maternal morbidity and neonatal morbidity among the maternal-height groups. The adjusted odds ratios (95% confidential interval) of maternal heights of <150 cm, 150–154 cm, 160–164 cm and  $\geq 165$  cm for CD, compared with a maternal height of 155–159 cm, were 3.56 (1.79–7.09), 1.68 (1.06–2.64), 0.63 (0.40–1.00) and 0.57 (0.30–1.01), respectively.

#### Conclusion

Shorter nulliparous Japanese women were more likely to undergo intrapartum CD. However, the rates of maternal and neonatal morbidities in shorter women were similar to those in taller women. (Author)

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### 2025-04749

**Feasibility and outcomes of fetoscopic endoluminal tracheal occlusion for severe congenital diaphragmatic hernia: A Japanese experience.** Wada S, Ozawa K, Sugibayashi R, et al (2020), *Journal of Obstetrics and Gynaecology Research* vol 46, no 12, December 2020, pp 2598-2604

#### Aim

To present the feasibility, safety and outcomes of fetoscopic endoluminal tracheal occlusion (FETO) for the treatment of severe congenital diaphragmatic hernia (CDH).

#### Methods

This was a single-arm clinical trial of FETO for isolated left-sided CDH with liver herniation and Kitano Grade 3 stomach position (>50% stomach herniation into the right chest). FETO was performed at 27–29 weeks of gestation for cases with observed/expected lung to head ratio (o/e LHR) <25% and at 30–31 weeks for cases with o/e LHR  $\geq 25\%$ .

#### Results

Eleven cases were enrolled between March 2014 and March 2016, and balloon insertion was successful in all cases. The median o/e LHR at entry was 27% (range, 20–33%). The median gestational age at FETO was 30.9 (range, 27.1–31.7) weeks. There were no severe maternal adverse events. One fetus died unexpectedly at 33 weeks of gestation due to cord strangulation by the detached amniotic membrane. There were 3 cases (27%) of preterm premature rupture of membranes. In all 10 cases, balloon removal at 34–35 weeks of gestation was successful. The median gestational age at delivery was 36.5 (range, 34.2–38.3) weeks. The median duration of occlusion and the median interval between balloon insertion and delivery were 26 days (range: 17–49 days) and 43 days (range, 21–66 days), respectively. Both the survival rate at 90 days of age and the rate of survival to discharge were 45% (5/11).

#### Conclusion

The FETO is feasible without maternal morbidity in Japan and could be offered to women whose fetuses show severe isolated left-sided CDH to accelerate fetal lung growth. (Author)

Full URL: <https://doi.org/10.1111/jog.14504>

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### 2025-04739

**Subcutaneous tissue stiffness of cesarean incision scar by elastography as a predictor of intra-abdominal adhesions.** Seven B, Yorgancı A, Alkan M, et al (2020), *Journal of Obstetrics and Gynaecology Research* vol 46, no 11, November 2020, pp 2390-2396

#### Aim

This study aimed to investigate whether subcutaneous tissue stiffness of the previous cesarean section (CS) skin incision could predict the severity of the intra-abdominal adhesions at a repeat CS.

#### Methods

In this prospective cross-sectional study, pregnant women with at least one prior cesarean delivery were included. The subcutaneous tissue stiffness of the previous CS skin scar was measured by shear wave elastography (SWE) on the day of the repeat CS and the intra-abdominal adhesions were recorded by an adhesion classification scheme specific

for CS. Total adhesion score was classified as mild adhesion between 1 and 4, moderate adhesion between 5 and 12, and severe adhesion if  $\geq 13$ .

## Results

Of the 102 women, 41 (40.2%) had no adhesions, 18 (17.6%) had mild adhesions, 26 (25.5%) had moderate adhesions and 17 (16.7%) had severe adhesions. The mean SWE measurements were significantly higher in the moderate and severe adhesion group than the non-adhesion and mild adhesion group ( $51.5 \pm 25.3$  vs  $36.8 \pm 22.6$ ,  $P = 0.003$ ). There was a statistically significant correlation between the preoperative SWE measurements and total adhesion scores (correlation coefficient [ $r$ ] = 0.397,  $P < 0.001$ ). In receiver–operator characteristics curve analysis, the cut-off value for moderate or severe adhesions was found to be 36.5 (area under curve = 0.710, %95 confidence interval 0.606–0.815;  $P < 0.001$ ). With the cut-off point of  $\geq 36.5$ , the sensitivity and specificity for the prediction of mild and severe adhesions were 74.4% and 40.5%, respectively.

## Conclusion

Elastographic evaluation of the subcutaneous tissue stiffness of the cesarean incision scar might show the degree of intra-abdominal adhesions at a repeat CS. (Author)

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### 2025-04579

**Silence is not golden: How academic nursing and midwifery is failing our Afghan sisters.** Ion R, Jackson L, Adhikari R (2025), Nurse Education in Practice vol 84, March 2025, 104303

In this editorial we present the case for academic solidarity with our sisters in Afghanistan. We draw on Neiman's (2023) [1] position that those seeking a better and more just world, should embrace universalism, pursue justice over concerns about moral relativism, and take courage and inspiration from previous gains. (Author)

[1] Neiman S (2023). Left is not woke. Cambridge: Polity.

Full URL: <https://doi.org/10.1016/j.nepr.2025.104303>

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### 2025-03721

**Scope, significance and sustaining the midwifery profession in Indonesia: Commentary.** Adnani QES, Okinarum GY, Muchlis M, et al (2025), Midwifery vol 142, March 2025, 104286

This discussion intends to contribute to continuing efforts in developing maternal and child healthcare services in Indonesia by concentrating on midwifery's breadth, significance, and sustainability, ultimately leading to healthier communities and a brighter future for the nation. (Author)

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### 2025-03426

**Trends in the utilisation of maternal and child healthcare services from the public and private health sectors in India, 2005–2021: an analysis of cross-sectional survey data.** Purbey A, Kumar A, Mozumdar A, et al (2025), BMJ Open vol 15, no 2, February 2025, e082241

Objectives To estimate the levels and trends of maternal and child healthcare (MCH) service utilisation in India across subsidised and unsubsidised health sectors and to explore total market approach to identify geographies where the private sector has potential to improve MCH services in India.

Design and setting This study used three recent rounds of the National Family Health Survey (NFHS), a cross-sectional survey in India, conducted in 2005–2006, 2015–2016 and 2019–2021. Bivariate analysis and multinomial logistic regression were used to estimate the utilisation of key MCH indicators from subsidised and unsubsidised health sectors. Market sustainability of key MCH indicators was assessed by level of MCH services and subsidisation.

Participants 36 850, 190 898 and 176 843 ever-married women aged 15–49 years, 4440, 22 500 and 15 334 children under 5 years of age with diarrhoea before the survey, and 2552, 6960 and 6117 children with symptoms of acute respiratory infections (ARI) in NFHS 2005–2006, 2015–2016 and 2019–2021, respectively.

Outcome measures The study used three maternal healthcare indicators: women had four or more antenatal care (ANC) visits, had institutional delivery, and received postnatal care (PNC); and two child healthcare indicators: care seeking for ARI and diarrhoea.

Results In India, utilisation of maternal healthcare services increased over the last 15 years: four or more ANC visits increased from 37% to 58% and PNC of mothers increased from 33% to 78% between 2005–2006 and 2019–2021. The results of the multivariate analysis showed that utilisation of ANC (67% from public vs 18% from private health facilities), institutional delivery (64% from public vs 25% from private health facilities) and PNC (73% from public vs 27% from private health facilities) was significantly higher ( $p < 0.001$ ) in public than in private health facilities. Care seeking for ARI and diarrhoea among children was significantly higher ( $p < 0.001$ ) in private than in public health facilities; care for ARI was 68% in private health facilities compared with 32% in public health facilities.

Conclusions A targeted approach is needed to enhance the competitiveness of private sectors, especially in maternity care markets, to ensure the sustainability of healthcare services in India. Strengthening both the private and public sectors is crucial, with a focus on improving care quality and addressing regional disparities in access to maternal and child health services.

(Author)

Full URL: <https://doi.org/10.1136/bmjopen-2023-082241>

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## 2025-03407

**Maternal Fetal Health Case Reports [Oral abstracts].** Various (2020), Journal of Obstetrics and Gynaecology Research vol 46, suppl 1, August 2020, pp. 42-46

Oral abstracts from the 26th Asia and Oceania Federation of Obstetrics and Gynecology Congress, 10–14 November 2019, Philippine International Convention Center, Pasay, Philippines the focus of which was maternal fetal health, explored through a series of case reports.

1. Successful maternal and neonatal outcomes following consolidation therapy with high-dose cytarabine in two cases of acute myeloid leukemia in pregnancy by Mary Menuro F. Acda, MD, Ireene Cacas David MD;
2. Prenatal diagnosis of the Beckwith-Wiedemann syndrome: A case report by Pham Thi P. Anh, MD;
- Ball in a box: A case report of a pelvoabdominal mass in a fetus by Carla Denisse Cristobal-Gacias, MD, Ma. Socorro C. Bernardino MD;
3. Limb body wall complex: Case series by Maynila E. Domingo, MD, Valerie T. Guinto MD;
4. A case of a neonatal ovarian cyst and A lion's heart: A newly diagnosed case of radiation-induced heart disease (myocardial ischemia) in a multigravid previously treated for Hodgkin's lymphoma: An interesting case by Kia Angela B. Gargantiel
5. A case series on the use of pessaries for shortened cervix by Jean Aileen Elauria Manalastas, MD, Almira Amin Ong MD, Lisa Prodigalidad Jabson MD;
6. Case series: Syphilis in pregnancy by Sonia Prima Arisa Putri, MD, Nuswil Bernolian MD;
7. "Not all who wander are lost": A successful expectant management of advanced abdominal pregnancy until near term by Celine Dycoco Quanico, MD, Ida Magnolia Yambot Reyes, MD and
7. Out of place: A case report of ovarian pregnancy by Patricia Nevira V. Suarez, MD, Socorro Caguat MD. (EA)

Full URL: <https://doi.org/10.1111/jog.14285>

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## 2025-03404

**Maternal Fetal Health [Oral abstracts].** Various (2020), Journal of Obstetrics and Gynaecology Research vol 46, suppl 1, August 2020, pp. 25-41

Oral abstracts from the 26th Asia and Oceania Federation of Obstetrics and Gynecology Congress, 10–14 November 2019, Philippine International Convention Center, Pasay, Philippines the focus of which was maternal fetal health.

1. Prevalence of congenital anomalies in neonates and associated risk factors in a Tertiary Care Hospital in Ulaanbaatar, Mongolia by Jargalsaikhan Badarch, Oyunkhand Enkhtaivan, Tsengel Batsuuri, Dulamsuren Nergui, Oyunomin Teskhuyag, Budzaya Enkbayar, Amarzaya Ikhagvasuren, Tegshjargal Sereenendorj;
2. Prevalence of perinatal vertical transmission of hepatitis anti-HCV antibody, Amgalan Maternity Hospital, Mongolia by Jargalsaikhan Badarch, Khonchinkhuu Mandakhtsetsen, Batsukh Enkhjargal, Oyun-Erdene Ariunbold, Lkhamnorov Battur, Erdenesuvd Damdinsuren;
3. Risk factors for adverse outcomes among teenage pregnancies delivered in a Tertiary Center from 2007–2016: A retrospective cohort study by Trinilisa E. Bagalso, MD, Maria Estrella Y. Flores, MD;
4. Violence against women in Bangladesh by Prof Laila Arjumand Banu;
5. Globally child birth intervention going overboard by Professor Dr. Rowshon Ara Begum, Ex-President, OGSB, Vice President-FSSB, Vice President-GOSB, Vice President-GOESB, Chairman- SRH (AFOG);
6. Comparison of perinatal outcomes of adolescent and non-adolescent primigravids admitted in a Tertiary Government Hospital by Margaret Rose C. Bocaya, MD, Precious DC Diaz MD;
7. Pregnancy outcomes following different types of bariatric surgery: National cohort study by Katie Cornthwaite, MD,

- Chetan Prajapati PhD, Erik Lenguerrand PhD, Natalie Blencowe PhD, Andrew Johnson MD, Dimitrios Siassakos MD;
8. A retrospective review of neonatal outcomes of inborn and outborn preterm neonatal admissions based on perinatal profiles at a Tertiary Referral Perinatal Center in Quezon City from January 2012 to December 2016 by Katleen R. Del Prado, MD, Edward N. Padilla, MD;
  9. A retrospective review of neonatal outcomes of inborn and outborn preterm neonatal admissions based on perinatal profiles at a Tertiary Referral Perinatal Center in Quezon City from January 2012 to December 2016 by Katleen R. Del Prado, MD, Edward N. Padilla, MD;
  10. Implement of post-partum intrauterine device project in Bangladesh: Strengths and challenges by Dr. Farhana Dewan, Dr. Jobaida Sultana, Dr. Alpona Adhikary;
  11. Long term prognosis of EXIT procedure for delivering babies with fetal airway obstruction: Novel insights from a multicenter retrospective study by Satoshi Dohi, MD, PhD;
  12. Dutta's scoring technique for early detection and management of uterine atony during emergency LSCS: A randomized trial by Indranil Dutta, MD, Dilip Kumar Dutta MD;
  13. Role of colposcopy in unexplained infertility by Indranil Dutta;
  14. Evaluation of gestational weight gain and its correlation with maternal and neonatal outcome in women of normal early pregnancy body mass index by Roli Gautam, MD, Abhilasha Jain MD;
  15. Introducing the new method: Role of amnioinfusion using CVP set in the management of PPRM with oligohydramnios in pregnancy by Herlambang Herlambang, Muhammad Alamsyah Aziz, Amelia Dwi Fitri
  16. Maternal and neonatal outcomes of women with chronic kidney disease by Romelyn April P. Imperio-Onglao, MD, Luwalhati Ordillo Lim MD, Cristina Pelaez Crisologo MD, Coralie D Dimacali MD;
  17. Management of hyperglycemia for women with twin pregnancies and risk of small-for-date weights: A single-center 13-year study by Yuko Irie, MD, Liangcheng Wang PhD, Isao Horiuchi PhD, Kenro Chikazawa PhD, Tomoyuki Kuwata PhD, Kenjiro Takagi PhD;
  18. Maternal and fetal outcomes in pregnancy with chronic kidney disease depending on the stages by GFR by Chan-Mi Lim, MD, Suk-Young Kim MD, Eun-young Woo MD, Sun-young Jung MD, Ryoonsun Lee MD;
  19. Diagnostic utility of urine gram stain versus urinalysis in asymptomatic bacteriuria among pregnant patients by Suzanne C. Lucero, MD, Marie Faith B. Villaruz MD, Ramela O. Contrevida MD, Geraldine L. Gubatina MD, Eileen M. Granada MD, Gertrude Emilie P. Gelito MD;
  20. Performance of a first trimester preeclampsia screening program and effectiveness of aspirin in reducing the development of preeclampsia: A five-year Philippine experience by Michelle Martin, MD, Zarinah Gonzaga, MD;
  21. Pre-pregnancy transabdominal cervical cerclage in women with recurrent preterm birth or late miscarriage: A case series report by An Mai Nguyen, MD, Anh My To MD, Xuyen Thi Ha Le MD, Trung Thien Ly MD, Minh Ngoc Chau MD, Vinh Quang Dang MD;
  22. Evaluating abnormal fetal cardiotocogram by J. Oyuntsetseg, O. Altanzul, Ts. Ankhzaya, N. Bayasgalan, B. Tsengelmaa, E. Mandkhai, D. Gereltuya, B. Zulaa, E. Ouyunkhand;
  23. Prediction of preeclampsia and intrauterine growth restriction in low-risk pregnancies in East Avenue Medical Center using uterine artery Doppler velocimetry by Shiela Mae D. Putol, MD, Ma. Bernadette R. Octavio MD;
  24. A comparative study of the efficacy of misoprostol administered by oral, sublingual and vaginal route for induction of labor at term by Priyankur Roy, MD;
  25. Pregnancy outcome in women with polycystic ovary syndrome by Haritha Sagili, MD, Amandeep Mann MD, Murali Subbaiah MD;
  26. Association of serum C-reactive protein and selected coagulation marker in preeclampsia and its impact on fetomaternal outcome by Shahanaj Sharmin, MD, Shahanara Chowdhury MD, Didarul Alam MD, Nasreen Banu MD, Shirin Akter Khanam MD, Fahmida Rashid MD;
  27. The correlation between perineal body length and obstetric perineal laceration among Filipino Primigravid patients in a Tertiary Hospital by Iris A. Soria, MD, Kareen N. Reforma MD;
  28. Predicting HELLP syndrome in preeclampsia cases and determining fetal outcomes by Ali Sungkar, MD, Rima Irwinda, MD, Raymond Surya, MD;
  29. Factors affecting compliance to voluntary HIV screening among pregnant women seeking prenatal care in the outpatient Department of a Tertiary Government Hospital by Victoria May H. Velasco, MD, Analyn Fuentes Fallarme MD;
  30. Effectiveness of prophylactic vaginal micronized progesterone in prevention of preterm birth among high risk women seen at the Tertiary Government Hospital outpatient department: A randomized controlled trial by Mae Marecel Villalba, MD, Rose Joy D. Vallega MD, Maria Jenina M. Soyao MD;
  31. Preeclampsia in the era of universal screening and aspirin prophylaxis in Sarawak: An observational multicentre study by Hian Yan Voon, MD, Soon Leong Yong MD, Aini Nabilah Abdul Raub MD, Ming Cheng Chai MD, Ching Mun Ng MD, Freddie Atuk MD and



## 2025-02608

**Perceptions of the ability to efficiently utilise the full scope of midwifery practice in the newly introduced midwifery profession in Nepal.** Weng A, Nestler G, Tamang L, et al (2025), *Nurse Education in Practice* vol 83, February 2025, 104268

### Aim

To explore the readiness of Bachelor in Midwifery graduates in Nepal to provide midwifery care aligned with the definition competently on graduation and to identify barriers affecting their practice.

### Background

Nepal has introduced an internationally standardised BSc midwifery education programme designed to enable midwives to work competently and independently in midwifery care on entering the profession.

### Design

A qualitative interview study was conducted and analysed using inductive content analysis.

### Methods

Individual interviews were conducted with 8 midwives, 5 educators and 5 students using a guide based on ICM competencies. Participants were recruited from various institutions and universities across Nepal and ethical approval was obtained.

### Results

Possibilities and challenges in applying programme content include seven sub-categories: Preparation before clinical education, Midwifery care, The bridging role of midwifery educators, Clinical supervision, Use of evidence-based, respectful and culturally sensitive midwifery practice, independent midwifery practice and Being a role model. The findings indicate that while the BSc programme provides strong theoretical preparation, significant challenges persist in translating this into practice.

### Conclusions

While the BSc midwifery programme theoretically prepares students to work competently and independently in midwifery practice, practical challenges hinder its implementation. Addressing these issues, such as improving clinical support, recruiting qualified midwifery educators and establishing a deployment strategy, can enhance midwives' ability to work independently in midwifery care, ultimately improving health outcomes for women, families and communities. (Author)

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## 2025-02231

**Evaluating a midwifery leadership programme: a process evaluation study.** Bogren M, Jha P, Sharma B, et al (2025), *Women and Birth: Journal of the Australian College of Midwives* vol 38, no 1, January 2025, 101853

### Background

Despite global support for midwifery leadership investment, there is a notable lack of scientific evaluations of leadership programmes worldwide for midwives. The Government of India's Midwifery Initiative launched the Midwifery Leadership Programme to enhance the leadership capacity of state-level midwifery leaders.

### Aim

To evaluate the Midwifery Leadership Programme in India using implementation science as a framework.

### Methods

A qualitative research design using the UK Medical Research Council guidance for process evaluation of a 12-week midwifery leadership programme in India. Data were collected through focus group discussions (n=6) with midwives and medical doctors, who have responsibility in maternal and child health services, midwifery education, practice and regulation, and individual interviews (n=3) with programme directors and a government representative, resulting in an individual participant total of 22. Transcribed discussions were analysed guided by an evaluation framework, using content analysis.

### Results

The midwifery leadership programme was successfully implemented in terms of fidelity, dose, and reach, with continuous adaptations. Having the programme's design, structure, and content tailor-made for the Indian context was valued highly. Easy-to-follow assignments led to state-level action plans, while participants' motivation and improved communication skills enhanced leadership capacity.

### Conclusions

This study demonstrates the utility of a process evaluation framework in evaluating midwifery education programmes, using the Midwifery Leadership Programme in India as an example. It is recommended that future research on

evaluating midwifery education initiatives adopt implementation science frameworks to evaluate both the implementation process and the mechanisms driving programmes' impact for change, thereby informing the design and delivery of effective midwifery education programmes. (Author)

Full URL: <https://doi.org/10.1016/j.wombi.2024.101853>

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## 2025-02161

**The role of continuity of care in high-risk pregnant women in Indonesia.** Sholikhah SM, Nurwulansari F, Aini EN, et al (2025), European Journal of Midwifery vol 9, January 2025, p 2

### Introduction:

High-risk pregnancies require special attention in maternal and child health services, given the high potential for complications that can affect maternal and fetal health. The continuity of care (COC) approach is expected to increase family independence and prevent pregnancy complications. This study aims to analyze the effectiveness of COC in improving the family independence of high-risk pregnant women in preventing pregnancy complications.

### Methods:

This study used a quasi-experimental design with a pretest-posttest approach without a control group, involving 134 high-risk pregnant women, in the target area at the Wonoayu Community Health Centre, Sidoarjo, Indonesia from February to May 2024, who were selected through purposive sampling. Data were collected through structured questionnaires before and after the COC intervention, which included assessing knowledge and family roles in supporting pregnant women's health. The COC mentoring program was implemented for three months, with a focus on family education and involvement in maternal healthcare. A validated questionnaire measured family self-reliance before and after the intervention.

### Results:

The study showed a significant increase in family self-reliance, with a  $p < 0.001$  in all aspects measured, including fulfilment of physiological and psychological needs, preparation for labor, the postpartum period, and preparation after the baby is born. This increase suggests that the COC intervention is effective in empowering families to support high-risk pregnant women. Before the intervention, the mean score for physiological and psychological needs fulfilment was 17.45, which increased to 36.42 after the intervention ( $p < 0.001$ ). In addition, labor preparation also showed a significant increase from 11.40 to 24.38, as well as postpartum preparation from 13.00 to 28.79, and preparation after the baby is born from 13.25 to 28.75 (all  $p < 0.001$ ).

### Conclusions:

The consistent improvement in all measured aspects, indicated that the COC intervention not only improved families' knowledge and skills, but also contributed to their preparedness in supporting pregnant women during and after pregnancy. (Author) [Erratum: European Journal of Midwifery, vol 9, January 2025, p 8. <https://doi.org/10.18332/ejm/200122>]

Full URL: <https://doi.org/10.18332/ejm/195831>

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## 2025-01899

**Pathways, development needs, and clinical connections for midwifery faculty in low- and middle-income settings of the Asia Pacific region: A qualitative study.** Smith RM, Gray JE, Homer CSE (2025), Women and Birth: Journal of the Australian College of Midwives vol 38, no 1, January 2025, 101841

### Introduction

The development and strengthening of midwifery education requires a focus on midwifery faculty as an important strategy to improve quality of care provision. Despite the need for high-quality midwifery educators in all-countries, preparation and development of faculty is challenging, particularly in low- and middle-income countries.

### Aim

The aim was to explore the experiences of midwifery faculty in low- and middle-income countries in the Asia Pacific region regarding their pathway to being a faculty member, programs of development and/or factors that supported their transition to faculty. We also aimed to identify barriers and enablers to continued clinical practice.

### Methods

A qualitative exploratory design applying reflexive thematic analysis was used. We undertook 17 semi-structured interviews with midwifery faculty from low- and middle-income countries in the Asia Pacific region.

### Findings

Key themes were 1) drawing on professional determination and personal passion, 2) transitioning from clinical to

academia is challenging, 3) meeting diverse role expectations, 4) needing orientation, mentorship and training, and 5) maintaining clinical skills.

#### Conclusion

Identifying supportive pathways for midwifery faculty, including transitional support and ongoing development, is crucial in providing quality midwifery education. Provision of early and sustained development and support is required to ensure professional identity is developed alongside the ability to function in the diverse roles expected of midwifery faculty. (Author)

Full URL: <https://doi.org/10.1016/j.wombi.2024.101841>

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#### 2025-01766

**Maternal experiences and preference of maternity services in Singapore: A descriptive qualitative study.** Tieo TJQ, Khoo SM, Tay JSL, et al (2025), *Midwifery* vol 140, January 2025, 104194

#### Problem

Little is known about mothers' experiences and preferences for maternity services in Singapore. A more nuanced understanding would identify areas for improvement in perinatal care, reducing the burden on healthcare providers in supporting maternity services.

#### Background

Expecting mothers are typically referred to hospital-based antenatal and postnatal services in Singapore. In recent years, Singapore has made maternity services available in primary care community settings called polyclinics, to improve accessibility of such services.

#### Aim

To explore the experiences and preferences of Singaporean mothers in receiving maternity services in acute hospitals and polyclinics.

#### Methods

A descriptive qualitative study design was adopted, and data were collected from September to October 2023. In total, 13 mothers were recruited from a maternity care hospital in Singapore. Individual semi-structured audio-recorded interviews were conducted, and data were analysed using thematic analysis.

#### Findings

Three themes were identified: (1) Considerations when seeking maternity care, (2) Differing preferences and satisfaction levels, (3) Hopes for better perinatal care for mothers and babies.

#### Discussion

Most mothers preferred seeking hospital-based antenatal care and were more inclined to do postnatal follow-ups in polyclinics. Factors like accessibility, cost and perceived expertise of healthcare providers influenced the decision-making. Maternal satisfaction with care services also fluctuated based on interpersonal factors and whether their informational needs were met.

#### Conclusion

Overall, mothers' perceptions of maternity services were positive. Findings suggest the possibility of further expanding maternity services in community settings to increase professional support for mothers. Future research is needed to ascertain these findings in non-English speaking and non-subsidized settings. (Author)

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#### 2025-01740

**Enhancing leadership and management skills in midwifery through optimised mentorship.** Abdul-Rahim HZ, Abdul-Mumin KH (2025), *British Journal of Midwifery* vol 33, no 1, January 2025, pp 14–20

#### Background/Aims

Mentorship experience is a crucial aspect of midwifery students' development. Midwifery education in Brunei Darussalam aims to enhance leadership and management skills in preparation for the transition to becoming registered midwives. This study explored how mentorship experiences influenced midwifery students' preparation for leadership and management roles, as well as the challenges that impacted the effectiveness of mentorship experiences in clinical settings.

#### Methods

This descriptive qualitative study involved 43 final-year midwifery students from the Universiti Brunei Darussalam who contributed written essays reflecting on their readiness for leadership, clinical learning encounters and perceptions of mentorship. The essays were analysed thematically.

#### Results

Most students felt unprepared for leadership as they had received limited guidance and exposure to clinical settings. Mentorship experiences varied, with some finding it beneficial while others struggle to adapt, citing disparities in mentor motivation, teaching abilities and leadership styles.

#### Conclusions

Practical, hands-on experience is vital to developing leadership and management skills. However, students face challenges in balancing academic commitments with clinical practice, limiting their opportunities to hone their skills.

#### Implications for practice

A standardised mentorship programme and longer clinical attachments would allow students more time to acclimatise to healthcare environments, comprehend their role and enrich their learning journey. (Author)

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### 2025-01302

**Exploring the attitudes and beliefs of women regarding the implementation of midwife-led care in India: A mixed methods study.** Sangy MT, Duaso MJ, Feeley C, et al (2024), *Women and Birth: Journal of the Australian College of Midwives* vol 37, no 6, November 2024, 101836

#### Problem

Despite the recent introduction of midwifery services in India to improve maternal and newborn healthcare, there is limited research on women's perspectives on midwife-led care.

#### Background

The Government of India initiated midwifery services guidelines in 2018 to improve the quality of care for pregnant women and newborns across the country. It is important to develop evidence-based strategies which can optimise the implementation of these new midwifery services.

#### Aim

This study explored women's attitudes and beliefs towards the implementation of midwife-led care in two southern states of India.

#### Methods

A convergent mixed methods design was employed using an online questionnaire and semi-structured online interviews. Quantitative data was analysed using descriptive statistics and qualitative analysis used a framework approach. Data from both sources were then integrated through merging techniques.

#### Findings

A total of 307 women completed the online survey, and 23 participated in in-depth interviews. The study highlighted inadequate knowledge of midwife-led care among women. Despite this, 60 % expressed optimism about its benefits. Key factors to women's acceptance included better understanding outcomes, having trust in midwives, receiving respectful care, and having autonomy in decision-making. They also required midwife-led birthing units would be clean, accessible, and well resourced.

#### Discussion

Most participants perceived midwife-led care as beneficial, valuing its skilled, responsive and compassionate services.

#### Conclusion

Insights from this study have implications for the implementation of midwife-led care which should consider the informational needs, safety standards and cultural contexts of women and their families living in both urban and rural areas of India. (Author)

**Full URL:** <https://doi.org/10.1016/j.wombi.2024.101836>

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### 2025-01271

**South Asian women's views on and experiences of maternity care services in Hong Kong: A qualitative study.** Nagesh N, Ip CHL, Leung ETY, et al (2024), *Women and Birth: Journal of the Australian College of Midwives* vol 37, no 6, November 2024, 101806

#### Background

Health disparities among ethnic minority and migrant women can lead to adverse maternal and neonatal outcomes. This study explores the maternity care experiences of South Asian women in Hong Kong, providing insights for woman-centred and culturally responsive care in the East Asia.

#### Objective

To understand South Asian women's views and experiences regarding maternity care services in Hong Kong.

#### Methods

A qualitative descriptive study was conducted with 20 English-speaking South Asian women who had used maternity

care services in Hong Kong within the past 5 years. Data were analysed by thematic analysis.

#### Findings

Four themes were identified: 1) Comparing maternity care services in their home country versus Hong Kong; birth location, mode of birth and care. 2) Navigating Hong Kong maternal medical care system; including private public dual care and learning information from other South Asians. 3) The discrepancy in perception of optimum care; including a preferring for assistance with daily tasks, epidural anaesthesia, doctor-led care, and priority to infants' health. 4) The impact of the COVID-19 pandemic on maternity care experiences, including the cancellation of translation services and limited visiting hours.

#### Discussion

South Asian appreciate Hong Kong's public maternity services due to its perceived greater cost-effectiveness. The major incongruence between expectations and services provided being women-staff communication.

#### Conclusion

The quality of healthcare in Hong Kong is appreciated. Individualized care should be offered to cater to diverse needs. Improvements in staff attitude and provision of detailed information should help alleviate feelings of differential treatment. (Author)

Full URL: <https://doi.org/10.1016/j.wombi.2024.101806>

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### 2025-01073

#### **Capacity building in obstetric ultrasound: Impact of simulation based clinical teaching on resident training at a health facility in India.**

Chawla L, Kumar R, Rajaram S, et al (2025), International Journal of Gynecology & Obstetrics vol 169, no 1, April 2025, pp 267-273

#### Objective

Current postgraduate curriculum in India lacks practical training in ultrasound for residents in obstetrics and gynecology. The objective of this study was to develop and assess impact of a capacity building program utilizing clinical teaching and simulation to enhance knowledge and skills of residents at a healthcare facility in India.

#### Methods

A training program comprising of 14 modules on basic obstetric ultrasounds was created over 3 months. These modules, validated by fetal medicine experts, underwent a pilot study for face validity. A total of 18 newly enrolled junior residents without prior ultrasound experience were recruited. A two-day workshop included interactive module sessions and 6 h and 30 min of hands-on training using an obstetric simulator. Pre- and post-tests consisting of 50 multiple-choice questions (MCQs) assessed knowledge. Follow-up assessments were carried out at 1 and 3 months. Skill assessment at the third month was conducted using an objective structured practical examination (OSPE), alongside image submission by residents.

#### Results

There was significant improvement in marks over time, with a mean pretest score of  $24 \pm 2.7$  out of 50 marks, post-test score of  $36.81 \pm 2.86$  and stable scores ( $34.6 \pm 3.21$ ,  $34.4 \pm 2.96$ ) during follow-up reviews. OSPE scores at third month averaged at  $21.47 \pm 2.3$  (maximum marks 30); image assessment scores averaged at  $83 \pm 8.62$  (maximum marks 100). Participant feedback indicated a positive response to all program aspects (practicality, content and structured training). Confidence levels in performing clinical ultrasound improved significantly after attending the module ( $P < 0.0001$ ).

#### Conclusion

Simulation with clinical teaching effectively enhanced knowledge and skills of residents, fostering confidence in performing basic obstetric ultrasounds early on in their residency. Integrating similar capacity building initiatives into residency training programs can improve healthcare delivery by ensuring a well prepared cadre of doctors skilled in obstetric ultrasounds. (Author)

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### 2025-00620

#### **The Effect of Educational Intervention with Mobile Health Technology on COVID-19 Induced Stress among Pregnant Women: A Randomized Controlled Trial.**

Rostamikia Z, Khajavian N, Bilandi RR, et al (2023), Journal of Midwifery & Reproductive Health vol 11, no 3, July 2023, pp 3782-3793

Background & aim: The spread of COVID-19 has increased the stress level in pregnant women. The present study was performed to determine the effect of a mobile-based health educational intervention on the stress induced by the COVID-19 pandemic among pregnant women.

**Methods:** This randomized controlled trial study was carried out on 80 pregnant women (40 sample intervention and 40 control) referred to Gonabad Comprehensive Urban Health Service Centers from October to December 2021 who were selected using stratified random sampling. Data collection tools included demographic questionnaire (12 questions) and the valid and reliable questionnaire of the Corona Stress Scale (CSS-18). The questionnaires were filled out through self-administered method via the Porsline platform in three stages: before, immediately after, and one month after the intervention. The intervention group received five 30-minute education sessions as twice a week based on the latest Ministry of Health maternity and neonatal health guidelines. The control group received educational content in PDF format. Data were analyzed by Wilcoxon, Benferroni, Mann-Whitney, and independent t-tests using SPSS (version 16).

**Results:** The mean COVID-19 stress score before the intervention was not statistically significant in the two groups ( $P= 0.92$ ). After the intervention, the mean stress score of COVID-19 in the intervention group was estimated  $48.12 \pm 12.24$ , which was significantly lower than the control group ( $57.02 \pm 15.99$ ) ( $P<0.001$ ).

**Conclusion:** Mobile-based education intervention reduces COVID-19 stress in pregnant women. It is suggested that this approach be implemented for the provision of healthcare to pregnant women during the COVID-19 pandemic. (Author)

**Full URL:** <https://doi.org/10.22038/jmrh.2022.66480.1940>

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### 2025-00470

**Taliban bans women from training in nursing and midwifery in Afghanistan.** Howard S (2024), *BMJ* vol 387, no 8452, December 2024, p q2761

Health and human rights organisations have condemned the Taliban's ban on women from attending nursing and midwifery training institutes in Afghanistan. (Author)

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### 2025-00307

**The Effect of Prenatal Gentle Yoga on Maternal-Fetal Attachment among First-time Expectant Mothers in Indonesia.** Astuti YL, Chou H-F, Liu C-Y, et al (2021), *Journal of Midwifery & Reproductive Health* vol 9, no 3, July 2021, pp 2873-2882

**Background & aim:** Maternal-fetal attachment is one of the several psychological processes during pregnancy that builds the relationship between a mother and her unborn child. It seems that Prenatal Gentle Yoga (PGY) promotes wellbeing during pregnancy. However, no study has evaluated the effect of PGY on maternal-fetal attachment in Indonesia. This study aimed to measure the effect of PGY on maternal-fetal attachment among first-time expectant mothers.

**Methods:** This interventional study, was conducted from July-August 2018 in Central Java Province, Indonesia, compared maternal-fetal attachment among 130 primigravidae women who did ( $n=65$ ) and did not ( $n=65$ ) practice PGY. Participants were 20 to 35 years old, between 32 and 42 weeks of gestation, with normal singleton pregnancies and no obstetric complications as well as no history of psychological disorders which recruited with convenience sampling. The intervention group participated in eight or more hours of PGY classes (a minimum of six, 90-minute, once-weekly sessions). The control group did not do yoga. Women completed a demographic questionnaire and the Prenatal Attachment Inventory, analyzed with SPSS 20.0.

Independent samples t-test and hierarchical multiple linear regression were used to analyze the data.

**Results:** Prenatal Gentle Yoga increased maternal-fetal attachment scores among participants who attended eight or more hours of classes compared to those who did not ( $P=0.001$ ). Educational level and participation in yoga classes were the strongest predictors of maternal-fetal attachment ( $R^2=.142$ ).

**Conclusion:** Practicing PGY can increase maternal-fetal attachment. Midwives could recommend PGY to pregnant women in the routine antenatal care in Indonesia and around the world.. (Author)

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**Full URL:** <https://doi.org/10.22038/jmrh.2021.54803.1670>

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### 2025-00280

**A Comparative Cross Sectional Study on Prevalence of Exclusive Breastfeeding and Its Associated Factors among Primiparous and Multiparous Mothers in an Urban Slum, Agartala, Tripura, Northeast India.** Mog C, Luwang N, Das S (2021), *Journal of Midwifery & Reproductive Health* vol 9, no 3, July 2021, pp 2798-2804

**Background & aim:** The prevalence rate of exclusive breastfeeding (EBF) is continued to be reported low in spite of all the benefits and numerous advantages of EBF. Hence, the aim of the study was to compare the prevalence of EBF and its associated factors among primiparous and multiparous women in an urban slum, Agartala, West Tripura, Northeast India.

**Methods:** A community based cross sectional study was conducted in an urban slum among 200 subjects (100 primipara

and 100 multipara mothers), who were selected by simple random sampling technique. Data was collected by interviewing the subjects using a predesigned, pretested, structured interview schedule. Statistical analysis was done using Chi-Square test, Fisher's exact test and Independent t-test.

Results: The prevalence rate of EBF among primiparous and multiparous mothers were 53% and 68%, respectively [OR= 1.88 (1.060, 3.349)]. Those primiparous mothers who went for antenatal check-up (ANC) minimum four times or more during pregnancy had 2.71 odds (1.009, 7.297) and who delivered at the health care facility had 2.43 odds (0.828, 7.168) of practice more EBF compared to those who had ANC less than 4 times and delivered at home. However, among multiparous mothers, Muslims mothers had 2.33 odds (0.962, 5.659) of practice more EBF than Hindus.

Conclusion: The findings suggests that to improve the EBF rate among those who are not practicing EBF till six months of age, a special attention is needed to focus. Hence, community based awareness programme should be conducted frequently in the study area to promote EBF. (Author)

Full URL: <https://doi.org/10.22038/jmrh.2021.52088.1645>

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#### 2024-14301

**Knowledge, Attitude and Utilization of Family Planning Methods among Postpartum Women in A Selected Tertiary Care Facility in India.** Murry LL, Dabas S, Thuileiphy T, et al (2021), Journal of Midwifery & Reproductive Health vol 9, no 1, January 2021, pp 2597-2604

Background & aim: Utilization of family planning services among married women in India, especially postpartum family planning, is poor, with only around one fifth of currently married women using a spacing method. Women's awareness about PFP methods in India is also limited. This study aimed to assess the knowledge, attitude and utilization of family planning methods among postpartum women in India.

Methods: A cross-sectional survey of 284 postpartum mothers was conducted in a well-baby clinic of a tertiary care facility using convenience sampling. Respondents were interviewed using self-developed, pretested and validated tools. Data was analyzed with STATA software version 31.1 using descriptive statistical methods.

Results: Almost two third of the mothers did not receive family planning counseling in the antenatal period (66.1%) and over half did not receive it in the immediate postpartum period (53.5%). The majority (66.6%) did not use any contraceptive method. The mean knowledge score was 7.82±3.90 out of a total score of 16 points, and the mean attitude score was 33.53±3.90 out of a total score of 50 points. Knowledge of postpartum mothers related to the family planning methods was significantly associated with their educational status, number of antenatal visits, and use of contraceptives, while the use of contraceptive methods was significantly associated with resumed sexual activity.

Conclusion: Lower scores on knowledge about PFP compared to attitudes to PFP emphasize the need for innovative approaches to make postpartum women aware about healthy reproductive practices including adoption of FP methods of their choice. (Author)

Full URL: <https://doi.org/10.22038/jmrh.2020.48982.1604>

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#### 2024-14206

**Link between gender inequality and women's satisfaction with maternal healthcare services: a cross-sectional study in Khulna, Bangladesh.** Halim SFB, Akter O, Islam MK (2024), BMJ Open vol 14, no 11, October 2024, e084404

Background Gender inequality within households remains a significant barrier to accessing maternal healthcare services in many low-resource settings, including Bangladesh. Understanding the relationship between the gender inequality faced by women in households and their perceived satisfaction with maternal healthcare services is important.

Objective This study aims to identify the factors influencing gender inequality and investigate the association between gender inequality faced by women within households and their perceived satisfaction with maternal healthcare services.

Design Conducted between October and November 2022, employing a cross-sectional design.

Settings and participants 150 women who are at their prenatal or postnatal stages are systematically sampled from Khalishpur municipality and Dighalia subdistrict from Khulna, Bangladesh.

Outcome measures Gender inequality within the households is assessed using a validated five-point Likert scale of five items. Participants with an average score below or equal to the median value are considered to be facing gender inequality within households. Satisfaction with maternal healthcare services is measured across five variables using a similar scale. Based on the responses, a standardised score is generated to measure the satisfaction level with

maternal healthcare services.

**Results** We find that women are around seven times more likely to experience gender inequality in their households if their husbands are engaged in self-employed jobs or skilled labour compared with unemployment ( $p < 0.10$ ). Coercive actions, such as physical assault (odds: 6.428,  $p < 0.01$ ) and preventing women from financially supporting their maternal kin (odds: 14.909;  $p < 0.01$ ), are positively related to gender inequality. Such inequality negatively relates to women's perceived satisfaction with their maternal healthcare services ( $-1.851$ ,  $p < 0.01$ ). Additionally, traditional home delivery, verbal abuse and the forced use of traditional medication reduce satisfaction levels. On the other hand, increased prenatal care is expected to increase satisfaction with maternal services as perceived by women (0.545,  $p < 0.10$ ).

**Conclusions** The study prioritises promoting equity in opportunities for both males and females, with access to maternal health, and educational opportunities within households. Reduced inequality within households may help minimise the extent of coercive behaviour against women. The national maternal health strategy should focus on basic health services for pregnant women, with free prenatal and postnatal check-ups for pregnant mothers to improve their perinatal healthcare services. (Author)

**Full URL:** <https://doi.org/10.1136/bmjopen-2024-084404>

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## 2024-14191

**Population-level trends over a decade in geographical inequality for opportunity in access to maternal care services: a cross-sectional analysis from the National Family Health Surveys in India.** Dandona R, Majumder M, Kumar GA (2024), *BMJ Open* vol 14, no 11, October 2024, e083922

**Objectives** The objective of this study is to examine the trends in geographical inequality of opportunity in maternal health services in India considering the Every Newborn Action Plan (ENAP) 2025 coverage targets.

**Setting** India.

**Participants** Women in the National Family Health Survey (NFHS)—NFHS-4 (2014–2015) and NFHS-5 (2019–2021).

**Primary and secondary measures** District-level coverages of 4+antenatal care (ANC) visits, institutional delivery with skilled birth attendant, postnatal care (PNC) services within 48 hours of delivery, continuum of care (CoC) services for women with most recent live births were considered. Human Opportunity Index (HOI) documented the opportunities for equitable access to these services, ranging from 0 (high inequality) to 100 (universal access). HOI was compared between the survey rounds and wealth index (WI) quintiles that the women belonged to.

**Results** Coverages of 4+ANC visits, institutional delivery, PNC and CoC in India increased by 22.8% (95% CI 22.1% to 23.5%), 12.6% (95% CI 12.2% to 12.9%), 28.5% (95% CI 28.0% to 29.0%) and 38.6% (95% CI 37.6% to 39.6%) between NFHS-4 and NFHS-5, respectively. The HOI for 4+ANC visits was 48.4 in NFHS-5, ranging from 11.3 to 92.4 in states and from 31.1 to 70.5 for WI I–V. The HOI for institutional delivery was 80.4 in NFHS-5, ranging from 37.4 to 99.7 in the states and from 21.0 to 100 for WI I–V. The HOI for PNC services was 73.5 in NFHS-5, ranging from 37.5 to 95.6 in the states and from 61.2 to 88.3 for WI I–V. The HOI for CoC was 37.1, ranging from 6.5 to 88.8 in the states and from 19.8 to 62.7 for WI I–V for CoC in NFHS-5.

**Conclusion** Though significant improvements in the geographical inequity of maternal health services have been made in India, the geographical inequity for 4+ANC visits coverage lags significantly behind resulting in CoC coverage inequity to achieve the ENAP targets for these services. (Author)

**Full URL:** <https://doi.org/10.1136/bmjopen-2024-083922>

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## 2024-13817

**Exploring perceptions of maternity services for pregnant adolescents in Indonesia: a qualitative study.** Astuti AW, Lestari YP (2024), *British Journal of Midwifery* vol 32, no 11, November 2024

**Background/Aims**

Adolescent pregnancies are prevalent in Indonesia. This study aimed to explore perceptions from healthcare workers and pregnant adolescents of maternity services for pregnant adolescents.

**Methods**

This qualitative exploratory study involved two policymakers, 10 midwives, five doctors, and 10 pregnant adolescents. Data were collected through structured interviews in public health centre consultation rooms. The data were analysed thematically to explore factors that promoted or hindered use of maternity services for pregnant adolescents.

#### Results

The identified barriers included a lack of tailored directives, challenges in engaging adolescents, insufficient numbers of skilled healthcare professionals, adolescents' fears and compromised confidentiality. Opportunities for improvement included enhancing service quality through strategic planning and specialised training for midwives and psychologists.

#### Conclusions

The study underscores the need to improve maternity services offered for pregnant adolescents by creating a conducive working environment and sensitising healthcare workers and the community to adolescent mothers' needs.

#### Implications for practice

There is a need for guidelines in Indonesia specifically on providing care for pregnant adolescents. Healthcare professionals require specialised training and facilities should be made adolescent friendly. (Author)

Full URL: <https://doi.org/10.12968/bjom.2024.0041>

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#### 2024-13660

**Evaluation of childbirth readiness and its associated factors and consequences in pregnant women referring to health centers in Tabriz, Iran and providing strategies to promote childbirth readiness: a sequential explanatory mixed method study protocol.** Alizadeh-Dibazari Z, Abbasalizadeh F, Mohammad-Alizadeh-Charandabi S, et al (2024), *BMJ Open* vol 14, no 10, September 2024, e087038

**Background** Childbirth readiness encompasses interventions conducted during pregnancy that encourage pregnant women, their families and communities to plan for a healthy pregnancy, childbirth and postpartum period. It enhances women's childbirth experience and diminishes maternal mortality rates. This study seeks to assess the level of childbirth readiness, relevant factors and outcomes among pregnant women who have completed 37 or more weeks of gestational age and are attending health centres in Tabriz, Iran. The objective is to offer strategies for enhancing childbirth readiness.

**Methods and analysis** This sequential explanatory mixed-method study comprises three phases. The initial quantitative phase involves a descriptive-analytical longitudinal study focusing on pregnant women at 37 weeks of gestation or beyond. The quantitative data will be gathered by the sociodemographic and obstetric information questionnaire, the childbirth readiness scale, the pregnancy experience scale, the Wijma delivery expectancy/experience questionnaire (version A) (W-DEQ-Version A), the childbirth experience questionnaire-2, the childbirth outcome checklist, the Edinburgh's postnatal depression scale (EPDS), the postpartum specific anxiety scale research short-form, the next pregnancy desire questionnaire and the exclusive breastfeeding checklist. In the subsequent qualitative phase, purposive sampling will be employed, and data will be collected through individual, in-depth and semi-structured interviews featuring open-ended questions. Data analysis will be conducted using conventional content analysis techniques. In the final mixed-method phase, strategies to enhance childbirth readiness will be formulated by integrating findings from the quantitative and qualitative studies, a comprehensive literature review, and employing the Delphi method.

**Ethics and dissemination** This study has received approval from the Ethics Committee of Tabriz University of Medical Sciences in Tabriz, Iran (code number: IR.TBZMED.REC.1401.557). All participants will provide written informed consent before taking part in the study. The outcomes will be shared through articles published in journals, presentations at medical conferences, the validation of a reliable scale for assessing the level of childbirth readiness in pregnant women and the development of a policy brief outlining supportive strategies to improve childbirth readiness. These resources will be valuable for healthcare providers. (Author)

Full URL: <https://doi.org/10.1136/bmjopen-2024-087038>

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#### 2024-13464

**An assessment of adequate quality antenatal care and its determinants in India.** Nihal S, Shekhar C (2024), *BMC Pregnancy and Childbirth* vol 24, no 698, October 2024

## Background

Antenatal care (ANC) is an important component in the continuum of care. Providing adequate quality ANC is necessary to prevent maternal and newborn mortality. The coverage of ANC has increased significantly in the last decade in India, but a mere increase in coverage is insufficient if the issue of quality is not simultaneously addressed. This study examines the change in each component of quality ANC between 2015-16 and 2019-21, highlights the factors associated with adequate quality ANC, and observes the state- and district-level distribution of adequate quality ANC during 2019-21.

## Methods

This study is based on data from the two most recent rounds of the National Family Health Survey (NFHS), the Indian equivalent of the Demographic and Health Surveys (DHS). These rounds were conducted in 2015-16 and 2019-21 in selected households of India with a total of 190,797 and 176,843 sampled births, respectively. The dependent variable was quality antenatal care, a composite variable consisting of skilled healthcare providers, timeliness, sufficiency, and appropriateness of content. The independent variables were mother's age, education, wealth quintile, birth order, mass media exposure, health insurance coverage, relationship with the head of household, facility exposure, intended pregnancy, history of adverse pregnancy outcomes, and other socio-demographic variables. Change in each component and dimension of quality antenatal care was assessed using data from both rounds of the survey. A multivariate multinomial logistic regression analysis was employed to identify the determinants of adequate quality ANC using the NFHS-5 data.

## Results

The findings revealed that 32 per cent of mothers received adequate quality antenatal care in 2019–2021, an increase of only 9% points compared to the 2015-16 period. Two significant barriers to achieving adequate quality antenatal care, in terms of appropriateness of content, were the provision of Iron and Folic Acid (IFA) tablets and counselling. The highest utilisation of adequate quality antenatal care was observed in the southern states. The utilisation of quality ANC increased with an increase in women's education and wealth status; and was more prevalent among those with health insurance coverage and exposure to mass media.

## Conclusion

Despite some improvements in the coverage of antenatal care, the quality of antenatal care continues to be very low and needs urgent attention. Achieving quality antenatal care in both content and experience requires addressing service gaps and developing better measures to capture and improve women's care experiences. (Author)

Full URL: <https://doi.org/10.1186/s12884-024-06806-3>

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## 2024-13317

**Vietnamese health professionals' views on the status of the fetus and maternal and fetal health interests: A regional, cross-sectional study from the Hanoi area.** Mogren I, Thi Lan P, Phuc HD, et al (2024), PLoS ONE vol 19, no 9, September 2024, e0310029

Obstetric ultrasound is an important tool in managing pregnancies and its use is increasing globally. However, the status of the pregnant woman and the fetus may vary in terms of clinical management, views in the community and legislation. To investigate the views and experiences of Vietnamese health professionals on maternal and fetal health interests, priority setting and potential conflicts, we conducted a cross-sectional study using a structured questionnaire. Obstetricians/gynecologists, midwives and sonographers who manage pregnant women in maternity wards were invited to participate. We purposively chose public health facilities in the Hanoi region of Vietnam to obtain a representative sample. The final sample included 882 health professionals, of which 32.7% (n = 289) were obstetricians/gynecologists, 60.7% (n = 535) midwives and 6.6% (n = 58) sonographers. The majority of participants (60.3%) agreed that "The fetus is a person from the time of conception" and that maternal health interests should always be prioritised over fetal health interests in care provided (54.4%). 19.7% agreed that the fetus is never a patient, only the pregnant woman can be the patient, while 60.5% disagreed. Participants who performed ultrasounds were more likely to agree that fetal health interests are being given more weight in decision-making the further the gestation advances compared to those who did not perform ultrasounds (cOR 2.47, CI 1.27-4.79: n = 811). A significant proportion of health professionals in Vietnam assign the fetus the status of being a person, where personhood gradually evolves during pregnancy. While the fetus is often considered a patient with its own health interests, a majority of participants did give priority to maternal health interests. Health professionals appear to favour increased legal protection of the fetus. Strengthening the legal status of the fetus might have adverse implications for maternal autonomy. Measures to restrict maternal autonomy might require close observation to ensure that maternal

reproductive rights are protected.

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Full URL: <https://doi.org/10.1371/journal.pone.0310029>

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### 2024-13169

**Investigating the role of women's education status and empowerment on accessing skilled birth attendance in Bangladesh: A structural equation modelling approach.** Bhowmik J, Apputhurai P, Williams J, et al (2024), *Midwifery* vol 138, November 2024, 104140

#### Background

The objective of this study was to investigate the associations between women's education and access to skilled birth attendant (SBA) services mediated by factors of women's empowerment and sociodemographic characteristics using a path analysis through a structural equation (SEM) modelling approach.

#### Methods

A sample of 4946 mothers from the most recent Bangladesh Demographic and Health Survey of 2017–18 was used in the SEM analysis. Accessing SBA service at childbirth was operationalized as utilizing SBA during last childbirth. After extracting the relevant variables and cleaning the original survey data, a subsample of 4,946 women were eligible for analysis in the current study.

#### Results

The SEM model revealed strong evidence of direct, indirect, and mediating effects of both education and empowerment of women in accessing SBA services. Educated women have more autonomy in decision making and are less susceptible to family violence and consequently are more likely to access SBA services during childbirth ( $\beta = 0.094, p < 0.001$ ). In addition, age at first marriage, media exposure, husband's education, healthcare accessibility, decision making, and household wealth index mediated the relationship between education and SBA service use.

#### Conclusion

Bangladesh, a country that needs to improve several societal and health indices to achieve the Sustainable Development Goals, need to prioritize women's education to increase accessibility to maternal healthcare services. Health education and mass-media-driven awareness may be potential interventions for LMICs to increase SBA coverage. (Author)

Full URL: <https://doi.org/10.1016/j.midw.2024.104140>

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### 2024-12573

**Midwifery Developments in Nepal.** International Confederation of Midwives (2024), *The Midwives' Voice* 4 October 2024

Nepal is making significant progress in maternal and newborn care by enhancing midwifery services and education. Recently, two noteworthy advancements have emerged in the country. On the practice side, the first Midwife-Led Antenatal Clinic was established at Nepal's largest and only public maternity hospital. In the education side, a four-year Direct-Entry Bachelor of Midwifery programme has been introduced, alongside a Diploma Level Midwifery programme introduced at two public institutions. The Midwifery Society of Nepal (MSN) tells us more about the role they played in these exciting events. (Author)

Full URL: <https://internationalmidwives.org/updates-from-nepal/>

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### 2024-11760

**Needs Assessment for the Development of a Leadership Course for Midwives: a Qualitative Study.** Iellamo EA, Posadas JJB, Ngaya-an FV, et al (2024), *Acta Medica Philippina* vol 58, no 12, July 2024, pp 86-92

#### Background and Objective

Midwives play a vital role in the attainment of Sustainable Development Goals related to the health and well-being of mothers and newborns. Strengthening the leadership and management capacities of midwives is pivotal to the fulfillment of their mandate beyond assisting in birth and delivery. The study explores the perspectives of midwives about professional education and practice, which are aimed to serve as bases for developing a leadership course for midwives to enhance their roles in public health.

#### Methods

The study employed a descriptive-qualitative design. Using a semi-structured questionnaire, online focus group

discussions (FGDs) with midwives from the academe, professional organization, and clinical practice were conducted. Through directed content analysis, the gathered information was analyzed to include the participants' insights on midwifery competencies, teaching methods and assessment strategies, supplementary courses and training, and factors affecting midwifery practice.

#### Results

A total of eleven (11) participants contributed to the FGDs, which included midwives from the academe (dean, faculty), professional organization (board member of the Professional Regulation Commission), and clinical practice (public and private institutions). Notably, participants shared their perspectives regarding the similarities/differences in the terminal competencies of midwifery programs. The demands of outcomes-based education, coupled by the shift to online learning due to the pandemic, pushed the need for modifications in program delivery for the students. Results highlighted the need for supplementary courses and capacity building on leadership and management, research, and interprofessional collaboration. Midwives shared factors that affect their professional practice, which include insufficient training, inadequate manpower, and differences in expectations/standards in task performance.

#### Conclusion

The findings indicate the need to develop capacity-building courses for midwives to enhance their contribution towards universal health care. The results of this study also highlight the importance of understanding and improving the competencies of midwives across the building blocks of the health system, which include health service delivery, human resources for health, health information systems, health financing, health governance, and health regulation. Notably, key concepts recommended for the Leadership Development Course for Midwives include: leadership and management, research, and interprofessional collaboration. (Author)

Full URL: <https://doi.org/10.47895/amp.v58i12.9286>

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#### 2024-11748

**Midwifery education in Bangladesh: An in-depth analysis through a systematic review.** Fraser R, Downer T, Oprescu F (2024), *Women and Birth: Journal of the Australian College of Midwives* vol 37, no 5, September 2024, 101661

#### Background

While midwifery education in Bangladesh has expanded since its establishment in 2013, there is little information available about the quality of education. The aim of this project was to analyse the literature related to midwifery education in Bangladesh in reference to the Global Standards for Midwifery Education.

#### Methods

A systematic review was conducted using PubMed, CINAHL, Web of Science and Scopus databases. A search using keywords was conducted in January 2024. Abstracts were screened against inclusion and exclusion criteria. Data was assessed using the Mixed Methods Appraisal Tool and grouped into the Global Standards for Midwifery Education for analytical purposes.

#### Results

A total of 14 articles met the inclusion criteria and were included in the study. There was a combination of quantitative (n = 1), qualitative (n = 8) and mixed method studies (n = 5). Key themes included a lack of professional recognition, limited learning and economic resources and sociocultural barriers for students. The implementation of an accreditation tool, upskilling of educators and an improved comprehensive curriculum were found to have positive impacts. This review highlights the progress in midwifery education in Bangladesh in the last decade as there is advancement towards enhancing educator knowledge and programme quality assessment. Some challenges remain such as the limited autonomy and professional acknowledgement, inadequate educational resources, poor financial support, as well as social and cultural barriers.

#### Conclusion

Interventions designed to address these issues are needed to enhance midwifery education in Bangladesh, with a long-term view of contributing to improvements in maternal and neonatal health. (Author)

Full URL: <https://doi.org/10.1016/j.wombi.2024.101661>

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#### 2024-11491

**Perinatal risk in India's Scheduled Tribes.** Singh T, Kumar D (2024), *The Lancet* vol 404, no 10456, September 2024, pp 933-934

In this correspondence the authors discuss about perinatal health in India's Scheduled Tribes. Women in these tribes face high perinatal risks, including higher rates of stillbirth and neonatal death. Key factors that affect perinatal health include insufficient antenatal care, marriage at a young age, and mistrust in public health services. The authors highlight the need to improve outreach health services and community-based interventions. (AS)

## 2024-10396

### **Community perspectives and experiences of quality maternal and newborn care in East New Britain, Papua New Guinea.**

Wilson AN, Melepia P, Suruka R, et al (2023), BMC Health Services Research vol 23, no 780, July 2023

#### Background

Quality maternal and newborn care is essential for improving the health of mothers and babies. Low- and middle-income countries, such as Papua New Guinea (PNG), face many barriers to achieving quality care for all. Efforts to improve the quality of maternal and newborn care must involve community in the design, implementation, and evaluation of initiatives to ensure that interventions are appropriate and relevant for the target community. We aimed to describe community members' perspectives and experiences of maternal and newborn care, and their ideas for improvement in one province, East New Britain, in PNG.

#### Methods

We undertook a qualitative descriptive study in partnership with and alongside five local health facilities, health care workers and community members, using a Partnership Defined Quality Approach. We conducted ten focus group discussions with 68 community members (identified through church, market and other community-based groups) in East New Britain PNG to explore perspectives and experiences of maternal and newborn care, identify enablers and barriers to quality care and interventions to improve care. Discussions were transcribed verbatim. A mixed inductive and deductive analysis was conducted including application of the World Health Organisation (WHO) Quality Maternal and Newborn Care framework.

#### Results

Using the WHO framework, we present the findings in accordance with the five experience of care domains. We found that the community reported multiple challenges in accessing care and facilities were described as under-staffed and under resourced. Community members emphasised the importance of good communication and competent, caring and respectful healthcare workers. Both women and men expressed a strong desire for companionship during labor and birth. Several changes were suggested by the community that could immediately improve the quality of care.

#### Conclusions

Community perspectives and experiences are critical for informing effective and sustainable interventions to improve the quality of maternal and newborn care and increasing facility-based births in PNG. A greater understanding of the care experience as a key component of quality care is needed and any quality improvement initiatives must include the user experience as a key outcome measure. (Author)

Full URL: <https://doi.org/10.1186/s12913-023-09723-x>

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## 2024-10103

### **Highlighting success: the Fernandez Midwifery Initiative in India.** International Confederation of Midwives (2024), International Confederation of Midwives (ICM), The Hague, 31 July 2024

The Fernandez Midwifery Initiative in Telangana, India is forging a new path to improve maternal and neonatal health outcomes in regions where respectful maternity care is lacking. (Author)

Full URL: <https://internationalmidwives.org/highlighting-success-the-fernandez-midwifery-initiative-in-india/>

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## 2024-09554

### **Local cultural perspectives of birth preparedness: a qualitative study in a rural subdistrict of Indonesia.** Maryuni M, Prasetyo S, Martha E, et al (2024), British Journal of Midwifery vol 32, no 8, August 2024, pp 412–420

#### Background/Aims

Cultural factors significantly impact maternal mortality during pregnancy and birth, and cultural norms can affect pregnancy, labour and care-seeking behavior. This study explored local cultural perspectives of birth preparedness in a rural area of Java, Indonesia.

#### Methods

This descriptive qualitative study used individual semi-structured interviews with 16 purposively selected participants, including 10 pregnant women, two community midwives, two pregnant women's parents and two health cadres. Data were analysed thematically.

## Results

Three primary themes were found: the meaning of pregnancy in the sociocultural context, the meaning of childbirth and cultural values in pregnancy.

## Conclusions

Sociocultural factors have a significant impact on pregnancy and childbirth in rural Indonesian areas, and pregnant women may be unprepared for birth. It is essential to create a culturally appropriate intervention model for childbirth readiness that pregnant women and their families can easily understand. Innovation is vital to empower the community to promote childbirth preparation. (Author)

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### 2024-09324

**“It would be nice to have more than basic support”: A learning needs assessment survey of midwifery faculty in low- and middle-income countries of the Asia Pacific region.** Smith RM, Gray JE, Homer CSE (2024), *Women and Birth: Journal of the Australian College of Midwives* vol 37, no 4, July 2024, 101624

#### Background

The provision of high-quality midwifery education relies on well-prepared educators. Faculty members need professional development and support to deliver quality midwifery education.

#### Aim

To identify development needs of midwifery faculty in low- and middle-income countries of the Asia Pacific region, to inform program content and the development of guidelines for faculty development programs.

#### Methods

An online learning needs assessment survey was conducted with midwifery faculty from low- and middle-income countries in the Asia Pacific Region. Quantitative survey data were analysed using descriptive statistics. Textual data were condensed using a general inductive approach to summarise responses and establish links between research aim and findings.

#### Findings

One hundred and thirty-one faculty completed the survey and a high need for development in all aspects of faculty practice was identified. Development in research and publication was the top priority for faculty. Followed closely by leadership and management development, and then more traditional activities of teaching and curriculum development. Preferred mode of program delivery was a blended learning approach.

#### Discussion

Historically, programs of faculty development have primarily focussed on learning and teaching methods and educational development. Yet contemporary faculty members are expected to function in roles including scholarly activities of research and publication, institutional leadership and management, and program design and implementation. Unfortunately, programs of development are rarely based on identified need and fail to consider the expanded role expectation of contemporary faculty practice.

#### Conclusion

Future midwifery faculty development programs should address the identified need for development in all expected faculty roles. (Author)

**Full URL:** <https://doi.org/10.1016/j.wombi.2024.101624>

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### 2024-09314

**Women’s experiences with Centering-Based Group Care in Zhejiang China: A pilot study.** Chen D, Cai Q, Yang R, et al (2024), *Women and Birth: Journal of the Australian College of Midwives* vol 37, no 4, July 2024, 101618

#### Background

The group prenatal care model, which caters to women with low medical needs but high support needs, has become a highly prevalent and innovative approach implemented globally. For Centering-Based Group Care (CBGC) to remain effective, women’s evaluations of the quality of care and perspectives about the model are crucial.

#### Aim

This study aimed to describe women’s appraisal of CBGC quality and explore the experiences of women in the mixed-methods pilot study conducted in Zhejiang, China.

#### Methods

From August 2021 to December 2022, 20 women provided complete quantitative data using the Quality of Prenatal Care Questionnaire before hospital discharge. Semi-structured interviews were conducted at 6 months postpartum. Qualitative data were analysed using Colaizzi’s method.

## Findings

The mean (standard deviation) total score (of the 5) of the questionnaire was 4.43 (0.1) with a good quality of CBGC. Qualitative research identified five themes: motivations and concerns for participation, the appeal of interactive learning, the development of community ties and social support, healing from psychological trauma with CBGC, and suggestions for CBGC enhancement.

## Discussion

Women rated CBGC quality as good and benefited significantly from it in the study. As a new alternative option, the women's accounts suggested that CBGC performed excellently in enhancing knowledge, strengthening social bonds, and providing psychological support.

## Conclusion

CBGC quality cannot be determined based on limited the sample size. This pilot study provides evidence regarding the beneficial effects of knowledge, socialization, and psychological healing on CBGC. Further research is suggested to measure CBGC effectiveness and quality. (Author)

Full URL: <https://doi.org/10.1016/j.wombi.2024.101618>

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## 2024-08967

**“I have to listen to them or they might harm me” and other narratives of why women endure obstetric violence in Bihar, India.** Mayra K, Matthews Z, Sandall J, et al (2025), *Birth* vol 52, no 3, September 2025, pp 393-411

## Background

Evidence suggests that obstetric violence has been prevalent globally and is finally getting some attention through research. This human rights violation takes several forms and is best understood through the narratives of embodied experiences of disrespect and abuse from women and other people who give birth, which is of utmost importance to make efforts in implementing respectful maternity care for a positive birthing experience. This study focused on the drivers of obstetric violence during labor and birth in Bihar, India.

## Methods

Participatory qualitative visual arts-based method of data collection—body mapping-assisted interviews (adapted as birth mapping)—was conducted to understand women's perception of why they are denied respectful maternity care and what makes them vulnerable to obstetric violence during labor and childbirth. This study is embedded in feminist and critical theories that ensure women's narratives are at the center, which was further ensured by the feminist relational discourse analysis. Eight women participated from urban slums and rural villages in Bihar, for 2–4 interactions each, within a week. The data included transcripts, audio files, body maps, birthing stories, and body key, which were analyzed with the help of NVivo 12.

## Findings

Women's narratives suggested drivers that determine how they will be treated during labor and birth, or any form of sexual, reproductive, and maternal healthcare seeking presented through the four themes: (1) “I am admitted under your care, so, I will have to do what you say”—Influence of power on care during childbirth; (2) “I was blindfolded ... because there were men”—Influence of gender on care during childbirth; (3) “The more money we give the more convenience we get”—Influence of structure on care during childbirth; and (4) “How could I ask him, how it will come out?”—Influence of culture on care during childbirth. How women will be treated in the society and in the obstetric environment is determined by their identity at the intersections of age, class, caste, marital status, religion, education, and many other sociodemographic factors. The issues related to each of these are intertwined and cross-cutting, which made it difficult to draw clear categorizations because the four themes influenced and overlapped with each other. Son preference, for example, is a gender-based issue that is part of certain cultures in a patriarchal structure as a result of power-based imbalance, which makes the women vulnerable to disrespect and abuse when their baby is assigned female at birth.

## Discussion

Sensitive unique feminist methods are important to explore and understand women's embodied experiences of trauma and are essential to understand their perspectives of what drives obstetric violence during childbirth. Sensitive methods of research are crucial for the health systems to learn from and embed women's wants, to address this structural challenge with urgency, and to ensure a positive experience of care. (Author)

Full URL: <https://doi.org/10.1111/birt.12828>

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## 2024-08545

**Family influences on health and nutrition practices of pregnant adolescents in Bangladesh.** Pike V, Ramage AK, Bhardwaj A, et al (2021), *Maternal & Child Nutrition* vol 17, suppl 1, July 2021, e13159

Adolescent pregnancy can result in serious risks to the mother and her baby; yet, adolescents are among the least likely to access healthcare. Specific nutrition or antenatal care (ANC) guidelines for supporting pregnant adolescents are not available. To understand experiences and decision-making of pregnant adolescents in Bangladesh related to ANC and nutrition practices, peer interviewers were trained to conduct qualitative interviews in Dhaka and Rangpur with pregnant adolescents (n = 48), adolescent mothers (n = 48), adolescents' family members (n = 64) and health service providers (n = 32). Key themes explored included perception and support of adolescent pregnancy, experiences in seeking ANC, dietary practices, sources of information and roles of male and female family members. Spheres of influence on adolescent pregnancy were identified through analytical framework informed by the socio-ecological model. Respondents felt that adolescent pregnancy is risky and that adolescents require support and guidance through this experience. Families were highly influential on the care seeking, health and nutrition of pregnant adolescents, and mothers/mothers-in-law primarily took on the decision-making roles, with husbands actively participating. Adolescents valued family support but felt a loss of autonomy and agency upon becoming pregnant. Financial constraints were the greatest perceived barrier to appropriate nutrition and healthcare; yet, both were valued. There is sometimes discord of health and nutrition beliefs between families and health service providers; more research is needed to understand this further. It is essential to engage family members and adolescents in initiatives to increase access to quality ANC for pregnant adolescents, improve dietary practices and support the ability to delay pregnancy. (Author)

Full URL: <https://doi.org/10.1111/mcn.13159>

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## 2024-07030

**Nutritional interventions for preventing stunting in children (birth to 59 months) living in urban slums in low- and middle-income countries (LMIC) (Cochrane Review).** Goudet SM, Bogin BA, Madise NJ, et al (2019), *The Cochrane Database of Systematic Reviews* issue 6, 17 June 2019, Art No.: CD011695

### Background

Nutritional interventions to prevent stunting of infants and young children are most often applied in rural areas in low- and middle-income countries (LMIC). Few interventions are focused on urban slums. The literature needs a systematic assessment, as infants and children living in slums are at high risk of stunting. Urban slums are complex environments in terms of biological, social, and political variables and the outcomes of nutritional interventions need to be assessed in relation to these variables. For the purposes of this review, we followed the UN-Habitat 2004 definitions for low-income informal settlements or slums as lacking one or more indicators of basic services or infrastructure.

### Objectives

To assess the impact of nutritional interventions to reduce stunting in infants and children under five years old in urban slums from LMIC and the effect of nutritional interventions on other nutritional (wasting and underweight) and non-nutritional outcomes (socioeconomic, health and developmental) in addition to stunting.

### Search methods

The review used a sensitive search strategy of electronic databases, bibliographies of articles, conference proceedings, websites, grey literature, and contact with experts and authors published from 1990. We searched 32 databases, in English and non-English languages (MEDLINE, CENTRAL, Web of Science, Ovid MEDLINE, etc). We performed the initial literature search from November 2015 to January 2016, and conducted top up searches in March 2017 and in August 2018.

### Selection criteria

Research designs included randomised (including cluster-randomised) trials, quasi-randomised trials, non-randomised controlled trials, controlled before-and-after studies, pre- and postintervention, interrupted time series (ITS), and historically controlled studies among infants and children from LMIC, from birth to 59 months, living in urban slums. The interventions included were nutrition-specific or maternal education. The primary outcomes were length or height expressed in cm or length-for-age (LFA)/height-for-age (HFA) z-scores, and birth weight in grams or presence/absence of low birth weight (LBW).

### Data collection and analysis

We screened and then retrieved titles and abstracts as full text if potentially eligible for inclusion. Working independently, one review author screened all titles and abstracts and extracted data on the selected population,

intervention, comparison, and outcome parameters and two other authors assessed half each. We calculated mean selection difference (MD) and 95% confidence intervals (CI). We performed intervention-level meta-analyses to estimate pooled measures of effect, or narrative synthesis when meta-analyses were not possible. We used P less than 0.05 to assess statistical significance and intervention outcomes were also considered for their biological/health importance. Where effect sizes were small and statistically insignificant, we concluded there was 'unclear effect'.

### Main results

The systematic review included 15 studies, of which 14 were randomised controlled trials (RCTs). The interventions took place in recognised slums or poor urban or periurban areas. The study locations were mainly Bangladesh, India, and Peru. The participants included 9261 infants and children and 3664 pregnant women. There were no dietary intervention studies. All the studies identified were nutrient supplementation and educational interventions. The interventions included zinc supplementation in pregnant women (three studies), micronutrient or macronutrient supplementation in children (eight studies), nutrition education for pregnant women (two studies), and nutrition systems strengthening targeting children (two studies) intervention. Six interventions were adapted to the urban context and seven targeted household, community, or 'service delivery' via systems strengthening. The primary review outcomes were available from seven studies for LFA/HFA, four for LBW, and nine for length.

The studies had overall high risk of bias for 11 studies and only four RCTs had moderate risk of bias. Overall, the evidence was complex to report, with a wide range of outcome measures reported. Consequently, only eight study findings were reported in meta-analyses and seven in a narrative form. The certainty of evidence was very low to moderate overall. None of the studies reported differential impacts of interventions relevant to equity issues.

#### Zinc supplementation of pregnant women on LBW or length (versus supplementation without zinc or placebo) (three RCTs)

There was no evidence of an effect on LBW (MD -36.13 g, 95% CI -83.61 to 11.35), with moderate-certainty evidence, or no evidence of an effect or unclear effect on length with low- to moderate-certainty evidence.

#### Micronutrient or macronutrient supplementation in children (versus no intervention or placebo) (eight RCTs)

There was no evidence of an effect or unclear effect of nutrient supplementation of children on HFA for studies in the meta-analysis with low-certainty evidence (MD -0.02, 95% CI -0.06 to 0.02), and inconclusive effect on length for studies reported in a narrative form with very low- to moderate-certainty evidence.

#### Nutrition education for pregnant women (versus standard care or no intervention) (two RCTs)

There was a positive impact on LBW of education interventions in pregnant women, with low-certainty evidence (MD 478.44g, 95% CI 423.55 to 533.32).

#### Nutrition systems strengthening interventions targeting children (compared with no intervention, standard care) (one RCT and one controlled before-and-after study)

There were inconclusive results on HFA, with very low- to low-certainty evidence, and a positive influence on length at 18 months, with low-certainty evidence.

### Authors' conclusions

All the nutritional interventions reviewed had the potential to decrease stunting, based on evidence from outside of slum contexts; however, there was no evidence of an effect of the interventions included in this review (very low- to moderate-certainty evidence). Challenges linked to urban slum programming (high mobility, lack of social services, and high loss of follow-up) should be taken into account when nutrition-specific interventions are proposed to address LBW and stunting in such environments. More evidence is needed of the effects of multi-sectorial interventions, combining nutrition-specific and sensitive methods and programmes, as well as the effects of 'up-stream' practices and policies of governmental, non-governmental organisations, and the business sector on nutrition-related outcomes such as stunting. (Author)

**Full URL:** <https://doi.org/10.1002/14651858.CD011695.pub2>

2024-06812

**Factors associated with skilled birth attendance in 37 low-income and middle-income countries: a secondary analysis of nationally representative, individual-level data.** Priebe J, Amuasi J, Dartanto T, et al (2024), *The Lancet Global Health* vol 12, no 7, July 2024, pp e1104-e1110

#### Background

Progress on skilled birth attendance (SBA) has been very uneven across low-income and middle-income countries (LMICs). There is scant empirical evidence on the role of fundamental development processes in explaining differences in SBA outcomes across world regions over time in these settings. We therefore aimed to estimate how these processes have contributed to observed changes in SBA across Latin America and the Caribbean, South Asia, Southeast Asia, and sub-Saharan Africa.

#### Methods

We pooled all available Demographic and Health Survey (DHS) rounds that contained detailed birth attendance information. The compiled data covers about 1.1 million births (1.1 million female individuals) from 103 DHS rounds in 37 countries. We estimated the determinants of SBA using multivariable regression techniques and Oaxaca-Blinder decompositions for different world regions and time periods (1990s, 2000s, and 2010s).

#### Findings

We show that progress in SBA is associated with improvements in terms of household-level wealth, mothers' education, urbanisation, contraceptive knowledge, and proxies of female empowerment. Furthermore, we show that changes in the underlying relationship between SBA and specific development indicators (wealth, education, and rural residence status) have further contributed to the observed rise in SBA across LMICs. Our findings further suggest that certain determinants of improvements in SBA are region-specific (eg, importance of rural residence status in sub-Saharan Africa), whereas some of the studied processes (eg, poverty, maternal education, and urbanisation) have become less predictive for the uptake of SBA over time.

#### Interpretation

Although substantial progress has been made in increasing SBA rates over the past three decades across LMICs, further efforts for continued progress are still needed to achieve international targets on SBA as part of the Sustainable Development Goals, the Every Newborn Action Plan, and the Ending Preventable Maternal Mortality initiative. According to our findings, these efforts can include general policies (eg, female empowerment) and region-specific policies (eg, poverty reduction programmes in Southeast Asia).

#### Funding

Bernhard Nocht Institute for Tropical Medicine.

#### Translations

For the French and Indonesian translations of the abstract see Supplementary Materials section. (Author)

**Full URL:** [https://doi.org/10.1016/S2214-109X\(24\)00145-1](https://doi.org/10.1016/S2214-109X(24)00145-1)

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2024-06733

**Midwifery practice in Mongolia: Policy implications for accelerating care delivery transformation.** Dovdon B, McCarley N, Kim J (2024), *European Journal of Midwifery* vol 8, June 2024, p 24

Midwives can play a significant role in reducing maternal and neonatal mortality rates as well as in improving maternal and perinatal health outcomes in low- and middle-income countries such as Mongolia. However, the shortage of midwives in Mongolia is severe. Despite the evidence indicating numerous challenges associated with substandard midwifery education and practice in Mongolia, there is a need for policy recommendations to accelerate the improvement of midwifery care delivery in the country. Therefore, we identified three main topics as key issues in Mongolian midwifery care: 1) the current training and service delivery in midwifery; 2) the potential for the development of the midwifery role; and 3) content requirements for the postgraduate certificate in midwifery. The World Health Organization report made forty recommendations to enhance the midwife's role to professional status. However, the absence of senior nursing/midwifery leadership in the Ministry of Health in Mongolia has hindered the implementation of the recommendations. To strengthen midwifery at a national level, it is imperative to make multilevel investments in supporting educators and clinical practitioners to ensure the delivery of high-quality midwifery care. This article represents an initial in-depth exploration of issues in Mongolian midwifery practice, with the aim of providing suggestions for practical avenues for enhancing midwifery care in Mongolia. (Author)

#### 2024-06483

**Early breastfeeding practices contribute to exclusive breastfeeding in Bangladesh, Vietnam and Ethiopia.** Nguyen PH, Kim SS, Tran LM, et al (2020), *Maternal & Child Nutrition* vol 16, no 4, October 2020, e13012

Limited evidence exists on the complex relationship among interventions, early initiation of breastfeeding (EIBF), prelacteal feeding and exclusive breastfeeding (EBF). We examined whether early breastfeeding practices are associated with EBF and how much improving EIBF and non-prelacteal feeding contributes to increased prevalence of EBF. Survey data were collected in 2010 and 2014 as part of impact evaluations of Alive & Thrive (A&T) interventions to improve infant and young child feeding (IYCF) practices in Bangladesh, Vietnam and Ethiopia. Multivariable logistic regression analyses were used to examine effects of interventions and early breastfeeding practices on EBF. Structural equation modelling quantified the direct and indirect effects of interventions (via improving EIBF and non-prelacteal feeding) on EBF. Although breastfeeding is nearly universal in all three countries ( $\geq 98\%$ ), delayed initiation of breastfeeding is prevalent ( $>60\%$ ) and prelacteal feeding is common. EIBF alone was not associated with EBF, whereas non-prelacteal feeding was associated with 1.6–3.5 higher odds of EBF. Intervention exposure affected breastfeeding practices in all three countries; these impacts were amplified among those who practiced EIBF or non-prelacteal feeding [odds ratio (OR) = 11 and 27.5 in Bangladesh and 6.5 and 11.5 in Vietnam, respectively]. The paths through EIBF and non-prelacteal feeding explained 13%–18% of the effect of the interventions on EBF. Early breastfeeding practices influence EBF, but interventions aimed only at the initiation and early days of breastfeeding will be inadequate to promote EBF. Social and behaviour change interventions should simultaneously target EIBF, non-prelacteal feeding and EBF to support optimal breastfeeding practices. (Author)

Full URL: <https://doi.org/10.1111/mcn.13012>

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#### 2024-04301

**Health System Strengthening Through Professional Midwives in Bangladesh: Best Practices, Challenges, and Successes.**

Begum F, Ara R, Islam A, et al (2023), *Global Health: Science and Practice* vol 11, no 5, October 2023, e2300081

In 2008, a cadre of professional midwives was introduced in Bangladesh. Since then, 120 midwifery educational programs have been established. There are 2,556 midwives serving at 667 government health facilities, and there are more midwives working in nongovernmental organizations and the private sector. This case study documents the process of establishing a midwifery profession with distinct midwifery expertise in Bangladesh and aims to guide other low- and middle-income countries in best practices and challenges. We describe the national administrative groundwork for the profession's launch, roll-out of an education program aligned with the International Confederation of Midwives, national deployment, enabling environments in deployment, and the professional association. Bangladesh's professional midwives' roles in humanitarian response and the COVID-19 pandemic are also discussed. The first and final authors were closely involved in supporting the government's establishment of the profession, and their direct experience is drawn upon to contextualize the topics. In addition, the authors conducted a desk review of documents that supported the profession's integration into the health system and documented its results. Both routine program data and existing research studies were reviewed. Outcomes show that midwives are deployed to 95% of government subdistrict hospitals. About 50% of these hospitals are fully staffed with 4 midwives, and within the hospitals, midwives are in charge of 90% of the maternity wards and attend 75%–85% of the births. Since the midwives' deployment, significant quality improvement for most World Health Organization indicators has been found, along with increases in service utilization. The experience of establishing a new midwifery profession in Bangladesh shows that it is possible for a lower middle-income country to introduce a globally standard midwifery profession, distinct from nursing, to improve quality sexual, reproductive, maternal, newborn, and adolescent health services in both humanitarian and development settings. (Author)

Full URL: <https://doi.org/10.9745/GHSP-D-23-00081>

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#### 2024-04297

**A Capture of Midwifery Care in Women with Disabilities in Southeast Asia.** Ambarwati K, Wijayanti FA (2024), International Confederation of Midwives (ICM), The Hague, 1 April 2024

Discusses the midwifery care of women with disabilities in Indonesia and Nepal, advocating for inclusive practices to ensure the rights and well-being of all women. (MB)

Full URL: <https://internationalmidwives.org/a-capture-of-midwifery-care-in-women-with-disabilities-in-southeast-asia/>

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#### 2024-03759

**Exploring Factors Associated with Stunting in 6-Month-Old Children: A Population-Based Cohort Study in Sulawesi, Indonesia.** Thahir AIA, Li M, Holmes A, et al (2023), *Nutrients* vol 15, no 15, August 2023, 3420

Stunting in children under the age of two is a significant global concern, particularly in low- and middle-income countries like Indonesia. Intervention efforts often come too late as many of the underlying causal factors have already occurred earlier. While antenatal multiple micronutrient supplements (MMS) have demonstrated positive effects on pregnancy outcomes, their impact on infant growth in the first six months remains inadequately explored in epidemiological studies. This study aims to identify factors associated with stunting at six months in infants whose mothers received MMS. A population-based cohort study was conducted in four subdistricts of Banggai, Indonesia. Pregnant women were recruited in their third trimester and followed up until their children were six months of age. Validated questionnaires were employed to gather data on social determinants of health and diet, and standardised methods were utilised for anthropometric measurements. Stunting was determined based on the WHO child growth standards. The analysis comprised data from 152 mother–child pairs. The prevalence of stunting during early infancy (first two months) was 18.4%, which decreased to 15.8% in later infancy (at six months). Factors such as small-for-gestational-age (AOR = 11.29; 2.73–46.66), preterm birth (AOR = 6.33; 1.25–31.97), short birth length (AOR = 4.31; 1.11–16.78), maternal mid-upper arm circumference (MUAC) below 23.5 cm, and female infants (AOR = 3.27; 95%CI: 1.04–10.27) were associated with stunting at six months. This study highlights that stunting in the first six months is present at birth, with small-for-gestational-age (SGA) as a strong predictor. In addition, there was a trend to improved growth (–0.30 [–0.79 to 0.18]) in infants born to mothers who received MMS supplementation pre-pregnancy rather than during pregnancy, although it was not statistically significant. (Author)

Full URL: <https://doi.org/10.3390/nu15153420>

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**2024-03415**

**Midwives in Bali.** Wood S, Duncan D (2023), *Australian Midwifery News* vol 34, Spring 2023, pp 50-51

Two midwifery students from the University of Newcastle share their experience of attending the International Confederation of Midwives Congress and a tour of midwifery facilities in Bali. (JSM)

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**2024-02793**

**Why South Korean women aren't having babies.** Mackenzie J (2024), *BBC News* 28 February 2024

Over the past 50 years, Korea's economy has developed at break-neck speed, propelling women into higher education and the workforce, and expanding their ambitions, but the roles of wife and mother have not evolved at nearly the same pace. Korean women are the most highly educated of those in OECD countries, and yet the country has the worst gender pay gap and a higher-than-average proportion of women out of work compared to men.

Researchers say this proves they are being presented with a trade-off - have a career or have a family. Increasingly, they are choosing a career. Added to this, a 2022 study found that only 2% of parents did not pay for private tuition, while 94% said it was a financial burden. The practice is so widespread that to opt out is seen as setting your child up to fail, an inconceivable notion in hyper-competitive Korea. This has made it the most expensive country in the world to raise a child. (Author, edited)

Full URL: <https://www.bbc.co.uk/news/world-asia-68402139>

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**2024-02076**

**Policy to Decrease Low Birth Weight in Indonesia: Who Should Be the Target?.** Wulandari RD, Laksono AD, Matahari R (2023), *Nutrients* vol 15, no 2, January 2023, 465

The study aimed to analyze the target of the policy to decrease low birth weight (LBW) in Indonesia. This cross-sectional study used a sample of live births in last five years preceding the survey of birth weight. Data collection took place from July to September 2017. The weighted sample size was 17,848 participants. The variables analyzed included residence, age, marital status, education, employment, parity, and wealth. The study employed binary logistic regression in the final stage to determine the target of policy regarding LBW. The results showed that women in urban areas were 1.200 times more likely to deliver babies with LBW than women in rural areas. All age groups were less likely to deliver babies with LBW than those aged 45–49. The study also found all marital statuses had a lower likelihood of providing babies with LBW than those who had never been in a marriage. Women of all education levels had a greater risk of giving birth to babies with LBW than women with higher education levels. Unemployed women had 1.033 times more chances of delivering babies with LBW than employed women. Primiparous women were 1.132 times more likely to give birth to babies with LBW than multiparous women. Overall, the women in all wealth status categories had a higher probability of delivering babies with LBW than the wealthiest groups. The study concluded that policymakers should target women who live in urban areas, are old, have never been married, have low

## 2023-13549

**The development and testing of a co-designed distance learning programme to improve the knowledge of trained auxiliary nurse midwives in normal midwifery practice in central India.** Foss M, le May WA, Gobbi M (2020), *Journal of Research in Nursing* vol 25, nos 6-7, September 2020, pp 541-558

Background: In the Indian State of Madhya Pradesh maternal health is poor, and women's social status is low. For some women, autonomy and decision-making within the family is limited as they seek medical treatment through their husband or father-in-law. The then state government identified a need to strengthen midwifery care given by auxiliary nurse midwives to improve maternal and neonatal health.>.

Methods: This cross-cultural, two phase study was designed in partnership with an Indian non-governmental organisation, utilising Elliot's action research model within the paradigm of critical theory. Phase 1 investigated the then current situation and established a potential solution to strengthening midwifery practice within Madhya Pradesh. This comprised an educational approach using a specifically designed self-directed distance learning programme focussing on normal pregnancy and childbirth. The distance learning programme was a hard copy workbook supported by a multimedia resource informed by the Rowntree and Analysis Design Development Implementation Evaluation models of educational material development. Phase 2 involved the use and evaluation of the distance learning programme with an initial primary group sample of 28 comprising auxiliary nurse midwives (22), lady health visitors (4) and staff nurses (2) in Madhya Pradesh. Fourteen auxiliary nurse midwife participants completed knowledge tests using a pre- and post-programme multiple choice question paper. This primary group negotiated a 3-day workshop to cover identified gaps within their original 12-week study period. Nineteen additional auxiliary nurse midwife participants joined this workshop (group 2).

Results: The multiple choice question test results indicated that the first group had poor knowledge of the normal process of pregnancy and childbirth. After the workshop, they marginally improved their personal performance scores. The second group demonstrated greater change, which suggests that coupling self-directed guided study material with an enabling, face-to-face environment can be successful.

Conclusions: Distance learning among auxiliary nurse midwives in central India may be enhanced when accompanied by face-to-face workshops. Partnership working - at organisational, team and individual levels, was a crucial, and empowering, component of this cross-cultural action research study. Both points have relevance for others undertaking similar studies.

Keywords: action research; international collaboration; primary/community care; public health; women's health.

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## 2023-13233

**Doubts about the COVID-19 vaccine against pregnancy: public trust and government issues in Indonesia.** Saputra R, Lidyawati Y, Suhardita K, et al (2023), *Journal of Public Health* vol 45, no 4, December 2023, pp e832–e833

In response to an article on the topic of administering vaccines to children in the Philippines. The topic of this vaccine has also been discussed in Indonesia, but now we will discuss it related to pregnancy. The controversy surrounding the coronavirus disease 2019 (COVID-19) vaccine is whether to believe in it or be forced by the government to take it. Some people are hesitant to take vaccines, as shown by a survey conducted by Populi Center in December 2020, which found that 40% of Indonesians do not want to receive vaccines from the government. However, Amnesty International Indonesia researcher, Ari Pramuditya stated that everyone has the right to give consent without coercion in the vaccination program, and the government must strive for a voluntary vaccination process. This effort is very interesting because it talks about a person's psychology. In this case, the psychological factor is closely related to the health of pregnant women. The COVID-19 pandemic continues to affect the worldwide community, and efforts in vaccination are very important in curbing its spread. However, still, there are several doubts about vaccines among pregnant people, because of worries about potency effects and bad results in pregnancy and the development of the fetus. To overcome the problem, it is important to note that the American College of Obstetricians and Gynecologists and the Society for Maternal-Fetal Medicine recommend that individuals pregnant and breastfeeding offer COVID-19 vaccination. (Author)

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## 2023-13144

**Health insurance support on maternal health care: evidence from survey data in India.** Ali I, Akhtar SN, Chauhan BG, et al (2023), *Journal of Public Health* vol 45, no 2, June 2023, pp 368–378

### Background

Maternal health care financing is key to the smooth functioning of health systems in a country. In India, maternal health care still persists as a major public health issue. Adequate health insurance could transform the utilization of maternal health care services. Therefore, we aim to examine the health insurance policies that cover maternal health and their performance in India.

### Methods

The unit-level data of social consumption on health by the National Sample Survey Organizations, conducted in India (2017–18), are used. Bivariate analysis, logistic regression and propensity scoring matching are applied.

### Results

About 14.1% women are covered by health insurance support at the national level. Uninsured women are less likely to receive full antenatal care (ANC) services and institutional delivery. Socio-economic characteristics play a significant role in utilizing maternal health care benefits through health insurance support.

### Conclusions

Our study concludes that the health insurance coverage is the most significant contributor to the better utilization of full ANC and institutional delivery at the national level and hindrances in accessing them. There is a need for proactive and inclusive policy development by the Government of India to incentivize public financing through health insurance, which can shrink the challenges of public health burden and reduce the health risk. (Author)

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## 2023-13143

**Trends in health insurance and antenatal care coverage in the Philippines.** Tantengco OAG, Ornos EDB (2023), *Journal of Public Health* vol 45, no 1, March 2023, pp e146–e147

Ali and colleagues reported that Indian women without health insurance were less likely to receive complete antenatal care (ANC) services (odds ratio [OR]: 0.67, 95% confidence interval [CI]: 0.63–0.71) and institutional delivery (OR: 0.44, 95% CI: 0.37–0.55) than those women with health insurance coverage. Women living in urban areas with higher income, educational attainment and caste have higher health insurance coverage than vulnerable groups. These geographic and socioeconomic disparities in healthcare services remain a significant challenge in improving maternal and child health in developing countries. We share the current health insurance and ANC coverage trends in the Philippines, a developing country in Southeast Asia.

The number of women aged 15–49 who received ANC from a skilled provider and institutional delivery increased from 1993 to 2017. Filipino women who received any ANC from skilled providers increased from 85% in 1993 to 94% in 2017. Similarly, 78% of Filipino women delivered in a health facility in 2017 compared with only 28% in 1993. This increase was expected because the Philippine Department of Health issued a ‘no home-birthing policy’ in 2008, prohibiting home deliveries assisted by traditional birth attendants. (Author, edited)

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## 2023-13112

**Suicidal ideation in the perinatal period: findings from the Thailand–Myanmar border.** Fellmeth G, Nosten S, Khirikoekkong N, et al (2022), *Journal of Public Health* vol 44, no 4, December 2022, pp e514–e518

### Background

Suicide is a leading cause of maternal death globally. Migrant and refugee populations may experience higher risk of suicide. We report data on suicidal ideation from migrant and refugee women living on the Thailand–Myanmar border.

### Methods

Women were recruited in their first trimester of pregnancy. Depression status was assessed by diagnostic interview in the first, second and third trimesters and at 1 month post-partum. We calculated prevalence of suicidal ideation and used logistic regression to identify associated socio-demographic factors.

### Results

During the perinatal period, 5.3% (30/568) women experienced suicidal ideation. Refugee women were more likely to experience suicidal ideation than migrant women (8.0 versus 3.1%;  $P = 0.01$ ). Most women with suicidal ideation did not have severe depression. Previous trauma (OR 2.32; 95% CI: 1.70–3.15) and unplanned pregnancy (OR 2.74; 95% CI: 1.10–6.86) were significantly associated with suicidal ideation after controlling for all other variables.

#### Conclusions

Suicidal ideation represents an important symptom among migrant and refugee women on the Thailand–Myanmar border. Screening only those with severe depression may be insufficient to identify women at risk of suicide. Community-level interventions addressing social and gender inequalities and prioritization of family planning programmes are needed alongside targeted suicide prevention initiatives to help lower the rates of people dying by suicide. (Author)

Full URL: <https://doi.org/10.1093/pubmed/fdab297>

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#### 2023-13097

**Burden and cost of communicable, maternal, perinatal and nutrition deficiency diseases in India.** Yadav J, Menon GR, Mitra M, et al (2022), *Journal of Public Health* vol 44, no 2, June 2022, pp 217–227

#### Background

Globally 36% of deaths and 42% of Disability Adjusted Life Years (DALYs) are due to communicable, maternal, perinatal and nutritional disorders (CMPND). We examined the state-wise disease burden and treatment cost for these diseases in India for 2017.

#### Methods

DALYs for CMPND was obtained from National Disease Burden Estimate (NBE) Study and the expenditure was determined from the unit level records of persons who reported hospitalization for one or more CMPND in National Sample Survey (NSS)—75th Round.

#### Results

The top conditions resulting in high DALYs for India were perinatal conditions and nutritional deficiency disorders. Odisha had the highest DALY rate, while Kerala had the lowest DALY rate for CMPNDs. The out-of-pocket expenditure (OOPE) was highest in Chattisgarh, while percentage of households pushed to CHE was highest in Uttar Pradesh for CMPND.

#### Conclusion

The public healthcare facilities need to be strengthened to facilitate patients with CMPND to undergo treatment that is timely, affordable and cost-effective. Efforts should be made for optimization of strategies aimed at primary and secondary prevention of CMPND and reduce OOPE for treatment of these diseases. In addition, advocacy spreading awareness will reduce the burden and treatment expenditure for CMPNDs in India. (Author)

Full URL: <https://doi.org/10.1093/pubmed/fdaa173>

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#### 2023-13085

**Changes of drinking behavior in Korean pregnant women for the last 20 year.** Seo B-A, Kim S-G, Huh S-Y, et al (2021), *Journal of Public Health* vol 43, no 4, December 2021, pp e632–e636

#### Background

The purpose of this study is to investigate the drinking behavior of Korean pregnant women in 2017 and to compare the changes of drinking status with the results of the research conducted in 1997 and 2008.

#### Methods

Pregnant women at one obstetrics and gynecology hospital and one university hospital were the subjects of the study. They were filled out questionnaire.

#### Results

The rate of positive responses to CAGE increased 16.0% in 2008 and 16.3% in 2017 compared to 11.8% in 1997 ( $P = 0.046$ ). Blackout history rate was keep increasing from 1997 to 2017 (8.8% versus 27.7% versus 36.3%,  $P < 0.001$ ). The rate of family history of alcohol was nearly doubled in 2017 (30.3%) compared to 1997 (17.6%) and 2008 (16.3) ( $P < 0.001$ ). The rate of pregnant women who drink alcohol during pregnancy decreased from 57.5% in 1997 to 39.5% in 2008 and decreased to 25.6% in 2017 ( $P < 0.001$ ). The rate of pregnant women who drink alcohol after knowing the

pregnancy was decreased in 2017 (6.9%) compared to 2008 (23.5%) ( $P < 0.001$ ).

#### Conclusion

According to the results of the study in 2017, the rate of pregnant women who drink alcohol after pregnancy was decreased compared to 1997 and 2008. However drinking behavior severity has increased in 2017. (Author)

Full URL: <https://doi.org/10.1093/pubmed/fdaa143>

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#### 2023-12894

**Respectful Maternity Care: A Holistic approach in Promoting Positive Birth Experience.** Koteswaramma D (2023), Asian Journal of Nursing Education and Research vol 13, no 4, 2023

In recent years, the relevance of ethical, psychological, social, and cultural elements of birthing across many groups has led to the promotion of respectful maternity care (RMC). Although the concept of respectful maternity care is to promote woman-centered care, respecting women's beliefs, autonomy, dignity, and preferences to reserve their right to have a companion during childbirth. RMC is a fundamental right of all women. Disrespect and abuse (D&A) are violations of fundamental ethical standards, human rights, and fundamental patient care duties. Intrapartum respectful maternity care can affect the mother's experiences of childbirth. This article is aimed to determine the status of respectful maternity care and its relationship with childbirth experience among Indian women. (Author)

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#### 2023-12825

**Rising trends in Caesarean section in 6 Egyptian governorates.** Wahdan M, Hakim S, El Gaafary M, et al (2022), Eastern Mediterranean Health Journal vol 28, no 5, May 2022, pp 336-344

Background: Caesarean section (CS) is a life-saving operation when vaginal delivery is risky to the mother or baby. However, if not medically indicated or performed under suboptimal conditions, it can be harmful and resource-intensive.

Aims: To estimate the prevalence of CS in 6 Egyptian governorates and identify possible risk factors (including demographic, social and healthcare services factors) stratified according to geographical areas.

Methods: We used secondary data collected from a large survey to investigate the sociodemographic and health indicators of 6 purposefully selected Egyptian governorates with suboptimal health indicators: 3 from Upper Egypt (Sohag, Assiut and Menia) and 3 from Lower Egypt (Sharkia, Beheira and Ismailia). The survey data were gathered using an interview questionnaire that targeted household members.

Results: The CS rate was estimated at 55.1% for the 3 years preceding the study, and the highest rate was 67.8% in Behira and the lowest was 49.0% in Assiut. In most governorates, the CS rate was higher in rural than in urban areas, but the difference was not significant. High CS rates were significantly related to higher social class and lower number of children ( $\leq 3$ ).

Conclusion: In the governorates investigated, CS was performed more often, with higher rates than those reported in the 2015 Egypt Health Issue Survey. The adoption of protocols for elective CS should be enforced with a more multisectoral effort. Pregnant women should be well informed of the risks associated with CS and its medical indications. (Author)

Full URL: <https://doi.org/10.26719/emhj.22.012>

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#### 2023-12823

**Indirect effects of COVID-19 pandemic on reproductive, maternal, newborn and child health services in Pakistan.** Emmanuel F, Ahmad A, Reza T, et al (2022), Eastern Mediterranean Health Journal vol 28, no 3, March 2022, pp 258–265

Background: COVID-19 is having many impacts on health, economy and social life; some due to the indirect effects of closure of health facilities to curb the spread. Closures were implemented in Pakistan from March 2020, affecting provision of reproductive, maternal, newborn and child health (RMNCH) services.

Aims: To appraise the effects of containment and lockdown policies on RMNCH service utilization in order to develop an early response to avoid the catastrophic impact of COVID-19 on RMNCH in Pakistan.

Methods: Routine monitoring data were analysed for indicators utilization of RMNCH care. The analysis was based on

Period 1 (January–May 2020, first wave of COVID-19); Period 2 (June–September 2020, declining number of cases of COVID-19); and Period 3 (October–December 2020, second wave of COVID-19). We also compared data from May and December 2020 with corresponding months in 2019, to ascertain whether changes were due to COVID-19.

Results: Reduced utilization was noted for all RMNCH indicators during Periods 1 and 3. There was a greater decline in service utilization during the first wave, and the highest reduction (~82%) was among children aged < 5 years, who were treated for pneumonia. The number of caesarean sections dropped by 57%, followed by institutional deliveries and first postnatal visit (37% each). Service utilization increased from June to September, but the second wave of COVID-19 led to another decrease.

Conclusion: To reinstate routine services, priority actions and key areas include continued provision of family planning services along with uninterrupted immunization campaigns and routine maternal and child services. (Author)

Full URL: <https://doi.org/10.26719/emhj.22.011>

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### 2023-12799

**Humanitarian aid and breastfeeding practices of displaced mothers: a qualitative study in disaster relief camps.** Hirani S, Richter S, Salami B (2021), Eastern Mediterranean Health Journal vol 27, no 12, December 2021, pp 1197–1202

Background: During disasters and displacement, affected families often receive humanitarian aid from governmental and nongovernmental organizations and donor agencies. Little information is available on the effects of humanitarian aid on the breastfeeding practices of mothers affected by disaster and displacement.

Aims: The aim of this study was to explore the effects of humanitarian aid on the breastfeeding practices of displaced mothers affected by natural disasters in Chitral, Pakistan.

Methods: This was qualitative study of residents of four villages of Chitral who had experienced a recent flood and later an earthquake. Data were collected through field observations, analysis of various documents (e.g. aid-agency documents, published reports and newspaper articles) and in-depth interviews with 18 internally displaced mothers living in disaster relief camps in Chitral.

Results: Three main themes developed from the data: humanitarian aid as a life saver, insufficient humanitarian aid affecting breastfeeding, and systemic injustices in the distribution of humanitarian aid.

Conclusion: Although humanitarian aid facilitated the survival, health and well-being of the displaced mothers and their family members, there were various problems with the humanitarian aid that increased the vulnerability of the displaced mothers and negatively affected their breastfeeding practices. Humanitarian aid must be gender-sensitive, thoughtful, timely, needs-based, equitable and context-specific. A systematic process of aid allocation and restricted donation of formula milk or any other form of breast-milk substitute is recommended during disasters. (Author)

Full URL: <https://doi.org/10.26719/emhj.20.087>

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### 2023-12539

**The fate of Afghan women's health amid COVID-19 and political uncertainty.** Mousavi SH, Favre G, Mohammady N, et al (2023), Eastern Mediterranean Health Journal vol 29, no 10, October 2023, pp 765-766

Highlights the problems faced by pregnant women in Afghanistan when accessing maternal and reproductive health services, which were adversely affected by the COVID-19 pandemic. The situation has been exacerbated by the transition to the Taliban government in 2021, which resulted in many healthcare professionals, including midwives, leaving the country, which had already struggled to maintain staffing levels for decades. (JSM)

Full URL: <https://applications.emro.who.int/EMHJ/V29/10/1020-3397-2023-2910-765-766-eng.pdf?ua=1>

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### 2023-12478

**Self-directed learning about normal birth with web-based support for nurse-midwife students in Thailand: A mixed methods study.** Jittitaworn W, Wisanskoonwong P (2023), Midwifery vol 126, November 2023, 103813

Background

Online learning platforms enable students to access their lessons anywhere and at any time, gain knowledge continuously, and become lifelong learners. This study aimed to explore the effectiveness of a web-based normal birth learning support platform, and to investigate nurse-midwife students' self-directed learning and attitudes

towards online learning.

#### Methods

This study was performed using a sequential explanatory mixed methods design, with a total of 190 nurse-midwife students who voluntarily agreed to study normal birth on the web-based learning support platform. After the web-based learning, 36 students participated in focus groups to share their experience. Knowledge data were analysed using repeated measures analysis of variance, and interview data were analysed thematically.

#### Results

Normal birth knowledge results indicated a positive significant difference between the pre-test and post-test scores. Compared with the post-test scores, no difference was found 2 weeks after the web-based learning. However, 4 weeks after the web-based learning, test scores decreased slightly, but the difference was only marginally significant compared with the scores obtained immediately post-test and 2 weeks later. Four main themes emerged from the qualitative data collection: (1) being challenging and flexible; (2) increasing confidence and positive attitudes; (3) having an interesting web-based support design; and (4) enhancing responsibility, self-directed learning and self-regulation.

#### Key conclusion

Learning about normal birth on the web-based learning support platform can improve nurse-midwife students' self-discipline and self-directed learning, leading to sustainable knowledge and personal development. This was particularly significant and full of implications for learning and practice during the coronavirus disease 2019 pandemic. Acquired insights about web-based learning processes can be applied in other situations to further develop nursing and midwifery instruction, enhancing the learners' ability to apply theoretical knowledge to practice and provide effective care for women during childbirth. (Author)

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#### 2023-12459

**Community perspectives of barriers indigenous women face in accessing maternal health care services in the Chittagong Hill Tracts, Bangladesh.** Akter S, Davies K, Rich JL, et al (2022), *Ethnicity & Health* vol 27, no 5, 2022, pp 1222-1240

#### Objectives

Bangladesh has achieved notable success in improving maternal health by increasing women's access to good quality and low-cost maternal health care (MHC) services. However, the health system of Bangladesh has earned criticism for not ensuring equitable MHC access for all women, particularly for Indigenous women in the Chittagong Hill Tracts (CHT). Little is known about Indigenous communities' perspectives on these inequalities in MHC service access in the CHT. Therefore, this study aimed to explore Indigenous communities' perspectives on challenges and opportunities for improving MHC service access in the CHT.

#### Design

This qualitative descriptive study was conducted in two sub-districts of Khagrachhari between September 2017 and February 2018. Eight Indigenous key informants from three Indigenous communities (Chakma, Marma and Tripura) were recruited via snowballing and purposive techniques and participated in face-to-face, semi-structured interviews. Key informants comprised community leaders and health care providers. Data were analysed thematically using Nvivo12 software.

#### Results

Findings suggest that distance, poor availability of resources and infrastructure, lack of community engagement in the design of health interventions, Indigenous cultural beliefs, misconceptions about MHC services, and maltreatment from health care providers were the key barriers to accessing MHC services; all are interconnected. Indigenous women faced humiliation and maltreatment from MHC staff. Failure to provide a culturally-safe environment suggests a lack of cultural competency among health staff, including Indigenous staff.

#### Conclusion

Findings suggest that cultural competency training for all health care providers is needed to improve cultural appropriateness and accessibility of services. Refresher training and uninterrupted supply of basic MHC services for front-line care providers will benefit the entire community and will likely be cost-effective for the government. Designing health programmes through extensive community consultation is essential. (Author)

## 2023-12391

**Vietnamese midwives' experiences of working in maternity care – A qualitative study in the Hanoi region.** Holmlund S, Lan PT, Edvardsson K, et al (2022), *Sexual & Reproductive Healthcare* vol 31, March 2022, 100695

### Objective

This study aimed to explore Vietnamese midwives' experiences of working in maternity care.

### Methods

A descriptive qualitative study was undertaken, which involved four focus group discussions with midwives (n = 25) working at three different hospitals in urban, semi-urban and rural parts of Hanoi region, Vietnam. Data were analysed using qualitative content analysis.

### Results

The overall theme, "Practising midwifery requires commitment" showed that Vietnamese midwives' dedication to their work and to women's reproductive health helped them to cope with stress, pressure and negative aspects of their work environment. In the first category "Being the central link in the web of care", midwives described themselves as having a key role in maternity care although collaborations with other health professions were important. In the second category "Rewarding role but also vulnerable position", positive aspects of midwifery were expressed although the great pressure of the work midwives do was prominent. High workload, patients' demands, and being negatively exposed and vulnerable, when adverse events occurred, were reported. In the third category "Morally challenging tasks", ultrasound examinations to reveal fetal sex and working with abortion services were described as emotionally stressful.

### Conclusions

Although participating Vietnamese midwives experienced midwifery as essentially positive, they felt exposed to significant workload pressure, ethically highly demanding work and being blamed when adverse obstetric events occurred. Public health interventions to inform Vietnamese citizens about reproductive issues, as well as specific antenatal education measures may increase the understanding of evidence-based maternity care and complications that can occur during pregnancy and birth. (Author)

**Full URL:** <https://doi.org/10.1016/j.srhc.2022.100695>

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## 2023-11182

**Preventing and addressing stillbirths along the continuum of care: a global advocacy and implementation guide: version 1.**

International Stillbirth Alliance Stillbirth Advocacy Working Group (2023), International Stillbirth Alliance (ISA) New Jersey, May 2023. 97 pages

The shared vision of the International Stillbirth Alliance and our members is to improve access to quality care across the continuum of maternity and newborn care. This includes support for parents and families, as well as those who care for them, across a range of healthcare and community settings. (Author)

**Full URL:** <https://www.unfpa.org/sites/default/files/pub-pdf/PreventingStillbirthGuide-May2023.pdf>

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## 2023-08534

**Validation of New Interactive Nutrition Assistant - Diet in India Study of Health (NINA-DISH) FFQ with multiple 24-h dietary recalls among pregnant women in Pune, India.** Rajagopalan K, Alexander M, Naik S, et al (2021), *British Journal of Nutrition* vol 126, no 8, October 2021, pp 1247-1256

Adequate dietary intake is critical to prevent adverse pregnancy outcomes. India has a high burden of maternal and child morbidity and mortality, but there is a lack of adequate tools to assess dietary intake. We validate an FFQ, New Interactive Nutrition Assistant - Diet in India Study of Health (NINA-DISH), among pregnant women living with and without HIV in Pune, India. Women were selected from a cohort study investigating immune responses to HIV and latent tuberculosis during pregnancy. The FFQ was administered during the third trimester and validated against multiple 24-h dietary recalls (24-HDR) collected in second and third trimesters. Data for analysis were available from fifty-eight women out of seventy enrolled into this sub-study, after excluding those with incomplete data or implausible energy intake. The median (Q1, Q3) age of study participants was 23 (20, 25) years. Median (Q1, Q3) daily energy intakes were 10 552 (8000, 11 958) and 10 673 (8510, 13 962) kJ by 24-HDR and FFQ, respectively, with FFQ overestimating nutrient intake. Pearson correlations between log-transformed estimates from FFQ and 24-HDR for energy, protein, carbohydrate, fat, Fe and Zn were 0.47, 0.48, 0.45, 0.33, 0.4 and 0.54, respectively. Energy-adjusted and de-attenuated correlations ranged from 0.41 (saturated fat) to 0.73 (Na). The highest misclassification into extreme tertiles was observed for fat (22 %), saturated fat (21 %) and Na (21 %). Bias existed at higher intake levels as

observed by Bland–Altman plots. In conclusion, NINA-DISH is a valid and feasible tool for estimating dietary intakes among urban pregnant women in Western India. (Author)

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### 2023-07426

**“I want my baby safe, this is all I need.” Supporting women and girls in Myanmar after Cyclone Mocha tears a path of destruction.** United Nations Population Fund (2023), New York: UNFPA 3 July 2023

Reports on the work of the UNPFA in Myanmar, where health facilities and safe spaces for women and girls have been destroyed or disrupted by the effects of Cyclone Mocha, one of the most powerful storms ever to hit the country. (MB)

Full URL: <https://www.unfpa.org/news/%E2%80%9Ci-want-my-baby-safe-all-i-need%E2%80%9D-supporting-women-and-girls-myanmar-after-cyclone-mocha>

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### 2023-07418

**Midwives in Bangladesh bring hope to survivors of Cyclone Mocha in world’s largest refugee camp.** United Nations Population Fund (2023), New York: UNFPA 15 June 2023

Reports on the life-saving work carried out by midwives in a displacement camp for Rohingya refugees in Cox’s Bazar, Bangladesh, as Cyclone Mocha caused widespread flooding and multiple landslides along the coast beside the camp. (MB)

Full URL: <https://www.unfpa.org/news/midwives-bangladesh-bring-hope-survivors-cyclone-mocha-worlds-largest-refugee-camp>

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### 2023-06529

**Seeking a connection: Women’s lived experience of the woman–midwife relationship in mainstream maternity services in Japan.** Doering K, McAra-Couper J, Gilkison A, et al (2023), Women and Birth: Journal of the Australian College of Midwives vol 36, no 6, November 2023, pp e598-e604

#### Problem

In Japan, women continue to suffer from mental health and other postpartum issues despite good clinical outcomes of maternity care.

#### Background

As key care providers, midwives potentially affect women’s overall birth experience. Most women in Japan give birth in hospitals or obstetric clinics where different midwives and nurses provide one woman with fragmented care. Women’s lived experiences of the woman–midwife in these birth facilities are not well known in Japan.

#### Aim

To understand women’s birth experience and relationship with midwives in the mainstream maternity care system in Japan to improve maternity care and women’s birth experience.

#### Methods

Face-to-face individual interviews with 14 mothers were conducted. The data were analysed using van Manen’s hermeneutic phenomenological approach, which reveals the meaning of human experience in the everyday world.

#### Findings

Four themes were derived from the hermeneutic phenomenological analysis; 1) Closed hearts and bodies in insecure relationships, 2) Alienation, 3) Hopelessness and helplessness, and 4) Women’s vulnerability and desire for positive relationships.

#### Discussion

In institutionalised and fragmented maternity care settings, it is difficult for women and midwives to develop a relationship. In such a care environment, women’s birth experience with midwives is negative or even traumatic; yet, women still need and seek the midwife relationship. Respectful care—necessary for women’s positive birth experience—requires positive relationship between women and midwives.

#### Conclusion

Women’s negative birth experience may affect their mental health and parenting. Maternity and midwifery care in Japan needs to develop relationship-based care to improve women’s birth experience. (Author)

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### 2023-05920

**Delivering uncertainty: The ongoing risk of motherhood.** USAID MOMENTUM (2023), USAID MOMENTUM, 2 May 2023. Running time: 1 hour, 15 minutes, 12 seconds

Presents a panel discussion on the World Health Organization’s recent estimates on maternal mortality, factors hindering progress, and how these problems can be addressed. The discussion is led by Pascale Allotey, Director of

WHO Department of Sexual, Reproductive Health and Research, with contributions from Robyn Churchill, Nurse Midwife and Team Leader of Maternal Health at USAID; Ruby Larbi Mensah, Senior Midwifery Officer at the Tema Health Centre, Ghana; Lastina Lwatura, MOMENTUM Country and Global Leadership, Zambia; Janhavi Nilekani, Chairperson, Aastrika; and Vandana Tripathi, MOMENTUM Safe Surgery in Family Planning and Obstetrics. (JSM)

Full URL: [https://www.youtube.com/watch?v=r7dF\\_WrMs88](https://www.youtube.com/watch?v=r7dF_WrMs88)

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### 2023-05109

**Using reflection: Mentoring midwifery students in India.** Hawley G, Tuckett AG (2020), Health Education in Practice : Journal of Research for Professional Learning vol 3, no 2, December 2020, pp 70-82

Purpose: This study aims to offer guidance to lecturers and undergraduate midwifery students in using reflective practice and to offer a roadmap for academic staff accompanying undergraduate midwifery students on international clinical placements. Design: Drawing on reflection within the Constructivist Theory, the Gibbs Reflective Cycle (GRC) provides opportunities to review experiences and share new knowledge by working through five stages-feelings, evaluation, analysis, conclusion and action plan. Findings: The reflections of the midwifery students in this study provide insight into expectations prior to leaving for international placement, practical aspects of what local knowledge is beneficial, necessary teaching and learning strategies and the students' cultural awareness growth. Implications: The analysis and a reflective approach have wider implications for universities seeking to improve preparations when embarking on an international clinical placement. It can also inform practices that utilise reflection as an impetus to shape midwifery students to be more receptive to global health care issues. (Author)

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### 2023-05107

**The Influence of Bedside Teaching and Interpersonal Intelligence Upon Students' Therapeutic Communication Competence in Midwifery Diploma III Program of Mitra Ria Husada School of Health Sciences (STIKes) Cibubur.** Fitri DM, Syahrial Z, Muchtar H (2017), American Journal of Educational Research vol 5, no 11, 2017, pp pp 1138-1143

Education is a process that contains objectives and objects. This also applies to midwifery education. The midwifery competencies to achieve are comprised of knowledge, skills and behaviors in implementing safe and responsible midwifery practices in various health care settings. This research was conducted on the therapeutic communication competence in three domains, namely cognitive, affective and psychomotor domains on the students of Midwifery D-III Program of Mitra RIA Husada School of Health Sciences. The learning method was limited to bedside teaching method, coaching method and demonstration. Bedside teaching method is a teaching method which is conducted beside a client's bed, covering the learning of the client's condition and nursing care needed by the client. Coaching method is a technique of using a verbal instruction directly involving a coach who has knowledge of how to trigger the expected behavior and what is needed in an effort to achieve the desired behavior. Demonstration is the learning method used by telling and demonstrating the steps in carrying out a certain task. The method used in this research was the experimental method with the treatment design by level 3 x 2. The sample in this research was 24 students. The data analysis technique in this research was variance analysis (ANOVA). The conclusions of this research were: (1) there was increased therapeutic communication competence among students of Midwifery D-III Program of Mitra RIA Husada School of Health Sciences taught by bedside teaching method and have high interpersonal intelligence with students taught by coaching method and have high interpersonal intelligence, (2) to improve therapeutic communication competence of those with high interpersonal intelligence, coaching method was more appropriate. Thus, the lecturers are recommended to use coaching method in therapeutic communication courses, (3) to improve the result of therapeutic communication competence of those having low interpersonal intelligence, the bedside teaching method was more appropriate, (4) to improve the result of therapeutic communication competence of those having low interpersonal intelligence, the coaching method was the more precise method. (Author)

Full URL: <http://article.scieducationalresearch.com/pdf/EDUCATION-5-11-4.pdf>

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### 2023-03642

**Maternal Health Care in Cox's Bazar, Bangladesh: A Survey of Midwifery Experience at Hope Foundation and a Review of the Literature.** Mahmood I, Bergbower H, Mahmood AA, et al (2019), Open Journal of Obstetrics and Gynecology vol 9, no 12, December 2019

Background: The Ministry of Health and Family Welfare of the Government of Bangladesh developed a midwifery education strategy in 2011 and starting in 2013, BRAC University developed a three-year Diploma in Midwifery. A survey was developed to understand the challenges of the newly graduated midwives and to identify resource and educational needs. The survey feedback will help develop and strengthen curriculum for primary and postgraduate

midwifery training. Methods: A 30-question survey was given to midwives at the Hope Hospital in Cox's Bazar and at the birth centers in the surrounding rural communities. Questions explored the midwives' clinical experience, patient problems in the prenatal, intrapartum, and postnatal period, and asked about what education; training and clinical resources were needed. Results: Thirty-two midwives answered the surveys. The midwives' average time from graduation from the midwifery diploma program was sixteen months. All the respondents felt comfortable managing most maternal issues but felt further training was important. They also identified the lack of many clinical resources including blood products, medicines, vaccines, and ultrasound. They identified significant maternal health issues among their patients including adolescent pregnancy, malnutrition, anemia, sexual violence, pregnancy-induced hypertension, hemorrhage, low birth weight infants, prolonged and obstructed labors. Conclusion: Training and increasing the number of midwives are crucial strategies for reducing maternal and neonatal mortality. There is a significant need for long-term placement and commitment of midwives to rural areas in Bangladesh. Health systems and organizations employing midwives must be accountable for the continuing education, mentorship, and supportive needs of midwives. (Author)

Full URL: <https://doi.org/10.4236/ojog.2019.912158>

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## 2023-03102

**Maternity care experience of Pakistani ethnic minority women in Hong Kong.** Asim S, Nichini E, Goggins WB, et al (2023), *Frontiers in Public Health* 1 March 2023, online

Background: Persistent inequalities in maternity care experience and outcomes exist globally for ethnic minority (EM) and migrant women. Despite the fact that this is an important research area, no prior study has been done in Hong Kong (HK) to examine maternity care experience of EM women.

Objectives: To investigate maternity care experience of Pakistani EM women (both local born and immigrants) during pregnancy, birth and after birth in hospital in HK. An evaluation of their satisfaction and factors predicting satisfaction with care during the three phases of maternity care was included in the study.

Methods: A cross sectional survey was conducted among Pakistani EM women who had given birth in HK in last 3 years, using a structured questionnaire by a bilingual interviewer, from April to May 2020. Counts and percentages were used to describe all categorical variables. Association between predictor variables and overall satisfaction was assessed by bivariate analysis and multiple logistic regression.

Results: One hundred and twenty questionnaires were completed. Almost 60 percent of the women were very satisfied with the overall care. More than half of the women described the care they received as kind, respectful and well communicated. After adjusting for age and parity, HK born Pakistani women expressed relatively less satisfaction with care, especially during pregnancy and labor and birth, as compared with Pakistan born women. Women with conversational or fluent English-speaking ability also felt comparatively less satisfied particularly from intrapartum and postnatal care in hospital. Education level had a negative association with satisfaction with care during pregnancy.

Conclusions: Maternity care providers should take into account the diversity of EM women population in HK. Our findings suggest that effective communication and care that can meet individual needs, expectations, and values is imperative to improve experience and quality of maternity care for EM women in HK. (Author)

Full URL: <https://doi.org/10.3389/fpubh.2023.1009214>

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## 2023-02130

**Midwife empathy and its association with the childbirth experience: a cross-sectional study.** Jin Y, Wu Y, Li J (2022), *BMC Pregnancy and Childbirth* vol 22, no 960, December 2022

### Background

Although pregnancy and childbirth comprise a life-course that most midwives experience, whether their own experiences of childbirth resonate with other women during childbirth remains to be determined. In this study, we therefore characterized midwives' empathic capabilities and defined their underlying factors.

### Method

We conducted a cross-sectional study with data from 464 midwives in Guangdong, China, that were collected through the "Chinese version of the Jefferson Scale of Empathy for Health Professionals (JSE-HP)." This questionnaire contains sections related to midwife demographics and delivery characteristics. We then implemented multivariate logistic regression analysis to identify empathy-related factors.

## Results

Our analysis revealed 303 (65.3%) participants in the high-empathy group while 161 (34.7%) were in the middle-empathy group. Compared with the reference groups, these results indicated that higher empathy was associated with an elevated educational level (OR, 1.83; 95% CI, 1.04–3.25), high monthly salary (OR, 2.30; 95% CI, 1.11–4.80), and no shift work (OR, 2.89; 95% CI, 1.09–7.63). The odds of a high empathy score were higher for midwives who experienced two childbirths (2.27, 1.11–4.66) and for those who had children under the age of 3 years (2.81, 1.34–5.92).

## Conclusion

Midwives possess a moderate-to-high level of empathy, and the greater the number of childbirths they experienced and the younger their children, the higher their reported empathy score. This study contributes novel information regarding the empathic behavior of midwives toward women who give birth in China. (Author)

Full URL: <https://doi.org/10.1186/s12884-022-05309-3>

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## 2023-01623

**Assessment of quality of antenatal care services in public sector facilities in India.** Dandona R, Majumder M, Akbar M, et al (2022), *BMJ Open* vol 12, no 12, December 2022, 065200

**Objectives** We undertook assessment of quality of antenatal care (ANC) services in public sector facilities in the Indian state of Bihar state delivered under the national ANC programme (Pradhan Mantri Surakshit Matritva Abhiyan, PMSMA).

**Setting** Three community health centres and one subdistrict hospital each in two randomly selected districts of Bihar.

**Participants** Pregnant women who sought ANC services under PMSMA irrespective of the pregnancy trimester.

**Primary and secondary measures** Quality ANC services were considered if a woman received all of these services in that visit—weight, blood pressure and abdomen check, urine and blood sample taken, and were given iron and folic acid and calcium tablets. The process of ANC service provision was documented.

**Results** Eight hundred and fourteen (94.5% participation) women participated. Coverage of quality ANC services was 30.4% (95% CI 27.3% to 33.7%) irrespective of pregnancy trimester, and was similar in both districts and ranged 3%–83.1% across the facilities. Quality ANC service coverage was significantly lower for women in the first trimester of pregnancy (6.8%, 95% CI 3.3% to 13.6%) as compared with those in the second (34.4%, 95% CI 29.9% to 39.1%) and third (32.9%, 95% CI 27.9% to 38.3%) trimester of pregnancy. Individually, the coverage of weight and blood pressure check-up, receipt of iron folic acid (IFA) and calcium tablets, and blood sample collection was >85%. The coverage of urine sample collection was 46.3% (95% CI 42.9% to 49.7%) and of abdomen check-up was 62% (95% CI 58.6% to 65.3%). Poor information sharing post check-up was done with the pregnant women. Varied implementation of ANC service provision was seen in the facilities as compared with the PMSMA guidelines, in particular with laboratory diagnostics and doctor consultation. Task shifting from doctors to ANMs was observed in all facilities.

**Conclusions** Grossly inadequate quality ANC services under the PMSMA needs urgent attention to improve maternal and neonatal health outcomes. (Author)

Full URL: <http://dx.doi.org/10.1136/bmjopen-2022-065200>

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## 2023-01442

**Does provision of antenatal care in Southern Asia improve neonatal survival? A systematic review and meta-analysis.** O'Dair MA, Demetri A, Clayton GL, et al (2022), *AJOG Global Reports* vol 2, no 4, November 2022

### BACKGROUND

Southern Asia has one of the highest burdens of neonatal mortality worldwide (26/1000 live births). Ensuring that women receive antenatal care from a skilled provider may play an important role in reducing this burden.

### OBJECTIVE

This study aimed to determine whether antenatal care received from a skilled provider could reduce neonatal mortality in Southern Asia by systematically reviewing existing evidence.

## STUDY DESIGN

Seven databases were searched (MEDLINE, Embase, Cochrane Library, CINAHL, PubMed, PsycINFO, and International Bibliography of the Social Sciences [IBSS]). The key words included: “neonatal mortality,” “antenatal care,” and “Southern Asia.” Nonrandomized comparative studies conducted in Southern Asia reporting on neonatal mortality in women who received antenatal care compared with those who did not were included. Two authors carried out the screening and data extraction. The Risk of Bias Assessment tool for Non-randomized Studies (RoBANS) was used to assess quality of studies. Results were reported using a random-effects model based on odds ratios with 95% confidence intervals.

## RESULTS

Four studies were included in a meta-analysis of adjusted results. The pooled odds ratio was 0.46 (95% confidence interval, 0.24 to 0.86) for neonatal deaths among women having at least 1 antenatal care visit during pregnancy compared with women having none. In the final meta-analysis, 16 studies could not be included because of lack of adjustment for confounders, highlighting the need for further higher-quality studies to evaluate the true impact.

## CONCLUSION

This review suggests that in Southern Asia, neonates born to women who received antenatal care have a lower risk of death in the neonatal period compared with neonates born to women who did not receive antenatal care. This should encourage health policy to strengthen antenatal care programs in Southern Asia. (Author)

Full URL: <https://doi.org/10.1016/j.xagr.2022.100128>

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## 2023-01438

**Antenatal care in Nepal: a qualitative study into missed opportunities in the first trimester.** Greenfield F, Lynch M, Maharjan N, et al (2022), *AJOG Global Reports* vol 2, no 4, November 2022

## BACKGROUND

Use of timely antenatal care has been identified as key to facilitating healthy pregnancies worldwide. Although considerable investment has been made to enhance maternal health services in Nepal, approximately one-third of women do not attend antenatal care until after the first trimester (late). These women miss out on the benefits of screening and interventions that are most effective in the first trimester.

## OBJECTIVE

This study aimed to identify the missed opportunities of women who do not attend antenatal care in the first trimester, and to explore some of the factors underlying late attendance and consider potential solutions for minimizing these missed opportunities in the future.

## STUDY DESIGN

This study was conducted in 3 hospitals in Nepal. Focus groups (n=18) with a total of 48 postnatal women and 49 staff members, and 10 individual interviews with stakeholders were conducted. Purposive sampling facilitated the obtainment of a full range of maternity experiences, staff categories, and stakeholder positions. Data were qualitative and analyzed using a thematic approach.

## RESULTS

Limited awareness among women of the importance of early antenatal care was reported as a key factor behind attendance only after the first trimester. The family and community were described as significant influencers in women's decision-making regarding the timing of antenatal care. The benefits of early ultrasound scanning and effective supplementation in pregnancy were the major missed opportunities. Increasing awareness, reducing cost, and enhancing interprofessional collaboration were suggested as potential methods for improving timely initiation of antenatal care.

## CONCLUSION

Limited awareness continues to drive late attendance to antenatal care after the first trimester. Investment in services in the first trimester and community health education campaigns are needed to improve this issue and enhance maternal and neonatal outcomes. (Author)

Full URL: <https://doi.org/10.1016/j.xagr.2022.100127>

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## 2023-01185

**Background:** Despite the obvious violation of women's rights in Pakistan and the vital necessity for women empowerment, a unified country-specific index measuring women empowerment is not yet available. This study cross-validated a survey-based women empowerment index from Afghanistan to be used in Pakistan.

**Methods:** The data for married Pakistani women aged 15-49 in the 2017-18 Pakistan demographic health survey was used to construct the final model using the explanatory and confirmatory factor analyses. The Cronbach's alpha test examined the internal consistency of the developed index. To assess the convergence validity of the index, the association of each emerged domain with indicators of access to reproductive and maternity care was assessed by Poisson regression analysis adjusting for wealth index.

**Results:** The final index had six domains; namely, labor force participation, attitude toward violence, decision-making, access to healthcare, literacy, age at critical life events predicting women empowerment of married Pakistani women with decent reliability (Cronbach's  $\alpha = 0.70$ ), and validity (SRSEA&SRMR < 0.05, CFI&TLI > 0.92). The emerged domains were significantly associated with at least one of four indicators for access to reproductive and maternity care; indicative of a favorable convergence validity.

**Conclusion:** Pakistan and Afghanistan are associated as brother countries with shared religious and ethnocultural identities in which women are perceived inferior to men and in critical need of empowering efforts. The results of this study reflect upon this resemblance in sociocultural structure by yielding similar domains for women's empowerment in Pakistan building upon an index previously developed for Afghan women. The developed index could inform the design of future policies, interventions, and research recognizing the important indicators of women empowerment in Pakistan and could enhance the comparability of the results across future studies. (Author)

**Full URL:** <https://doi.org/10.1186/s12905-022-02031-2>

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## 2023-00409

**Service readiness and availability of perinatal care in public hospitals - a multi-centric baseline study in Nepal.** Chaulagain DR, Malqvist M, Wrammert J, et al (2022), BMC Pregnancy and Childbirth Vol 22, no 842, November 2022

### Background

Poor quality of maternal and newborn care contributes to nearly two million deaths of mothers and their newborns worldwide annually. Assessment of readiness and availability of perinatal care services in health facilities provides evidence to underlying bottlenecks for improving quality of care. This study aimed to evaluate the readiness and availability of perinatal care services in public hospitals of Nepal using WHO's health system framework.

### Methods

This was a mixed methods study conducted in 12 public hospitals in Nepal. A cross-sectional study design was used to assess the readiness and availability of perinatal care services. Three different data collection tools were developed. The tools were pretested in a tertiary maternity hospital and the discrepancies in the tools were corrected before administering in the study hospitals. The data were collected between July 2017 to July 2018.

### Results

Only five out of 12 hospitals had the availability of all the basic newborn care services under assessment. Kangaroo mother care (KMC) service was lacking in most of the hospitals (7 out of 12). Only two hospitals had all health workers involved in perinatal care services trained in neonatal resuscitation. All of the hospitals were found not to have all the required equipment for newborn care services. Overall, only 60% of the health workers had received neonatal resuscitation training. A small proportion (3.2%) of the newborn infants with APGAR < 7 at one minute received bag and mask ventilation. Only 8.2% of the mothers initiated breastfeeding to newborn infants before transfer to the post-natal ward, 73.4% of the mothers received counseling on breastfeeding, and 40.8% of the mothers kept their newborns in skin-to-skin contact immediately after birth.

### Conclusion

The assessment reflected the gaps in the availability of neonatal care services, neonatal resuscitation training, availability of equipment, infrastructure, information system, and governance. Rapid scale-up of neonatal resuscitation training and increased availability of equipment is needed for improving the quality of neonatal care services. (Author)

## 2023-00402

**The crisis of maternal and child health in Afghanistan.** Rubenstein L, Jalazai R, Spiegel P, et al (2023), *The Lancet* vol 401, no 10371, January 2023, pp 87-90

In the past two decades, despite ongoing war, international development assistance and funding, channelled through Afghanistan's Ministry of Public Health, expanded access to primary care, improved government hospitals, and trained thousands of health-care providers in Afghanistan, especially women. Accompanying technical assistance strengthened the capacity of Afghanistan's Ministry of Public Health to develop policy, design requirements for and oversee services provided by international and national non-governmental organisations (NGOs), and initiate surveillance, monitoring, and evaluation systems. Although progress was uneven, expanded access to higher quality care saved many lives. In some areas, primary health care became well enough established that in the years before the 2021 fall of Afghanistan's previous government the Taliban appointed liaisons to provincial health programmes in areas they controlled. Despite the clinics' affiliation with the former government, the Taliban engaged with managers on such issues as who was hired, which geographical areas were covered, and what health services were offered; although the Taliban used threats and coercion to influence decisions, their violent attacks on clinics and hospitals decreased. Afghanistan's health system remained fragile, however, and was largely reliant on donor funding and NGO implementation. (Author)

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## 2023-00118

**Current practice, attitude and views of providing pregnancy care for women with type 1 diabetes in China: a qualitative study.** Luo S, Yan J, Yang D, et al (2022), *BMJ Open* Vol 12, no 11, November 2022, e061657

Objective Data are sparse on healthcare needs related to pregnancy among Chinese women with type 1 diabetes (T1D) or the gap between the needs and healthcare provision in China. We aimed to identify their needs and the gaps in pregnancy care provision.

Design This is a qualitative, face-to-face, one-to-one in-depth interview study. We recruited our participants using a purposive sampling strategy. Semistructured outlines were used to guide the interviews. The interviews were digitally recorded, transcribed and analysed using a thematic framework method with NVivo V.10.0.

Setting Guangdong Province in China.

Participants This study involved three key stakeholders of pregnancy care for women with T1D: 29 women with T1D of childbearing age (aged 18–50 years), 16 family members (husbands, parents and parents-in-law of women with T1D) and 35 relevant healthcare providers (HCPs).

Results We found that women with T1D and the family members had a more pessimistic attitude towards pregnancy outcomes, which was different from the more positive view of HCPs. However, all three stakeholders shared the following perspectives regarding pregnancy-related care for women with T1D: (1) lack of knowledge and access to education, (2) lack of multidisciplinary cooperation, (3) education should be started earlier in adulthood, (3) positive role of peer support, and (4) hope for future training of HCPs for relevant knowledge and skills specified for T1D and pregnancy with T1D.

Conclusions An immense gap was identified between the needs of women with T1D regarding pregnancy-related care and current care provision in China. These findings suggest that education be provided to patients and HCPs, and the role of professional and multidisciplinary support should be enhanced to optimise pregnancy care for women with T1D in China. (Author)

Full URL: <http://dx.doi.org/10.1136/bmjopen-2022-061657>

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## 2022-11089

**ARM's UK Afghan Midwives Support Group.** Association of Radical Midwives (2021), *Midwifery Matters* no 171, Winter 2021, p 7

Overview of the activities of the Association of Radical Midwives' Afghan Midwives Support Group. (MB)

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## 2022-11020

**The impact of professional midwives and mentoring on the quality and availability of maternity care in government sub-district hospitals in Bangladesh: a mixed-methods observational study.** Anderson R, Williams A, Jess N, et al (2022), BMC Pregnancy and Childbirth vol 22, no 827, 8 November 2022

#### Background

This study compared government sub-district hospitals in Bangladesh without globally standard midwives, with those with recently introduced midwives, both with and without facility mentoring, to see if the introduction of midwives was associated with improved quality and availability of maternity care. In addition, it analysed the experiences of the newly deployed midwives and the maternity staff and managers that they joined.

#### Methods

This was a mixed-methods observational study. The six busiest hospitals from three pre-existing groups of government sub-district hospitals were studied; those with no midwives, those with midwives, and those with midwives and mentoring. For the quantitative component, observations of facility readiness (n = 18), and eight quality maternity care practices (n = 641) were carried out using three separate tools. Willing maternity staff (n = 237) also completed a survey on their knowledge, perceptions, and use of the maternity care interventions. Descriptive statistics and logistic regression were used to identify differences between the hospital types. The qualitative component comprised six focus groups and 18 interviews involving midwives, other maternity staff, and managers from the three hospital types. Data were analysed using an inductive cyclical process of immersion and iteration to draw out themes. The quantitative and qualitative methods complemented each other and were used synergistically to identify the study's insights.

#### Results

Quantitative analysis found that, of the eight quality practices, hospitals with midwives but no mentors were significantly more likely than hospitals without midwives to use three: upright labour (94% vs. 63%; OR = 22.57, p = 0.001), delayed cord clamping (88% vs. 11%; OR = 140.67, p < 0.001), skin-to-skin (94% vs. 13%; OR = 91.21, p < 0.001). Hospitals with mentors were significantly more likely to use five: ANC card (84% vs. 52%; OR = 3.29, p = 0.002), partograph (97% vs. 14%; OR = 309.42, p = 0.002), upright positioning for labour (95% vs. 63%; OR = 1850, p < 0.001), delayed cord clamping (98% vs. 11%; OR = 3400, p = 0.003), and skin-to-skin contact following birth (93% vs. 13%; OR = 70.89, p < 0.001). Qualitative analysis identified overall acceptance of midwives and the transition to improved quality care; this was stronger with facility mentoring. The most resistance to quality care was expressed in facilities without midwives. In facilities with midwives and mentoring, midwives felt proud, and maternity staff conveyed the greatest acceptance of midwives.

#### Conclusion

Facilities with professional midwives had better availability and quality of maternity care across multiple components of the health system. Care quality further improved with facility mentors who created enabling environments, and facilitated supportive relationships between existing maternity staff and managers and the newly deployed midwives. (Author)

Full URL: <https://doi.org/10.1186/s12884-022-05096-x>

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#### 2022-10458

**The interplay of structural and external factors for strengthening midwifery education in Indonesia.** Adnani QES, Gilkison A, McAra-Couper J, et al (2022), Sexual & Reproductive Healthcare vol 33, September 2022, 100734

#### Objectives

This study aimed to identify the barriers to and enablers of the strengthening of midwifery education in Indonesia. Indonesia has a long history of midwifery education. In 1996, midwifery education in Indonesia had a three-year direct-entry pathway leading to a higher education level to meet international standards. The quality of midwifery education is deemed essential for preparing competent midwives.

#### Methods

A qualitative design was undertaken in 12 midwifery schools in eight cities in six provinces involving 37 participants. Data were gathered using in-depth interviews. Data were analysed using thematic analysis.

#### Results

Several intertwined factors were found to play a vital role in midwifery education. This article focuses on results on “structural and external factors”, a theme which contained three sub-themes: “the structures of midwifery programmes”, “midwifery accreditation impacts on midwifery education”, and “the Midwifery Act”.

## Conclusion

The structure of midwifery programmes, the accreditation of midwifery programmes, and establishment of the Midwifery Act contribute to the strengthening of midwifery education in Indonesia. This study highlights the challenges faced and the scheme required to strengthen midwifery education in producing competent newly graduated midwives who improve the midwifery workforce in Indonesia. (Author)

Full URL: <https://doi.org/10.1016/j.srhc.2022.100734>

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## 2022-09869

**Evaluation of existing Home Based Newborn Care (HBNC) services and training for improving performance of Accredited Social Health Activists (ASHA) in rural India: A multiple observation study.** Devi RS, Pugazhendi S, Juyal R, et al (2023), *Midwifery* vol 116, January 2023, 103514

### Background

: One-fourth of global neonatal deaths occur in India alone. Accredited Social Health Activists (ASHA) was launched with the purpose of improving healthcare services, including neonatal survival primarily in rural areas. The aim of this study is to determine the status of ASHA's knowledge, practices, and attitude regarding Home Based Newborn Care (HBNC) services, as well as to provide necessary trainings for improvement of their performance.

### Methods

: For this study, 102 ASHA working in Doiwala were recruited at random, and Quasi Experimental Design - Multiple Observation Method (single group time series design) was adopted. The data were collected using pretested tools consisting of knowledge questionnaires, attitude scale, and practices and skill-based questionnaires on various domains of HBNC. The data from the ASHA were collected 4 times at a regular interval of 30 days. Each time, the assessment of ASHA was accompanied by reeducation and training on HBNC.

### Results

: Even though, about 90% of ASHA had been working for more than 5 years, they possessed average knowledge regarding HBNC before the training. Less than 50% of them were aware of mandatory vaccines and infection care services for newborns. About 70% of them were uninformed about the potential risk of hypothermia in neonates and also lacked knowledge regarding its preventive measures. Their knowledge, practices and attitude regarding HBNC was significantly improved after the training ( $p < 0.05$ ). About 54% of ASHA became aware of the avoidance of pre-lacteal feeding in newborns. Their practices score regarding prevention of hypothermia was increased from 80% to 95%. The number of ASHA who understood the importance of Kangaroo Mother Care (KMC) was also increased from 56% to 87%. About 95% of the ASHA understood the significance of feeding breast milk to newborns. Moreover, the attitude of ASHA towards the traditional way of newborn care such as early bathing, giving pre-lacteal feed, application of turmeric and ghee to the umbilicus of baby etc was significant improved.

### Conclusion

: ASHA must be assessed regularly in order to identify their basic needs, knowledge gaps, challenges and difficulties to quality HBNC services. Proper training on HBNC at regular interval significantly improved their knowledge, practices, and attitude toward their responsibilities, which is crucial for improving newborn health status. (Author)

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## 2022-09217

**Measuring effective coverage of maternal and child health services in Cambodia: a retrospective analysis of Demographic and Health Surveys from 2005 to 2014.** Kim MK, Kim SA, Oh J, et al (2022), *BMJ Open* vol 12, no 9, September 2022, e062028

**Objective** To investigate effective, quality-adjusted, coverage and inequality of maternal and child health (MCH) services to assess progress in improving quality of care in Cambodia.

**Design** A retrospective secondary analysis using the three most recent (2005, 2010 and 2014) Demographic and Health Surveys.

**Setting** Cambodia.

**Participants** 53 155 women aged 15–49 years old and 23 242 children under 5 years old across the three surveys.

**Outcome measures** We estimated crude coverage, effective coverage and inequality in effective coverage for five MCH services over time: antenatal care (ANC), facility delivery and sick childcare for diarrhoea, pneumonia and fever. Quality was defined by the proportion of care seekers who received a set of interventions during healthcare visits. Effective coverage was estimated by combining crude coverage and quality. We used equiplots and risk ratios, to assess patterns in inequality in MCH effective coverage across wealth quintile, urban–rural and women’s education levels and over time.

**Results** In 2014, crude and effective coverage was 80.1% and 56.4%, respectively, for maternal health services (ANC and facility delivery) and 59.1% and 26.9%, respectively, for sick childcare (diarrhoea, pneumonia and fever). Between 2005 and 2014, effective coverage improved for all services, but improvements were larger for maternal healthcare than for sick child care. In 2014, poorer children were more likely to receive oral rehydration solution for diarrhoea than children from richer households. Meanwhile, women from urban areas were more likely to receive a postnatal check before getting discharged.

**Conclusions** Effective coverage has generally improved in Cambodia but efforts remain to improve quality for all MCH services. Our results point to substantial gaps in curative sick child care, a large share of which is provided by unregulated private providers in Cambodia. Policymakers should focus on improving effective coverage, and not only crude coverage, to achieve the health-related Sustainable Development Goals by 2030. (Author)

**Full URL:** <http://dx.doi.org/10.1136/bmjopen-2022-062028>

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## 2022-09007

**Health care services use, stillbirth, and neonatal and infant survival following implementation of the Maternal Health Voucher Scheme in Bangladesh: A difference-in-differences analysis of Bangladesh Demographic and Health Survey data, 2000 to 2016.** Nandi A, Charters TJ, Quamruzzaman A, et al (2022), PLoS Medicine vol 19, no 8, August 2022, e1004022

### Background

Starting in 2006 to 2007, the Government of Bangladesh implemented the Maternal Health Voucher Scheme (MHVS). This program provides pregnant women with vouchers that can be exchanged for health services from eligible public and private sector providers. In this study, we examined whether access to the MHVS was associated with maternal health services utilization, stillbirth, and neonatal and infant mortality.

### Methods and findings

We used information on pregnancies and live births between 2000 to 2016 reported by women 15 to 49 years of age surveyed as part of the Bangladesh Demographic and Health Surveys. Our analytic sample included 23,275 pregnancies lasting at least 7 months for analyses of stillbirth and between 15,125 and 21,668 live births for analyses of health services use, neonatal, and infant mortality. With respect to live births occurring prior to the introduction of the MHVS, 31.3%, 14.1%, and 18.0% of women, respectively, reported receiving at least 3 antenatal care visits, delivering in a health institution, and having a skilled birth attendant at delivery. Rates of neonatal and infant mortality during this period were 40 and 63 per 1,000 live births, respectively, and there were 32 stillbirths per 1,000 pregnancies lasting at least 7 months. We applied a difference-in-differences design to estimate the effect of providing subdistrict-level access to the MHVS program, with inverse probability of treatment weights to address selection into the program. The introduction of the MHVS program was associated with a lagged improvement in the probability of delivering in a health facility, one of the primary targets of the program, although associations with other health services were less evident. After 6 years of access to the MHVS, the probabilities of reporting at least 3 antenatal care visits, delivering in a health facility, and having a skilled birth attendant present increased by 3.0 [95% confidence interval (95% CI) = -4.8, 10.7], 6.5 (95% CI = -0.6, 13.6), and 5.8 (95% CI = -1.8, 13.3) percentage points, respectively. We did not observe evidence consistent with the program improving health outcomes, with probabilities of stillbirth, neonatal mortality, and infant mortality decreasing by 0.7 (95% CI = -1.3, 2.6), 0.8 (95% CI = -1.7, 3.4), and 1.3 (95% CI = -2.5, 5.1) percentage points, respectively, after 6 years of access to the MHVS. The sample size was insufficient to detect smaller associations with adequate precision. Additionally, we cannot rule out the possibility of measurement error, although it was likely nondifferential by treatment group, or unmeasured confounding by concomitant interventions that were implemented differentially in treated and control areas.

### Conclusions

In this study, we found that the introduction of the MHVS was positively associated with the probability of delivering in a health facility, but despite a longer period of follow-up than most extant evaluations, we did not observe attendant reductions in stillbirth, neonatal mortality, or infant mortality. Further work and engagement with

stakeholders is needed to assess if the MHVS has affected the quality of care and health inequalities and whether the design and eligibility of the program should be modified to improve maternal and neonatal health outcomes. (Author)

Full URL: <https://doi.org/10.1371/journal.pmed.1004022>

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## 2022-08922

**'We are nurses – what can we say?': power asymmetries and Auxiliary Nurse Midwives in an Indian state.** Das P, Ramani S, Newton-Lewis T, et al (2022), *Sexual and Reproductive Health Matters* vol 29, no 2, 2022, 2031598

In India, nurses and midwives are key to the provision of public sexual and reproductive health services. Research on impediments to their performance has primarily focused on their individual capability and systemic resource constraints. Despite emerging evidence on gender-based discrimination and low professional acceptance faced by these cadres, little has been done to link these constraints to power asymmetries within the health system. We analysed data from an ethnography conducted in two primary healthcare facilities in an eastern state in India, using Veneklasen and Miller's expressions of power framework, to explore how power and gender asymmetries constrain performance and quality of care provided by Auxiliary Nurse Midwives (ANMs). We find that ANMs' low position within the official hierarchy allows managers and doctors to exercise "power over" them, severely curtailing their expression of all other forms of power. Disempowerment of ANMs occurs at multiple levels in interlinked and interdependent ways. Our findings contribute to the empirical evidence, advancing the understanding of gender as a structurally embedded dimension of power. We illustrate how the weak positioning of ANMs reflects their lack of representation in policymaking positions, a virtual absence of gender-sensitive policies, and ultimately organisational power structures embedded in patriarchy. By deepening the understanding of empowerment, the paper suggests implementable pathways to empower ANMs for improved performance. This requires addressing entrenched gender inequities through structural and organisational changes that realign power relations, facilitate more collaborative ways of exercising power, and create the antecedents to individual empowerment. (Author)

Full URL: <https://doi.org/10.1080/26410397.2022.2031598>

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## 2022-07387

**Visual Analysis of Midwifery Research in China Based on Bibliometrics.** He J, Wan L, Yang W, et al (2022), *Journal of Midwifery & Women's Health* vol 67, no 4, July/August 2022, pp 427-434

### Introduction

This study used bibliometrics to analyze the current trends, hotspots, and frontiers in Chinese midwifery research.

### Methods

A search was conducted among midwifery literature published from 2010 to 2020, and bibliometric and information visualization analyses were conducted using the acquired data. A bibliometric analysis was performed on the quantity and trends in midwifery research, distribution of and cooperation among research institutions, coauthorship, distribution of disciplines, high-frequency keywords, and burst terms. Cooperation mode, research hotspots, and research frontiers were also analyzed.

### Results

The findings indicate that the number of midwifery research studies have been steadily increasing in China over the last decade. During the study period, Guangdong Province, which received the most research funding, produced the highest number of published articles, followed by Beijing and Shanghai. Research institutions related to midwifery are mainly universities with a strong focus on scientific research. Contemporary topics include core competencies and birth outcomes; research frontiers, including education; competence; and evidence-based practice.

### Discussion

China should accelerate in-depth midwifery research; increase opportunities for regional, institutional, and team cooperation; promote the sublimation of midwifery work from practical experience to disciplinary theory; and provide higher-quality professional services for maternal and child health. Bibliometric analyses may be used to examine midwifery research in other countries too. (Author)

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## 2022-07290

**Effects of 1-day e-learning education on perinatal psychological support skills among midwives and perinatal healthcare workers in Japan: a randomised controlled study.** Shinohara E, Ohashi Y, Hada A (2022), *BMC Psychology* vol 10, no 1, 23 May 2022, p 133

**Background:** Although midwives are expected to play a key role for psychological support throughout perinatal periods, their educational chances are limited. Versatile teaching strategies such as e-learning may be promising in expanding education. The objective of our study was to clarify the effects of an e-learning educational programme on midwives' empathic communication skills.

**Methods:** From April 2019 to September 2019, a randomised controlled trial of a 1-day e-learning educational programme on perinatal psychological issues (both perinatal mental health assessment and empathic communication) was conducted to improve empathic communication skills of midwives and perinatal healthcare workers. Two types of measurements (paper-and-pencil multiple-choice test and video-viewing tests of simulated patient) were used to measure the competency of empathic communication skills.

**Results:** Participants (N = 115) were randomly allocated to two groups (Intervention: n = 58, Control: n = 57). The intervention group was at a significantly higher level for both post-tests of empathic communication skills compared with the control group. Both intervention and control groups showed improvements in acquiring knowledge about perinatal mental health assessments.

**Conclusions:** The results of our study show that a 1-day e-learning programme helped improve the midwives' empathic communications skills. Therefore, an effective 1-day e-learning educational programme of perinatal mental health will expand opportunity to learn about empathic communication skills for midwives and perinatal healthcare workers.

Trial registrations: UMIN000036052.

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Full URL: <https://doi.org/10.1186/s40359-022-00832-6>

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## 2022-07005

**An insight to two decades of Skilled Birth Attendants in Nepal.** Aryal S, Nepal S (2022), 12 August 2022, online

Opinion piece on the need for Nepal to focus on training skilled birth attendants such as midwives in order to improve maternal mortality rates and meet the Sustainable Development Goals. (LDO)

Full URL: <https://doi.org/10.3389/fgwh.2022.899010>

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## 2022-06921

**Regional Strategic Directions for strengthening Midwifery in the South-East Asia Region 2020–2024.** World Health Organization Regional Office for South-East Asia (2020), World Health Organization, Geneva, April 2020. 64 pages

Member States in the Region are making progress. Bangladesh, India and Nepal have in recent years introduced midwifery education. They joined DPR Korea, Myanmar, Sri Lanka and Timor-Leste in establishing midwives as an independent cadre of the health workforce. Regardless of the types and style of midwifery cadre, all countries must identify the policies and plans of action required to maximize the strength and quality of professionals those who provide midwifery services.

This document is designed to guide Member States and partners to assess, develop and strengthen midwifery education and services in a systematic and harmonized manner. It provides a set of key elements, strategic directions and key actions to support countries.

Member States are encouraged to use this document to understand and examine gaps and chart the way forward for improving midwifery education and services which will contribute to reduce all preventable maternal, newborn and child deaths and accelerate towards the 2030 SDG targets. (Author)

Full URL: <https://www.who.int/publications/i/item/regional-strategic-directions-for-strengthening-midwifery-in-the-south-east-asia-region-2020%E2%80%932024>

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## 2022-06687

**Midwifery and nursing students' perceptions of respectful maternity care and witnessing of disrespect and abuse: A comparative study from Nepal and Jordan.** Dhakal P, Mohammad KI, Creedy DK, et al (2022), Midwifery vol 112, September 2022, 103426

Objectives

To compare Nepalese and Jordanian midwifery and nursing students' perceptions of respectful maternity care (RMC) and witnessing of disrespect and abuse; and determine factors that predict scores on a scale measuring perceptions of RMC.

#### Design

A descriptive, comparative design was used.

#### Setting

Recruitment took place from two medical colleges in Nepal and one University in Jordan.

#### Methods

A convenience sample of students (n = 276) enrolled in a Bachelor or Diploma level midwifery or nursing degree who were undertaking or had recently completed their midwifery clinical placement were recruited. The online or hard copy survey included the Students' Perceptions of Respectful Maternity Care (SPRMC) Scale and nine questions on witnessing different types of disrespect and abuse.

#### Findings

Nepalese students were slightly older (mean = 23.68 years) than Jordanian students (mean = 21.36). Mean duration of clinical placement was longer for Jordanian students (11.24 compared to 6.28 weeks). However, mean number of births observed was higher among Nepalese students (19.6 compared to 18.62). Overall, perceptions of RMC were more positive among Jordanian students ( $t(199.97) = 6.68, p < 0.001$ ). A multiple regression analysis found that duration of clinical placement ( $\beta = 0.22, p < 0.001$ ), witnessing disrespect and abuse ( $\beta = 0.11, p = 0.08$ ) and age ( $\beta = -0.14, p = 0.03$ ) explained 12.2% of variance in SPRMC scores. Compared to students in Nepal, all Jordanian students had observed non-consented care during their clinical practicum. However, Nepalese students were more likely to observe poor adherence to women's privacy and confidentiality.

#### Key conclusion and implications for practice

This is the first study to compare midwifery and nursing students' perceptions of RMC across two middle-income countries. Although Jordanian students held more positive perceptions of RMC than those in Nepal, more had witnessed different forms of disrespect and abuse. Variations in students' perceptions of RMC and witnessing of abuse across countries highlight the need for assessment of workplace cultures to inform the development of tailored education and practice interventions for students, clinicians, and managers. Future research needs to explore how to best support students to consistently offer RMC and how to improve the experiences of childbearing women. (Author)

Full URL: <https://doi.org/10.1016/j.midw.2022.103426>

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#### 2022-06683

**Compassion fatigue and compassion satisfaction among Chinese midwives working in the delivery room: a cross-sectional survey.** Qu L, Gao J, Liu L, et al (2022), *Midwifery* vol 113, October 2022, 103427

#### Background and Aims

Compassion fatigue can negatively affect not only healthcare professionals' physical and mental health but also the quality of care they provide and organizational outcomes. However, little is known about compassion fatigue among Chinese midwives working in the delivery room. This study aimed to examine compassion fatigue and compassion satisfaction levels among Chinese midwives working in the delivery room and correlate their compassion fatigue and compassion satisfaction.

#### Methods

A multisite cross-sectional study with a convenience sampling approach was conducted at 62 hospitals in Henan Province, central China, from May to July 2020. The participants were recruited through an online survey. A self-designed sociodemographic and work-related data sheet, the Social Support Rating Scale (SSRS), and the Professional Quality of Life Scale (ProQoL) were used to measure the participants' basic information, level of social support, compassion fatigue (consists of burnout and secondary traumatic stress) and compassion satisfaction. Descriptive analysis was used to describe the characteristics of the participants' social support, compassion fatigue and compassion satisfaction. Multiple linear regression analysis was employed to identify associations with the participants' sociodemographic and professional characteristics, compassion fatigue and compassion satisfaction.

## Results

A total of 213 questionnaires were completed, 206 of which were valid (96.71%). The majority of the participants reported moderate risks for compassion satisfaction (75.24%) and burnout (59.71%) and low risks for secondary traumatic stress (61.65%). Higher job satisfaction as a midwife, lower average working hours per week in the past year, higher social support, extroverted personality, and work recognition in the past month were positively associated with compassion satisfaction, explaining 48.7% of the total variance. Always considering giving up a midwifery career, lower social support, working a day-night shift, poor health condition, more exposure to traumatic birth events per month on average in recent years, and lower job satisfaction as a midwife were negative factors for burnout, explaining 35.3% of the total variance. Four factors, including more exposure to traumatic birth events per month on average in recent years, always considering giving up a midwifery career, working a day-night shift and poor sleep quality, were negatively related to secondary traumatic stress, explaining 14.2% of the variance.

## Conclusions

In this study, midwives showed moderate levels of compassion satisfaction and burnout and low levels of secondary traumatic stress which should attract the attention of health institutions. A healthy and supportive work environment is crucial to midwives' health, well-being and job satisfaction. Tailored strategies such as trauma management, emotional literacy, peer and social support networks should be implemented to support midwives' compassion satisfaction, while prevent and lower midwives' burnout and secondary traumatic stress. (Author)

Full URL: <https://doi.org/10.1016/j.midw.2022.103427>

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## 2022-06184

**Facilitators and barriers influencing utilization of services provided by community midwives in district Thatta, Pakistan: a qualitative exploratory study.** Khowaja BMH, Feroz AS, Saleem S (2022), BMC Pregnancy and Childbirth vol 22, no 506, 22 June 2022

## Background

To address the issue of high maternal mortality, the Government of Pakistan initiated a community midwifery program in 2006 to provide skilled birth attendance to women living in rural areas. Despite a large investment in the community midwifery program, research evidence from rural districts of Pakistan suggests that the utilization of maternal and newborn services through community midwives is very low. This exploratory study aimed to understand the facilitators and barriers influencing community midwives' services utilization in district Thatta.

## Methods

A qualitative study was conducted in the rural district Thatta, Pakistan. Key-informant interviews (KIIs) were conducted with district officials of the Health department (Thatta), Maternal and Newborn Child Health Program, and Midwifery Association of Pakistan (MAP). In-depth Interviews (IDIs) were conducted with midwifery students who were currently enrolled in the midwifery program of the district; trained community midwives providing services in district Thatta, and trained community midwives not continuing their profession. IDIs were also conducted with community women to explore their views about the scope of midwifery practice and the factors influencing the utilization of community midwives' services in district Thatta, Pakistan. Data were analyzed using qualitative thematic analysis.

## Results

A total of 25 interviews (KIIs = 5; IDIs = 20) were conducted. Two overarching themes were identified: (I) community midwives' skills and competencies; and (II) ownership and supportive supervision. The major hindering factors for community midwives' service utilization included deficiencies in community midwives' training particularly in clinical hands-on training, lack of ownership of community midwifery program, and lack of service structure by the CMWs regulatory body.

## Conclusion

The study has identified serious gaps in the CMWs program at the level of training and supervision of midwives in Pakistan. The study has also identified factors related to the training of CMWs that could facilitate the program in the context of Pakistan and similar settings. (Author)

Full URL: <https://doi.org/10.1186/s12884-022-04823-8>

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## 2022-06069

**A historical narrative of the development of midwifery education in Indonesia.** Adnani QES, Gilkison A, McAra-Couper J

#### Aim

To describe the history of midwifery education, present the current education programmes and explore the ways that have been undertaken to advance the midwifery profession in Indonesia.

#### Methods

Historical and contemporary government documents were reviewed.

#### Findings

The history of midwifery education in Indonesia shows a complex picture during and since colonisation with government, education institutes and association proposing different ways in which midwives were to be educated. Advocacy from the midwifery profession in Indonesia meant increasingly it is midwives who are determining how midwifery education is provided. Recent initiatives have resulted in a diploma, advanced diploma, bachelor's degree, and a master's degree in midwifery. The work of the midwifery profession advocating for midwifery education culminated in the Midwifery Act 2019. These changes in this Act will ensure that midwifery education meets the needs of women and their families but also lead to competent midwives who have the knowledge and skills to provide midwifery services at all levels of health provision. The history of midwifery in Indonesia illustrates the importance of the ICM pillars of association, regulation, and education.

#### Conclusion

The history of midwifery education in Indonesia shows that for too long midwifery education was decided, determined and even regulated by authorities and disciplines other than midwifery. However, when the midwifery association and regulation inform and regulate midwifery education then there is an opportunity to provide care that will make a difference in outcomes for women and their families. The historical analysis of the story of Indonesia midwifery gives insight into what is required for quality education. (Author)

Full URL: <https://doi.org/10.1016/j.wombi.2022.06.007>

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## 2022-05947

**Trends and determinants in the utilization of maternal healthcare services in West Bengal, India: Findings from the 3rd and 4th round National Family and Health Survey.** Debsarma D, Karmakar R, Saha J, et al (2022), Midwifery vol 112, September 2022, 103387

#### Background

Proper utilization of recommended healthcare services during the pregnancy is considered as critically important for better pregnancy outcomes, as well as a good health status of the mother.

#### Objective

The aim of the current study was to trace the trend in progress, and what are factors associated with the attendance at four Antenatal Care (ANC) visits, receive full ANC and institutional delivery in the study area.

#### Research design/setting

The study has used a cross-sectional secondary data of the 3rd and 4th round National Family and Health Survey (NFHS) for India conducted in 2005-06 and 2015-2016 respectively. For West Bengal, a total of 6794 in 2005-06 and 17,668 in 2015-2016 ever-married women aged 15-49 who had experienced at least one live birth in the past five years preceding the survey were covered in this study. To analyze the data, the chi-square test was performed as it allows researcher to assess the association between outcome variables and independent variables. The univariate descriptive and multivariate statistical tools have been applied to analyse the data in this study.

#### Results

Our study indicated that the progress rate in attending at least four antenatal care visits, institutional delivery considerably good, but a noticeable gap exists across the different socio-economic groups. The coverage of full ANC services has remained very poor and unchanged over the decade. It was concluded that the wealth status of the households significant predictor of the attendance at least four ANC visits, full ANC and Institutional delivery in West Bengal. Other statistically significant socio-economic and demographic factors include level of women education, age of women, exposure to mass media, place of residence, and number of parities of birth.

#### Conclusion

The present study suggests that the increasing strength in the coverage of all maternal healthcare services could be a significant focus during the program implementation in West Bengal. For strengthening and ascertaining the universal coverage of maternal healthcare services, there is an urgent need to reduce socioeconomic inequity in uses of the recommended maternal healthcare services. Moreover, our study found that the socio-economic and demographic

factors play a significant role in utilization of maternal healthcare services. Thus the promotion of women education, empowerment and autonomy, and the frequent social marketing of government schemes and programs on maternal healthcare through the various types of mass media should be the unique future steps for achieving the universal coverage of maternal service in West Bengal. (Author)

Full URL: <https://doi.org/10.1016/j.midw.2022.103387>

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## 2022-05941

**The un-silencing of Japanese women's voices in maternity care: A hermeneutic phenomenological study of the woman–midwife relationship.** Doering K, McAra-Couper J, Gilkison A (2022), *Midwifery* vol 112, September 2022, 103407

### Objective

The purpose of this article is to understand the meaning of the woman–midwife relationship, with the overall aim to improve maternity care and women's birth experiences in Japan. To better understand the meaning of the woman–midwife relationship, this article presents women's and midwives' experiences of having or not having a voice in maternity care.

### Research design

Hermeneutic phenomenology, as described by Max van Manen, helped to uncover the meaning of the phenomenon—the woman–midwife relationship—through participants' lived experience. Individual interviews were conducted with 14 women and 10 midwives living in Japan. The interview data were interpreted and thematically analysed to reveal the meaning of the woman–midwife relationship.

### Findings

'Having a voice' emerged as a central theme underpinning the meaning of the woman–midwife relationship; aspects of which included, 1) being unheard, 2) losing a voice, 3) having a voice, and 4) midwives speaking for women. Although having a voice should be a legitimate right for women in maternity care, some women's voices were unheard or lost in the experience with midwives. Conversely, some women gained a voice, especially when they positively and continuously developed their relationship with their midwife. How the woman and the midwife related to each other clearly affected their experience of having a voice in maternity care.

### Key conclusion

Having a voice, which portrays dimensions of choice, control, and autonomy, in their own maternity care is vital for women's positive birth experience. The woman–midwife relationship is critical in enabling women to have a voice and midwives to speak for women. Women and midwives need to develop their relationship. Moreover, the maternity care system needs to allow sufficient time and space, for instance, by ensuring midwife continuity of care to develop a positive woman–midwife relationship. (Author)

Full URL: <https://doi.org/10.1016/j.midw.2022.103407>

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## 2022-05419

**Exploring Midwifery Students' Experiences of Professional Identity Development During Clinical Placement: A Qualitative Study.** Sun J, Wang A, Xu Q, et al (2022), *Nurse Education in Practice* vol 63, August 2022, 103377

### Background

Healthy China 2030 has proposed to strengthen the investment in midwifery education to prepare more qualified midwives to address the shortage of midwifery workforce in China. The formation of a strong professional identity has been demonstrated to be a vital enabler for successfully transitioning from university to work. As midwifery is a practice-based profession, clinical placement is a key period for midwifery students' professional identity development, where they can be part of the profession and exposed to professional behaviour and interaction in the real world. However, it has not yet been explored in terms of the professional identity development of midwifery students in China during clinical placement.

### Aim

To gain insight into the professional identity development experiences of midwifery students in China during clinical placement.

### Design

A qualitative study using a descriptive phenomenological approach.

## Methods

Semi-structured interviews were conducted with fourteen final-year midwifery students who were undertaking clinical placement in four public hospitals in central China between March 2021 and May 2021. The transcribed data were analyzed following the Colaizzi's phenomenological analysis method.

## Results

A total of one category, two theme clusters and seven themes emerged. The overarching category "conflicting experiences of professional identity development" was identified from the interaction of two theme clusters, "positive experiences motivating professional identity development" and "negative experiences impeding professional identity development". Four themes including "feeling the sense of accomplishment for facilitating smooth births", "developing professional competence", "positive role models of clinical mentors", and "cooperative inter-professional relationships" fell into the theme cluster of "positive experiences motivating professional identity development"; while the other three themes including "high-intensity working state", "emotional instability of birthing women", and "feeling insufficient in professional competence" fell into the theme cluster of "negative experiences impeding professional identity development".

## Conclusions

The conflicting experiences of professional identity development among midwifery students might lead to the emergence of confusion and further decrease their retention intention in the profession. Thus, intervention strategies should be adopted to promote midwifery students' professional identity development during clinical placement, so as to prepare confident and motivated midwives to provide high-quality maternal care and address the shortage of midwifery workforce in China. (Author)

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## 2022-05252

**Effect of a community based social marketing strategy on the uptake of clean delivery kits in peri-urban communities of Karachi, Pakistan.** Usmani A, Sultana S, Nisar I, et al (2022), *BMC Pregnancy and Childbirth* vol 22, no 447, 28 May 2022

## Background

Pakistan has one of the highest neonatal and maternal mortality rates in the world. Use of clean delivery kits (CDK) at time of delivery improves maternal and newborn outcome. We test effectiveness of a social marketing strategy to increase uptake of CDKs in a low socioeconomic peri-urban community in Pakistan.

## Methods

This was a sequential mixed method study. The quantitative component consisted of two arms. In the prospective intervention arm trained community health workers (CHWs) visited pregnant women twice to prepare them for birth and encourage use of CDKs. Availability of these kits was ensured at accessible stores in these communities. The retrospective control arm consisted of women delivering in same area during the past 3 months identified from pregnancy register. Information was collected on sociodemographic, pregnancy characteristics and use of CDKs at time of delivery in both arms. We compared proportion of women using CDKs during home deliveries in the intervention and control arm. We performed logistic regression analysis to identify factors associated with use of CDKs in intervention arm. We carried out separate focused group discussions (FGDs) with women who used CDKs, with women who did not use CDKs and birth attendants.

## Results

Total of 568 pregnant women were enrolled in prospective intervention arm and 603 in retrospective control arm. The proportion of women using CDKs during home deliveries in retrospective control arm was 9.4% compared to 23.8% in prospective control arm ( $p = < 0.001$ ). In final multivariable model, increasing age of pregnant woman and husband having some education was positively associated with CDK use (aOR 1.1;95% CI 1.1–1.2 and aOR 2.2;95% CI 1.3–3.6 respectively). During FGDs, many women were of the thought that kits should be free or included in the amount charged by birth attendants. Assembly of components of kit into one package was appreciated by birth attendants.

## Conclusion

Social marketing strategy targeting pregnant women and their family members resulted in an increase in the uptake of CDKs in our study. Birth attendants were generally satisfied with the assembly of the kit. Many women cited unawareness and cost to be a major impediment in use of CDKs. (Author)

**Full URL:** <https://doi.org/10.1186/s12884-022-04705-z>

**2022-05130**

**The Bangladesh Midwifery Society — celebrating the first ever midwifery awards in Bangladesh!** Kemp J, Mann P, Bannon E (2022), MIDIRS Midwifery Digest vol 32, no 2, June 2022, pp 230-233

International engagement is a small but significant part of the work of the Royal College of Midwives (RCM). Our vision states an ambition to be a voice for midwives internationally and we have a dedicated international team. (Author)

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**2022-04981**

**Contextual factors influencing the implementation of midwifery-led care units in India.** Bogren M, Jha P, Sharma B, et al (2023), Women and Birth: Journal of the Australian College of Midwives vol 36, no 1, February 2023, pp e134-e141

Background

The Government of India has committed to educate 90,000 midwives functioning in midwifery-led care units (MLCUs) to care for women during labour and birth. There is a need to consider local circumstances in India, as there is no 'one size fits all' prescription for MLCUs.

Aim

To explore contextual factors influencing the implementation of MLCUs across India.

Method

Data were collected through six focus group interviews with 16 nurses, midwives, public health experts and physicians, representing six national and international organisations supporting the Indian Government in its midwifery initiative. Transcribed interviews were analysed using content analysis.

Findings

Four generic categories describe the contextual factors which influence the implementation of MLCUs in India: (i) Perceptions of the Nurse Practitioner in Midwifery and MLCUs and their acceptance, (ii) Reversing the medicalization of childbirth, (iii) Engagement with the community, and (iv) The need for legal frameworks and standards.

Conclusion

Based on the identified contextual factors in this study, we recommend that in India and other similar contexts the following should be in place when designing and implementing MLCUs: legal frameworks to enable midwives to provide full scope of practice in line with the midwifery philosophy and informed by global standards; pre- and in-service training to optimize interdisciplinary teamwork and the knowledge and skills required for the implementation of the midwifery philosophy; midwifery leadership acknowledged as key to the planning and implementation of midwifery-led care at the MLCUs; and a demand among women created through effective midwifery-led care and advocacy messages. (Author)

Full URL: <https://doi.org/10.1016/j.wombi.2022.05.006>

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**2022-04626**

**The interplay of structural and external factors for strengthening midwifery education in Indonesia.** Adnani QES, Gilkinson A, McAra-Couper J (2022), Sexual & Reproductive Healthcare 16 May 2022, online. 100734

Objectives

This study aimed to identify the barriers to and enablers of the strengthening of midwifery education in Indonesia. Indonesia has a long history of midwifery education. In 1996, midwifery education in Indonesia had a three-year direct-entry pathway leading to a higher education level to meet international standards. The quality of midwifery education is deemed essential for preparing competent midwives.

Methods

A qualitative design was undertaken in 12 midwifery schools in eight cities in six provinces involving 37 participants. Data were gathered using in-depth interviews. Data were analysed using thematic analysis.

Results

Several intertwined factors were found to play a vital role in midwifery education. This article focuses on results on "structural and external factors", a theme which contained three sub-themes: "the structures of midwifery programmes", "midwifery accreditation impacts on midwifery education", and "the Midwifery Act".

Conclusion

The structure of midwifery programmes, the accreditation of midwifery programmes, and establishment of the Midwifery Act contribute to the strengthening of midwifery education in Indonesia. This study highlights the challenges faced and the scheme required to strengthen midwifery education in producing competent newly

graduated midwives who improve the midwifery workforce in Indonesia. (Author)

Full URL: <https://doi.org/10.1016/j.srhc.2022.100734>

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## 2022-03018

**Obstetric practice with MSF in Pakistan.** Atkinson A (2021), O & G vol 23, no 4, Summer 2021

Discusses the complexities of obstetric practice at Peshawar Women's Hospital which was opened by Médecins Sans Frontières in 2011. Highlights complications related to induced labour and the implementation of a new protocol to increase caesarean sections and reduce the perinatal asphyxia caseload. (LDO)

Full URL: <https://www.ogmagazine.org.au/23/4-23/obstetric-practice-with-msf-in-pakistan/>

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## 2022-02636

**Associations of antenatal care visit with utilization of institutional delivery care services in Afghanistan: intersections of education, wealth, and household decision-making autonomy.** Rahman M, Saha P, Uddin J (2022), BMC Pregnancy and Childbirth vol 22, no 255, 26 March 2022

### Background

The importance of antenatal care (ANC) visits in safe motherhood and childbirth is well-documented. However, less is known how social determinants of health interact with ANC visits in shaping the uptake of professional delivery care services in low-income countries. This study examines the associations of ANC visits with institutional delivery care utilization outcomes in Afghanistan. Further, we assess the extent to which ANC visits intersect with education, wealth, and household decision-making autonomy in predicting two outcomes of delivery care utilization- delivery at a health facility and delivery assisted by a skilled birth attendant.

### Methods

We used data from the Afghanistan Demographic and Health Survey (AfDHS) 2015. The analytic sample included 15,590 women of reproductive age (15–49). We assessed the associations using logistic regression models, estimated the predicted probability of delivery care outcomes using statistical interactions, and presented estimates in margins plot.

### Results

Multivariable adjusted analyses suggest that women who had 4 or more ANC visits were 5.7 times (95% CI = 4.78, 7.11;  $P < 0.05$ ) more likely to use delivery care at a health facility and 6.5 times (95% CI = 5.23, 8.03;  $P < 0.05$ ) more likely to have a delivery assisted by a skilled birth attendant compared to women who had no ANC visit. Estimates from models with statistical interactions of ANC visits with education, wealth, and decision-making autonomy suggest that women with higher social status were more advantageous in utilizing institutional delivery care services compared to women with lower levels of social status.

### Conclusion

Our findings suggest that the associations of ANC visits with institutional delivery care services are stronger among women with higher social status. The results have implications for promoting safe motherhood and childbirth through improving women's social status. (Author)

Full URL: <https://doi.org/10.1186/s12884-022-04588-0>

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## 2022-02372

**Improving the quality of maternity services in Nepal through accelerated implementation of essential interventions by healthcare professional associations.** Spira C, Dhital R, Jacob S, et al (2018), International Journal of Gynecology & Obstetrics vol 143, no 3, December 2018, pp 379-386

Objective: To assess whether the implementation of a package of activities through the joint action of three international healthcare professional associations (HCPAs) increased the use of essential interventions (EIs) for delivery and neonatal care.

Methods: A noncontrolled pre-intervention versus post-intervention study was conducted from June 13 to December 13, 2016, among women older than 18 years of age, who had delivered at one of two urban tertiary hospitals in Nepal.

Results: The study included 9252 women. Minimal change was found after the implementation of EIs that were used frequently at baseline (e.g. social support during delivery in the emergency room, and promotion and support for early initiation of breastfeeding). By contrast, an increase was recorded for some EIs that had not been used regularly at baseline. For example, the rate of timely administration of prophylactic antibiotics before cesarean delivery increased from 0.0% (0/496) to 94.0% (409/435) at one hospital. Nonetheless, some EIs with low use at baseline did

not show improvement after implementation (e.g. kangaroo mother care).

Conclusion: The present study strengthened previous findings regarding the uptake of EIs following joint promotion by HCPAs in low-income settings. (Author)

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#### 2022-02287

**Delivering compassionate care.** Boreham R (2022), British Journal of Midwifery vol 30, no 4, April 2022, pp 186-187

Renata Boreham explores her actions trying to enable nurses, midwives, doctors and medical students to deliver compassionate care through voluntary workshops in Sri Lanka. (Author)

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#### 2022-02188

**Facilitating midwifery students on an international placement: Clinical facilitator perspectives.** Bull A, Geraghty S, Dube M, et al (2020), Nurse Education in Practice vol 48, October 2020, 102869

Studies have described the value of international clinical placements from the student perspective. However, little has been reported on the experiences of clinical facilitators during international clinical placements. This study is part of a larger study that explored shared learning experiences of Australian and Balinese midwifery students and clinical facilitators during a two-week international clinical placement in Bali, Indonesia. This paper reports on the experiences of clinical facilitators from both visiting and host countries in facilitating Australian and Balinese midwifery students whilst on clinical placement in Bali. A qualitative research design using focus group discussion was used to gain insight into the experience of the clinical facilitators. Data was analysed using thematic analysis and three broad themes emerged, those being “new experiences”, “differences in midwifery practice” and “revised learning approach”. New experiences included learning together and English language challenges. Working together allowed the exploration of midwifery practice differences between countries and an appreciation of the different approaches to teaching and learning practices. These findings suggest that international midwifery placements benefit clinical facilitators from host and visiting countries through learning together, creating new experiences and exploring different midwifery and facilitation practices. (Author)

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#### 2022-01934

**Determinants of readiness towards self-directed learning among nurses and midwives: Results from national survey.**

Chakkaravarthy K, Ibrahim N, Mahmud M, et al (2020), Nurse Education in Practice vol 47, August 2020, 102824

An ever-changing and challenging patient care environment requires nurses and midwives to embrace the concept of lifelong learning through a self-directed learning (SDL) approach. This study aims to evaluate nurses and midwives' readiness towards self-directed learning (SDRL) in Brunei Darussalam. A cross sectional descriptive study was conducted. Using a non-proportional quota sampling method, 700 questionnaires were distributed among nurses and midwives working in four District Government Hospitals in Brunei. Fisher's Self Directed Learning Readiness Scale was used to explore readiness towards SDL among nurses and midwives. In total, 616 completed questionnaires were returned (representing a response rate of 88%). Results indicated a high level of readiness towards self-directed learning among the participants with a total mean SDLR score of  $158.44 \pm 16.00$ . In overall comparison, the mean score of domains were: self-management (49.21), desire for learning (50.12) and self-control (59.10). This national hospital survey concludes that gradueness, workplace, age and marital status determine readiness towards self-directed learning among nurses and midwives in Brunei. Future research should focus on a theoretical framework for SDL models and the impact of these models on quality nursing practice. (Author)

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#### 2022-01933

**Effect of simulation training on students' childbirth skills and satisfaction in Turkey.** Çalım Sİ, Ulaş SC, Demirci H, et al (2020),

Nurse Education in Practice vol 46, July 2020, 102808

This study examined the effects of simulation training on student midwives' management skills for normal childbirth and their satisfaction. This study utilized a quantitative, quasi-experimental, comparison group research design. Students were placed into two groups according to the last digit of their school identity number (odd versus even), given by The Directorate of Student Affairs. Lots were drawn to decide which simulation model the odd and even numbers would represent. One group received simulation training for normal birth skills using a low-fidelity pelvic model (n = 37) while the other group used a high-fidelity computer-based mannequin (n = 38). After the skills training, each student midwife managed the second and third stages of a simulated normal childbirth. The skill checklists were used to evaluate the students' second and third stage labor midwifery skills. After the simulation activity, the Students' Satisfaction and Self-confidence Scale was used to measure their levels of satisfaction with the simulation

activity and their self-confidence in learning. There were no significant differences between the groups in terms of childbirth management skills and satisfaction in learning ( $p > 0.05$ ). Thus, both methods can be recommended for simulation training of student midwives. (Author)

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## 2022-01873

**Assessing the reliability of phone surveys to measure reproductive, maternal and child health knowledge among pregnant women in rural India: a feasibility study.** Ng A, Mohan D, Shah N, et al (2022), *BMJ Open* vol 12, no 3, March 2022, e056076

**Objectives** Efforts to understand the factors influencing the uptake of reproductive, maternal, newborn, child health and nutrition (RMNCH&N) services in high disease burden low-resource settings have often focused on face-to-face surveys or direct observations of service delivery. Increasing access to mobile phones has led to growing interest in phone surveys as a rapid, low-cost alternatives to face-to-face surveys. We assess determinants of RMNCH&N knowledge among pregnant women with access to phones and examine the reliability of alternative modalities of survey delivery.

**Participants** Women 5–7 months pregnant with access to a phone.

**Setting** Four districts of Madhya Pradesh, India.

**Design** Cross-sectional surveys administered face-to-face and within 2 weeks, the same surveys were repeated among two random subsamples of the original sample: face-to-face ( $n=205$ ) and caller-attended telephone interviews ( $n=375$ ). Bivariate analyses, multivariable linear regression, and prevalence and bias-adjusted kappa scores are presented.

**Results** Knowledge scores were low across domains: 52% for maternal nutrition and pregnancy danger signs, 58% for family planning, 47% for essential newborn care, 56% infant and young child feeding, and 58% for infant and young child care. Higher knowledge ( $\geq 1$  composite score) was associated with older age; higher levels of education and literacy; living in a nuclear family; primary health decision-making; greater attendance in antenatal care and satisfaction with accredited social health activist services. Survey questions had low inter-rater and intermodal reliability ( $\text{kappa} < 0.70$ ) with a few exceptions. Questions with the lowest reliability included true/false questions and those with unprompted, multiple response options. Reliability may have been hampered by the sensitivity of the content, lack of privacy, enumerators' and respondents' profile differences, rapport, social desirability bias, and/or enumerator's ability to adequately convey concepts or probe.

**Conclusions** Phone surveys are a reliable modality for generating population-level estimates data about pregnant women's knowledge, however, should not be used for individual-level tracking.

Trial registration number NCT03576157. (Author)

**Full URL:** <http://dx.doi.org/10.1136/bmjopen-2021-056076>

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## 2022-01758

**Knowledge on intrapartum care practices among skilled birth attendants in Cambodia—a cross-sectional study.** Matsui M, Saito Y, Po R, et al (2021), *Reproductive Health* vol 18, no 115, 9 June 2021

### Background

Delivery is a critical moment for pregnant women and babies, and careful monitoring is essential throughout the delivery process. The partograph is a useful tool for monitoring and assessing labour progress as well as maternal and foetal conditions; however, it is often used inaccurately or inappropriately. A gap between practices and evidence-based guidelines has been reported in Cambodia, perhaps due to a lack of evidence-based knowledge in maternity care. This study aims to address to what extent skilled birth attendants in the first-line health services in Cambodia have knowledge on the management of normal delivery, and what factors are associated with their level of knowledge.

### Methods

Midwives and nurses were recruited working in maternity in first-line public health facilities in Phnom Penh municipality, Kampong Cham and Svay Rieng provinces. Two self-administered questionnaires were applied. The first consisted of three sections with questions on monitoring aspects of the partograph: progress of labour, foetal, and

maternal conditions. The second consisted of questions on diagnostic criteria, normal ranges, and standard intervals of monitoring during labour. A multiple linear regression analysis was performed to identify relationships between characteristics of the participants and the questionnaire scores.

## Results

Of 542 eligible midwives and nurses, 523 (96%) participated. The overall mean score was 58%. Only 3% got scores of more than 90%. Multivariate analysis revealed that 'Kampong Cham province', 'younger age', and 'higher qualification' were significantly associated with higher scores. Previous training experience was not associated with the score. Substantial proportions of misclassification of monitoring items during labour were found; for example, 61% answered uterine contraction as a foetal condition, and 44% answered foetal head descent and 26% answered foetal heart rate as a maternal condition.

## Conclusion

This study found that knowledge was low on delivery management among skilled birth attendants. Previous training experience did not influence the knowledge level. A lack of understanding of physiology and anatomy was implied. Further experimental approaches should be attempted to improve the knowledge and quality of maternity services in Cambodia. (Author)

Full URL: <https://doi.org/10.1186/s12978-021-01166-z>

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## 2022-01726

**Two decades of Iranian midwives' activities as a health care provider under supervision in a multidisciplinary team in reducing maternal mortality.** Mirghafourvand M, Khosravi S, Tabrizi JS, et al (2021), *Reproductive Health* vol 18, no 37, 12 February 2021

Iran is amongst the countries that have achieved the fifth goal of the United Nations Millennium Development Goal. The maternal mortality ratio (MMR) in Iran has declined from 48 cases per 100,000 in 2000 to 16 cases per 100,000 in 2017, showing an annual decline rate of about 6.3%. In the International Year of the Nurse and the Midwife (year 2020), this commentary highlights two decades of Iranian midwives' activities as a health care provider under supervision in a multidisciplinary team in reducing maternal mortality. (Author)

Full URL: <https://doi.org/10.1186/s12978-021-01100-3>

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## 2022-01612

**Assessing mobile phone access, usage, and willingness among women to receive voice message-based mobile health intervention to improve antenatal care attendance in district Thatta, Sindh, Pakistan.** Feroz AS, Ali NA, Saleem S (2020), *Reproductive Health* vol 17, no 104, 6 July 2020

### Background

Pakistan has one of the highest maternal mortality ratios worldwide at 276/100,000 live births and only 51% percent of women receive four or more ANC visits. This means that there are missed opportunities for almost half of the women who were not able to seek the recommended antenatal visits. In Thatta district, the maternal mortality ratio is estimated at 313/100,000 live births. Various studies reported that mHealth interventions have proven to be effective to improve antenatal care and postnatal care services. However, the feasibility and effectiveness of mobile health interventions to increase uptake of preventive maternal healthcare services among pregnant women in different settings may be different due to differing patient demographics, cultural diversity, environmental and behavioral factors, availability and accessibility to mobile phones, and budgetary constraints. Prior to implementing a similar intervention in Thatta District, it is crucially important to assess the mobile phone access, usage and willingness among women to receive voice-message based mHealth intervention to improve antenatal care attendance.

### Methods

A cross-sectional quantitative study will be used to assess mobile phone access, usage and willingness among women to receive voice-message based mHealth intervention to improve antenatal care attendance in district Thatta. The study will be conducted in Thatta district of Sindh province. Married women of reproductive age (MWRA), who are residing in selected villages of Mirpur Sakro and willing to participate will be included in the study. Multistage sampling technique will be used to recruit the 415 study participants. A structured questionnaire has been designed on Epicollect to collect data from 415 women. Data will be analyzed using IBM SPSS Statistics version 23, with a level of significance as < 0.05.

### Discussion

This research project will provide invaluable information on the current access, usage of mobile phones among women of district Thatta and their willingness to receive voice messages to improve the antenatal care services. The study will also highlight demographic, sociocultural and economic factors associated with women willingness and readiness to receive voice messages regarding antenatal care. (Author)

Full URL: <https://doi.org/10.1186/s12978-020-00956-1>

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#### 2022-01402

**Build professional competence and Equip with strategies to empower midwifery students – An interview study evaluating a simulation-based learning course for midwifery educators in Bangladesh.** Bogren M, Rosengren J, Erlandsson K, et al (2019), *Nurse Education in Practice* vol 35, February 2019, pp 27-31

Use of simulation-based learning in midwifery education programmes is crucial. Due to midwifery educators in Bangladesh were lacking competence in using such pedagogical methods in their teaching, they were invited to participate in a simulation-based learning course. In this paper, we present a study on the perceived usefulness of this course. Semi-structured individual interviews were conducted with 17 of the 28 midwifery educators participating on the course and data were analysed using inductive content analysis. Findings showed that the simulation-based learning course for midwifery educators in Bangladesh was useful. It “builds the professional competence of midwifery educators” and “equips them with strategies to empower midwifery students”. The findings show that a simulation-based learning course is of major importance in pre-service education in settings where the capacity of midwifery educators needs to be strengthened. However, without continuous in-service training, the midwives’ competence will deteriorate and this in turn will threaten the quality of midwifery education and the midwifery profession. Thus, contextualized pre- and in-service simulation-based education to secure midwifery core competencies is necessary. Simultaneously implementing and evaluating pre- and in-service education programmes is the next step in the struggle to increase the quality of maternity care services. (Author)

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#### 2022-01399

**New nurses and community maternal care education: A qualitative study.** Fadilah N, McKenna L (2019), *Nurse Education in Practice* vol 34, January 2019, pp 139-144

There is ongoing focus in Indonesia to lower the maternal mortality rate. One strategy has been increasing numbers of health care practitioners, including nurses, in the community. While much is known about transition experiences of new registered nurses, little is known about the adequacy of educational preparation of new nurses in Indonesia to provide maternal care in community settings. This qualitative descriptive study explored new diploma prepared nurses’ perceptions of their educational preparation for providing community maternal care. Semi-structured interviews were conducted with five new nurses working in community health care centres in Gowa District, South Sulawesi, Indonesia. Thematic analysis was used to analyse data. Three key themes emerged: Practice context, Professional role delineation, and Education programs. Nurses reported encountering a range of aspects of maternal care, and community expectations of their skills and knowledge. These were particularly necessary in rural areas. Educational preparation was found to be insufficient for the activities that graduates were engaged in. There is a need for more research into maternal care content in undergraduate nursing programs in Indonesia to ensure optimal maternal care in community settings. (Author)

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#### 2022-01357

**Child marriage and its association with Maternal Health Care Services utilisation among women aged 20–29: a multi-country study in the South Asia region.** Kamal SMM, Ulas E (2022), *Journal of Obstetrics and Gynaecology* vol 42, no 5, 2022, pp 1186-1191

Despite pervasiveness of child marriage in South Asian countries, its association with the usage of Maternal Health Care Services (MHCS) is poorly explored. In this study, we examined the impact of child marriage on MHCS utilisation among the prime reproductive aged women of five South Asian countries Afghanistan, Bangladesh, India, Nepal and Pakistan. Data for this study are extracted from the most recent Demographic and Health Surveys. The effect of child marriage on the use of MHCS was assessed by the multivariate logistic regression analysis. Findings reveal that in the South Asian region, the prevalence of child marriage is more common in Bangladesh, followed by Afghanistan, Nepal, India and Pakistan. Child marriage significantly ( $p < .01$ ) deters the usage of MHCS – at least once antenatal care (ANC) visit, at least four ANC visit, Institutional delivery and seeking assistance from skilled birth assistance (SBA), though the effect size was somewhat different across the countries. Findings stipulate to remain girls in schooling more and the marriage acts of the countries should be enacted properly to diminish child marriage not only for increasing MHCS use, also for individual wellbeing and overall development of each country.

## Impact Statement

What is already known on this subject? Child marriage in South Asian countries is commonplace despite substantial improvements of socioeconomic status. Although child marriage have many adverse reproductive and health outcomes, empirical evidence and systematic studies, particularly the association of child marriage with the usage of Maternal Health Care Services (MHCS) in the South Asian women are few.

What do the results of this study add? Findings of this study affirm that prevalence of child marriage in South Asian region is still common. Although every country has set out minimum age at first marriage by acts, the acts are poorly followed, which adversely impacts the usage of MHCS among married women.

What are the implications of these findings for clinical practice and/or future research? The study findings provide important insights of the consequence of child marriage on the skilled MHCS utilisation. The marriage acts of the countries should be enacted properly to restrict child marriage not only for increasing MHCS, also for individual wellbeing and overall development of each country. Study has important implications for planners, organisation managers and policy makers. (Author)

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## 2022-01252

**Evaluation of validation characteristics of comprehensive midwifery examination checklists to evaluate the clinical skills of midwifery students: A methodological study.** Pakari N, Keshavarz S, Chananeh M, et al (2022), Nurse Education Today vol 108, January 2022, 105171

### Background

Due to the high percentage of need for clinical techniques in the field of midwifery, evaluation of clinical skills of graduates is necessary.

### Objective

The aim of this study was to investigate the validation characteristics of comprehensive examination checklists in midwifery students.

### Design

The present study was a methodological study in which seven checklists related to important midwifery skills were entered into the psychometric process.

### Setting

The study was conducted in the School of Nursing and Midwifery and the Persian Gulf martyrs and Salman Farsi Hospitals, Nabi-e-Akram comprehensive health center in Bushehr city.

### Participants

Quantitative face validity was performed by examining the item impact score based on the opinions of 10 midwifery graduates. Quantitative content validity was performed by examining the content validity ratio and index based on the opinions of 12 experts. For structural validity as well as reliability assessment, checklists were used for 78 midwifery students who had completed their studies and were about to graduate. To determine the convergent validity, the correlation of the score of each checklist with the mean score of the similar fields of each skill was measured. Divergent validity was assessed by measuring the correlation between the score of each checklist and the score of other checklists and comparing it with the internal consistency of each checklist. Internal consistency and agreement between evaluators were used to assess reliability. Data were analyzed using SPSS19.

### Results

Content validity index and content validity ratio for each item were more than 0.79 and 0.67, respectively. There was a significant correlation between the score of each skill and the mean score of similar fields of that skill ( $P < 0.05$ ).

### Conclusion

According to the results, it can be concluded that comprehensive midwifery student evaluation checklists are a valid and reliable tool. (Author)

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## 2022-01251

#### Background

It is important for the professionalism that students at the university use their coping skills to solve the problems that may arise before starting the profession, control their behaviours by directing themselves, and motivate themselves in case they face negative situations.

#### Objectives

This study was carried out to determine the relationship between the selfleadership skills of students studying in nursing and midwifery departments and their learned resourcefulness skills.

#### Design

The study a descriptive, correlational and cross-sectional pattern.

#### Settings

The sample of the study consisted of 380 students studying at the Nursing and Midwifery Department of the Faculty of Health Sciences of a foundation university in Istanbul.

#### Methods

The research data were collected using the information form, the Revised Self-Leadership Questionnaire, and the Rosenbaum Learned Resourcefulness Scale. In the analysis of the data descriptive analysis, parametric or non-parametric comparative analyzes and correlational analyzes were used.

#### Results

In the study; 84.5% of the participants were female and whose mean age was 20.6-61.6% of the participants were studying in the nursing department. The total score the students got from the Revised Self-Leadership Questionnaire was  $131.87 \pm 23.49$ , and the total score that got from the Rosenbaum Learned Resourcefulness Scale was  $120.81 \pm 16.77$ . The students studying in the third-grade ( $124.16 \pm 13.9$ ) had higher self-control skills compared to the first ( $118.57 \pm 18.8$ ) and the second-grade ( $119.2 \pm 16.7$ ) students, that's, they frequently applied the coping strategies represented in the scale ( $p < 0.05$ ). There was a positive linear relationship between two scale ( $p < 0.001$ ).

#### Conclusion

Within the framework of the research results, gender, grade and the department studied are related to the level of self-leadership. The level of learned resourcefulness was associated with classroom and stress training. Individuals' self-leadership levels showed a positive relationship with their learned resourcefulness level. (Author)

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#### 2022-01250

**Effectiveness of team-based learning on postpartum hemorrhage in midwifery students in Indonesia: A quasi-experimental study.** Ulfa Y, Igarashi Y, Takahata K, et al (2021), Nurse Education Today vol 105, October 2021, 105015

#### Background

Poor quality of care by midwives in Indonesia has become a barrier to improving maternal health. To eliminate this barrier, reforming the educational system (i.e., teaching and learning processes) is an urgent concern. Herein, we propose the use of team-based learning (TBL) as an active learning strategy to enhance knowledge of postpartum hemorrhage (PPH) and learning satisfaction of midwifery students in Indonesia.

#### Objectives

To assess and compare knowledge of PPH, long-term retention of knowledge, and learning satisfaction of midwifery students attending a TBL class versus a didactic lecture on PPH topics.

#### Methods

A quasi-experimental design was used. The participants were second-year diploma level midwifery students who have (a) no TBL experience, (b) completed the previous semester, and (c) graduated from senior high school (without nursing background). We recruited 118 participants. The midwifery students in the intervention group participated 3 times in the TBL class (90 min), whereas those in the control group participated in the didactic lecture on PPH topics. An unpaired t-test was used to evaluate differences between groups. ANOVA was used to evaluate differences within groups.

## Results

A total of 115 participants (intervention = 62, control = 53) were finally evaluated. The demographic data and pre-test scores were not significantly different between the 2 groups. The mean knowledge of PPH scores were significantly higher in the TBL students than in the control students at post-test, 2 weeks post-test, 6 weeks post-test, and 12 weeks post-test (all  $p < .001$ ). The nursing student satisfaction scale score was significantly higher in the intervention group than in the control group.

## Conclusion

The findings showed that TBL is an effective active learning strategy to improve knowledge of PPH of Indonesian midwifery students before clinical practice exposure. Further long-term evaluation (e.g., 1 semester) of the effectiveness of TBL is warranted. (Author)

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## 2022-01219

**Evaluating the effect of strengthening nurse midwifery pre-service education in two Indian states: A single group pre – and post – intervention study.** Agrawal N, Bhargava S, Usmanova G, et al (2021), Nurse Education Today vol 96, January 2021, 104640

## Background

The high focus states of India have higher maternal and neonatal mortality rates as compared to the national average. The quality of pre-service education (PSE) in nursing midwifery institutions in these states was found to be suboptimal. In 2013, Government of India implemented the PSE strengthening program across all public sector nursing midwifery institutions. The program focused on strengthening educational processes, training infrastructure, institutional management and clinical site practices by implementing a set of performance standards.

## Objective

To evaluate the effect of PSE strengthening program on institutional performance and maternal neonatal health (MNH) related competences of nursing midwifery students and faculty.

## Design

Single group pre-post intervention study.

## Settings

15 sampled public sector nursing midwifery institutions in the states of Madhya Pradesh and Odisha, India.

## Participants

Final-year students and faculty involved in teaching MNH subjects.

## Methods

Performance of 15 sampled institutions was assessed at baseline, midline and endline using the performance standards. Additionally, competences of 232, 295 and 298 students and 64, 62 and 63 faculty members at baseline, midline and endline respectively were assessed on six MNH related practices using objective structured clinical examination (OSCE).

## Results

None of the institutions met 70% standards during baseline. At endline, 13 of the 15 institutions met these standards. The mean OSCE scores of students and faculty at baseline was 17.1 (SD: 8.0) and 23.5 (SD: 14.3) out of 76 respectively. It significantly increased to 66.4 (SD: 8.0) and 71.1 (SD: 5.2) during the endline. The proportion of students and faculty found competent (achieved 75% in OSCE) also significantly increased from none at baseline to 91% and 98% respectively, at endline.

## Conclusion

The combination of attributes included in the PSE strengthening program may have contributed to improvements in institutional performance as well as MNH related competences of nursing midwifery students and faculty. (Author)

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## 2022-00682

**Estimating maternity ward birth attendant time use in India: a microcosting study.** Lofgren KT, Bobanski L, Tuller DE, et al

**Objectives** Despite global concern over the quality of maternal care, little is known about the time requirements to complete the essential birth practices. Using three microcosting data collection methods within the BetterBirth trial, we aimed to assess time use and the specific time requirements to incorporate the WHO Safe Childbirth Checklist into clinical practice.

**Setting** We collected detailed survey data on birth attendant time use within the BetterBirth trial in Uttar Pradesh, India. The BetterBirth trial tested whether the peer-coaching-based implementation of the WHO Checklist was effective in improving the quality of facility-based childbirth care.

**Participants** We collected measurements of time to completion for 18 essential birth practices from July 2016 through October 2016 across 10 facilities in five districts (1559 total timed observations). An anonymous survey asked about the impact of the WHO Checklist on birth attendants at every intervention facility (15 facilities, 83 respondents) in the Lucknow hub. Additionally, data collectors visited facilities to conduct a census of patients and birth attendants across 20 facilities in seven districts between June 2016 and November 2016 (six hundred and ten 2-hour facility observations).

**Primary and secondary outcome measures** The primary outcome measure of this study is the per cent of staff time required to complete the essential birth practices included in the WHO Checklist.

**Results** When birth attendants were timed, we found practices were completed rapidly (18 s to 2 min). As the patient load increased, time dedicated to clinical care increased but remained low relative to administrative and downtime. On average, WHO Checklist clinical care accounted for less than 7% of birth attendant time use per hour.

**Conclusions** We did not find that a coaching-based implementation of the WHO Checklist was a burden on birth attendant's time use. However, questions remain regarding the performance quality of practices and how to accurately capture and interpret idle and break time.

Trial registration number NCT02148952. (Author)

**Full URL:** <http://dx.doi.org/10.1136/bmjopen-2021-054164>

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## 2022-00605

**Where is the 'C' in antenatal care and postnatal care: A multi-country survey of availability of antenatal and postnatal care in low- and middle-income settings.** Madaj B, Gopalakrishnan S, Quach A, et al (2022), BJOG: An International Journal of Obstetrics and Gynaecology vol 129, no 9, August 2022, pp 1546-1557

### Objective

Antenatal (ANC) and postnatal care (PNC) are logical entry points for prevention and treatment of pregnancy-related illness and to reduce perinatal mortality. We developed signal functions and assessed availability of the essential components of care.

### Design

Cross-sectional survey.

### Setting

Afghanistan, Chad, Ghana, Tanzania, Togo.

### Sample

Three hundred and twenty-one healthcare facilities.

### Methods

Fifteen essential components or signal functions of ANC and PNC were identified. Healthcare facility assessment for availability of each component, human resources, equipment, drugs and consumables required to provide each component.

### Main outcome measure

Availability of ANC PNC components.

## Results

Across all countries, healthcare providers are available (median number per facility: 8; interquartile range [IQR] 3–17) with a ratio of 3:1 for secondary versus primary care. Significantly more women attend for ANC than PNC (1668 versus 300 per facility/year). None of the healthcare facilities was able to provide all 15 essential components of ANC and PNC. The majority (>75%) could provide five components: diagnosis and management of syphilis, vaccination to prevent tetanus, BMI assessment, gestational diabetes screening, monitoring newborn growth. In Sub-Saharan countries, interventions for malaria and HIV (including prevention of mother to child transmission [PMTCT]) were available in 11.7–86.5% of facilities. Prevention and management of TB; assessment of pre- or post-term birth, fetal wellbeing, detection of multiple pregnancy, abnormal lie and presentation; screening and support for mental health and domestic abuse were provided in <25% of facilities.

## Conclusions

Essential components of ANC and PNC are not in place. Focused attention on content is required if perinatal mortality and maternal morbidity during and after pregnancy are to be reduced. (Author)

Full URL: <https://doi.org/10.1111/1471-0528.17106>

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## 2022-00140

**Experience of undergraduate midwifery students faced with perinatal death in clinical practice: A qualitative study.** Shen Q, Liang J, Gao Y (2022), Nurse Education Today vol 108, January 2022, 105159

### Background

Student midwives often encounter perinatal loss including stillbirth and neonatal death as part of their clinical training. There has been limited research on how student midwives cope with perinatal death.

### Objective

To explore the experiences of undergraduate midwifery students facing perinatal death during their internships.

### Design

Qualitative research design based on interpretive phenomenological approach and COREQ-guided reporting.

### Setting

Tertiary maternal and child care center or general hospital.

### Participants

Undergraduate midwifery students from a medical university in Guangzhou, China.

### Methods

Study participants were recruited through purposive sampling. Semi-structured in-depth interviews were conducted between October 2020 and March 2021 with 12 midwifery students. Transcripts of the interviews were analyzed using Diekelmann's interpretive method.

## Results

Four themes were identified from the data: unavoidable anxiety and avoidance response; overwhelming fear and taboos related to death; self-blame and emotional inhibition; and ethical conflict and reflection on practice.

## Conclusions

Undergraduate midwifery students believed they were ill-prepared to care for women who experienced perinatal loss, consciously endured their own negative emotions such as anxiety and fear, and hoped for improved bereavement and stillbirth care in future clinical practice. Students valued support from the bereavement midwife and identified effective strategies that would help them cope with their feelings. It is recommended that adequate education and emotional support be provided to midwifery students, who should be encouraged to provide appropriate care to grieving families. (Author)

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## 2021-14076

**The importance of community midwives in Pakistan: Looking at existing evidence and their need during the COVID-19 pandemic.** Siddiqui D, Ali TS (2022), Midwifery vol 106, March 2022, 103242

Concerns over the soaring number of COVID-19 cases has taken precedence within the healthcare community and

overshadows the jarringly high rates of maternal mortality in developing countries. Pakistan is suffering from high maternal mortality, surges of COVID-19 cases, lack of integrated healthcare system, and rural poverty. Amidst fear and uncertainty, Community Midwives are stepping up as maternal healthcare leaders who are reaching out to neglected pregnant women in rural communities of Pakistan. They are responsible for rebuilding trust, delivering comprehensive and respectful maternal care and providing family planning counseling. To accomplish Sustainable Development Goal #3.1, Pakistan must support community midwives and diminish the barriers they face. (Author)

Full URL: <https://doi.org/10.1016/j.midw.2021.103242>

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## 2021-14075

**Experiences of community midwives receiving helping baby breathe training through the low dose high-frequency approach in Gujrat, Pakistan.** Naz A, Lakhani A, Mubeen K, et al (2022), *Midwifery* vol 105, February 2022, 103241

### Background

Pakistan's neonatal mortality rate has the highest proportion in the South Asian region and it is higher in the rural areas as compared to the urban areas. Poor resuscitation techniques and lack of basic newborn resuscitation skills in birth attendants are contributing factors towards neonatal deaths. Based on the significant outcomes of the Helping Baby Breath (HBB) training, similar training was implemented for Community Midwives (CMWs) in a low-resource setting in Gujrat, Pakistan, to improve their knowledge and skills. The training evaluation was conducted and participant feedback was obtained through both qualitative and quantitative methods. The findings of the quantitative assessment of the training evaluation will be published elsewhere. This paper presents the qualitative evaluation of the training.

### Objective

The objective of the study was, to determine the perceptions of HBB trained CMWs about the effectiveness of the HBB training, and the challenges faced in the implementation of HBB skills for newborn resuscitation, at their work settings.

### Methodology

The qualitative descriptive design was used in this study. The purposive sampling technique was chosen to recruit midwives and key informants as participants of the training. Interviews were conducted by using a semi-structured interview guide. The study included a total of five interviews: two focus group interviews for CMWs (10 in each group), and three individual interviews of key informants.

### Findings

The content analysis of the qualitative data yielded three themes: the effectiveness of training, challenges, and suggestions. The findings revealed that the HBB training was effective for the CMWs in terms of its usability, regarding improvement in newborn resuscitation knowledge and skills. Moreover, it enhanced confidence and satisfaction in CMWs. However, less volume of patients was a challenge for a few CMWs with regard to practicing their skills.

### Conclusion

Due to the inadequate number of patients and fewer opportunities of practice for several CMWs, they required such training frequently, in order to maintain their competency. The CMWs also recommended that HBB training should be part of the Midwifery program curriculum. Moreover, similar training was also recommended for other healthcare providers working in low-resource settings, including doctors and nurses. (Author)

Full URL: <https://doi.org/10.1016/j.midw.2021.103241>

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## 2021-14011

**Antenatal care processes in rural Southern Nepal: gaps in and quality of service provision—a cohort study.** Bryce E, Katz J, Lama TP, et al (2021), *BMJ Open* vol 11, no 12, December 2021, e056392

**Objectives** This study aimed to compare a standard quality of care definition to one that reflected focused antenatal care (FANC) guidelines and examine associations with receipt of good quality of care.

**Design** This study was a longitudinal cohort study.

**Settings** Five government health posts in the Sarlahi district of Southern Nepal

**Participants** Pregnant women between the ages of 15 and 49 who presented for their first antenatal care (ANC) visit at

the study health posts.

**Main outcomes** There were two quality of care definitions: (1) provision of seven services at least once during pregnancy (QOC1) and (2) provision of services to reflect the FANC guidelines by incorporating a frequency of care dimension for certain services (QOC4+).

**Results** There was variation in service provision both in terms of frequency of provision and by gestational age at the visit. There were 213 women (49.1%) that received good quality care by the first definition, but when the frequency of service provision was included for the second definition the percentage dropped to 6.2%. There were significant differences in provision of quality care by health post for both definitions. The number of visits (QOC1 adjusted risk ratio (aRR) 1.18, 95% CI 1.13 to 1.23; QOC4+ aRR 1.46, 95% CI 1.11 to 2.80) and care during the first trimester (QOC1 aRR 1.22, 95% CI 1.01 to 1.49) and maternal age (QOC1 aRR 1.27, 95% CI 1.03 to 1.58) were associated with greater likelihood of good quality ANC.

**Conclusion** This analysis demonstrated that measuring quality of care by receipt of services at least once during pregnancy may overestimate the true coverage of quality of ANC. Future efforts should improve feasibility of including frequency of care in quality of care definitions. (Author)

**Full URL:** <http://dx.doi.org/10.1136/bmjopen-2021-056392>

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## 2021-14007

**Factors associated with the timely initiation of antenatal care: findings from a cross-sectional study in Northern Bangladesh.** Sarker BK, Rahman T, et al (2021), BMJ Open vol 11, no 12, December 2021, e052886

**Objective** This paper explored the factors that influence the timely initiation of antenatal care (ANC) in Bangladesh.

**Design** This was a cross-sectional survey.

**Setting** This study conducted in two rural subdistricts and one urban area from three Northern districts of Bangladesh from August to November 2016.

**Participants** Women who had a live birth in the last 1 year prior to data collection were enrolled for this study. In each study area, around 900 women were interviewed, and finally, we completed 2731 interviews.

**Primary outcome measures** The primary outcome was timely first ANC from a Medically Trained Provider (MTP).

**Results** About 43% of pregnancies were detected at their earliest time. The majority of participants (82%) received at least one ANC from an MTP. Only 11% received timely first ANC from an MTP as per the WHO FANC model. The women who detected pregnancy earlier were more likely (adj.OR 1.99, 95% CI 1.31 to 3.01) to receive the timely first ANC. The urban women were more likely (adj.OR 1.78, 95% CI 1.13 to 2.80) to receive the timely first ANC from an MTP than those of the rural women. Besides, their husbands' educational status (adj.OR 1.61, 95% CI 1.0 to 2.60) was significantly associated with the timely first ANC.

**Conclusion** Apart from sociodemographic factors, early pregnancy detection was strongly associated with the timely first ANC visit. Timely initiation of ANC is an opportunity to adhere to all the WHO recommended timely ANC visits for a pregnant woman. The findings suggest maternal, neonatal, and child health programmes to focus on the early detection of pregnancy to ensure universal ANC coverage and its timeliness. (Author)

**Full URL:** <http://dx.doi.org/10.1136/bmjopen-2021-052886>

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## 2021-13925

**Humanistic caring ability of midwifery students in China and its associated factors: A multi-centred cross-sectional study.**

Wang Y, Zhang X, Xie Q, et al (2022), Nurse Education Today 26 January 2022, online. 105276

**Background**

Research regarding humanistic caring has proliferated to enable person-centred and holistic care. Empirical evidence investigating the humanistic caring ability is largely derived from studies recruiting general nursing students. Midwifery students, however, remain underrepresented.

**Objectives**

To assess the humanistic caring ability of midwifery students in China and investigate its associated factors.

#### Design

A multi-centre cross-sectional descriptive study.

#### Settings

Five medical colleges spreading across Eastern, Central and Southern China.

#### Participants

Secondary vocational, higher vocational and undergraduate midwifery students (N = 303).

#### Methods

The Caring Ability Inventory (CAI), the Jefferson Scale of Physician Empathy for Nursing Students (JSPE-NS), the Connor–Davidson Resilience Scale (CD-RISC) and the Professional Identity Scale for Nursing Students (PISNS) were used to measure humanistic caring ability, empathy, resilience and professional identity, respectively. Stepwise multiple linear regression was used to explore associated factors.

#### Results

The midwifery students' total mean CAI score was  $184.63 \pm 19.88$ . In the multiple linear regression analysis, empathy ( $\beta = 0.394$ ,  $p < 0.001$ ), resilience ( $\beta = 0.233$ ,  $p < 0.001$ ) and professional identity ( $\beta = 0.161$ ,  $p = 0.002$ ) were positively associated with the humanistic caring ability of midwifery students. The humanistic caring ability was also influenced by education level, perceived concern from peers and recognition of caring ability as a prerequisite for midwifery profession.

#### Conclusions

Midwifery students in China have poor humanistic caring ability, which needs to be further improved. Interventions that cultivate the empathy, resilience and professional identity have the potential to advance the humanistic caring ability of midwifery students. Promoting a supportive and caring atmosphere among peers is also important. (Author)

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### 2021-13810

**Factors affecting the frequency and contents of routine antenatal care in remote rural China in 2009–2016: An observational study.** Ferg XL, Wang Y, Chen Z, et al (2022), BJOG: An International Journal of Obstetrics and Gynaecology vol 129, no 7, June 2022, pp 1062-1072

#### Objective

We assessed factors associated with the frequency and contents of antenatal care (ANC) in remote rural China, including the province of residence and individual-level factors.

#### Design

Survey-based cross-sectional study.

#### Setting

Five provinces in remote rural China: Guizhou, Hunan, Jilin, Ningxia and Shaanxi.

#### Sample

A cohort of 3918 women with a live birth in 2009–2016.

#### Methods

Poisson regression.

#### Main Outcome Measures

ANC frequency: five or more visits, starting in the first trimester. ANC contents: coverage of six care components and overuse of ultrasound.

#### Results

Three-quarters (72.9%) of women had five or more ANC visits, starting in the first trimester; 68.8% received all six care components and 94.5% had three or more ultrasounds. Only 30.9% of women sought ANC from township hospitals,

paying between \$3.80 and \$25.80 per visit. ANC frequency and contents were associated with the socio-economic characteristics of the women, but provincial effects were much greater, even after adjusting for individual factors. Women living in Guizhou and Ningxia, the two poorest provinces, with high proportions of ethnic minorities, were particularly underserved. Compared with women in Shaanxi, women in Guizhou were 33% (adjusted RR 0.67, 95% CI 0.61–0.74) less likely to receive five or more ANC visits, starting in the first trimester; women in Ningxia were 17% less likely (adjusted RR 0.83, 95% CI 0.76–0.90) to receive all six care components.

#### Conclusions

The province of residence was a stronger predictor of ANC frequency and contents than the individual characteristics of women in China, suggesting that strengthening the decentralised system of the financing and organisation of ANC at the province level is crucial for achieving success. Future efforts are warranted to engage subregional administrations. (Author)

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#### 2021-13687

**Strategies to improve the quality of midwifery care and developing midwife-centered care in Iran: analyzing the attitudes of midwifery experts.** Khosravi S, Babaey F, Abedi P, et al (2022), BMC Pregnancy and Childbirth vol 22, no 40, 16 January 2022

#### Background

In recent years, extensive studies have been designed and performed in the context of providing midwifery care in developed countries, which has been unfortunately neglected in some low resources and upper middle-income countries such as Iran. This study was conducted to identify the best strategies for improving the quality of midwifery care and developing midwife-centered care in Iran.

#### Methods

This was a qualitative study using focus group discussion and content analysis method. Data were collected from 121 participants including midwifery board members, gynecologists, heads of midwifery departments, midwifery students, in charge midwives in hospitals, and midwives in the private sector. Focused-group discussions were used for data collection, and data were analyzed using content analysis method.

#### Results

The main themes extracted from the participants' statements regarding improving the quality of midwifery care were as follows: Promotion and development of education, Manpower management, Rules, and regulations and standards for midwifery services, and Policy making.

#### Conclusion

This study showed that to improve midwifery care, health policy makers should take into account both the quality and quantity of midwifery education, and promote midwifery human resources through employment. Furthermore, insurance support, encouragement, supporting and motivating midwives, enhancing and improving the facilities, providing hospitals and maternity wards with cutting-edge equipment, promoting and reinforcing the position of midwives in the family doctor program, and using a referral system were the strategies proposed by participants for improving midwifery care. Finally, establishing an efficient and powerful monitoring system to control the practice of gynecologists and midwives, promoting the collaborative practice of midwives and gynecologists, and encouraging team-work with respect to midwifery care were other strategies to improve the midwifery services in Iran. Authorities and policymakers may set the stage for developing high quality and affordable midwifery care by relying on the strategies presented in this study. (Author)

Full URL: <https://doi.org/10.1186/s12884-022-04379-7>

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#### 2021-13645

**Integration of Technology to Clinical Teaching: The Impact of Mobile and Web-Based Software Automation Designed for Midwifery Students on Motivation, Time Management and Anxiety Levels.** Aksoy Derya Y, Akça E, Özşahin Z, et al (2022), Midwifery vol 106, March 2022, 103248

#### Aim

This study was performed to assess the impact of a mobile and web-based software system named Midwifery Clinical Automation (EBEKO) and designed by researchers to be used in clinical practices on motivation, time management and anxiety level.

## Method

The sample of this randomized controlled trial consisted of 60 midwifery students who were randomly and equally assigned to the experimental and control groups. Data were collected between February and May 2019 using “Student Introduction Form”, “Motivation Resources and Problems Scale (MRPS)”, “Time Management Inventory (TMI)” and “Spielberger's State-Trait Anxiety Inventory (STAI I-II)”. EBeko application was designed as a software system ensuring mutual interaction between students and instructors. Students in the experimental group and all instructors of the department of midwifery were trained in terms of using the system. Students were asked to upload the data regarding midwifery care, monitoring and trainings utilized within the clinical practices to the EBeko. Data uploaded to the system were transferred to the screen designed for the instructors who were in charge. Instructors assessed these forms (for pregnant women/puerperal women/newborns etc.), demanded revisions, approved or returned. Approved forms corresponded to the number of forms needed by the students in the study to graduate. All students in the experimental group used EBeko system throughout their education period (14 weeks). No interventions were made on the students in the control group. Data were analyzed through the descriptive statistics (frequency, percentage, mean, standard deviation, min-max values), and t test in the dependent and independent groups.

## Results

Students in the experimental and control groups were found to have similar motivation, time management and anxiety level prior to the use of EBeko. However, after the use of the application, the mean post-test motivation and time management scores of the students in the experimental group significantly increased compared to the control group ( $p < 0.001$ ,  $p < 0.05$ ), but no significant difference regarding the anxiety levels was present between the groups ( $p > 0.05$ ).

## Conclusion

EBeko was found to positively affect the motivation and time management of midwifery students. (Author)

Full URL: <https://doi.org/10.1016/j.midw.2021.103248>

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## 2021-13360

**‘We have a plan for that’: a qualitative study of health system resilience through the perspective of health workers managing antenatal and childbirth services during floods in Cambodia.** Saulnier DD, Thol D, Por I, et al (2022), *BMJ Open* vol 12, no 1, January 2022, e054145

**Objective:** Health system resilience can increase a system’s ability to deal with shocks like floods. Studying health systems that currently exhibit the capacity for resilience when shocked could enhance our understanding about what generates and influences resilience. This study aimed to generate empirical knowledge on health system resilience by exploring how public antenatal and childbirth health services in Cambodia have absorbed, adapted or transformed in response to seasonal and occasional floods.

**Design:** A qualitative study using semi-structured interviews and thematic analysis and informed by the Dimensions of Resilience Governance framework.

**Setting:** Public sector healthcare facilities and health departments in two districts exposed to flooding.

**Participants:** Twenty-three public sector health professionals with experience providing or managing antenatal and birth services during recent flooding.

**Results:** The theme ‘Collaboration across the system creates adaptability in the response’ reflects how collaboration and social relationships among providers, staff and the community have delineated boundaries for actions and decisions for services during floods. Floods were perceived as having a modest impact on health services. Knowing the boundaries on decision-making and having preparation and response plans let staff prepare and respond in a flexible yet stable way. The theme was derived from ideas of (1) seasonal floods as a minor strain on the system compared with persistent, system-wide organisational stresses the system already experiences, (2) the ability of the health services to adjust and adapt flood plans, (3) a shared purpose and working process during floods, (4) engagement at the local level to fulfil a professional duty to the community, and (5) creating relationships between health system levels and the community to enable flood response.

**Conclusion:** The capacity to absorb and adapt to floods was seen among the public sector services. Strategies that enhance stability and flexibility may foster the capacity for health system resilience. (Author)

Full URL: <http://dx.doi.org/10.1136/bmjopen-2021-054145>

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## 2021-12814

**Development of a tool to assess students' perceptions of respectful maternity care.** Dhakal P, Gamble J, Creedy DK, et al (2022), *Midwifery* vol 105, February 2022, 103228

### Objectives

To develop and test a tool to measure Bachelor of Nursing students' perceptions towards respectful maternity care in Nepal, a low-income country.

### Design

A cross-sectional design was used. Phases of tool development included item generation, expert review for content validity testing, and psychometric testing. The draft tool had 42 items on a 5-point Likert response scale of 1 = strongly disagree to 5 = strongly agree. Psychometric testing included dimensionality, internal consistency, and test-retest reliability. A t-test assessed mean score differences between students who had witnessed or not witnessed disrespect and abuse.

### Settings

Two medical colleges in Chitwan, Nepal

### Participants

Undergraduate Bachelor of Nursing students (n = 171) undertaking their midwifery clinical practicum were invited to complete the online survey.

### Findings

Principal component analysis generated three factors: Respectful Care, Safety and Comfort, and Supportive Care and explained 37.44% of the variance. The 18-item tool demonstrated good internal reliability (Cronbach's alpha of 0.81). The mean total scale score was 71.23 (SD 7.47, range 52-88 out of 90). Pearson's correlation coefficient confirmed test-retest reliability at one week ( $r = 0.91$ ,  $p < 0.001$ ). The magnitude of difference in mean scores between those who had witnessed or not witnessed disrespectful and abusive care was very small ( $\eta^2 = 0.04$ ).

### Key conclusion

The new Student Perceptions of Respectful Maternity Care tool is the first valid and reliable measure of students' perceptions of respectful maternity care. Validation of the newly developed tool in other low and middle income countries is recommended.

### Implications for practice

Measuring students' perceptions provides information to educators on how best to enhance students' understanding and provision of respectful care to women. (Author)

**Full URL:** <https://doi.org/10.1016/j.midw.2021.103228>

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## 2021-12325

**Reflection: a clinical learning tool in the undergraduate midwifery programme in Pakistan.** Shahid S, Abbas S, Adnan F (2021), *The Practising Midwife* vol 24, no 11, December 2021, pp 40-44

Reflection enhances personal and professional development. This study aimed to explore the perceptions of students about reflection as a clinical learning tool; and teachers' guidelines to write reflections and evaluate them. Qualitative action research was used. The study was conducted at a private nursing and midwifery institution in Karachi. Total population sampling was considered to recruit 11 study participants from the undergraduate midwifery programme. Data collection was done by following the steps of action research. Data analysis was done manually. Four themes emerged: 1) Competence in writing reflection, 2) Value of reflective practice, 3) Elements of reflection, and 4) Faculty comfort in assessing reflection. (Author)

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## 2021-11011

**Progress and challenges of midwifery education in Indonesia.** Adnani QES (2021), *European Journal of Midwifery* vol 5, November 2021, p 50

Letter to the editor discussing changes to midwifery education in Indonesia. Highlights the 2019 Midwifery Act and suggests that work must continue to develop a professional regulatory board. (LDO)

## 2021-10487

**Comfort With Touch and Influencing Factors Among Chinese Midwives - A Cross-sectional Survey.** Fang Q, Meng G, Luo C, et al (2020), *The Journal of Perinatal and Neonatal Nursing* vol 34, no 4, October/December 2020, pp 324-329

The aim of this study was to identify comfort with touch (CT) and influencing factors among Chinese midwives. Midwives (N = 252) from 7 hospitals in Guangdong, China, were asked to complete a self-report questionnaire between November 2018 and April 2019. The questionnaire included the Nurses' Comfort with Touch Scale (NCTS), the Nurses' Perceived Professional Benefits (NPPB) Scale, the Maslach Burnout Inventory–General Survey (MBI-GS), and a self-designed demographic questionnaire. Multivariate linear regression was used to identify influencing factors for CT. Mean NCTS total score was  $88.90 \pm 14.40$ , and the mean item score was  $5.23 \pm 0.91$ , which indicated a respectable score. Within the NCTS, CT was highest in the comfort support category ( $5.32 \pm 0.29$ ) whereas CT was lowest in the physical comfort category ( $4.28 \pm 0.28$ ). Multivariate regression analysis demonstrated that CT among Chinese midwives was associated with positive experiences or feelings surrounding the patient-nurse relationship ( $B = 3.239, P < .001$ ), perceived professional benefit (PPB, positive professional identity) ( $B = 0.240, P < .001$ ), emotional exhaustion ( $B = -0.414, P < .001$ ), depersonalization (negative attitude toward the work setting) ( $B = -0.773, P < .001$ ), and personal accomplishment (evaluation of self-worth) ( $B = 0.170, P = .015$ ). Touch training and educational programs are recommended for Chinese midwives to enhance awareness and acceptance of touch care. In addition, promoting positive patient-nurse relationships, improving PPB, and reducing burnout are recommended to enhance CT among Chinese midwives. Because of the size and racial homogeneity of the sample, further studies are recommended to identify CT and influencing factors in a larger, more diverse population of midwives worldwide. (Author)

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## 2021-10013

**'We are going into battle without appropriate armour': a qualitative study of Indonesian midwives' experiences in providing maternity care during the COVID-19 pandemic.** Hazfiarini A, Akter S, Homer CSE, et al (2021), *Women and Birth: Journal of the Australian College of Midwives* 10 October 2021, online

### Background

The COVID-19 pandemic has impacted the provision of maternity care worldwide. The continuation of maternity services during the pandemic is vital, but midwives have reported feeling overwhelmed in providing these services at this time. However, there are limited studies in Indonesia that have explored the experiences of midwives in providing care during the pandemic.

### Aim

Our study aims to explore Indonesian midwives' experiences in providing maternity care during the COVID-19 pandemic.

### Methods

We used a descriptive qualitative approach using in-depth interviews to explore the experiences of 15 midwives working in different level of maternity care facilities in two regions in Indonesia, Surabaya and Mataram. All interviews were conducted via WhatsApp call and were audio-recorded with permission. Data were analysed using inductive thematic analysis.

### Findings

Four themes were identified: 1) fear for the wellbeing of the family and herself, 2) increased workload, 3) motivation and support for midwives, and 4) challenges in providing maternity care for women.

### Discussion

Sense of duty and loyalty to other midwives motivated midwives to continue working despite their fears and increased workload. Inadequate protection and support and practical challenges faced by midwives should be addressed to ensure midwives' wellbeing and the continuity of maternity care.

### Conclusion

Our study provides insight into Indonesian midwives' experiences in providing maternity care during the COVID-19 pandemic. Adequate protection through PPE availability, effective training and support for midwives' wellbeing is needed to support midwives in providing maternity care during the pandemic. Community's adherence to COVID-19 protocols and good collaboration between primary health centres and hospitals would also benefit midwives. (Author)

## 2021-10002

**Professional learning using storytelling videos of childbirth experiences: A qualitative pilot study of student midwives' perceptions in Myanmar.** Noya A, Oguro M, Horiuchi S (2021), Japan Journal of Nursing Science 28 September 2021, online

**Aims**

To explore and describe Myanmar student midwives' perceptions of professional learning using storytelling videos of women's childbirth experiences by conducting a qualitative study and to assess potential pedagogical uses of storytelling videos in midwifery education.

**Methods**

This pilot study used a qualitative content analysis study design implemented as part of the Diversity and commonalities of birth from women's voice sharing project of the Toyota Foundation. Storytelling videos of the childbirth experiences of seven Asian women (three Myanmar, three Lao, and one Japanese women) were viewed by the students. Thereafter, a semistructured interview with focus group discussion was conducted to explore and assess the students' perceptions.

Setting: Kyaing Tong township, Shan State, Myanmar.

Participants: Five second-year midwifery students from a single midwifery training school in Myanmar.

**Results**

Data analysis of their perceptions yielded four major categories: (1) deep reverence for women/mothers;; (2) respectful attitude as a midwife to support mothers; (3) wish for a safe and secure birth environment; and (4) importance of learning from the mother's voice.

**Conclusions**

The student midwives realized the importance of listening to the mothers' voices regardless of the nationalities or cultural background. The findings indicated that the storytelling videos broadened the students' perspectives of pregnancy and childbirth, and motivated them to provide better maternity care. Storytelling videos of childbirth experiences can be powerful educational materials for enhancing professional learning of student midwives. (Author)

Full URL: <https://doi.org/10.1111/jjns.12456>

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**2021-09947**

**Reasons for presenting to antenatal care clinics in a sample of Pakistani women and their knowledge of WHO antenatal care package.** Nzala SH, Husain S, Hussain S (2021), European Journal of Midwifery vol 5, October 2021, p43

**Introduction:**

The purpose of antenatal care is to ensure that a woman has a safe pregnancy and that does not mean absence of any disease during this period. Antenatal care allows screening of preeclampsia, fetal abnormalities and other prevention strategies to be incorporated. The purpose of this study was to assess the reason for attending antenatal care clinics and knowledge of antenatal care content package in women.

**Methods:**

A cross-sectional study was conducted on 395 pregnant women attending antenatal care clinic at the Ruth K. M. Pfau Civil hospital, Karachi, Pakistan from 1 July 2019 to 31 December 2019. Each eligible woman was asked about the reason for attendance and her knowledge about WHO standardized antenatal care package.

**Results:**

The commonest reason for utilizing antenatal care in booked attendees was place of birth concern (25.9%) and in not booked was referral from private centers (33.6%) which was statistically significant ( $p=0.006$ ). Both booked and not booked women (67.9% vs 59.1%,  $p=0.409$ ) stated avoidance of complication during pregnancy and labor as the commonest reason for attendance. Women with higher parity were more likely to identify weight measurement ( $p=0.001$ ), iron and folic acid supplementation ( $p=0.001$ ), and urine detailed report ( $p=0.002$ ), as content of the standard package.

**Conclusions:**

Our study shows that women did not utilize antenatal care clinics for improving their health or the health of their fetus. The knowledge of the antenatal care package was limited to weight measurement and supplements. Moreover,

attendance and visits at an antenatal care facility do not equate to good service provision. (Author)

Full URL: <https://doi.org/10.18332/ejm/140794>

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#### 2021-09945

**Utilization of antenatal care services and its sociodemographic correlates in urban and rural areas in Delhi, India.** Rustagi R, Basu S, Garg S, et al (2021), *European Journal of Midwifery* vol 5, September 2021, p40

##### Introduction:

Timely and quality antenatal care (ANC) is an essential element of universal health coverage and a key determinant for the prevention of maternal mortality. Nevertheless, evidence from large-scale health surveys in developing countries highlight a lack of access and utilization of antenatal care especially among socioeconomically disadvantaged populations.

##### Material and Methods:

A total of 200 women were recruited from urban and rural primary care service provision areas of a government medical college in Delhi during April 2016–2017. Women with infants were interviewed to assess the antenatal care received by them during their recently concluded pregnancy.

##### Results:

The mean (SD) age of the participants was 25.6 (3.9) years. A total of 63 (31.5%) participants were primigravida, and 137 (68.5%) were multigravida. The knowledge of ANC was significantly higher in the participants that were more educated ( $p < 0.001$ ) but it was similar in both the urban and rural sites. Only 107 (53%) participants reported receiving comprehensive antenatal care defined as early registration of pregnancy (within 12 weeks), at least four ANC visits, two doses of tetanus toxoid, and at least 100 days of iron/folic acid supplementation (IFAS). The participants lacking knowledge of ANC had three times higher odds of suboptimal ANC utilization during their previous pregnancy ( $p = 0.018$ ). Furthermore, the ANC content was adequate in terms of medical service provision but deficient in terms of educational and counseling services.

##### Conclusions:

A high prevalence of suboptimal ANC utilization was observed despite the availability of government-funded primary care. (Author)

Full URL: <https://doi.org/10.18332/ejm/140459>

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#### 2021-08939

**“My husband is my family.” The culture of pregnancy disclosure and its implications on early pregnancy registration in a child nutrition intervention in rural Maharashtra, India.** Khan SS, Tawale NK, Patel A, et al (2021), *Midwifery* vol 103, December 2021, 103141

Less than seventeen percent pregnant women in rural India had full antenatal check-ups. Early uptake to maternal and child healthcare services is strongly associated with cultural beliefs and practices around pregnancy and childbirth. This study aims to assess the cultural elements that influence women's behaviours of disclosure of their pregnancy in rural setting in Maharashtra state of India. We conducted 25 In-depth semi structured interviews with pregnant women and two focus groups with Community Health Workers in villages around Nagpur and Bhandara districts. The pregnant women were selected purposively with preference given to those who had a previous pregnancy. The audio recorded interviews were transcribed verbatim and translated into English. An inductive thematic approach was applied for data analysis. According to most respondents, they would only directly disclose their pregnancy to their husband and close relatives. Although, most pregnant women were hesitant towards nonrelatives discovering their pregnancy before completion of three months. The reasons behind delayed disclosure of pregnancy were fear of losing baby due to black magic, and casting of evil eyes by jealous neighbours and people with bad intentions. The Community Health Workers seconded these beliefs and mentioned that if pregnancy disclosed earlier, the foetus would remain incomplete (adhura). These superstitions prevented the women from availing benefits from the health facility at the earliest. The study identified several local beliefs and perceptions that hinders health care utilization of the women. Interventions that are tailored to the local cultural context can address these obstacles to increase the uptake of antenatal check-up early in pregnancy. (Author)

#### 2021-08919

**Impact of childbirth policy changes on obstetric workload over a 13-year period in a regional referral center in China –**

**implications on service provision planning.** Xie M, Lao TT, Ma J, et al (2021), BMC Pregnancy and Childbirth vol 21, no 610, 7 September 2021

#### Background

We aimed to appraise the impact of the changing national childbirth policy since 2002, currently allowing two children per family, on obstetric workload in a regional referral center in China.

#### Methods

In a retrospective cohort study, temporal changes were examined in relation with maternal demographics, incidence of women with high risk pregnancies and resource statistics in our hospital in managing singleton viable pregnancies (birth from 28 weeks gestational age onwards) for the period 2005–2017.

#### Results

During this 13-year period, the number of singleton livebirths from 28 weeks gestational age onwards was 49,479. Annual numbers of births increased from 1,941 to 2005 to 5,777 in 2017. There were concomitant and significant increases in the incidence of multiparous women (10.6–50.8 %), of age  $\geq 35$  years (6.5–24.3 %), with prior caesarean Sec. (2.6–23.6 %), with  $\geq 3$  previous pregnancy terminations (1.0–4.9 %), with pre-gestational diabetes (0.2–0.9 %), and with chronic hypertension (0.2–1.2 %). There were associated increases in beds and staff complement and reduced average hospital stay. Nevertheless, while the workload of medical staff remained stable with increasing staff complement, that of midwives increased significantly as reflected by the total births: midwife ratio which increased from 194.1:1 to 320.9:1 ( $p < 0.001$ ).

#### Conclusions

In our hospital, progressively increasing numbers of annual births in combination with an increased incidence of women with high risk pregnancies took place following the revised national childbirth policy. Only the increase in medical and nursing, but not midwifery, staff was commensurate with workload. Remedial measures are urgently required before the anticipated progressive increase in care demand would overwhelm maternity care with potentially disastrous consequences. (Author)

Full URL: <https://doi.org/10.1186/s12884-021-04074-z>

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#### 2021-08860

**Relationship between maternal healthcare utilisation and empowerment among women in Bangladesh: evidence from a nationally representative cross-sectional study.** Anik AI, Ghose B, Rahman M (2021), BMJ Open Vol 11, no 8, August 2021, e049167

**Objective** To examine the relationship between women's empowerment and maternal healthcare utilisation in Bangladesh.

**Design** This cross-sectional study uses data from the most recent nationally representative Bangladesh Demographic and Health Survey, 2017–2018.

**Setting** Bangladesh.

**Participants** Married women aged 15–49 years who had a live birth within the 3 years preceding the survey ( $n=4767$ ).

**Primary and secondary outcome measures** Women's empowerment was measured using the recently developed and validated survey-based Women's emPowERment (SWPER) index. The index includes three domains: social independence, decision-making and attitude to violence. Outcomes included utilisation of at least one antenatal care from skilled providers (ANC1), at least four antenatal care visits ( $\geq 4$  ANC), delivery assisted by a skilled birth attendant (SBA) and a postnatal visit within 2 days of delivery (PNC). Logistic regression analyses were used to assess the identified relationships.

**Results** Among participants, 83% received ANC1, 46.3% received  $\geq 4$  ANC, 51.9% reported SBA and 50.9% sought PNC. Women with high levels of social empowerment relative to those with low levels were more likely to use ANC1 (adjusted OR (AOR) 1.85; 95% CI 1.40 to 2.45),  $\geq 4$  ANC (AOR 1.55; 95% CI 1.27 to 1.90), SBA (AOR 2.12; 95% CI 1.71 to 2.62) and PNC (AOR 1.95; 95% CI 1.56 to 2.44). Compared with women with low levels of decision-making empowerment, women with high levels were more likely to use SBA (AOR 1.49; 95% CI 1.21 to 1.83) and PNC (AOR 1.47; 95% CI 1.19 to 1.81). Additionally, significant inequality was observed among women moving from low to high empowerment in all domains of the empowerment index.

Conclusions Higher empowerment levels were positively associated with maternal healthcare utilisation in Bangladesh. Our findings suggest the need to address women's empowerment in policies aiming to expand health service utilisation. (Author)

Full URL: <http://dx.doi.org/10.1136/bmjopen-2021-049167>

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## 2021-08855

**Effectiveness of a short-structured training programme on knowledge of healthcare providers and programme managers involved in maternal and child health programmes in Odisha, India: a quality improvement study.** Bhatia V, Singh AK, Giri PP, et al (2021), *BMJ Open* Vol 11, no 8, August 2021, e040841

Objective To evaluate the effectiveness of training programme on knowledge related to new interventions proposed under India Newborn Action Plan (INAP) and Integrated Action Plan against Pneumonia and Diarrhoea (IAPPD).

Design Quality improvement study with pre-evaluation and post evaluation.

Setting The study was conducted in 17 districts of Odisha, India.

Participants and interventions The participants were healthcare providers and programme managers involved in maternal and child health programmes. Intervention was a short-structured (8 hours) training delivered to 127 batches with expected participation of 30 trainees in each batch. Training was divided into four modules covering new interventions related to INAP and IAPPD like causes of neonatal death, kangaroo mother care (KMC), feeding of low birthweight (LBW) infants, use of injection gentamicin, identification of possible serious bacterial infection (PSBI), identification and management of pneumonia and diarrhoea and key interventions for maternal health. Various modalities of teaching-learning method were used.

Outcome measures Pretraining and post-training knowledge assessment was done with a pretested tool consisting of 15 items. Each item carried equal weightage in calculation of knowledge score thus maximum possible knowledge score was 15. Feedback assessment was also done after the training.

Results The mean (SD) knowledge score significantly improved to 10.24 (2.24) after training as compared with 4.73 (1.94) before training,  $p < 0.001$  ( $n = 982$ ). There was significant improvement in knowledge for majority of the components namely causes of neonatal death (61.9% vs 28.1%), KMC (68.0% vs 54.6%), feeding of LBW infants (77.7% vs 6.9%), use of injection gentamicin (69.7% vs 11.2%), identification of PSBI (69.5% vs 59.5%). The improvement in knowledge score was more when healthcare providers and programme managers had provided a favourable response on feedback.

Conclusion Systematic pretest and post-test assessment coupled with feedback assessment can ensure the effectiveness of training programmes offered in programmatic settings. (Author)

Full URL: <http://dx.doi.org/10.1136/bmjopen-2020-040841>

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## 2021-08453

**Contrast in utilization of maternal and child health services between Himalayan region and rest of India: Evidence from National Family Health Survey (2015–16).** Mustafa A, Shekhar C (2021), *BMC Pregnancy and Childbirth* vol 21, no 606, 5 September 2021

### Background

Maternal and child health services, like antenatal care, skilled birth attendance and postnatal care, are crucial to improve maternal and neonatal health outcomes. Numerous studies have been conducted on the distribution of utilization of maternal and child healthcare (MCH) services in India with respect to socioeconomic and demographic characteristics. But no study has analyzed the utilization of MCH services with a focus on the topography of a given region (hilly/plain). The present study analyzes the utilization of MCH services in the hilly-Himalayan region of India in comparison to the rest of the country.

### Methods

Data from India's National Family Health Survey-4 (2015–16), on 190,898 women, was utilized for analysis in the present study. The association between the utilization of MCH services and the topography of the region of residence (hilly/plain) was analyzed by calculating adjusted odds ratios (AOR) with 95% confidence interval (95%CI) and

predicted probabilities using a two-level random intercept logistic regression model.

## Results

It was found that the utilization of MCH services was significantly lower in the hilly regions compared to the plain regions. Women living in hilly areas (AOR: 0.42, 95%CI: 0.39–0.45) had 58% lower odds of receiving skilled birth attendance (SBA) than those living in plain areas. Similarly, the odds of receiving PNC, ANC, and full immunization were also lower in the hilly regions compared to the plain regions. The utilization of MCH services was alarmingly low in the rural-hilly regions. The odds of receiving two tetanus injections before birth were 71% lower for women in the rural-hilly areas (AOR: 0.39, 95% CI: 0.36–43) than those in the rural-plain areas. Predicted probabilities also showed that women in the hilly regions were less likely to receive MCH services compared to their counterparts in the plain regions.

## Conclusion

Except for the consumption of Iron Folic Acid (IFA) and the utilization of AWC services/ICDS (Integrated Child and Development Services), all other MCH services were significantly underutilized in the hilly regions compared to the plain regions. This calls for the attention of and concentrated efforts by policy makers and stakeholders, with a special focus on the rural-hilly regions. We firmly believe that the results of the present study have important policy implications. (Author)

Full URL: <https://doi.org/10.1186/s12884-021-04081-0>

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## 2021-07827

**Developing a midwifery service task list for Chinese midwives in the task-shifting context: a Delphi study.** Gu C, Lindgren H, Wang X, et al (2021), *BMJ Open* Vol 11, no 7, July 2021, e044792

Objective To develop and validate a midwifery-led task list in the task-shifting context.

Design An extensive literature review followed by a two-iterative Delphi survey.

Setting Twenty university hospitals, three non-university hospitals and four university colleges from nine provincial regions of China.

Participants Purposive non-probability sampling of a national panel of experts in maternal healthcare, obstetrics, nursing and midwifery. Experts in the panel were asked to rate each midwifery service item regarding importance, feasibility and advancement on a 5-point scale, in order to determine those best suited for midwifery-led practice in China.

Results Two rounds of Delphi surveys were completed before consensus was achieved, with effective response rate ranging from 96.4% (27/28) to 100% (27/27), indicating a high positive coefficient of the experts. The authority coefficient of experts was 0.882, indicating the high reliability of this study. The Kendall harmony coefficient (W) in the two rounds of consultations was 0.196 ( $p < 0.001$ ) and 0.324 ( $p < 0.001$ ), respectively. A detailed, three-level midwifery-led task list was developed, including 3 domains of midwifery practice (first-level indicators), 13 types of task (second-level indicators) and 58 midwifery service items (third-level indicators). The 3 domains of midwifery practice involved the appropriate scope of practice for Chinese midwives, including antenatal care, intrapartum care and postnatal care. The 58 service items embraced core components of caring task in the Chinese midwifery profession.

Conclusion This study outlines the first midwifery-led task list that defines clearly the Chinese midwives' scope of practice. It will provide a foundational framework for future midwifery practice in China and abroad, and can be used to inform the design of midwifery-led task shifting interventions in various maternity settings. (Author)

Full URL: <http://dx.doi.org/10.1136/bmjopen-2020-044792>

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## 2021-07439

**Addressing violence against women within the midwifery curriculum in Bangladesh: A focus group discussion inquiry.**

Parveen S, Akter N, Zahan M, et al (2021), *Journal of Asian Midwives* vol 8, no 1, 2021, pp 15-34

Background: Violence against women is a significant problem affecting public health and human rights worldwide. The midwife profession is identified as a key profession in identifying violence against women and to provide first line support. In Bangladesh, there is a national plan aiming for a society free from violence against women and children by

2025. Midwifery is relatively new to Bangladesh and it is central to investigate how the topic is addressed within midwifery education.

Objective: To examine how violence against women is addressed in midwifery education in Bangladesh and identify potential needs for improvement, from the perspective of midwifery educators and clinical midwives.

Methods: Five focus group discussions were conducted with 29 midwifery educators and clinical midwives from different parts of the country, with a topic guide based on the WHO clinical and policy guidelines for response to intimate partner violence and sexual violence against women. The data were analysed by qualitative content analysis.

Results: The need to linking theory and practice was highlighted. A broad base of theoretical knowledge and possibilities for clinical practice will enable future midwives to identify, communicate and support women subjected to violence, and to link with available services. An improved curriculum, aligned to the needs of the women among whom future midwives will work is essential, as are knowledgeable midwifery educators, in relation to the topic and to varied pedagogics.

Conclusions: Educators need to be innovative when finding ways for midwifery students to link theory about violence against women to practice. To highlight the unique contribution midwifery can make to the field, networking with local and community authorities is central.

If space was provided for midwifery educators to improve the content related to violence against women in the midwifery curriculum the confidence of both midwifery educators and future midwives would be strengthened. (Author)

Full URL: <https://ecommons.aku.edu/cgi/viewcontent.cgi?article=1080&context=jam>

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## 2021-07372

**A cross-sectional study to evaluate antenatal care service provision in 3 hospitals in Nepal.** Merriel A, Maharjan N, Clayton G, et al (2021), *AJOG Global Reports* vol 1, no 3, August 2021, 100015

### BACKGROUND

Globally, many mothers and their babies die during pregnancy and childbirth. A key element of optimizing outcomes is high-quality antenatal care. The Government of Nepal has significantly improved antenatal care and health outcomes through high-level commitment and investment; however, only 69% of patients attend the 4 recommended antenatal appointments.

### OBJECTIVE

This study aimed to evaluate the quality and perceptions of antenatal care in Nepal to understand compliance with the Nepalese standards.

### STUDY DESIGN

This cross-sectional study was conducted at a tertiary referral and private hospital in Kathmandu and a secondary hospital in Makwanpur, Nepal. The study recruited 538 female inpatients on postnatal wards during the 2-week data collection period from May 2019 to June 2019. A review of case notes and verbal survey of women to understand the pregnancy information they received and their satisfaction with antenatal care were performed. We created a summary score of the completeness of antenatal care services received ranging from 0 to 50 (50 indicating complete conformity with standards) and investigated the determinants of attending 4 antenatal care visits and patient satisfaction.

### RESULTS

The median antenatal care attendance was 4 visits at the secondary and referral hospitals and 8 visits at the private hospital. However, 24% of the patients attended <4 visits. Furthermore, 117 of 538 patients (22%) attended the first-trimester visit, and 65 of 538 patients (12%) attended visits at all points recommended in the standards. More than 90% of the women had blood pressure monitoring, hemoglobin estimation, blood grouping and Rhesus typing, and HIV and syphilis screening. Approximately 50% of the women had urinalysis at every visit (interquartile range, 20–100). Moreover, 509 of 538 patients (95%) reported receiving pregnancy information, but retention was variable: 509 of 538 patients (93%) received some information about danger signs, 290 of 502 patients (58%) remembered headaches, and 491 of 502 patients (98%) remembered fluid leaking. The antenatal care completeness score revealed that the private hospital offered the most complete clinical services (mean, 28.7; standard deviation, 7.1) with the secondary hospital performing worst (mean, 19.1; standard deviation, 7.1). The factors influencing attendance at 4 antenatal care visits in the multivariable model were beginning antenatal care in the first trimester of pregnancy (odds ratio, 2.74; 95% confidence interval, 1.36–5.52) and having a lower level of education (no school: odds ratio, 0.46 [95% confidence interval, 0.23–0.91]; grades 1–5: odds ratio, 0.49 [95% confidence interval, 0.26–0.92]). Overall, 303 of

538 women (56%) were satisfied with their antenatal care. The multivariable analysis revealed that satisfaction was more likely in women attending the private hospital than in women attending the referral hospital (odds ratio, 3.63; 95% confidence interval, 1.68–7.82) and lower in women who felt the antenatal care facilities were not adequate (odds ratio, 0.35; 95% confidence interval, 0.21–0.63) and who wanted longer antenatal appointments (odds ratio, 0.5; 95% confidence interval, 0.33–0.75).

## CONCLUSION

Few women achieved full compliance with the Nepali antenatal care standards; however, some services were delivered well. To improve, each antenatal contact needs to meet its clinical aims and be respectful. To achieve this communication and counseling training for staff, investment in health promotion and delivery of core services are needed. It is important that these interventions address key issues, such as attendance in the first trimester of pregnancy, improving privacy and optimizing communication around danger signs. However, they must be designed alongside staff and service users and their efficacy tested before widespread investment or implementation. (Author)

Full URL: <https://doi.org/10.1016/j.xagr.2021.100015>

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## 2021-06887

**Higher Education in Midwifery in Pakistan: A Proposed Framework.** Jan R, Lakhani A, Kaufman K (2020), *Journal of Asian Midwives* vol 7, no 2, 2020, pp 40-45

Access to a skilled professional midwife is the right of each woman. Research evidence shows that midwives prepared to international standards decrease rates of morbidity and mortality and promote health of both mothers and infants. At present, in Pakistan, there are several midwifery cadres, with different formal education levels, who provide maternal and child health services. There are currently three types of diploma programs each serving a different cadre. Until 2012, there was no opportunity to obtain higher education in midwifery in the country. This absence contributed to non-acceptance and invisibility of midwifery as a profession. As a result, midwives were not adequately prepared or permitted to provide full scope of care to women. Making higher education available in programs based on the International Confederation of Midwives' Global Standards for Midwifery Education and its Essential Competencies for Midwifery Practice will enable midwives to provide improved health care services and increase opportunities for them to be advocates, leaders, and teachers who will continue to strengthen the profession. This paper proposes a framework for higher education in midwifery in Pakistan. (Author)

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## 2021-06885

**Developing and Piloting a Midwifery Audit Tool in Bangladesh's Upazila Health Complexes (UHCs).** Khatun A, Jhumu MA, Gregson S, et al (2020), *Journal of Asian Midwives* vol 7, no 2, 2020, pp 7-22

Midwifery is a new profession in Bangladesh. Diploma-prepared midwives were first deployed in 2018. Recent studies suggest that newly qualified midwives in Bangladesh may not be able to fully perform their midwifery role due to a number of complex factors. This paper describes a pilot study of a midwifery audit undertaken in 2019 by the Bangladesh Midwifery Society, supported by the Royal College of Midwives. These two organisations are in a formal twinning partnership funded by UNFPA Bangladesh with support from UK-Aid, Sweden and Canada. The audit was successful in improving the quality of midwifery care and addressing health system challenges. It enabled midwifery leadership development and gender empowerment and built capacity for auditing practice and for advocating for midwives' roles. It also deepened midwives' engagement with their professional association. Further research is required to understand whether this tool should be scaled up across Bangladesh and/or adapted for other contexts. (Author)

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## 2021-06882

**How do pregnant women perceive the role of the midwife in Thailand? A descriptive study.** Liblub S, Gunn LK, Bazargan M (2020), *Journal of Asian Midwives* vol 7, no 2, 2020, pp 33-47

Background: Midwives are globally recognised as health professionals who specialise in caring for childbearing women with a vital role in maternal and neonatal health care. Despite the midwifery profession being an autonomous profession, there are many struggles to attain recognition within its formal scope of practice in some countries. Objective: This study was undertaken to explore the views of pregnant women in Thailand regarding the role of midwives and their selection of intrapartum care providers in order to understand their perceptions about giving birth with a midwife for normal pregnancies. Design and setting: An online descriptive survey collected the views of 149 Thai pregnant women. Findings: Not all participants were clear about the role of midwives during labour and birth. Around one third of the women surveyed could identify all tasks of midwifery during labour and birth including

conducting normal birth, placenta delivery, and perineal suturing; hence, the majority was unclear about what a midwife does. This study found that, although Thai women believe midwives play an important role in birth support, they did not necessarily consider them to be the main provider and/or be solely responsible for conducting the birth of the infant in healthy, low risk pregnant women. Instead the expertise of the physician was recognised as pre-eminent in conducting normal births. Pregnant women indicated they were more confident with a physician in comparison with the midwife during labour and birth. Conclusion and Implications for Practice: It is very concerning for midwifery as a profession that there is a current lack of visibility of the midwives to practice within their scope of practice in Thailand. More research is needed on the demonstrating the value of midwives as primary carer in the context of midwifery practice in Thailand. Thai midwives need be in a much stronger position to make improvements to maternity care in Thailand and potentiating improved choice and empowerment for women whilst aiming for better pregnancy outcomes. There is a need to mobilize resources and strategies to introduce midwife-led continuity of care and improvements to midwifery care in Thailand. (Author)

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## 2021-06765

**The perceptions and practices of Thai health professionals providing maternity care for migrant Burmese women: An ethnographic study.** Phanwichatkul T, Schmied V, Liamputtong P, et al (2022), *Women and Birth: Journal of the Australian College of Midwives* vol 35, no 4, July 2022, pp e356-e368

### Background

Across the globe, many women including economic and humanitarian migrants receive inadequate antenatal care. Understanding the difficulties that migrant women encounter when accessing maternity care, including the approach of health professionals, is necessary because inadequate care is associated with increasing rates of morbidity and mortality. There are very few studies of migrant women's access to and experience of maternity services when they have migrated from a low- to a middle-income country.

### Aim

To examine the perceptions and practices of Thai health professionals providing maternity care for migrant Burmese women, and to describe women's experiences of their encounters with health professionals providing maternity care in Ranong Province in southern Thailand.

### Methods

Ethnography informed the study design. Individual interviews were conducted with 13 healthcare professionals and 10 Burmese women before and after birth. Observations of interactions (130 h) between health care providers and Burmese women were also conducted. Data were analysed using thematic analysis.

### Findings

The healthcare professionals' practices differed between the antenatal clinics and the postnatal ward. Numerous barriers to accessing culturally appropriate antenatal care were evident. In contrast, the care provided in the postnatal ward was woman and family centered and culturally sensitive. One overarching theme, "The system is in control" was identified, and comprised three sub-themes (1) 'Being processed' (2) 'Insensitivity to cultural practices' and, (3) 'The space to care'.

### Discussion and conclusions

The health system and healthcare professionals controlled the way antenatal care was provided to Burmese migrant women. This bureaucratic and culturally insensitive approach to antenatal care impacted on some women's decision to engage in antenatal care. Conversely, the more positive examples of woman-centered care evident after birth in the postnatal ward, can inform service delivery. (Author)

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## 2021-06687

**Knowledge, attitude and practice of parents on maternal care in a mountainous district of Vietnam: a qualitative study.** Huong NTT, Anh HP, Hao MTT, et al (2021), *Midwifery* vol 102, November 2021, 103091

Barriers preventing parents from accessing healthcare services affect the effectiveness of maternal care in mountainous areas of Vietnam.

### Aim

This study aimed to examine the current knowledge, attitudes, and practice of parents about maternal care in a mountainous region of Cao Bang province.

### Method

With the participation of 18 individuals (mothers, fathers, and pregnant women), six semi-structured interviews and three group discussions were conducted at different commune health centers.

## Result

This study emerged three themes, including knowledge, attitude, and practice of parents. Overall, parental knowledge about maternal care was at a basic level. While they showed positive attitudes towards the importance of maternal healthcare, unexpected behaviors such as homebirth or poor attendance at maternal health visits were still evident. These behavior patterns reflect incorrect cultural beliefs about health along with geographical and economic barriers. (Author)

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### 2021-06310

**Difference in factors associated with continuum of care completion rate from pregnancy to postpartum period in rural Nepal: a community-based, cross-sectional study.** Silwal RC, Shibanuma A, Poudyal AK, et al (2021), *BMJ Open* Vol 11, no 6, June 2021, e044928

**Objectives** This study aimed to investigate the continuum of care (CoC) completion rate in maternal, neonatal and child health and its associated factors among mothers in two ecological regions in Nepal.

**Design** This was a community-based, cross-sectional study, for which data were collected through face-to-face interviews using a structured questionnaire. Multiple logistic regression analyses were conducted to determine the associated factors.

**Setting** This was carried out in two rural districts of Nepal, in different regions: one in the hills (Dhading) and another in the flatlands called Terai (Nawalparasi). The data were collected between July and December 2016.

**Participants** Mothers who gave birth within a year before this study were included as participants. In total, there were 1803 participants.

**An outcome measure** The outcome of this study was measured by the CoC completion rate when a mother completes four antenatal check-ups, deliver at a health facility and receives postnatal care within 24 hours of delivery.

**Results** The CoC completion rates were 41% in Dhading and 28% in Nawalparasi. In Dhading, shorter travel time to a health facility and higher wealth quintiles were associated with a better CoC completion rate. In Nawalparasi, the CoC completion rate was affected by parity and decision-making for pregnancy care.

**Conclusions** The CoC completion rate was low in both districts in Nepal. However, factors associated with the CoC completion rate varied by district. Differences in these factors might be reflected by geographical and socioeconomic conditions and the characteristics of household decision making in these districts. (Author)

**Full URL:** <http://dx.doi.org/10.1136/bmjopen-2020-044928>

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### 2021-05943

**Facilitators of and barriers to providing high-quality midwifery education in South-East Asia—An integrative review.** Bogren M, Alesö A, Teklemariam M, et al (2022), *Women and Birth: Journal of the Australian College of Midwives* vol 35, no 3, May 2022, pp e199-e210

#### Background

With a diversity in midwifery education across the South-East Asia region, and with the knowledge about the lifesaving competency of the midwife profession, this study's aim is to describe facilitators of and barriers to providing high-quality midwifery education in South-East Asia.

#### Methods

Inspired by Whitemore and Knafl, we conducted a systematic integrative literature review including the five key stages of problem identification, literature search, data evaluation, data analysis, and presentation of results. The literature searches were conducted in October 2020 in the databases CINAHL, PubMed, and Scopus. A deductive data analysis based on global standards was performed.

#### Results

The search identified 1257 articles, 34 of which were included. Countries in South-East Asia did not fully comply with the ICM global standards. Midwifery education was not separated from that of nursing, and educators lacked formal qualifications in midwifery. Curriculum implementation in the clinical area was a key barrier to achieving learning outcomes. Higher academic education for midwifery educators and mentorship programs facilitated the pedagogic and assessment process, focusing on the abilities of critical thinking, reflection, and decision-making.

## Conclusions

Countries in South-East Asia still have a long way to go before they can provide high-quality midwifery education. The identified facilitators can lead to a difference in students' academic achievement and confidence in their clinical work. Coordinated actions will enable the progress in achieving competent midwives matching national health priorities. The findings highlight a need for more research on midwifery education in both theory and practice across the region. (Author)

Full URL: <https://doi.org/10.1016/j.wombi.2021.06.006>

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## 2021-05798

**Understanding midwives in Indonesia.** Adnani QES (2021), *The Practising Midwife* vol 24, no 7, July/August 2021, pp 13-15

Indonesia is still struggling to battle high maternal and child mortality rates and contributes to the global burden of maternal and child mortality. My PhD is New Zealand, which offers an acclaimed and world-class midwifery education service, gives me a unique take on midwifery in Indonesia. Having spent around 12 years as a midwifery lecturer in the country, I have witnessed changeable policy in midwifery there. This paper focuses on midwives' role in Indonesia and how critical their position has become to improve maternal and child health outcomes. (Author)

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## 2021-05790

**Facility-level determinants of quality routine intrapartum care in Afghanistan.** Lydon MM, Maruf F, Tappis H, et al (2021), *BMC Pregnancy and Childbirth* vol 21, no 438, 23 June 2021

### Background

Although there have been notable improvements in availability and utilization of maternal health care in Afghanistan over the last few decades, risk of maternal mortality remains very high. Previous studies have highlighted gaps in quality of emergency obstetric and newborn care practices, however, little is known about the quality of routine intrapartum care at health facilities in Afghanistan.

### Methods

We analyzed a subset of data from the 2016 Afghanistan Maternal and Newborn Health Quality of Care Assessment that comprised of observations of labor, delivery and immediate post-partum care, as well as health facility assessments and provider interviews across all accessible public health facilities with an average of five or more births per day in the preceding year (N = 77). Using the Quality of the Process of Intrapartum and Immediate Postpartum Care index, we calculated a quality of care score for each observation. We conducted descriptive and bivariate analyses and built a multivariate linear regression model to identify facility-level factors associated with quality of care scores.

### Results

Across 665 childbirth observations, low quality of care was observed such that no health facility type received an average quality score over 56%. The multivariate regression model indicated that availability of routine labor and delivery supplies, training in respectful maternity care, perceived gender equality for training opportunities, recent supervision, and observation during supervision have positive, statistically significant associations with quality of care.

### Conclusions

Quality of routine intrapartum care at health facilities in Afghanistan is concerningly low. Our analysis suggests that multi-faceted interventions are needed to address direct and indirect contributors to quality of care including clinical care practices, attention to client experiences during labor and childbirth, and attention to staff welfare and opportunities, including gender equality within the health workforce. (Author)

Full URL: <https://doi.org/10.1186/s12884-021-03916-0>

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## 2021-05251

**Determinants of the continuum of maternal health care in Cambodia: an analysis of the Cambodia demographic health survey 2014.** Chham S, Radovich E, Buffel V, et al (2021), *BMC Pregnancy and Childbirth* vol 21, no 410, 2 June 2021

### Introduction

Cambodia has achieved significant progress in maternal health, yet remains in the group of countries with the highest maternal mortality ratio in South-East Asia. Extra efforts are needed to improve maternal health through assessing the coverage of maternal health services as a continuum of care (CoC) and identifying the gaps. Our study aims to explore the coverage level of the Optimal CoC by (1) measuring the continuity of optimal antenatal care (ANC), skilled birth

attendance (SBA) and optimal post-natal care (PNC), (2) identifying the determinants of dropping out from one service to another and (3) of not achieving the complete CoC.

#### Method

The study employed data from the Cambodia Demographic Health Survey 2014. We restricted our analysis to married women who had a live birth in the five years preceding the survey (n = 5678). Bi-variate and multivariate logistic regression were performed using STATA version 14.

#### Results

Almost 50% of women had achieved the complete optimal CoC, while the remaining have used only one or two of the services. The result shows that the level of women's education was positively associated with the use of optimal ANC, the continuation to using optimal PNC and achieving the complete CoC. More power of women in household decision making was also positively associated with receiving the complete CoC. The birth order was negatively associated with achieving the complete CoC, while exposure to the mass media and having health insurance increased the odds of achieving the complete CoC. Household wealth consequently emerged as an influential predictor of dropping out and not achieving the complete CoC. Receiving all different elements of ANC care improved the continuity of care from optimal ANC to SBA and from SBA to optimal ANC.

#### Conclusion

The findings urge policy makers to approach maternal health care as a continuum of care with different determinants at each step. Household wealth was found to be the most influential factor, yet the study discovered also other barriers to optimal maternal health care which need to be addressed: future intervention should thus not only aim to increase wealth or health insurance coverage but also stimulate the education of women and empower women to claim power in household decision-making. (Author)

Full URL: <https://doi.org/10.1186/s12884-021-03890-7>

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#### 2021-04940

**Hand hygiene during facility-based childbirth in Cambodia: a theory-driven, mixed-methods observational study.** Nalule Y, Buxton H, Ir P, et al (2021), BMC Pregnancy and Childbirth vol 21, no 429, 17 June 2021

#### Background

Despite current efforts to improve hand hygiene in health care facilities, compliance among birth attendants remains low. Current improvement strategies are inadequate, largely focusing on a limited set of known behavioural determinants or addressing hand hygiene as part of a generalized set of hygiene behaviours. To inform the design of a facility –based hand hygiene behaviour change intervention in Kampong Chhnang, Cambodia, a theory-driven formative research study was conducted to investigate the context specific behaviours and determinants of handwashing during labour and delivery among birth attendants.

#### Methods

This formative mixed-methods research followed a sequential explanatory design and was conducted across eight healthcare facilities. The hand hygiene practices of all birth attendants present during the labour and delivery of 45 women were directly observed and compliance with hand hygiene protocols assessed in analysis. Semi-structured, interactive interviews were subsequently conducted with 20 key healthcare workers to explore the corresponding cognitive, emotional, and environmental drivers of hand hygiene behaviours.

#### Results

Birth attendants' compliance with hand hygiene protocol was 18% prior to performing labour, delivery and newborn aftercare procedures. Hand hygiene compliance did not differ by facility type or attendants' qualification, but differed by shift with adequate hand hygiene less likely to be observed during the night shift ( $p = 0.03$ ). The midwives' hand hygiene practices were influenced by cognitive, psychological, environmental and contextual factors including habits, gloving norms, time, workload, inadequate knowledge and infection risk perception.

#### Conclusion

The resulting insights from formative research suggest a multi-component improvement intervention that addresses the different key behaviour determinants to be designed for the labour and delivery room. A combination of disruption of the physical environment via nudges and cues, participatory education to the midwives and the promotion of new norms using social influence and affiliation may increase the birth attendants' hand hygiene

## 2021-04764

**mCARE, a digital health intervention package on pregnancy surveillance and care-seeking reminders from 2018 to 2027 in Bangladesh: a model-based cost-effectiveness analysis.** Jo Y, LeFevre AE, Ali H, et al (2021), *BMJ Open* Vol 11, no 4, March 2021, e042553

**Objective** We estimated the cost-effectiveness of a digital health intervention package (mCARE) for community health workers, on pregnancy surveillance and care-seeking reminders compared with the existing paper-based status quo, from 2018 to 2027, in Bangladesh.

**Interventions** The mCARE programme involved digitally enhanced pregnancy surveillance, individually targeted text messages and in-person home-visit to pregnant women for care-seeking reminders for antenatal care, child delivery and postnatal care.

**Study design** We developed a model to project population and service coverage increases with annual geographical expansion (from 1 million to 10 million population over 10 years) of the mCARE programme and the status quo.

**Major outcomes** For this modelling study, we used Lives Saved Tool to estimate the number of deaths and disability-adjusted life years (DALYs) that would be averted by 2027, if the coverage of health interventions was increased in mCARE programme and the status quo, respectively. Economic costs were captured from a societal perspective using an ingredients approach and expressed in 2018 US dollars. Probabilistic sensitivity analysis was undertaken to account for parameter uncertainties.

**Results** We estimated the mCARE programme to avert 3076 deaths by 2027 at an incremental cost of \$43 million relative to the status quo, which is translated to \$462 per DALY averted. The societal costs were estimated to be \$115 million for mCARE programme (48% of which are programme costs, 35% user costs and 17% provider costs). With the continued implementation and geographical scaling-up, the mCARE programme improved its cost-effectiveness from \$1152 to \$462 per DALY averted from 5 to 10 years.

**Conclusion** Mobile phone-based pregnancy surveillance systems with individually scheduled text messages and home-visit reminder strategies can be highly cost-effective in Bangladesh. The cost-effectiveness may improve as it promotes facility-based child delivery and achieves greater programme cost efficiency with programme scale and sustainability.(Author)

Full URL: <http://dx.doi.org/10.1136/bmjopen-2020-042553>

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## 2021-04516

**Knowledge and practices: Risk perceptions of COVID-19 and satisfaction with preventive measures at workplace among maternity care providers in Pakistan.** Izhar R, Husain S, Tahir MA, et al (2021), *European Journal of Midwifery* vol 5, January 2021, p 3

**Introduction:**

While all healthcare services across the globe deferred non-urgent surgeries, labor wards provided maternity care during the COVID-19 pandemic continuously. This study assesses the knowledge and practices of obstetricians and midwives about personal protective equipment (PPE); their risk perception of COVID-19 and satisfaction with the preventive measures adopted at their workplace.

**Methods:**

A questionnaire designed according to the World Health Organization's advice on rational use of personal protective equipment for COVID-19 was administered to 452 Pakistani maternity care providers between 1 July and 30 July 2020.

**Results:**

Most (85%) had adequate knowledge and 78.8% had good practices regarding PPE use. The perceived risk of contracting COVID-19 was lower than for influenza and tuberculosis. Perceived risk of contracting COVID-19 was highest for outpatient clinics. Fewer midwives compared to obstetricians (23.3% vs 32.9 %, p=0.001) were satisfied with the job security provided. Only 19.5% were satisfied with the social distancing measures at their setups. Less than one-third (31%) were satisfied with the PPE available to them.

## Conclusions:

The participants had good knowledge and practices regarding PPE. The perceived risk of contracting COVID-19 was lower than for contracting influenza; however, they were concerned about contracting COVID-19 in outpatient clinics and emergency rooms. They had poor satisfaction with the measures adopted by hospital managements regarding job security and social distancing. (Author)

Full URL: <https://doi.org/10.18332/ejm/131864>

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## 2021-04214

**Barriers to accessing maternal healthcare among ethnic minority women in Western China: a qualitative evidence synthesis.** Huang Y, Martinez-Alvarez M, Shallcross D, et al (2019), *Health Policy and Planning* vol 34, no 5, June 2019, pp 384-400

Quantitative evidence suggests that ethnic disparities in maternal healthcare use are substantial in Western China, but the reasons for these remain under-researched. We undertook a systematic review of English and Chinese databases between January 1, 1990 and February 23, 2018 to synthesize qualitative evidence on barriers faced by ethnic minority women in accessing maternal healthcare in Western China. Four English and 6 Chinese language studies across 8 provinces of Western China and 13 ethnic minority groups were included. We adapted the 'Three Delays' framework and used thematic synthesis to categorize findings into six themes. Studies reported that ethnic minority women commonly held traditional beliefs and had lower levels of education, which limited their willingness to use maternal health services. Despite the existence of different financial protection schemes for services related to delivery care, hospital birth was still too costly for some rural households, and some women faced difficulties navigating reimbursement procedures. Women who lived remotely were less likely to go to hospital in advance of labour because of difficulties in arranging accommodation; they often only sought care if pregnancies were complicated. Poor quality of care in health facilities, particularly misunderstandings between doctors and patients due to language barriers or differences in socio-economic status, and clinical practices that conflicted with local fears and traditional customs, were reported. The overall evidence is weak however: authors treated different ethnicities as if they belonged to one homogeneous group and half of the studies failed in methodological rigour. The current evidence base is very limited and poor in quality, so much more research elucidating the nature of 'ethnicity' as a set of barriers to maternal healthcare access is needed. Addressing the multiple barriers associated with ethnicity will require multi-faceted solutions that adequately reflect the specific local context. (Author)

Full URL: <https://doi.org/10.1093/heapol/czz040>

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## 2021-03934

**Respectful maternity care delivered within health facilities in Bangladesh, Ghana and Tanzania: a cross-sectional assessment preceding a quality improvement intervention.** Manu A, Zaka N, Bianchessi C, et al (2021), *BMJ Open* Vol 11, no 1, January 2021, e039616

Objective To assess respectful maternity care (RMC) in health facilities.

Design Cross-sectional study.

Setting Forty-three (43) facilities across 15 districts in Bangladesh, 16 in Ghana and 12 in Tanzania.

Participants Facility managers; 325 providers (nurses/midwives/doctors)—Bangladesh (158), Ghana (86) and Tanzania (81); and 849 recently delivered women—Bangladesh (295), Ghana (381) and Tanzania (173)—were interviewed. Observation of 641 client–provider interactions was conducted—Bangladesh (387), Ghana (134) and Tanzania (120).

Assessment Trained social scientists and clinicians assessed infrastructure, policies, provision and women's experiences of RMC (emotional support, respectful care and communication).

Primary outcome RMC provided and/or experienced by women.

Results Three (20%) facilities in Bangladesh, four (25%) in Ghana and three (25%) in Tanzania had no maternity clients' toilets and one-half had no handwashing facilities. Policies for RMC such as identification of client abuses were available: 81% (Ghana), 73% (Bangladesh) and 50% (Tanzania), but response was poor. Ninety-four (60%) Bangladeshi, 26 (30%) Ghanaian and 20 (25%) Tanzanian providers were not RMC trained. They provided emotional support during labour care to 107 (80%) women in Ghana, 95 (79%) in Tanzania and 188 (48.5%) in Bangladesh, and were often courteous with them—236 (61%) in Bangladesh, 119 (89%) in Ghana and 108 (90%) in Tanzania. Due to structural

challenges, 169 (44%) women in Bangladesh, 49 (36%) in Ghana and 77 (64%) in Tanzania had no privacy during labour. Care was refused to 13 (11%) Tanzanian and 2 Bangladeshi women who could not pay illegal charges. Twenty-five (7%) women in Ghana, nine (6%) in Bangladesh and eight (5%) in Tanzania were verbally abused during care. Providers in all countries highly rated their care provision (95%–100%), and 287 (97%) of Bangladeshi women, 368 (97%) Ghanaians and 152 (88%) Tanzanians reported 'satisfaction' with the care they received. However, based on their facility experiences, significant ( $p < 0.001$ ) percentages—20% (Ghana) to 57% (Bangladesh)—will not return to the same facilities for future childbirth.

Conclusions Facilities in Bangladesh, Ghana and Tanzania have foundational systems that facilitate RMC. Structural inadequacies and policy gaps pose challenges. Many women were, however, unwilling to return to the same facilities for future deliveries although they (and providers) highly rated these facilities. (Author)

Full URL: <http://dx.doi.org/10.1136/bmjopen-2020-039616>

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### 2021-03919

**Dignity and respect during childbirth: It's what women want.** The White Ribbon Alliance (2020), The White Ribbon Alliance Episode 04, 29 July 2020, 20 minutes, 47 seconds

This episode of White Ribbon Alliance's Brave Voices, Bold Actions podcast explores Article 4 of the Respectful Maternity Care Charter, and the human right to be treated with dignity & respect during pregnancy and childbirth.

We hear from Mercyline Ongachi, a young mother from Kenya, who bravely shares her story of mistreatment and disrespect during the birth of her twins, and from White Ribbon Alliance India's Dr. Aparajita Gogoi, co-chair of the What Women Want campaign, which started in India, and which went on to give voice to 1.2 million women and girls across 114 countries on their demands for quality healthcare. (Author, edited)

Full URL: <https://www.whiteribbonalliance.org/2020/07/29/episode-04/>

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### 2021-03269

**Making connections.** Anon (2021), *Midwives* vol 24, May 2021, pp 14-18

The Bangladesh Midwifery Society, twinned with the RCM, has shown strong leadership during the pandemic rolling out a PPE programme and increasing renewal rates. (Author)

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### 2021-03099

**Why do some health care providers disrespect and abuse women during childbirth in India?** Mayra K, Matthews Z, Padmadas SS (2022), *Women and Birth: Journal of the Australian College of Midwives* vol 35, no 1, February 2022, pp e49-e59

#### Background

Disrespect and abuse during childbirth can result in fear of childbirth. Consequently, women may be discouraged to seek care, increasing the likelihood for women to choose elective cesarean section in order to avoid humiliation, postnatal depression and even maternal mortality. This study investigates the causes underlying mistreatment of women during childbirth by health care providers in India, where evidence of disrespect and abuse has been reported.

#### Methods

Qualitative research was undertaken involving 34 in-depth interviews with midwifery and nursing leaders from India who represent administration, advocacy, education, regulation, research and service provision at state and national levels. Data are analysed thematically with NVivo12. The analysis added value by bringing an international perspective from interviews with midwifery leaders from Switzerland and the United Kingdom.

#### Findings

The factors leading to disrespect and abuse of women relate to characteristics of both women and their midwives. Relevant woman-related attributes include her age, gender, physical appearance and education, extending to the social environment including her social status, family support, culture of abuse, myths around childbirth and sex-based discrimination.

Midwife-related factors include gender, workload, medical hierarchy, bullying and powerlessness.

#### Discussion

The intersectionality of factors associated with mistreatment during childbirth operate at individual, infrastructural, social and policy levels for both the women and nurse-midwives, and these factors could exacerbate existing gender-based inequalities. Maternal health policies should address the complex interplay of these factors to ensure a positive birthing experience for women in India.

## Conclusion

Maternal health interventions could improve by integrating women-centred protocols and monitoring measures to ensure respectful and dignified care during childbirth. (Author)

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## 2021-02969

**Postnatal care coverage and its determinants in Sri Lanka: analysis of the 2016 demographic and health survey.** Perera UAP, Assefa Y, Amilani U (2021), *BMC Pregnancy and Childbirth* vol 21, no 299, 13 April 2021

### Background

Postnatal care (PNC) is important for preventing morbidity and mortality in mothers and newborns. Even though its importance is highlighted, PNC received less attention than antenatal care. This study determines the level of PNC coverage and its determinants in Sri Lanka.

### Methods

This is a secondary analysis of the 2016 Demographic and Health Survey. Receiving full postnatal care (FPNC) was defined with a set of indicators to detect adequate care for mother and newborn. Demographic and socio-economic associated factors for receiving FPNC were identified using binary and multiple logistic regression. Variables that had marginal relationship with receiving FPNC which p-value less than or equal to 0.2 at binary analysis were selected and included in the multiple logistic regression models. We used manual backward stepwise regression to identify variables which had independent association with receiving FPNC on the basis of adjusted odds ratios (AOR), with 95% confidence interval (CI) and p-value less than 0.05. All analyses were performed in SPSS 25.

### Results

Of the 8313 women with a live birth in the last 5 years, more than 98% had received postnatal care at facility at least 24 h. More than three-fourth of mothers (n = 5104) received the FPNC according to WHO guideline. Four factors were positively associated with receiving FPNC: mothers received antenatal home visits by Public health midwife (AOR = 1.98, 95% CI 1.65–2.39), mothers who got information about antenatal complications and places to go at antenatal clinics (AOR = 1.56, 95% CI 1.27–1.92), been Sinhala (AOR = 1.89, 95% CI 1.35–2.66) and having own mobile phone (AOR = 1.19, 95% CI 1.02–1.38). Mothers who are residing in rural area [AOR = 0.697 95% CI = 0.52–0.93] compared to those who reside in urban areas and maternal age between 20 and 34 years [AOR = 0.72, 95% CI 0.54–0.97] compared to maternal age less than 20 years were detected as negatively associated.

### Conclusion

Receiving FPNC in Sri Lanka is high. However, inequity remains to be a challenge. Socio-demographic factors are associated with FPNC coverage. Strategies that aim to improve postnatal care should target improvement of non-health factors as well.

(Author)

Full URL: <https://doi.org/10.1186/s12884-021-03770-0>

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## 2021-02654

**Strengthening midwifery education through clinical experience: Findings from a qualitative study in Indonesia.** Adnani QES, Gilkison A, McAra-Couper J (2022), *Women and Birth: Journal of the Australian College of Midwives* vol 35, no 1, February 2022, pp 87-95

### Background

One of the Indonesian Government's strategies to reduce maternal mortality rates has been to place a midwife in every village to provide midwifery care and facilitate essential primary healthcare services. To increase the numbers of midwives, the Indonesian Government began opening midwifery schools. However, Indonesia's maternal mortality rates remained high. This raises the question of the quality of midwifery education in Indonesia and how this education could be strengthened so that midwifery plays a key role in reducing maternal mortality rates.

### Aim of the research

The aim of this study was to identify the barriers and enablers to strengthening midwifery education in Indonesia.

### Methods

A qualitative descriptive approach and in-depth interviews was the method used with 37 participants from 12 midwifery schools in eight cities situated in six provinces in Indonesia. Indonesian midwives, midwifery lecturers, midwifery students, newly graduated midwives, and obstetricians were interviewed in Bahasa Indonesia. Interviews were transcribed, translated, and thematically analysed following Braun and Clark (2006).

### Findings

This article focuses on findings on "midwifery clinical experience", a theme which contained four sub-themes:

“effective hands-on clinical experience”, “theory-practice gap”, “role of the mentor in practice”, and “the system in the clinical environment”.

#### Conclusion

This study highlights barriers to preparing midwifery students for obtaining adequate midwifery knowledge and skills during clinical placement. Quality clinical experience would improve knowledge and skills for better preparedness for students to competently meet their role as midwives, contributing to the strengthening of midwifery education in Indonesia.

(Author)[Erratum: Women and Birth: Journal of the Australian College of Midwives, 11 April 2022, online].

Full URL: <https://doi.org/10.1016/j.wombi.2021.03.002>

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#### 20210125-89\*

**Trends in and determinants of visiting private health facilities for maternal and child health care in Nepal: comparison of three Nepal demographic health surveys, 2006, 2011, and 2016.** Adhikari RP, Shrestha ML, Satinsky EN, et al (2021), BMC Pregnancy and Childbirth vol 21, no 1, 3 January 2021

#### Background

Maternal and child health care services are available in both public and private facilities in Nepal. Studies have not yet looked at trends in maternal and child health service use over time in Nepal. This paper assesses trends in and determinants of visiting private health facilities for maternal and child health needs using nationally representative data from the last three successive Nepal Demographic Health Surveys (NDHS).

#### Methods

Data from the NDHS conducted in 2006, 2011, and 2016 were used. Maternal and child health-seeking was established using data on place of antenatal care (ANC), place of delivery, and place of treatment for child diarrhoea and fever/cough. Logistic regression models were fitted to identify trends in and determinants of health-seeking at private facilities.

#### Results

The results indicate an increase in the use of private facilities for maternal and child health care over time. Across the three survey waves, women from the highest wealth quintile had the highest odds of accessing ANC services at private health facilities (AOR = 3.0, 95% CI = 1.53, 5.91 in 2006; AOR = 5.6, 95% CI = 3.51, 8.81 in 2011; AOR = 6.0, 95% CI = 3.78, 9.52 in 2016). Women from the highest wealth quintile (AOR = 3.3, 95% CI = 1.54, 7.09 in 2006; AOR = 7.3, 95% CI = 3.91, 13.54 in 2011; AOR = 8.3, 95% CI = 3.97, 17.42 in 2016) and women with more years of schooling (AOR = 1.2, 95% CI = 1.17, 1.27 in 2006; AOR = 1.1, 95% CI = 1.04, 1.14 in 2011; AOR = 1.1, 95% CI = 1.07, 1.16 in 2016) were more likely to deliver in private health facilities. Likewise, children belonging to the highest wealth quintile (AOR = 8.0, 95% CI = 2.43, 26.54 in 2006; AOR = 6.4, 95% CI = 1.59, 25.85 in 2016) were more likely to receive diarrhoea treatment in private health facilities.

#### Conclusions

Women are increasingly visiting private health facilities for maternal and child health care in Nepal. Household wealth quintile and more years of schooling were the major determinants for selecting private health facilities for these services. These trends indicate the importance of collaboration between private and public health facilities in Nepal to foster a public private partnership approach in the Nepalese health care sector. (Author)

Full URL: <https://doi.org/10.1186/s12884-020-03485-8>

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#### 2021-00636

**Women’s experience and satisfaction with midwife-led maternity care: a cross-sectional survey in China.** Liu Y, Li T, Guo N (2021), BMC Pregnancy and Childbirth vol 21, no 151, 19 February 2021

#### Background

Low risk pregnancy ending in a vaginal birth is best served and guided by a midwife. Utilizing a midwife in such cases offers many emotional and economic advantages and does not increase the risks for mother or neonate. However, women’s experience and satisfaction of midwife-led maternity care is rarely reported in China. The primary objective of this study is to describe the experience of Chinese women receiving midwife-led maternity care, and to report their satisfaction level of the experience.

#### Methods

The study is a cross-sectional survey of 4192 women who had natural birth from March–June 2019 in a maternity care center, Shanghai, China. We used a self-administered questionnaire addressing items related to women’s experience during childbirth, as well as their satisfaction with midwife-led maternity care. We also included demographic and perinatal characteristics of each participant. Descriptive statistics and correlations analysis between groups of different experience and satisfaction were used.

## Results

In this sample, 87.7% of women had a Doula and a family member present during childbirth. Epidural anesthesia was used in 75.6% and episiotomy was needed in 23.2%. Free positioning during the first stage of labor and free positioning during the second stage of labor and delivery were adopted in 84.3 and 67.9% of the cases, respectively. Moderate to severe perineal pain and moderate to severe perineal edema were reported in 43.1 and 12.2% of the participants, respectively. High satisfaction level was found when there was midwife-led prenatal counseling and presence of Doula and family member, Lamaze breathing techniques, warm perineal compresses, epidural anesthesia, free positioning during the first stage of labor, and midwives' postpartum guidance. Negative satisfaction was seen with perineal pain and edema.

## Conclusion

Women in this survey generally had high satisfaction with midwife-led maternity care. This satisfaction is probably felt because of the prenatal counseling by the midwife and allowing a Doula and a family member in the room during childbirth. Other intangible factors to improve the satisfaction level were Lamaze breathing techniques, warm perineal compresses, epidural anesthesia, free positioning during first stage of labor, and early skin to skin contact.

Full URL: <https://doi.org/10.1186/s12884-021-03638-3>

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## 2021-00404

**Impact of Public Health Programs on Maternal and Child Health Services and Health Outcomes in India: A Systematic Review.** Singh A, Vellakkal S (2021), Social Science and Medicine vol 274, April 2021, 113795

### Background

In the last two decades, India's central and many state governments launched several public health programs with the goal of improving maternal and child health outcomes. Many individual studies assessed the impact of these programs; however, they focused on select health programs and few specific outcomes.

### Objectives and Methods

This paper summarizes the literature, published during 2000-2019, investigating the impacts of public health programs on both the uptake of maternal and child health services and the related-health outcomes in India. We followed PRISMA guidelines of systematic review, and carried out a narrative synthesis of the study findings.

### Findings and Conclusion

We found 66 relevant studies covering 11 health programs across India. Most studies had applied non-experimental study designs (n= 50), with few applying experimental (n=1) and quasi-experimental (n= 15) designs. Most studies (n=64) assessed the impact on the intermediate outcomes of the uptake of various health services rather on the long-term outcomes of improvement in health. Overall we found studies reporting positive impacts, however, we could not find any strong consensus emerging from these studies about the impact, partly due to differences in: outcome indicators; study designs; study population; data sets. Several studies also reported considerable beneficial impacts among low socioeconomic population groups. However, given that the outreach of the public health programs have been low across the country and population groups, we found that broader objectives of health programs remained unassessed: most studies assessed the impact on who actually participated in the program (average treatment effect on-the-treated) rather on the target population (intent-to-treat effect). Furthermore, there was dearth of research on the impacts of the state-level programs. Future research need to assess the impact of the programs on health outcomes, and on quality adjusted measures of maternal and child health services and its continuum of care. (Author)

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## 2021-00277

**Implementation of a context-specific accreditation assessment tool for affirming quality midwifery education in Bangladesh: a qualitative research study.** Bogren M, Banu A, Parvin S, et al (2020), Global Health Action vol 13, no 1, 31 December 2020, 1761642

Background: Only recently did midwifery become a profession in Bangladesh. As such, sufficient quality education, both theory and practice, remains a challenge. In 2018, a context-specific accreditation assessment tool for affirming quality midwifery education was therefore developed and implemented. Objectives: To describe both the positive and negative aspects of the implementation of an accreditation process at midwifery education institutions in Bangladesh and to sketch out areas for possible improvement. Method: Forty focus group discussions were conducted with 276 policymakers, regulatory authorities and educators involved in midwifery education and services in Bangladesh. The

Consolidated Framework for Implementation Research (CFIR) was used in a directed content analysis approach. Results: The accreditation assessment tool was developed using a participatory and consensus-building approach, building on existing policies, which resulted in the national ownership of its implementation. Staff from clinical sites were not included in the accreditation process; unless this changes, this will make it difficult for Bangladesh to achieve the set accreditation standards. The accreditation process has improved communication between the midwifery teaching institutions, policymakers and regulatory authorities. Educators started to visit the clinical sites more frequently. The planning process was complex and time-consuming, and emphasis was put on the importance of developing a plan of action for measuring improvements. Conclusion: In the move from the initial assessment of an accreditation process to its implementation, it is essential to make public the results found at all educational institutions. This encourages acceptance, while soliciting feedback and suggestions for future action. Only then can an accreditation process have an impact on the provision of high-quality midwifery education and services. This paper aims to encourage and guide other countries in their development, planning and implementation of a national accreditation process for midwifery education. (Author)

Full URL: <https://doi.org/10.1080/16549716.2020.1761642>

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#### 2021-00255

**Two decades of Iranian midwives' activities as a health care provider under supervision in a multidisciplinary team in reducing maternal mortality.** Mirghafourvand M, Khosravi S, Tabrizi JS, et al (2021), *Reproductive Health* 12 February 2021, online

Iran is amongst the countries that have achieved the fifth goal of the United Nations Millennium Development Goal. The maternal mortality ratio (MMR) in Iran has declined from 48 cases per 100,000 in 2000 to 16 cases per 100,000 in 2017, showing an annual decline rate of about 6.3%. In the International Year of the Nurse and the Midwife (year 2020), this commentary highlights two decades of Iranian midwives' activities as a health care provider under supervision in a multidisciplinary team in reducing maternal mortality. (uthor)

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#### 2021-00253

**Midwifery education, regulation and association in six South Asian countries – A descriptive report.** Bogren MA, Wiseman A, Berg M (2012), *Sexual & Reproductive Healthcare* vol 3, no 2, June 2012, pp 67-72

To describe the situation of midwifery education, regulation and association in six South Asian countries: Afghanistan, Bangladesh, Bhutan, India, Nepal, and Pakistan.

##### Methods

Data were collected via three questionnaires, constructed by the International Confederation of Midwives (ICM) and United Nations Population Fund (UNFPA) Investing in Midwives Programme, used at a regional workshop in Bangladesh, 2010. Selected for the purpose of this study were 55 out of 134 questions of which two were open-ended. The answers from structured closed-ended questions were analyzed with descriptive statistics and the open ended answers with a qualitative content analysis.

##### Results

There was a variation in midwifery education across South Asia, in terms of entry level, competencies and requirements for teachers. None of the countries had national legislation that recognized midwifery as an autonomous profession. Four of the countries had a midwifery association. Two countries had a curriculum based on ICM's essential competences for basic midwifery practice. Main recommendations for improving formal midwifery education across the countries were development of legislation, strengthened formal midwifery education, strengthened professional value, and an improved learning environment.

##### Conclusions

The findings might benefit the future midwifery profession in South Asia and is an important step in addressing the MDGs to reduce maternal and newborn morbidity and mortality in the region. With assistance, the area of South Asia will be able to create autonomous midwives that comply with ICM's global standards for midwifery education and regulation. (Author)

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#### 2021-00252

**Baby-friendly hospital initiative accreditation in Taiwan: Challenges and assistance needs.** Chen L-L, Gau M-L, Kao C-H, et al (2021), *Midwifery* vol 94, March 2021, 102903

Qualitative study exploring the perspectives of medical facility managers in implementing the baby-friendly hospital initiative in Taiwan. (LDO)

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## 2021-00127

**Trends in and determinants of visiting private health facilities for maternal and child health care in Nepal: comparison of three Nepal demographic health surveys, 2006, 2011, and 2016.** Adhikari RP, Shrestha ML, Satinsky EN, et al (2021), *BMC Pregnancy and Childbirth* vol 21, no 1, 3 January 2021

### Background

Maternal and child health care services are available in both public and private facilities in Nepal. Studies have not yet looked at trends in maternal and child health service use over time in Nepal. This paper assesses trends in and determinants of visiting private health facilities for maternal and child health needs using nationally representative data from the last three successive Nepal Demographic Health Surveys (NDHS).

### Methods

Data from the NDHS conducted in 2006, 2011, and 2016 were used. Maternal and child health-seeking was established using data on place of antenatal care (ANC), place of delivery, and place of treatment for child diarrhoea and fever/cough. Logistic regression models were fitted to identify trends in and determinants of health-seeking at private facilities.

### Results

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### Conclusions

Women are increasingly visiting private health facilities for maternal and child health care in Nepal. Household wealth quintile and more years of schooling were the major determinants for selecting private health facilities for these services. These trends indicate the importance of collaboration between private and public health facilities in Nepal to foster a public private partnership approach in the Nepalese health care sector.

Full URL: <https://doi.org/10.1186/s12884-020-03485-8>

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## 20201204-18\*

**Compassion is contagious.** Burchell T (2020), *The Practising Midwife* vol 23, no 11, December 2020, pp 41-45

I am a British nurse and midwife who works and lives in rural India. I have lived and worked in a variety of settings and countries including the UK, Asia and Middle East. This article is based on my experiences of teaching and working in these settings. Screaming, slapping, shouting, crying, shaving, episiotomies, soap enemas, lithotomy, fear, no consent, abandonment and an absence of compassionate care is common in many maternity units around the world. In the UK, compassionate care is considered an integral part of nursing and midwifery. As a student in the UK, I was never taught that a nurse or midwife should show kindness and compassion, it was an assumption. Yet, what happens in a community where compassion is not considered as part of the nurse or midwife's role? Can compassion be taught or does it need to be caught? Can compassion be contagious? (Author)

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## 20201202-61\*

**An epidemic of avoidable caesarean deliveries in the private sector in India: Is physician-induced demand at play?** Bhatia M, Dwivedi LK, Banerjee K, et al (2020), *Social Science and Medicine* vol 265, November 2020, 113511

### Purpose and setting of research

Caesarean section (C-section) rates of over 15% suggest overuse of the surgery which may be difficult to justify on medical grounds. One important contributor to the rise in Csection rates is the rapid expansion of unregulated private-sector providers in number of settings. This study analyses the contribution of private sector in the rapid rise in Csection deliveries in India and the extent to which these can be justified on medical grounds.

### Methods

This is a cross sectional study design using National Family Health Surveys. Logistic regression and propensity score

matching (PSM) analyses are performed. The main outcome measured is avoidable C-sections in the private sector.

#### Principal findings

Our findings suggest that the rising trend in C-section rates in the private sector cannot be explained by medical reasons alone. The odds of C-section among women who chose to deliver in private was over 4 times higher than women who chose to deliver in public facilities. Despite, controlling for medical complications, women's characteristics and preferences, our PSM analysis suggest that the public-private gap has doubled over the years and that the difference cannot be explained by known determinants of C-section. Over supply of avoidable C-section to the extent of 21%, as a result of physician induced demand and perverse financial incentives was observed in the private sector.

#### Conclusions

This paper attempts to understand the reason for the high C-section rates in the private sector in India and the extent to which these are avoidable. Our analysis supports the assumption that physician induced demand as a result of perverse financial incentives in the private sector is at play. (Author)

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#### 20201130-69\*

**Modifiable socio-cultural beliefs and practices influencing early and adequate utilisation of antenatal care in rural Bangladesh: A qualitative study.** Nisha MK, Alam A, Rahman A, et al (2021), *Midwifery* vol 93, February 2021, 102881

#### Objective

Our objective was to explore the socio-cultural factors that influence women's early and adequate utilisation of antenatal care (ANC) in rural Bangladesh.

#### Methods

A qualitative study was conducted in two rural settings of Bangladesh, including 32 in-depth interviews with pregnant or recently delivered women, husbands whose wives were pregnant or had a recent birth, mothers-in-law whose daughters-in-law were pregnant or had a recent birth; 2 focus group discussions with husbands; and 4 key-informant interviews with community health workers. We used thematic analysis to analyse the data.

#### Findings

ANC initiation in the first trimester was not a priority for most women. Women's lack of awareness about the appropriate timing of the first ANC contact, lack of decision-making autonomy and fear of caesarean section were the major barriers to the early and adequate ANC utilisation. There were many superstitions around pregnancy in rural settings which prevented women seeking early and adequate antenatal care and led them to seek care from traditional care providers instead of formal care providers.

#### Conclusion

ANC utilisation in rural Bangladesh was associated with several socio-cultural beliefs which are modifiable with interventions that have been used in similar settings. Targeting these socio-cultural barriers with context- and community-specific interventions is important to improve overall ANC utilisation at the community-level which can lead to significant improvements in perinatal outcomes. (Author)

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#### 20201117-29\*

**Midwives in low-resource settings.** Shahid S (2020), *British Journal of Midwifery* vol 28, no 11, November 2020, pp 796-798

Pakistan is a low-resource country where midwives are often not supported in their role as skilled birth attendants. Changes are needed to support midwives in providing safe and effective care. (Author)

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#### 20201110-57\*

**Women's experience of receiving team-midwifery care in Japan: A qualitative descriptive study.** Iida M, Horiuchi S, Nagamori K (2021), *Women and Birth: Journal of the Australian College of Midwives* vol 34, no 5, September 2021, pp 493-499

#### Background

Team-midwifery care remains limited in Japan. To introduce changes to the midwifery system, an in-depth understanding of women's perception of receiving team-midwifery care is crucial.

#### Aim

This study aimed to describe women's experience of receiving team-midwifery care in Japan and to understand the central essence of this form of care.

#### Methods

This study used a descriptive research design and involved focus group interviews in a birth clinic in central Tokyo. This birth clinic provided continuous team-midwifery care involving five to six midwives in one team from pregnancy to the postpartum period. Interview data were analysed by content analysis. The ethical review board of St. Luke's

International Hospital, Tokyo approved this study (12-R178).

#### Findings

Thirteen women who gave birth within 19 months were included. The women's experience of receiving team-midwifery care was described as 'feelings of becoming closer and connected through a warm mutual relationship' with the midwives. The women felt that the midwives genuinely focused on their care and noticed their desire for their family to be involved. A trusting relationship was built through regular meetings. The women also described their experience as 'a lasting feeling of ease and security'. The midwives' continuity of care empowered the women even after their discharge.

#### Conclusion

The underlying assumption for the women's empowerment was the continuity of woman-centred care built through a trusting relationship between the women and the midwives. These important elements constitute the central essence of team-midwifery care which can be adopted regardless of the care system. (Author)

Full URL: <https://doi.org/10.1016/j.wombi.2020.09.020>

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#### 20201026-53\*

**Dimensions of women's empowerment on access to skilled delivery services in Nepal.** Khatiwada J, Muzembo BA, Wada K, et al (2020), BMC Pregnancy and Childbirth vol 20, no 622, 15 October 2020

#### Background

Each day, approximately 810 women die during pregnancy and childbirth and 94% of the deaths take place in low and middle income countries. Only 45% of the births in South Asia are attended by skilled professionals, which is lower than that in other Asian regions. Antenatal and postnatal care received from skilled providers can help prevent maternal and neonatal mortality by identifying pregnancy-related complications. Women's empowerment is considered to be a significant determinant of maternal health care outcomes; however, studies on the contextual influences of different dimensions of empowerment in Nepal are relatively limited. Therefore, this study analyzed nationwide survey data to examine the influence of women's economic empowerment, sociocultural empowerment, familial/interpersonal empowerment and media and information technology empowerment on accessing skilled delivery services among the married women in Nepal.

#### Methods

This study examined the influence of women's empowerment on skilled delivery services among married women (n = 4400) aged 15-49 years using data from the 2016 Nepal Demographic and Health Survey. Descriptive analysis and binary logistic regression analysis were employed to analyze the data.

#### Results

Significant associations were found between women's media and information technology empowerment, economic empowerment and sociocultural empowerment and access to skilled birth attendants. Specifically, the education of women, their occupation, owning a bank account, media exposure, and internet use were significantly associated with the use of skilled birth attendants.

#### Conclusion

Focusing on women's access to media and information technology, economic enhancement and education may increase the use of skilled birth attendants in Nepal. (Author)

Full URL: <https://doi.org/10.1186/s12884-020-03309-9>

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#### 20200925-28\*

**Preparedness, administrative challenges for establishing obstetric services, and experience of delivering over 400 women at a tertiary care COVID-19 hospital in India.** Mahajan NN, Pednekar R, Patil SR, et al (2020), International Journal of Gynecology & Obstetrics vol 151, no 2, November 2020, pp 188-196

#### Objective

To provide a descriptive account of the challenges and administrative preparedness for establishing and sustaining safe obstetric services during the COVID-19 pandemic at Topiwala National Medical College & BYL Nair Charitable Hospital (NH), Mumbai, India.

#### Methods

The management of pregnant women with COVID-19 was implemented as per international (WHO, RCOG, ACOG) and national (Indian Council of Medical Research) recommendations and guidelines at an academic, tertiary care, COVID-19 hospital in India.

#### Results

Using a multidisciplinary approach and active engagement of a multispecialty team, obstetric services were provided to over 400 women with laboratory-confirmed COVID-19. A sustainable model is established for providing services to

pregnant women with COVID-19 in Mumbai Metropolitan Region, India.

#### Conclusion

With limited resources, it is possible to set up dedicated maternity services, aligned to international guidelines, for safe pregnancy outcomes in COVID-19 settings. This COVID-19 hospital addressed the challenges and implemented several known and novel methods to establish and sustain obstetric services for women with COVID-19. The model established in the present study can be replicated in other low- and middle-income countries. (Author)

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#### 20200917-60\*

**Prevention of social exclusion and role of antenatal care by BRAC community health workers in improving safe motherhood and neonatal care in urban slums of Bangladesh.** Jolly SP, Chowdhury TR, Rahman M, et al (2020), PLoS ONE vol 15, no 7, 8 July 2020, e0235340

The transformation of the BRAC MANOSHI programme from humanitarian to a social enterprise model, has made it increasingly urgent to enumerate the minimum number of door-to-door antenatal care (ANC) visits by community health workers (CHWs), for the purpose of effectively improving facility delivery. Thus prevent social exclusion of poor slum communities in Bangladesh with regard to safe motherhood and essential newborn care (ENC). This cross-sectional study was conducted, during March-July, 2015 in slums of Chittagong, Dhaka and Sylhet city corporations of Bangladesh. A census was conducted among 25,700 households covering 10 branch offices of MANOSHI to identify women with a delivery outcome in the preceding three years of the survey. A total of 1100 respondents were interviewed randomly through a structured questionnaire. These women were stratified into three categories-1, 2 & 3, consisting of 497, 205 and 398 women respectively. Women in category-1 did not receive any ANC checkup from the BRAC CHWs, while women in category-2 and category-3 received one to three and  $\geq$ four ANC checkups from BRAC CHWs respectively. Data was analysed using STATA Version 13 (Chicago Inc.). Findings revealed that women, who received  $\geq$ four ANC checkups from BRAC CHWs, are 25% more likely to avail facility delivery [adjusted Prevalence Ratio (aPR) 1.25; 95% confidence interval (CI) (1.01-1.54)] compared to the women who did not receive any ANC from BRAC CHWs. Women in category-2 [aPR3.64; 95% CI (1.76-7.54)] and in category-3 [aPR5.92; 95% CI (3.04-11.53)] respectively had four and six folds higher tendency to receive postnatal care (PNC) within 48 hours after delivery. Furthermore, facility delivery improved PNC assisted by medically trained providers (MTPs) within 48 hours after delivery and ENC in both categories 2 & 3. The evidence shows that at least four ANC visits of BRAC CHWs can increase institutional delivery, and which can further facilitate PNC and ENC visits. At present, the BRAC MANOSHI programme needs to implement feasible strategies to include pregnant women in the slums in receiving at least four ANC checkups by BRAC CHWs for ensuring safe motherhood and newborn care. (Author)

Full URL: <https://doi.org/10.1371/journal.pone.0235340>

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#### 20200910-34\*

**Can people-centered community-oriented interventions improve skilled birth attendance? Evidence from a quasi-experimental study in rural communities of Cambodia, Kenya, and Zambia.** Edward A, Krishnan A, Ettyang G, et al (2020), BMC Pregnancy and Childbirth vol 20, no 514, 5 September 2020

#### Background

Skilled attendance at delivery is a key marker for reducing maternal mortality. Effective community engagement strategies complemented by community health worker (CHW) services can improve access to maternal health services in areas with limited health infrastructure or workforce.

#### Methods

A quasi-experimental study with matched comparison groups was conducted in Cambodia, Kenya and Zambia to determine the effect of integrated community investments on skilled birth attendance (SBA). In each country, communities in two districts/sub-districts received a package of community-oriented interventions comprised of timed CHW household health promotion for maternal, newborn and child health complemented by social accountability mechanisms using community scorecards. Two matched comparison districts/sub-districts received ongoing routine interventions. Data from the final evaluation were examined to determine the effect of timed CHW services and community-oriented interventions on SBA.

#### Results

Over 80% of the 3037 women in Cambodia, 2805 women in Kenya and 1171 women in Zambia reported SBA. Women in intervention sites who received timely CHW health promotion and social accountability mechanisms in Cambodia showed significantly higher odds of SBA (aOR = 7.48; 95% CI: 3.87, 14.5). The findings also indicated that women over the age of 24 in Cambodia, women with primary or secondary education in Cambodia and secondary education in Kenya, women from higher wealth quintiles in Cambodia, and women with four or more antenatal care (ANC) visits in all countries reported significantly higher odds of SBA. Inclusion of family members in pregnancy-related discussions

in Kenya (aOR = 2.12; 95% CI: 1.06, 4.26) and Zambia (aOR = 6.78; 95% CI: 1.15, 13.9) and follow up CHW visits after a referral or health facility visit (aOR = 2.44; 95% CI: 1.30, 4.60 in Cambodia; aOR = 2.17; 95% CI 1.25, 3.75 in Kenya; aOR = 1.89; 95% CI: 1.05, 2.02 in Zambia) also showed significantly greater odds of SBA.

#### Conclusions

Enhancing people-centered care through culturally appropriate community-oriented strategies integrating timely CHW health promotion and social accountability mechanisms shows some evidence for improving SBA during delivery. These strategies can accelerate the achievement of the sustainable development goals for maternal child and newborn health. (Author)

Full URL: <https://doi.org/10.1186/s12884-020-03223-0>

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#### 20200826-32\*

**Prevalence and factors associated with knowledge and access to delivery services at primary health care facilities amongst indigenous women in Khagrachhari district Bangladesh - A cross-sectional study.** Akter S, Rich JL, Davies K, et al (2020), *Midwifery* vol 90, November 2020, 102792

#### Objective

To estimate the prevalence of facility delivery knowledge and access during childbirth amongst Indigenous women in the Chittagong Hill Tracts, Bangladesh and to identify factors associated with facility delivery service utilisation.

#### Design

A cross-sectional study design using a structured self-report survey.

#### Setting

Two Upazilas (subdistricts) of Kharachhari hill district of the Chittagong Hill Tracts.

#### Participants

Indigenous women of reproductive age (15-49 years) within 36 months of delivery.

#### Measurements and findings

A modified national survey about accessing maternal health services, including delivery services was administered to all Indigenous women that met eligibility, guided by community leaders. Data collected included socio-demographic characteristics and reproductive history. Main outcome variables were the proportion of women having prior knowledge about and access to facility delivery services for childbirth in the three years prior to the survey. Secondary outcomes were sources of information about facility delivery services, decision making about delivery place, and factors associated with knowledge and attendance at facility delivery services. Factors associated with knowledge and attendance were estimated using logistic regression with results reported as adjusted odds ratios and 95% confidence intervals. With an 89% response rate, a total of 438 Indigenous women (220 Chakma, 100 Marma, 118 Tripura) participated in the survey, and 75% were aged 16-29 years. Relatives played a vital role as a source of information about delivery services (59%). Nearly three-quarters (73%) were aware of facility delivery services, however, prevalence of accessing delivery services was 33% (n = 143; 95% CI 0.28-0.37). Relatives were the key decision-makers for accessing facility delivery services (60%). Independent factors associated with knowledge about facility delivery were higher household income (AOR 5.3, 95%CI 2.2-13); having knowledge of nearest health care facilities (AOR 5.8, 95%CI 3.0-11); and attending antenatal care visits during last pregnancy (four or more AOR 3.1, 95% CI 1.3-7.2 and one to three visits AOR 2.7, 95% CI 1.5-5.0). Independent factors associated with accessing facility delivery services at childbirth were attending antenatal care visit; having access to media; higher level of education of partners; and residing at Khagrachhari Sadar compared to Matiranga subdistrict.

#### Key conclusions and implications for practice

Indigenous women in Chittagong Hill Tracts, Bangladesh have sub-optimal knowledge of, and attendance at, facility delivery services for childbirth. Maternal health related interventions should target Indigenous women in order to educate and motivate them to access facility delivery services at childbirth. Rigorous research is needed to explore Indigenous cultural practices related to childbirth that might influence their access to facility delivery services. (Author)

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#### 20200824-16\*

**Lessons learnt from an obstetric and neonatal emergency simulation program in India.** Kumar A, Khot N, Bansal U, et al (2021), *Journal of Neonatal Nursing* vol 27, no 2, April 2021, pp 135-140

#### Background

Combined obstetric and neonatal emergency simulation based training is gaining popularity in healthcare settings. Methods: In this qualitative study, through semi-structured one to one interviews, we evaluated participant attitudes, perceptions of retention of learning, and application to clinical practice one year after a simulation workshop. Audio recordings of interviews were transcribed, collated and subjected to thematic analysis. Results: Five major themes

were identified through the thematic analysis: comparing simulation to clinical practice; learning and working in teams; thinking retention and sustainability; relating relevance of simulation based education to roles; and managing leadership. Conclusions: Participants' acknowledgement of training being relevant to their routine practice, and keenness to learn management of complicated births highlighted the sustained impact of obstetric and neonatal emergency simulation training. (Author)

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#### 20200820-68\*

**Mobile outreach health services for mothers and children in conflict-affected and remote areas: a population-based study from Afghanistan.** Edmond K, Yousufi K, Naziri M, et al (2020), Archives of Disease in Childhood vol 105, no 1, January 2020, pp 18-25

**Objective** To assess whether sustained, scheduled mobile health team (MHT) services increase antenatal care (ANC), postnatal care (PNC) and childhood immunisation in conflict-affected and remote regions of Afghanistan.

**Design** Cross-sectional, population-based study from 2013 to 2017. Proportions were compared using multivariable linear regression adjusted for clustering and socio-demographic variables.

**Setting** 54 intervention and 56 control districts in eight Afghanistan provinces.

**Participants** 338 796 pregnant women and 1 693 872 children aged under 5 years.

**Interventions** 'Intervention districts' that received MHT services for 3 years compared with 'control districts' in the same province without any MHT services over the same period.

**Main outcome measures** District-level and clinic-level ANC, PNC, childhood immunisation (pentavalent 3, measles 1), integrated management of childhood immunisation services.

**Results** Proportion of pregnant women receiving at least one ANC visit was higher in intervention districts (83.6%, 161 750/193 482) than control districts (61.3%, 89 077/145 314) (adjusted mean difference (AMD) 14.8%;95% CI: 1.6% to 28.0%). Proportion of children under 1 year receiving their first dose of measles vaccine was higher in intervention (73.8%, 142 738/193 412) than control districts (57.3%, 83 253/145 293) (AMD 12.8%;95% CI: 2.1% to 23.5%). There was no association with PNC (AMD 2.8%;95% CI: -5.1% to 10.7%). MHTs did not increase clinic-level service provision for ANC (AMD 41.32;95% CI: -52.46 to 135.11) or any other outcomes.

**Conclusions** Sustained, scheduled MHT services to conflict-affected and remote regions were associated with improved coverage of important maternal and child health interventions. Outreach is an essential service and not just an 'optional extra' for the most deprived mothers and children. (Author)

**Full URL:** <http://dx.doi.org/10.1136/archdischild-2019-316802>

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#### 20200818-25\*

**Systematic review of barriers to, and facilitators of, the provision of high-quality midwifery services in India.** McFadden A, Gupta S, Marshall JL, et al (2020), Birth vol 47, no 4, December 2020, pp 304-321

##### Background

The Indian government has committed to implementing high-quality midwifery care to achieve universal health coverage and reduce the burden of maternal and perinatal mortality and morbidity. There are multiple challenges, including introducing a new cadre of midwives educated to international standards and integrating midwifery into the health system with a defined scope of practice. The objective of this review was to examine the facilitators and barriers to providing high-quality midwifery care in India.

##### Methods

We searched 15 databases for studies relevant to the provision of midwifery care in India. The findings were mapped to two global quality frameworks to identify barriers and facilitators to providing high-quality midwifery care in India.

##### Results

Thirty-two studies were included. Key barriers were lack of competence of maternity care providers, lack of legislation recognizing midwives as autonomous professionals and limited scope of practice, social and economic barriers to women accessing services, and lack of basic health system infrastructure. Facilitators included providing more hands-on experience during training, monitoring and supervision of staff, utilizing midwives to their full scope of practice with good referral systems, improving women's experiences of maternity care, and improving health system infrastructure.

##### Conclusions

The findings can be used to inform policy and practice. Overcoming the identified barriers will be critical to achieving the Government of India's plans to reduce maternal and neonatal mortality through the introduction of a new cadre of midwives. This is unlikely to be effective until the facilitators described are in place. (Author)

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20200817-21\*

**Factors influencing institutional delivery and the role of accredited social health activist (ASHA): a secondary analysis of India human development survey 2012.** Paul PL, Pandey S (2020), BMC Pregnancy and Childbirth vol 20, no 445, 5 August 2020

#### Background

India has focused on incentivizing institutional delivery and introducing the ASHA worker as a key strategy to improve maternal health outcomes. We examined the determinants of institutional delivery and the role of the ASHA worker in shaping choice regarding place of delivery.

#### Methods

We used data from the India Human Development Survey-II conducted in 2011-12, and extracted an analytic sample of women (N = 8711) who reported having at least one child since 2005. Logistic regression was used to examine influence of socio-demographic factors, frequency of antenatal care (ANC) contacts and exposure to ASHA worker on institutional delivery.

#### Results

About 15% of the respondents had eight or more ANC contacts. The odds of having an institutional delivery were higher among those respondents who had 8 or more ANC contacts (OR = 3.39,  $p < 0.001$ , 95% CI: 2.26, 5.08), and those who had 4-7 ANC contacts (OR = 1.72,  $p < 0.001$ , 95% CI: 1.48, 1.99) as compared to those with less than 4 ANC contacts. About 26% of the respondents had any exposure to an ASHA worker. After controlling for ANC contacts, these respondents had three times the odds of institutional delivery (OR = 3.04,  $p < 0.001$ , 95% CI: 2.37, 3.89) compared to those who had no exposure to ASHA workers. Further, several sociodemographic variables were associated with institutional delivery. While age of spouse, age at marriage, level of education and urban residence were positively associated with institutional delivery; age of respondent and number of children were inversely associated with institutional delivery.

#### Conclusions

Both frequency of ANC contacts and exposure to ASHA worker independently emerge as important determinants of institutional delivery. Furthermore, ASHA workers may have a crucial role in promoting antenatal care, thereby strengthening the association between ANC contacts and institutional delivery. (Author)

Full URL: <https://doi.org/10.1186/s12884-020-03127-z>

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20200806-1\*

**Developing and Piloting a Midwifery Audit Tool in Bangladesh's Upazila Health Complexes (UHCs).** Khatun A, Jhumu MA, Gregson S, et al (2020), Journal of Asian Midwives vol 7, no 1, June 2020

Midwifery is a new profession in Bangladesh. Diploma-prepared midwives were first deployed in 2018. Recent studies suggest that newly qualified midwives in Bangladesh may not be able to fully perform their midwifery role due to a number of complex factors. This paper describes a pilot study of a midwifery audit undertaken in 2019 by the Bangladesh Midwifery Society, supported by the Royal College of Midwives. These two organisations are in a formal twinning partnership funded by UNFPA Bangladesh with support from UK-Aid, Sweden and Canada. The audit was successful in improving the quality of midwifery care and addressing health system challenges. It enabled midwifery leadership development and gender empowerment and built capacity for auditing practice and for advocating for midwives' roles. It also deepened midwives' engagement with their professional association. Further research is required to understand whether this tool should be scaled up across Bangladesh and/or adapted for other contexts. (Author)

Full URL: <https://ecommons.aku.edu/jam/vol7/iss1/3/>

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20200728-4\*

**Integrating Maternity Care in China.** Kalinowski IC, Mengxue (2019), Midwifery Today vol 132, Winter 2019

The Modern Maternity Service System (MMSS) provides classroom training and face-to-face training in many hospitals across China. We have made many wonderful changes toward delivering respectful woman-, baby-, and family-centered care that supports the normal physiology of childbirth. (Author)

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20200728-14\*

**Maternity Care Amid Covid-19 Outbreak Story of midwives from a remote rural area in Bangladesh.** Chowdhury M, Amin S, Ara B, et al (2020), Midwifery Today no 134, Summer 2020

Discusses changes to maternity care in the Midwife Led Care Centre at the Charikata Union Health and Family Welfare Center in Sylhet, Bangladesh during the COVID-19 outbreak. Includes the experiences of midwives Lakshmi Rani and

#### 20200710-40\*

**Midwives' perceptions of barriers to exclusive breastfeeding in Bhutan: A qualitative study.** Pemo K, Philips D, Hutchinson AM (2020), *Women and Birth: Journal of the Australian College of Midwives* vol 33, no 4, pp E377-E384

##### Problem

In Bhutan, exclusive breastfeeding is not routinely practised according to the World Health Organisation recommendation, thereby placing infants and women at increased risk of morbidity and mortality.

##### Background

Research indicates that support from midwives is positively associated with longer breastfeeding duration. Previously, no studies had been conducted in Bhutan to explore midwives' perceptions of the barriers to the promotion of exclusive breastfeeding.

##### Aim

To explore midwives' perceptions of the barriers to promoting exclusive breastfeeding among Bhutanese women.

##### Methods

A qualitative exploratory descriptive study design was used, involving individual semi-structured audio-recorded interviews. The Framework approach was utilised for data analysis.

##### Findings

Five themes emerged from a total of 26 interviews. The themes were: 'cultural and traditional practices', 'women's return to work', 'midwives' advice in response to breastfeeding problems', 'shortage of staff in a busy maternity service' and 'lack of professional development about breastfeeding'.

##### Discussion

Midwives reported that upholding Bhutanese cultural and traditional practices by women and their families was a powerful barrier to the promotion of exclusive breastfeeding. Midwives experienced difficulty in promoting exclusive breastfeeding among women in the immediate postnatal period during women's short hospital stay. A shortage of midwives, coupled with a lack of professional development about breastfeeding promotion and support, were additional barriers to the promotion of exclusive breastfeeding.

##### Conclusion

The study findings highlight the need for continuing professional development of midwives in relation to exclusive breastfeeding. Additionally, a review of the midwifery workforce model is recommended, to ensure midwives have time to provide women with breastfeeding support. (Author)

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#### 20200710-14\*

**Findings from a context specific accreditation assessment at 38 public midwifery education institutions in Bangladesh.**

Bogren M, Banu A, Parvin S, et al (2021), *Women and Birth: Journal of the Australian College of Midwives* vol 34, no 1, February 2021, pp e76-e83

##### Background

In order to promote sustainable midwifery education, it is important to understand what the structural shortcomings are. In this study of 38 public nursing institutions in Bangladesh, we aim to identify a number of structural shortcomings and to discuss strategies for limiting them.

##### Methods

An evaluated context-specific accreditation assessment tool consisting of 37 multi-choice closed-response questions encompassing 14 educational standards aligned with international standards for midwifery education programs and competences for midwifery educators was used to assess all public nursing institutions in Bangladesh (n = 38), the results of which are presented in simple descriptive statistics; number (n), percentage (%), mean, SD and minimum-maximum value.

##### Results

Provision around clinical practice sites is the key structural shortcoming within the Bangladeshi midwifery educational system. Twenty-five percent of the institutions provided no opportunity for midwifery students to practice comprehensive sexual and reproductive health care. Twenty-nine per cent of the clinical sites were not aware of the content of midwifery courses and syllabi. Finally, one third of students achieving a midwifery qualification did not meet the learning outcomes to support women in birth.

##### Conclusions

To measure progress towards national and global milestones to ensure students are equipped with required competencies before graduating as registered midwives will be difficult to meet unless shortcomings within the educational system are addressed. We recommend (i) the inclusion of clinical placement sites in future assessments,

(ii) the introduction of an integrated feedback-appeal-response system, and (iii) the development of a system for improved communication links between educational institutions and clinical placement sites. (Author)

Full URL: <https://doi.org/10.1016/j.wombi.2020.06.009>

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#### 20200610-53\*

**Antenatal testing for anaemia, HIV and syphilis in Indonesia - a health systems analysis of low coverage.** Baker C, Limato R, Tumbelaka P, et al (2020), BMC Pregnancy and Childbirth vol 20, no 326, 29 May 2020

##### Background

Adverse pregnancy outcomes can be prevented through the early detection and treatment of anaemia, HIV and syphilis during the antenatal period. Rates of testing for anaemia, HIV and syphilis among women attending antenatal services in Indonesia are low, despite its mandate in national guidelines and international policy.

##### Methods

Midwife-held antenatal care records for 2015 from 8 villages in 2 sub-districts within Cianjur district were reviewed, alongside the available sub-district Puskesmas (Community Health Centre) maternity and laboratory records. We conducted four focus group discussions with kaders (community health workers) (n = 16) and midwives (n = 9), and 13 semi-structured interviews with laboratory and counselling, public sector maternity and HIV management and relevant non-governmental organisation staff. Participants were recruited from village, sub-district, district and national level as relevant to role.

##### Results

We were unable to find a single recorded result of antenatal testing for HIV, syphilis or anaemia in the village (566 women) or Puskesmas records (2816 women) for 2015. Laboratory records did not specifically identify antenatal women. Participants described conducting and reporting testing in a largely ad hoc manner; relying on referral to health facilities based on clinical suspicion or separate non-maternity voluntary counselling and testing programs. Participants recognized significant systematic challenges with key differences between the more acceptable (and reportedly more often implemented) haemoglobin testing and the less acceptable (and barely implemented) HIV and syphilis testing. However, a clear need for leadership and accountability emerged as an important factor for prioritizing antenatal testing and addressing these testing gaps.

##### Conclusions

Practical solutions such as revised registers, availability of point-of-care tests and capacity building of field staff will therefore need to be accompanied by both funding and political will to coordinate, prioritize and be accountable for testing in pregnancy. (Author)

Full URL: <https://doi.org/10.1186/s12884-020-02993-x>

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#### 20200608-2\*

**2020 International Year of Midwifery-In the midst of a pandemic.** Furuta M (2020), Midwifery vol 87, August 2020, 102739

Editorial on clinical and educational challenges in Japan during the COVID-19 pandemic. Discusses antenatal services, the traditional custom of satogaeri and the suspension of midwifery training. (LDO)

Full URL: <https://doi.org/10.1016/j.midw.2020.102739>

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#### 20200608-1\*

**The maternity response to COVID-19: an example from one maternity unit in Taiwan.** Liao S-C, Chang Y-S, Chien L-Y, et al (2020), Midwifery vol 88, September 2020, 102756

Discusses the preventative measures introduced in Taiwan at the government and hospital level to minimise the spread of COVID-19. The authors focus on a maternity unit in Taipei city which introduced designated walkways, fever screening, visitor restrictions, negative-pressure birth rooms and personal protective equipment. (LDO)

Full URL: <https://doi.org/10.1016/j.midw.2020.102756>

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#### 20200601-15\*

**A starched cotton fluorescent-yellow saree, khopa, belly button and safety pins: decoding the 'dignified Indian nurse-midwife'.** Mayra K (2020), The Practising Midwife vol 23, no 6, June 2020, pp 14-17

This article is a personal account of my experiences of nursing and midwifery education in India. I discuss scenarios of conditioning into a profession(s) that has to maintain a 'dignified' portrayal as per societal norms which is gender-based and heavily influenced by patriarchy and doctor domination. This conditioning starts early in the pre-service education, which had a key role in shaping my political activism, professional choices and my influence on policy-making and on young nurse-midwives around the world. (Author)

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20200601-10\*

**Revolutionising maternal healthcare in Bangladesh.** Amin F, Khalid S (2020), *The Practising Midwife* vol 23, no 5, May 2020, pp 30-34

In this Maternity Voices space, we have two reflective articles from a fourth year medical student and a midwife. Together, they provided free antenatal healthcare checks for pregnant women in resource-poor rural villages in Bangladesh with student-founded charity Maternal Aid Association. Their reflections provide important insights to the challenges women and people face in this context. (Author)

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20200520-11\*

**Health management committee strengthening and community mobilisation through women's groups to improve trained health worker attendance at birth in rural Nepal: a cluster randomised controlled trial.** Morrison J, Tumbahangphe K, Sen A, et al (2020), *BMC Pregnancy and Childbirth* vol 20, no 268, 6 May 2020

#### Background

Engaging citizens and communities to make services accountable is vital to achieving health development goals. Community participation in health management committees can increase public accountability of health services. We conducted a cluster randomised controlled trial to test the impact of strengthened health management committees (HMCs) and community mobilisation through women's groups on institutional deliveries and deliveries by trained health workers in rural Nepal.

#### Methods

The study was conducted in all Village Development Committee clusters in the hills district of Makwanpur (population of 420,500). In 21 intervention clusters, we conducted three-day workshops with HMCs to improve their capacity for planning and action and supported female community health volunteers to run women's groups. These groups met once a month and mobilised communities to address barriers to institutional delivery through participatory learning and action cycles. We compared this intervention with 22 control clusters. Prospective surveillance from October 2010 to the end of September 2012 captured complete data on 13,721 deliveries in intervention and control areas. Analysis was by intention to treat.

#### Results

The women's group intervention was implemented as intended, but we were unable to support HMCs as planned because many did not meet regularly. The activities of community based organisations were systematically targeted at control clusters, which meant that there were no true 'control' clusters. 39% (5403) of deliveries were in health institutions and trained health workers attended most of them. There were no differences between trial arms in institutional delivery uptake (1.45, 0.76-2.78) or attendance by trained health workers (OR 1.43, 95% CI 0.74-2.74).

#### Conclusions

The absence of a true counterfactual and inadequate coverage of the HMC strengthening intervention impedes our ability to draw conclusions. Further research is needed to test the effectiveness of strengthening public accountability mechanisms on increased utilisation of services at delivery.

#### Trial registration

Current Controlled Trials ISRCTN99834806.

Date of registration:28/09/10. (Author)

Full URL: <https://doi.org/10.1186/s12884-020-02960-6>

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20200513-100\*

**Are 'Obstetrically Underserved Areas' really underserved? Role of a government support program in the context of changing landscape of maternal service utilization in South Korea: A sequential mixed method approach.** Lee H-Y, Yoon N-H, Oh J, et al (2020), *PLoS ONE* vol 15, no 5, 6 May 2020, e0232760

#### Objectives

The Korean government has been providing financial support to open and operate the maternal hospital in Obstetrically Underserved Areas (OUAs) since 2011. Our study aims to assess the effectiveness of the government-support program for OUAs and to suggest future directions for it.

#### Methods

We performed sequential-mixed method approach. Descriptive analyses and multi-level logistic regression were performed based on the 2015 Korean National Health Insurance claim data. Data for the qualitative analysis were obtained from in-depth interviews with health providers and mothers in OUAs.

#### Results

Descriptive analyses indicated that the share of babies born in the hospitals located in the area among total babies ever born from mothers residing in the area (Delivery concentration Index: DCI) was lower in government-supported OUAs than other areas. Qualitative analyses revealed that physical distance is no longer a barrier in current OUAs. Mothers travel to neighboring big cities to seek elective preferences only available at specialized maternal hospitals rather than true medical need. Increasing one-child families changed the mother's perception of pregnancy and childbirth, making them willing to pay for more expensive services. Concern about an emergency for mothers or infants, especially of high-risk mothers was also an important factor to make mothers avoid local government-supported hospitals. Adjusted multi-level logistic regression indicated that DCIs of government-supported OUAs were higher than the ones of their counterpart areas.

#### Conclusion

Our results suggest that current OUAs do not reflect reality. Identification of true OUAs where physical distance is a real barrier to the use of obstetric service and focused investment on them is necessary. In addition, more sophisticated performance indicator other than DCI needs to be developed. (Author)

Full URL: <https://doi.org/10.1371/journal.pone.0232760>

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#### 20200505-30\*

**Factors affecting rural women's utilisation of continuum of care services in remote or isolated villages or Pakistan – A mixed-methods study.** Maheen H, Hoban E, Bennett C (2021), *Women and Birth: Journal of the Australian College of Midwives* vol 34, no 3, May 2021, pp 257-265

#### Introduction

An effective continuum of care for pregnancy and childbirth connects women and girls with essential reproductive and maternity care services. This study aimed to estimate the continuum of care utilisation rate of women who lived in remote and isolated regions of Pakistan and explored factors that influence women's utilisation of reproductive and maternity care services.

#### Methods

A mixed-methods study was conducted in five rural villages of Sindh, Pakistan. A cross-sectional survey with 669 women who gave birth between July 2010 and September 2014 investigated women's maternity-care service utilisation during pregnancy, childbirth, and in the postpartum period. In-depth interviews with 15 women explored their maternity-care experiences with health providers.

#### Results

Only 6.4% of 669 women participants reported to have completed the continuum of care for their last pregnancy. Skilled birth attendants, including health professionals, were used by 56.1% for antenatal care, 40.8% for both antenatal and childbirth, 22.3% for antenatal, childbirth and postnatal, and only 6.4% reported using all pregnancy-related and postpartum services. Limited knowledge about affordable health services, poor health literacy, and access to health services was associated with women's fragmented utilisation of maternity care. A lack of respectful maternity-care was also identified as a major barrier to women's utilisation of primary health care facilities, especially for childbirth.

#### Conclusion

The existing primary health structure in Pakistan provides a good foundation to deliver continuity of care services; however, health services utilisation for reproductive and maternity care remains suboptimal in women who live in geographically remote regions of Pakistan. (Author)

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#### 20200409-27\*

**The influence of pregnancy classes on the use of maternal health services in Indonesia.** Azhar K, Dharmayanti I, Tjandrarini DH, et al (2020), *BMC Public Health* vol 20, no 372, 20 March 2020

#### Background

Indonesia has developed the pregnancy class program for mothers in an effort to reduce the high maternal mortality rate. This study aims to understand the influence of pregnancy classes on mothers' use of maternal and neonatal health services, which are known to improve pregnancy and delivery outcomes.

#### Methods

This study used data on members of households in communities in Indonesia, based on the 2016 National Health Indicators Survey (Sirkesnas), which covered 34 provinces and 264 districts/cities. The analysis focused on a sample of women ages 10-54 years who had ever been married and had given birth in the previous 3 years. The study analyzed three behaviors as outcome variables: whether a mother had adequate antenatal care, used a skilled birth attendant, and had a facility-based delivery. Logistic and multinomial logistic regression analysis was used to explore those relationships.

## Results

29% of mothers utilized adequate antenatal care (a minimum of five antenatal care components and at least four antenatal care visits), 77% of mothers used skilled birth attendants for delivering their baby, and 76% of mothers used a health facility to give birth. Only 7% of mothers participated in the complete pregnancy class program. Mothers who completed participation in the pregnancy class program had 2.2 times higher odds of receiving adequate antenatal care [OR = 2.19; 95% CI: 1.62 to 2.97; P < 0.001]. Those who completed participation in the class had 2.7 times higher odds of using skilled birth attendants for delivery [OR = 2.69; 95% CI: 1.52 to 4.76; P < 0.001] and 2.8 times higher odds of giving birth in a health facility compared to a non-health facility [OR = 2.77; 95% CI: 1.56 to 4.91; P < 0.001].

## Conclusions

Participation in pregnancy classes was positively associated with utilization of adequate antenatal care, skilled birth attendants, and delivery at health facility. Since participation in pregnancy classes is positively associated with maternal healthcare utilization, policy efforts should focus on improving implementation of the KIH program at the local level. (Author)

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## 20200409-26\*

### **Inequalities in the utilisation of maternal health Care in Rural India: Evidences from National Family Health Survey III & IV.**

Ali B, Chauhan S (2020), BMC Public Health vol 20, no 369, 20 March 2020

## Background

Since the implementation of National Rural Health Mission (NRHM) in 2005, Maternal Mortality Ratio has significantly declined in India through a noticeable improvement in maternal health care services. However, India did not succeed to achieve the target of millennium development goal to reduced maternal mortality ratio by 2015. Also, there is substantial inequality exist at the regional, geographic, economic, and social level, and various socioeconomic factors contribute to the significantly large share in inequality in utilisation of maternal health care in India.

## Methods

Using data from the National Family Health Survey (2005 and 2015), this study examined the degree of inequality exist in maternal health care namely full antenatal care (full ANC), skilled attendants at birth (SBA), and postnatal care (PNC) in rural India. Descriptive statistics, concentration index (CI), and Wagstaff decomposition method have been performed to understand the pattern of maternal health care utilisation, and to explain the extent of inequality in maternal health care utilisation.

## Results

The study revealed that a substantial gap across socioeconomic groups exist in utilisation of maternal health care has significantly reduced in rural India during 2005-16. The results found a noticeable improvement in maternal health care utilisation, especially in utilisation of skilled attendants at birth (SBA). During this decade, the concentration index for SBA showed a significant decline from 0.28 in 2005-06 to 0.09 in 2015-16, while that of full ANC declined from 0.47 to 0.32 over the same period, and reduction of inequality in full ANC was least. Further, the results of decomposition analysis suggested that secondary and higher education, mass media exposure, and scheduled tribe contributed a significant share to the inequality.

## Conclusion

The exposure to mass media is the most significant contributor to inequality, and hence, there is a need for broad dissemination of awareness regarding maternal health care schemes in rural parts of country. Based on findings of study, it is suggested that health scheme related to maternal and child health care under NRHM be continued and focused for lower socioeconomic groups and marginalized mothers to reduce maternal health services inequality, particularly in the component of full ANC. (Author)

Full URL: <https://doi.org/10.1186/s12889-020-08480-4>

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## 20200409-23\*

### **Desire to delay the first childbirth among young, married women in India: a cross-sectional study based on national survey data.** Ibarra-Nava I, Choudhry V, Agardh A (2020), BMC Public Health vol 20, no 350, 18 March 2020

## Background

Young women in India continue to face diverse challenges that threaten their health and wellbeing. The reproductive health and rights of newly married women, who are often expected to begin childbearing soon after marriage, are often neglected. The present study aims to understand some of the factors associated with the desire to delay the first childbirth in young, married women in India.

## Methods

The study utilised the data from the most recent National Family Health Survey 2015-16 in India. Our study sample was

restricted to married women who were 15-24 years of age and who had never been pregnant at the time of the survey. Chi-squared tests, independent t-tests and multivariable logistic regression analyses were performed to measure associations between multiple independent factors and the reported preferred waiting time for the first childbirth.

#### Results

Among never pregnant, married women aged 15-24, 21.49% reported a preferred waiting time for their first childbirth of 2 years or more. Belonging to an other backward class, or OBC, (ORadjusted 1.55, 95%CI 1.14-2.10), having completed higher education (ORadjusted 2.04, 95%CI 1.11-3.76), marrying after the age of 18 (ORadjusted 1.57, 95%CI 1.10-2.24), a husband's higher education level (ORadjusted 2.42, 95%CI 1.27-4.64), a younger husband (ORadjusted 0.75, 95%CI 0.66-0.84) and non-exposure to physical violence (ORadjusted 1.84, 95%CI 1.09-3.11) were significantly associated with a longer preferred waiting time for the first childbirth.

#### Conclusion

Intimate partner violence and partner characteristics play a role in the childbearing intentions of young women after marriage. Delaying the first childbirth could improve women's educational and economic opportunities, their health, and the health of their future and properly planned children. To achieve this, it is crucial to promote and respect women's right to decide who and when to marry, when to have children, and to promote relationships free of gender-based violence. (Author)

Full URL: <https://doi.org/10.1186/s12889-020-8402-9>

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#### 20200407-28\*

**Exploring reasons for discontinuing use of immediate post-partum intrauterine device in Nepal: a qualitative study.** Puri MC, Joshi S, Khadka A, et al (2020), *Reproductive Health* vol 17, no 41, March 2020

#### Background

Postpartum intrauterine device (PPIUD) use remains very low in Nepal despite high levels of unmet need for postpartum family planning and the national government's efforts to promote its use. This study investigates reasons for continuing or discontinuing PPIUD use among Nepali women.

#### Methods

We conducted in-depth interviews (IDIs) with 13 women who had discontinued PPIUD use and 12 women who were continuing to use the method 9 months or longer following the insertion. All interviews were audio recorded, transcribed, translated into English, and analyzed using a thematic approach.

#### Results

Women discontinued PPIUD for several reasons: 1) side effects such as excessive bleeding during menstruation, nausea, back and abdominal pain; 2) poor quality of counselling and, relatedly, mismatched expectations in terms of device use; and 3) lack of family support from husbands and in-laws. In contrast, women who were continuing to use the method at the time of the study stated that they had not experienced side-effects, had received appropriate information during counselling sessions, and had the backing of their family members in terms of using PPIUD.

#### Conclusion

Experiencing side-effects or complications following PPIUD insertion and poor quality of family planning counselling were the two main reasons for discontinuation. Family members appeared to play a major role in influencing a woman's decision to continue or discontinue PPIUD suggesting that counseling may need to be expanded to them as well. Improving quality of counselling by providing complete and balanced information of family planning methods as well as ensuring sufficient time for counselling and extending PPIUD service availability at lower level clinics/health posts will potentially increase the uptake and continued use of postpartum family planning, including PPIUD, in Nepal. (Author)

Full URL: <https://doi.org/10.1186/s12978-020-0892-5>

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#### 20200331-17\*

**Characteristics of sleep/wake problems and delivery outcomes among pregnant Japanese women without gestational complications.** Umeno S, Kato C, Nagaura Y, et al (2020), *BMC Pregnancy and Childbirth* vol 20, no 179, 20 March 2020

#### Background

Frequently observed sleep/wake problems among pregnant women need comprehensive evaluation. This study was conducted to clarify the sleep/wake problems among pregnant women without gestational complications during the second and third trimester and the effects of sleep/wake problems on delivery outcomes.

#### Methods

A total of 88 Japanese pregnant women participated in this study. In their second and third trimester, subjective sleep

quality, insomnia severity, excessive daytime sleepiness (EDS), and restless legs syndrome/Willis-Ekbom disease (RLS/WED) were assessed using questionnaires; also, sleep disordered breathing (SDB) was screened using a pulse oximeter.

#### Results

From the second to the third trimester, an increasing tendency of sleep/wake problems was observed. During the third trimester, the percentages of women experiencing decreased subjective sleep quality, difficulty maintaining sleep (DMS), EDS, RLS/WED, and 3% oxygen desaturation index (ODI) values  $\geq 5/h$  were 62.5, 45.5, 48.9, 9.1, and 29.5%, respectively. In a logistic regression analysis for EDS in the third trimester, the adjusted odds ratio (95% confidence interval) of total sleep duration  $< 6$  h, moderate to severe DMS, and 3% ODI values  $\geq 5/h$  were 3.25 (1.16-9.10), 4.74 (1.60-14.00), and 0.90 (0.28-2.89), respectively. Although short sleep durations, decreased subjective sleep quality, EDS, and SDB did not affect delivery outcomes or the infant's condition, the percentage of women undergoing cesarean sections in the severe insomnia group was significantly higher ( $p = 0.008$ ).

#### Conclusions

Sleep/wake problems were frequent during pregnancy, especially during the third trimester. EDS among pregnant women was associated with shorter sleep durations and DMS rather than SDB. The effect of factors related to insomnia on delivery outcomes should thus be considered a crucial problem among pregnant Japanese women without gestational complications in clinical practice. (Author)

Full URL: <https://doi.org/10.1186/s12884-020-02868-1>

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#### 20200331-15\*

**Length of stay after childbirth in India: a comparative study of public and private health institutions.** Kumar P, Dhillon P (2020), BMC Pregnancy and Childbirth vol 20, no 182, 23 March 2020

#### Background

This paper discusses length of stay (LOS) following childbirth as an indicator of quality of postnatal care in health institutions. This research aims to describe LOS according to both vaginal and cesarean deliveries in public and private health care institutions in India, and to identify any association of LOS with postnatal care and post-delivery complications.

#### Methods

We use recently released nationally-representative data from the National Family Health Survey-4 (2015-16) and apply the Cox proportional hazard model to determine the factors associated with LOS at the health facility after childbirth during a five-year period preceding the survey.

#### Results

Overall, the average LOS after childbirth is 3.4 days; 2.1 days for vaginal deliveries and 8.6 days for cesarean section (CS) deliveries. Strikingly, half of the women are discharged within 48 h. Women who give birth in private hospitals have a more prolonged stay than those who give birth in public health facilities. For vaginal birth in public hospitals, one-fourth of the women are discharged with insufficient LOS as against only 19.2% women in private hospitals. LOS is significantly related to the cost of delivery only in the case of private facilities. Uneducated women belonging to lower wealth quintile households and those living in rural areas stay for a shorter duration for vaginal deliveries but for a longer duration in case of cesarean deliveries. Women who get four or more antenatal check-ups (ANC) done have a longer stay, while those who receive benefits under the Janani Suraksha Yojna (JSY) have a shorter stay. Another key finding is that women who are discharged on the same day report lower levels of postnatal care and a higher proportion of post-delivery complications.

#### Conclusion

The study concludes that early discharge has a negative association with maternal health outcomes, which has important program implications. Therefore, it is essential to maintain an adequate LOS at a facility after childbirth. We recommend that government programs should strengthen the JSY scheme not only to improve delivery care, but also to provide effective postnatal care by promoting sufficient LOS at facilities. (Author)

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#### 20200331-12\*

**Hemoglobin levels and anemia evaluation among pregnant women in the remote and rural high lands of mid-western Nepal: a hospital based study.** Sharma D, Amgain K, Panta PP, et al (2020), BMC Pregnancy and Childbirth vol 20, no 182, 23 March 2020

#### Background

Anemia though is a major risk factor for unfavorable pregnancy outcomes; no previous studies have yet described the hemoglobin (Hb) concentrations and anemia prevalence among pregnant women of remote mid western highlands of Nepal where the aggravating factors that increase the risk of anemia are very common. In addition, the physiological

adaptive Hb rise to altitude was considered in the study while evaluating anemia. Thus, our primary objectives were to study the hemoglobin levels and prevalence of anemia among pregnant women of Jumla and its adjoining districts, and to assess the potential associations of hemoglobin and anemia with women's characteristics.

#### Methods

The study was conducted in 319 singleton term non-smoker pregnant women who visited to the teaching hospital for delivery. Their blood samples were tested for Hb and related sociodemographic information was collected. One-way analysis of variance (ANOVA) and independent t-test were used to compare the mean Hb levels. Multiple linear regression model and multiple logistic regression model were used to assess the association of Hb level and anemia with pregnant women's characteristics. The prevalence of anemia was calculated based on the altitude and pregnancy-adjusted Hb cut off value for anemia  $\{[11 + \text{adjustment factor (1.3)}] \text{ gm./dl}\}$ .

#### Results

The overall mean hemoglobin concentration was  $(13.497 \pm 1.64)$  gm/dl, ranging from 8 to 19.20 g/dl. The pregnant women Hb level showed significant association with their age (Coeff = 0.059; 95% CI: 0.011, 0.106;  $p = 0.015$ ) and parity (Coeff = - 0.21; 95% CI: - 0.382, - 0.038;  $p = 0.017$ ). The overall prevalence of anemia in the study population was 17.9% (57/319), which varied with age, parity and ethnicity. The disadvantaged Janajatis were more likely (OR = 4.615, 95% CI: 1.48, 14.35,  $p = 0.008$ ) to have anemia compared to upper cast group.

#### Conclusion

The mean Hb concentration was high and prevalence rate of anemia was low among pregnant women in karnali zone compared to average Nepali pregnant women. Women's age and parity were significant predictors of Hb level. Ethnicity, however, was associated with the occurrence of anemia. (Author)

Full URL: <https://doi.org/10.1186/s12884-020-02870-7>

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#### 20200328-4\*

**Parental satisfaction with quality of neonatal care in different level hospitals: evidence from Vietnam.** Nguyen ATB, Nguyen NTK, Phan PH, et al (2020), BMC Health Services Research vol 20, no 238, 20 March 2020

#### Background

Most health systems provide the most specialized, and presumably also the highest quality of care at a central level. This study assessed parental satisfaction and its determinants in the context of neonatal care in a provincial as well as a national hospital of Vietnam.

#### Methods

In this cross-sectional quantitative study, parents of 340 preterm infants admitted to neonatal care units of a national and a provincial hospital in 2018 were interviewed using structured questionnaires. Unadjusted and adjusted linear regression models were used to assess the relationship between parental satisfaction and hospital rank.

#### Results

The mean parental satisfaction score was 3.74 at the provincial, and 3.56 at the national hospital. These satisfaction differences persisted when parent and child characteristics were adjusted for in multivariate analysis. Longer length of stay and worsening infant health status were associated with parents reporting lower levels of satisfaction with the quality of care being provided at the healthcare facility.

#### Conclusions

This study suggests that parents of preterm infants admitted in a provincial hospital were more satisfied with the quality of care received than those in a specialized national hospital. Length of stay and infant health status were the two most important determinants of level of parental satisfaction. (Author)

Full URL: <https://doi.org/10.1186/s12913-020-5070-5>

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#### 20200327-16\*

**Gender inequality in early initiation of breastfeeding in Bangladesh: a trend analysis.** Sen KK, Mallick TS, Bari W (2020), International Breastfeeding Journal vol 15, no 18, 16 March 2020

#### Background

Early initiation of breastfeeding within 1 hour after birth is essential for newborns, because it reduces risk of neonatal mortality and hypothermia to a great extent and also helps in preventing the long-term chronic diseases and in increasing energy and immunity to newborn. In order to reach the 'very good state' of timely or early initiation of breastfeeding recommended by WHO, Bangladesh needs to increase the current rate of 51.24 to 100%. An attempt has been made in this study to examine how the early breastfeeding practice changes among male and female children with time controlling the factors associated with this practice.

#### Methods

Data from last four consecutive Bangladesh Demographic and Health Surveys (BDHS) have been used in the study. The

participants were included whose child born within the last 5 years preceding the surveys of 2004, 2007 and 2011, and within the last 3 years preceding the survey of 2014 in the study and the respective selected participants were 5145, 4765, 7099 and 4370. To conduct the trend analysis, the descriptive statistics of selected variables along with prevalence of early initiation of breastfeeding have been computed by different years and a multiple logistic regression model has been fitted to the pooled dataset of 2004-2014 considering survey years as time.

#### Results

Rate of early initiation of breastfeeding increased as time progressed and it was faster for female child compared to male child. For example, female children were significantly 10 and 6% less likely to be initiated early than their counterparts in 2004 and 2007, respectively; whereas after 2007 both male and female children were equally treated for breastfeeding practice. It was also found that rate of early initiation significantly increased for one unit increased in survey year and this increasing rate was higher for female child compared to male child. For example, for one unit of increased in survey year, the early initiation of breastfeeding increased by 60% for male child and by 67% for female child. Besides, survey time, gender, education of parents, wanted index child, mode of delivery, antenatal care visits, wealth index, exposure to media and division were found to have potential influence on early initiation of breastfeeding.

#### Conclusion

Demographic and health surveys conducted in Bangladesh since 2011 have shown no evidence of gender discrimination regarding timely initiation of breastfeeding. In order to achieve the target rate of early initiation of breastfeeding recommended by WHO, it requires to take effective intervention regarding maternal and child health education. (Author)

Full URL: <https://doi.org/10.1186/s13006-020-00259-y>

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#### 20200326-40\*

**Trends in Cesarean Delivery Rate after Cessation of the One-Child Policy in China.** Liu X, Huang D, Landon MB, et al (2020), American Journal of Perinatology 20 March 2020, online

**Objective** We aimed to describe changes in cesarean delivery (CD) rates after the change of the one-child policy in China by using the Robson classification in a large Chinese population.

**Study Design** This retrospective cohort study included 91,015 women who delivered at  $\geq 24$  weeks of gestation at a large tertiary obstetric center in Shanghai, China from 2011 to 2016. We analyzed CD rate trend and CD contribution trend in each Robson group. Logistic regression was used to calculate the odds of CD while adjusting for confounding variables.

**Results** The overall CD rate decreased from 49.0% in 2011 to 40.6% in 2016. In nulliparous women with singleton cephalic term pregnancy and planned CD, the CD contribution rate was reduced significantly from 29.3% in 2011 to 16.4% in 2016 ( $p < 0.001$ ). In multiparous with a scarred uterus, the CD contribution rate began to increase from 3.8% in 2011 to 9.1% in 2016 ( $p < 0.001$ ). Compared with delivery in 2011, delivery in 2016 was associated with a 37% (adjusted odds ratio [aOR]: 0.63; 95% confidence interval [CI]: 0.60-0.66) reduction in CD. This reduction was observed in both nulliparous women with singleton cephalic term pregnancy (aOR: 0.57; 95% CI: 0.54-0.60), and multiparous women with singleton cephalic term pregnancy without scar (aOR: 0.41; 95% CI: 0.30-0.55).

**Conclusion** The rate of cesarean delivery in our Chinese population has declined significantly in the past few years. (Author)

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#### 20200324-9\*

**Volunteering with Rohingya refugees in Bangladesh.** Johnston M (2020), British Journal of Midwifery vol 28, no 1, January 2020

Maria Johnston shares her experience as a volunteer midwife at the HOPE Field hospital in the world's largest refugee camp-Kutupalong, Bangladesh (Author)

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#### 20200324-80\*

**Impact of Training on Awareness and Knowledge of Service Providers About Maternal Near-Miss Events in Maharashtra, India.** Kulkarni R, Chauhan S, Patil A, et al (2019), Journal of Obstetrics and Gynecology of India vol 69, December 2019, pp 529-534

#### Objective

To improve the awareness and knowledge regarding Maternal Near Miss (MNM) among health service providers in the selected districts and women's hospitals in Maharashtra, India.

#### Methods

A one-day training programme on MNM was conducted at four Family Welfare Training Centres in the state of Maharashtra, India, for the health service providers, viz. gynaecologists, pathologists, anaesthesiologists, medical officers, staff nurses, other paramedical workers of the selected 29 districts/women's hospitals in Maharashtra. A total of 147 participants participated in the training programme. The participants filled a questionnaire before (pretest) and after the training (post-test) with the same set of questions pertaining to knowledge on the basic and operational aspects of MNM.

#### Results

There was a significant improvement in the level of knowledge (post-test responses vs pretest responses) about the correct definition and classification of MNM, as per the instructions in the MNM-R guidelines by the Government of India. The service providers informed regarding the challenges in the implementation of the MNM-R guidelines at their hospitals such as shortage of manpower in terms of specialists and need of quality assurance.

#### Conclusion

The training programme improved the knowledge of the service providers about MNM, which would help them to implement the MNM-R guidelines effectively at their hospitals. This training effectively upgraded the knowledge level, and therefore, such trainings should be organized for all obstetricians, high-dependency unit (HDU) personnel and critical care teams. (Author)

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#### 20200324-79\*

**Impact of Community-Based Continuous Training on Promoting Birth Preparedness and Pregnancy Outcome in Rural Odisha, India: An Interventional Study.** Swain D, Parida SP, Jena SK, et al (2019), Journal of Obstetrics and Gynecology of India vol 69, December 2019, pp 520-528

#### Background

Birth preparedness and complication readiness extends the maternal and neonatal health continuum of care and thus contributes to one of the important tools for pregnant women to experience better pregnancy outcome, strengthening family and community health, creating space for other interventions. The present study aimed to evaluate community-based birth preparedness and complication readiness training on pregnancy outcome.

#### Method

The study adopted a quasi-experimental time series only one experimental design which was conducted in rural south-eastern India for 1 year among the reproductive age group 15-49 years ( $\leq 24$  weeks pregnancy), and cases were followed up till postnatal period. A standardized birth preparedness assessment index (BPAI) was used to assess preparedness level of respondents. Community-based continuous training (CBCT) was introduced, and its effect was measured on birth preparedness level, involvement of family and their pregnancy outcomes.

#### Result

CBCT interventional program was effective in promoting positive behaviors on birth preparedness and complication readiness as per BPAI: 13% of women were at level 1, 15% at level 2, 19% at level 3, 49% participants were at 4th level and 5% were at 5th level which represented the best level of preparedness for their present delivery. Pregnant mothers who completed their antenatal visits and were well prepared for delivery were found to be having two times favorable pregnancy outcome than those who had not (OR 2.79).

#### Conclusion

BPCR intervention strategy can be utilized as a timely and effective community action plan for ensuring a favorable pregnancy outcome. (Author)

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#### 20200324-31\*

**Unmet need for family planning among Myanmar migrant women in Bangkok, Thailand.** Thein SS, Thepthien B (2020), British Journal of Midwifery vol 28, no 3, March 2020

Women migrating to different destinations may use, and be exposed to, different contraceptive behaviours. The unmet need for family planning can lead to a number of high-risk and high-parity births, thereby increasing maternal mortality. The study's objectives were to identify the prevalence of the unmet need for family planning and predictors for unmet need among Myanmar migrants. Data were collected from a survey of 360 Myanmar migrant women in Bangkok. Participating women's median age was 30 years. The prevalence of the unmet need for family planning was 15.8%. The adjusted odds ratio (AOR) of those in age group 36-45 years having an unmet need more so than the age group 18-25 years and 26-35 years was 2.52 (AOR-2.52, confidence interval [CI] 0.73-8.73); those with poor knowledge about family planning were three times more likely to have an unmet need for family planning than those with a good knowledge level (AOR-3.17, CI 1.30-7.68). The odds ratio of the respondents with an unmet need for family planning who were more dissatisfied with accessibility to family planning compared to those who were satisfied was twofold (AOR-2.05, CI 1.01-4.17) and fourfold for those who were unable to access a family planning outlet (AOR-4.17, CI

1.96-8.86). The findings of this study suggest that targeted interventions could not only increase knowledge and awareness of family planning, but also increase the visibility of sexual and reproductive healthcare services. (Author)

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#### 20200323-97\*

**Participation in the state led 'Janani Sahayogi Yojana' public private partnership program to promote facility births in Madhya Pradesh, India: views from private obstetrician partners.** Diwan V, Joshi SC, Jehan K, et al (2019), BMC Health Services Research vol 19, no 599, 24 August 2019

##### Background

In Madhya Pradesh, India, the government invited private obstetric hospitals for partnership to provide intrapartum care to poor women, paid for by the state. This statewide program, the Janani Sahayogi Yojana (JShY or maternal support scheme), ran from 2006 to 2012. The partnership was an uneasy one with many private obstetricians choosing to leave the partnership. This paper explores the motives of private obstetricians in the state for participating in the JShY, their experiences within the partnership, their interactions with the state and motives for withdrawal among those who withdrew from the scheme. This study sheds light on the dynamics of a public-private partnership for obstetric care from the perspective of private sector obstetricians.

##### Method

Fifteen in-depth interviews were conducted with private obstetricians and hospital administrators from eight districts of Madhya Pradesh who had participated in the JShY. A Framework approach was used to analyze the data.

##### Results

Private obstetricians reported entering the JShY partnership for altruistic reasons but also as way of expanding their practices and reputations. They perceived that although their facilities provided better quality of care than state facilities, participation was risky because beneficiaries were often unbooked and seen as 'high risk' cases. The need to arrange for blood transfusions for these high risk women was perceived as particularly difficult. Cumbersome paper work and delays in receiving payments from the state also dissuaded participation. Some participants felt that there was inadequate engagement by the state, and better monitoring and supervision would have helped. The state changed the financial reimbursement arrangements due to a high proportion of Cesarean births in the early years of the partnership, as these were perversely incentivized. This change resulted in a large exodus of private obstetricians from the partnership.

##### Conclusion

This study highlights the contribution of cumbersome processes, trust deficits and a lack of dialogue between public and private partners. Input from both public and private sectors into the design of a carefully thought through financial reimbursement package for private partners was highlighted as a necessary component for future success of such schemes. (Author)

Full URL: <https://doi.org/10.1186/s12913-019-4409-2>

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#### 20200323-73\*

**Decline number of uterine fundal pressure maneuver in Japan recent 5 years.** Hasegawa J, Sekizawa A, Arakaki T, et al (2020), Journal of Obstetrics and Gynaecology Research vol 46, no 3, March 2020, pp 413-417

##### Aim

To clarify whether the incidence of uterine fundal pressure (UFP) maneuver at delivery and consequent uterine rupture were declined.

##### Methods

Population-based postal questionnaire study was conducted. A questionnaire was sent to obstetric institutions across Japan. Questions were included the total number of deliveries, UFP and uterine ruptures associated with UFP in 2012 and 2017. As the primary outcome, frequencies of the UFP and uterine rupture were compared between 2012 and 2017. The secondary outcomes were included improved managements of delivery regarding UFP.

##### Results

A number of vaginal deliveries were significantly declined from 80.4% in 2012 to 78.1% in 2017 ( $P < 0.001$ ). Frequencies of UFP per vaginal deliveries were also significantly declined 11.2% (38 973/347771) in 2012 to 9.5% (35 205/404444) in 2017 ( $<0.001$ ). Number of uterine ruptures were 6 cases in 2012 (1:6496) and 11 cases in 2017 (1:3473) ( $P = 0.210$ ). Compared to situation in 2012, informed consent was more frequently obtained for UFP in 2017. Written informed consent for UFP became to be obtained in 12% of institutions in 2017 from only 3% in 2012. More than 80% of institutions are performing UFP within 3 times. Regarding to uterine rupture, try of labor after the cesarean section, UFP and augmentation were improved in more than 10% of institutions. Most impact vehicle changing behavior was OBGY clinical guideline.

##### Conclusion

Although significant declined incidence of uterine rupture after UFP could not be demonstrated, frequency of UFP was decreased recent 5 years. This is due to improvement of obstetric management by obstetric caregivers throughout Japan. (Author)

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#### 20200320-68\*

**Post-traumatic stress disorder and association with low birth weight in displaced population following conflict in Malakand division, Pakistan: a case control study.** Rashid HU, Khan MN, Imtiaz A, et al (2020), BMC Pregnancy and Childbirth vol 20, no 166, 17 March 2020

##### Background

The northern part of the province of Khyber Pakhtunkhwa in Pakistan experienced armed conflict since September 2007 till the autumn of 2011. Conflict involved widespread insurgency activity and military intervention including in 2009 internally displacing the 2.5 million people of the valley of Swat to live in camps, with relatives, or in rented accommodation across the region for approximately 4 months. It was during this period the current study was conducted to determine whether Post-Traumatic Stress Disorder in pregnant women was independently associated with Low Birth Weight (LBW) in an area affected by conflict and militancy.

##### Methods

A case control study was conducted in tertiary care hospitals of district Peshawar, Khyber Pakhtunkhwa. Two hundred twenty-five cases (neonates with birth weight < 2.5 kg) and 225 controls (neonates with birth weight of > 2.5 kg) were enrolled within 24 h of delivery. Post-Traumatic Stress Disorder was assessed through the MINI Neuropsychiatric Interview 5.0, a validated questionnaire along with the birth weight of the newborn. Maternal anthropometry, anemia and other sociodemographic details were also obtained during data collection. Data was analyzed using statistical package (STATA version 14). Logistic regression analysis of the association between LBW and all variables collected with a p-value of < 0.25 on uni-variate analysis were entered.

##### Results

A total of 450 newborn and mother pairs participated in the study with 225 cases and 225 controls. On univariate analysis factors significantly associated with LBW include: less than 5 years of paternal schooling and PTSD. On logistic regression, PTSD was independently associated with low birth weight in the presence of other factors like maternal/paternal schooling, gravida, history of preterm, BMI of the mother and maternal anemia.

##### Conclusion

PTSD was found to be independently associated with LBW. In light of the current findings and other similar literature, intervention programs should be considered for pregnant women exposed to traumatic events. (Author)

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#### 20200320-65\*

**What do women want? An analysis of preferences of women, involvement of men, and decision-making in maternal and newborn health care in rural Bangladesh.** Rahman AE, Perkins J, Salam SS (2020), BMC Pregnancy and Childbirth vol 20, no 169, 18 March 2020

##### Background

To improve the utilization of maternal and newborn health (MNH) care and to improve the quality of care, the World Health Organization (WHO) has strongly recommended men's involvement in pregnancy, childbirth, and after birth. In this article, we examine women's preferences for men's involvement in MNH care in rural Bangladesh and how this compares to husbands' reported involvement by women.

##### Methods

A cross-sectional household survey of 1367 women was administered in 2018 in the district of Brahmanbaria. Outcomes of interest included supporting self-care during pregnancy, participation in birth planning, presence during antenatal care, childbirth, and postnatal care, and participation in newborn care. Binary and multiple logistic regressions were done to understand the associations between the outcomes of interest and background characteristics.

##### Results

Although women preferred a high level of involvement of their husbands in MNH care, husbands' reported involvement varied across different categories of involvement. However, women's preferences were closely associated with husbands' reported involvement. Around three-quarters of the women reported having been the primary decision makers or reported that they made the decisions jointly with their husbands. The likelihood of women reporting their husbands were actively involved in MNH care was 2.89 times higher when the women preferred their husbands to be involved in 3-4 aspects of MNH care. The likelihood increased to 3.65 times when the women preferred their husbands to be involved in 5-6 aspects. Similarly, the likelihood of husbands' reported active

involvement was 1.43 times higher when they jointly participated in 1-2 categories of decision-making. The likelihood increased to 2.02 times when they jointly participated in all three categories.

#### Conclusion

The findings of our study suggest that women in rural Bangladesh do indeed desire to have their husbands involved in their care during pregnancy, birth and following birth. Moreover, their preferences were closely associated with husbands' reported involvement in MNH care; that is to say, when women wanted their husbands to be involved, they were more likely to do so. Programmes and initiatives should acknowledge this, recognizing the many ways in which men are already involved and further allow women's preferences to be realized by creating an enabling environment at home and in health facilities for husbands to participate in MNH care. (Author)

Full URL: <https://doi.org/10.1186/s12884-020-2854-x>

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#### 20200320-63\*

**Maternal and health service predictors of postpartum hemorrhage across 14 district, general and regional hospitals in Thailand.** Prapawichar P, Ratinthorn A, Utriyaprasit K, et al (2020), BMC Pregnancy and Childbirth vol 20, no 172, 18 March 2020

#### Background

Postpartum hemorrhage (PPH) is a preventable complication, however, it remains being the leading cause of maternal mortality and morbidity worldwide including Thailand.

#### Methods

A case-control study to examine the risk factors associated with PPH across the hospitals under the Ministry of Public Health in Thailand, was conducted. A total of 1833 patient birth records and hospital profiles including human and physical resources from 14 hospitals were obtained. A multiple logistic regression was used identifying the factors that are significantly associated with PPH.

#### Results

The results show that the rate of PPH varied across the hospitals ranging from 1.4 to 10.6%. Women with past history of PPH were more likely to have increased risk of having PPH by 10.97 times (95% CI 2.27,53.05) compared to those who did not. The odds of PPH was higher in district and general hospitals by 14 (95% CI 3.95,50.04) and 7 (95% CI 2.27,23.27) times respectively, compared to regional hospitals. The hospitals which had inadequate nurse midwife to patient ratio (OR 2.31,95% CI 1.08,4.92), lacked nurse midwives with working experience of 6-10 years (OR 2.35, 95% CI 1.41,3.92), as well as inadequate equipment and supplies for emergency obstetric care (OR 6.47, 95% CI 1.93,21.63), had significantly higher incidence of having PPH, respectively.

#### Conclusions

This study provides interesting information that the rate of PPH varies across the hospitals in Thailand, in particular where essential nurse midwives, equipment, and supplies are limited. Therefore, improving health care services by allocating sufficient human and physical resources would contribute to significantly reduce this complication. (Author)

Full URL: <https://doi.org/10.1186/s12884-020-2846-x>

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#### 20200319-46\*

**Distribution of midwives in Mongolia: A secondary data analysis.** Erdenee O, Tumejargal A, Parchaa T, et al (2020), Midwifery vol 86, July 2020, 102704

#### Introduction

Midwives are at the core of strengthening the health system, especially in the crucial period around pregnancy, childbirth, and the early weeks of life. In 2016, the national-level maternal mortality ratio in Mongolia was 48.6 deaths per 100,000 live births, but this was much higher (up to 212.9 deaths /100,000) in some rural provinces of the country. The wide variation in maternal mortality between urban and rural areas of Mongolia might be related to the distribution of midwives and equity of access to maternity care.

#### Objectives

In the present study, we aimed to determine the distribution of midwives in each province of Mongolia and to examine inequality in the distribution of midwives nationwide.

#### Design

A secondary data analysis.

#### Methods

Data from the Center of Health Development and the National Statistical Office of Mongolia were obtained and analyzed. First, we assessed the distribution of midwives at provincial and regional levels, along with the association between these distributions and the maternal mortality ratio in 2016. We then calculated the inequality of these distributions using the Gini coefficient and examined trends for the years 2010-2016. We compared results for urban, suburban, and rural provinces. Rural areas are sparsely populated and enormous in size, so it may be difficult access to

basic healthcare services. It was considered important, therefore, to assess the number of midwives per 1,000 km<sup>2</sup> as well as the commonly used indicator of per 10,000 population.

#### Results

When the land area in each province was taken into consideration rather than only the population, wider variations between urban, suburban, and rural provinces became apparent. Provinces varied according to the number of midwives per 10,000 population by a factor of three (range 2.0-6.2/midwives); while provinces varied according to the number of midwives per 1,000 km<sup>2</sup> by a factor of approximately 300 (range 0.2-61.2/midwives). The Gini coefficient for the number of midwives per 10,000 population in 2016,  $R=0.201$ , revealed 'relative' equality. This was slightly reduced from  $R=0.305$  in 2010 and indicated a shift toward equality. However, the Gini coefficient for the number of midwives per 1,000 km<sup>2</sup> area indicated 'severe' inequality of  $R=0.524$  in 2016. This was increased from  $R=0.466$  in 2010, indicating that no improvement has been seen over these years.

#### Conclusions

Our study suggests that two different measures of midwifery distribution should be used as indicators: number of midwives 'per 10,000 population' and 'per 1,000 km<sup>2</sup> area'. In rural areas such as parts of Mongolia, geographical features and population density are important features of the local context. To deliver healthcare services in a timely manner and within a reasonable distance for pregnant women who need care, the indicator of per 1,000 km<sup>2</sup> area would be more suitable for rural and sparsely populated areas than the indicator of per 10,000 population, which is commonly used for urban and settled areas. Based on our findings, to reduce the wide gap in MMR between rural and urban areas, we recommend at least one midwife per 1,000 km<sup>2</sup> area in rural regions of Mongolia. (Author)

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#### 20200318-45\*

**Antenatal care in rural Bangladesh: current state of costs, content and recommendations for effective service delivery.** Jo Y, Alland K, Ali H, et al (2019), BMC Health Services Research vol 19, no 860, 21 November 2019

#### Background

Measurement of antenatal care (ANC) service coverage is often limited to the number of contacts or type of providers, reflecting a gap in the assessment of quality as well as cost estimations and health impact. The study aims to determine service subcomponents and provider and patient costs of ANC services and compares them between community (i.e. satellite clinics) and facility care (i.e. primary and secondary health centers) settings in rural Bangladesh.

#### Methods

Service contents and cost data were collected by one researcher and four interviewers in various community and facility health care settings in Gaibandha district between September and December 2016. We conducted structured interviews with organization managers, observational studies of ANC service provision ( $n = 70$ ) for service contents and provider costs (service and drug costs) and exit interviews with pregnant women ( $n = 70$ ) for patient costs (direct and indirect costs) in health clinics at community and facility levels. Fisher's exact tests were used to determine any different patient characteristics between community and facility settings. ANC service contents were assessed by 63 subitems categorized into 11 groups and compared within and across community and facility settings. Provider and patient costs were collected in Bangladesh taka and analyzed as 2016 US Dollars (0.013 exchange rate).

#### Results

We found generally similar provider and patient characteristics between the community and facility settings except in clients' gestational age. High compliance ( $> 50\%$ ) of service subcomponents were observed in blood pressure monitoring, weight measurement, iron and folate supplementation given, and tetanus vaccine, while lower compliance of service subcomponents ( $< 50\%$ ) were observed in some physical examinations such as edema and ultrasonogram and routine tests such as blood test and urine test. Average unit costs of ANC service provision were about double at the facility level (\$2.75) compared with community-based care (\$1.62). ANC patient costs at facilities (\$2.66) were about three times higher than in the community (\$0.78).

#### Conclusion

The study reveals a delay in pregnant women's initial ANC care seeking, gaps in compliance of ANC subcomponents and difference of provider and patient costs between facility and community settings. (Author)

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#### 20200318-27\*

**The trend of full vaccination coverage in infants and inequalities by wealth quintile and maternal education: analysis from four recent demographic and health surveys in Nepal.** Acharya K, Paudel YR, Dharel D (2019), BMC Public Health vol 19, no 1673, 12 December 2019

#### Background

Despite policy intention to reach disadvantaged populations, inequalities in health care resource use and health outcomes persist in Nepal. The current study aimed to investigate the trend of full vaccination coverage among infants and its equity gaps between Nepal Demographic and Health Surveys (NDHS) 2001 and 2016.

#### Methods

Using data from NDHS conducted in 2001, 2006, 2011 and 2016, we investigated the trend of coverage of six antigens: Bacille Calmette Guerin (BCG), Diphtheria, Pertussis, Tetanus (DPT), Polio, and Measles during their infancy among children aged 12-23 months. We presented trends and correlates of full vaccination coverage by different socio-demographic factors. We measured inequalities in full vaccination coverage by wealth quintile and maternal education using absolute measure (slope index of inequality) and relative measures (Relative index of inequality, concentration index) of inequalities.

#### Results

Full vaccination coverage among infants steadily increased from 65.6% in 2001 to 87.0% in 2011; however, it decreased to 77.8% in 2016. Province 2 had a significantly lower full vaccination coverage compared to Province 1. Although decreasing over time, there were significant inequalities by household wealth quintiles and maternal educational status. The slope index of inequality (SII) for wealth quintiles decreased from -32.3 [-45.5, -19.1] in 2001 to an SII of -8.4 [-18.6, -1.7] in 2016. Similarly, the SII for education decreased from -61.8 [-73.5, -50.1] in 2001 to an SII of -30.5 [-40.7, -20.2] in 2016. Similarly, the relative index of inequality (RII) also showed an improvement over time, indicating the narrowing equity gap. Additionally, concentration index on full vaccination coverage by wealth quintiles dropped from 0.21 (0.12-0.28) in 2001 to 0.054 (-0.01-0.12) in 2016. Absolute and relative inequalities were persistently larger by maternal educational status compared to household wealth quintiles throughout the study period.

#### Conclusion

Full vaccination coverage in Nepal increased from 2001 until 2011 but saw a significant decrement away from the national target after 2011. However, the equity gap by household wealth quintile and maternal education status has narrowed over time. National Immunization programs need to give higher emphasis to infants born to mothers with less education, those born in the poorer wealth quintile households, and those living in Province 2. (Author)

Full URL: <https://doi.org/10.1186/s12889-019-7995-3>

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#### 20200316-42\*

**'The midwife helped me. otherwise I could have died': women's experience of professional midwifery services in rural Afghanistan - a qualitative study in the provinces Kunar and Laghman.** Thommesen T, Kismul H, Kaplan I, et al (2020), BMC Pregnancy and Childbirth vol 20, no 140, 6 March 2020

#### Background

Afghanistan has one of the world's highest maternal mortality ratios, with more than 60% of women having no access to a skilled birth attendant in some areas. The main challenges for childbearing Afghan women are access to skilled birth attendance, emergency obstetric care and reliable contraception. The NGO-based project Advancing Maternal and Newborn Health in Afghanistan has supported education of midwives since 2002, in accordance with the national plan for midwifery education.

The aim of this study is to explore women's experiences of professional midwifery care in four villages in Afghanistan covered by the project, so as to reveal challenges and improve services in rural and conflict-affected areas of the country.

#### Methods

An exploratory case-study approach was adopted. Fourteen in-depth interviews and four focus-group discussions were conducted. A total of 39 women participated - 25 who had given birth during the last six months, 11 mothers-in-law and three community midwives in the provinces of Kunar and Laghman. Data generated by the interviews and observations was analysed using thematic content analysis.

#### Findings

Many of the women greatly valued the trained midwives' life-saving experience, skills and care, and the latter were important reasons for choosing to give birth in a clinic. Women further appreciated midwives' promotion of immediate skin-to-skin contact and breastfeeding. However, some women experienced rudeness, discrimination and negligence on the part of the midwives. Moreover, relatives' disapproval, shame and problems with transport and security were important obstacles to women giving birth in the clinics.

#### Conclusions

Local recruitment and professional education of midwives as promoted by Afghan authorities and applied in the project seem successful in promoting utilisation and satisfaction with maternal and neonatal health services in rural Afghanistan. Nevertheless, the quality of the services is still lacking, with some women complaining of disrespectful care. There seems to be a need to focus more on communication issues during the education of midwives. An

increased focus on in-service training and factors promoting quality care and respectful communication is necessary and should be prioritised. (Author)

Full URL: <https://doi.org/10.1186/s12884-020-2818-1>

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#### 20200311-84\*

**The impact of health insurance on out-of-pocket expenditure on delivery in Indonesia.** Aizawa T (2019), Health Care for Women International vol 40, no 12, 2019, pp 1374-1395

In this study, we estimate the effects of health insurance on the out-of-pocket expenditure on health care for maternal delivery in Indonesia. Distinguishing between the types of health insurance, we explore heterogeneity in the size of the impact of noncontributory insurance for poor households vis-à-vis contributory insurance for nonpoor households. We find that noncontributory insurance and contributory insurance reduce the average out-of-pocket expenditure by 1,136,966 IDR ( $p < 0.01$ ) and 676,402 IDR ( $p < 0.05$ ), respectively. Also, larger impacts of noncontributory insurance and contributory insurance are found at the right tail of the distribution. (Author)

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#### 20200310-126\*

**A double-blind, randomized controlled trial to explore oral tranexamic acid as adjunct for the treatment for postpartum hemorrhage.** Diop A, Abbas D, Ngoc NTN, et al (2020), Reproductive Health 6 March 2020, online

##### Background

Oral tranexamic acid (TXA), if effective in reducing blood loss after delivery for women experiencing primary PPH, could be administered where parenteral administration is not feasible. This trial assessed the efficacy, safety, and acceptability of oral TXA when used as an adjunct to sublingual misoprostol to treat postpartum hemorrhage (PPH) following vaginal delivery.

##### Methods

From October 2016 to January 2018, women presenting at four hospitals in Senegal and Vietnam for vaginal delivery were screened for enrollment in the trial. Women diagnosed with postpartum hemorrhage (defined as blood loss  $\geq 700$  ml) were randomized to receive either oral TXA (1950 mg) or placebo in addition to 800 mcg sublingual misoprostol. Postpartum blood loss was measured using a calibrated drape. Blood loss for all PPH cases was recorded for 2 h after administration of the drugs. The primary outcome measure was the proportion of women with bleeding controlled with the trial regimen without recourse to further treatment. Secondary outcomes including the rate of severe PPH, mean/median blood loss, use of additional uterotonics and/or interventions side effects, and acceptability were also recorded.

##### Results

Of the 258 women who received treatment for PPH, 128 received placebo and misoprostol and 130 received TXA and misoprostol. The proportion of women who had active bleeding controlled with trial drugs alone and no additional interventions was similar in both groups: 77 (60.2%) placebo; 74 (56.9%) TXA,  $p = 0.59$ ). Use of other interventions to control bleeding, including uterotonics, did not differ significantly between groups. Median blood loss at PPH diagnosis was 700 ml in both groups. Uterine atony alone or in addition to another cause contributed to over 90% of PPH cases reported (92.2% placebo vs. 91.5% TXA), other causes included perineal and cervical lacerations and retained placenta. Reports of side effects and acceptability were similar in the two groups.

##### Conclusion

Adjunct use of oral TXA with misoprostol to treat PPH resulted in similar clinical and acceptability outcomes when compared to treatment with misoprostol alone.

##### Trial registration

This trial was registered with ClinicalTrials.gov, number NCT02805426. Registered on 3 September 2016. (15 references) (Author)

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#### 20200305-195\*

**Maternal coffee intake and the risk of bleeding in early pregnancy: a cross-sectional analysis.** Choi H, Koo S, Park H-Y (2020), BMC Pregnancy and Childbirth vol 20, no 121, 21 February 2020

##### Background

Caffeine can easily cross the placenta, and maternal caffeine intake, thus, has an effect on fetal growth. However, it is still unclear whether coffee consumption is an independent risk factor for bleeding in early pregnancy. The objective of this study was to examine the association between pre-pregnancy coffee consumption patterns and the risk of bleeding in early pregnancy.

##### Methods

A cross-sectional analysis was conducted among 3510 pregnant women from the Korean Pregnancy Outcome Study who underwent baseline examination and for whom the results of the pregnancy were available. Coffee consumption patterns before pregnancy were examined using a questionnaire. The participants were classified according to the frequency of coffee consumption into seldom (< 1 cup/week), light (< 1 cup/day), moderate (1 cup/day), and heavy coffee drinker ( $\geq 2$  cups/day) groups. Bleeding in early pregnancy was defined as the occurrence of vaginal bleeding in the first 20 weeks of pregnancy. Multiple logistic regression models were applied to examine the association between pre-pregnancy coffee consumption and the risk of bleeding in early pregnancy, after adjusting for age, body mass index (BMI), systolic blood pressure, cigarette smoking and alcohol consumption behavior, previous and current physical activity levels, stress levels, history of depression, antenatal depressive symptoms during the first trimester, type of emesis, parity, and the number of livebirths, stillbirths, miscarriages, and abortions.

#### Results

Women who were light, moderate, and heavy coffee drinkers before pregnancy had adjusted ORs of 1.086, 1.225, and 1.358, respectively, for bleeding in early pregnancy. In a fully adjusted model, heavy coffee drinkers showed a significantly higher risk of bleeding in early pregnancy, even in women aged 35 years and younger (OR 1.680) and in those with a normal body mass index (OR 1.389), who were at relatively low risk for pregnancy-related complications.

#### Conclusions

Our results showed that heavy coffee drinking was independently associated with a higher risk of bleeding in early pregnancy among pregnant Korean women, suggesting that caffeine intake before conception and during pregnancy should be reduced. Our study highlights the need for nutritional interventions for healthy coffee drinking among pregnant women in Korea. (33 references) (Author)

Full URL: <https://doi.org/10.1186/s12884-020-2798-1>

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#### 20200305-188\*

**Gestational weight gain charts for twin pregnancies in Southeast China.** Lin L, Lin J, Mao X, et al (2020), BMC Pregnancy and Childbirth vol 20, no 127, 24 February 2020

#### Background

To establish age-standardized charts of weight gain for term twin pregnancies in Southeast China.

#### Methods

We designed a retrospective study on data from women pregnant with twins, a gestational age beyond 36 weeks and an average weight  $\geq 2500$  g. We established hierarchical linear regression models to express gestational weight gain patterns.

#### Results

We analyzed data from 884 women pregnant with twins (151 underweight, 597 normal weight, and 136 overweight). Our final models fit the crude weight measurement data well. The means of weight gain generally decreased as the pre-pregnancy BMI increased. For each BMI category, the mean weight gains increased with the gestational age and the standard deviation increased slightly. The mean weight gains were  $18.82 \pm 6.73$ ,  $18.53 \pm 6.74$ , and  $16.97 \pm 6.95$  kg at 37 weeks in underweight, normal weight, and overweight women, respectively.

#### Conclusion

The weight gain chart can be used to estimate maternal weight gain to be gestational age-standardized z scores by pre-pregnancy BMI and may serve as an innovative tool for perinatal care providers to guide the weight gain of women pregnant with twins. (32 references) (Author)

Full URL: <https://doi.org/10.1186/s12884-020-2761-1>

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#### 20200304-78\*

**Prevalence and risk factors of obstetric fistula: implementation of a need-based preventive action plan in a South-eastern rural community of India.** Swain D, Parida SP, Jena SK, et al (2020), BMC Women's Health vol 20, no 40, 4 March 2020

#### Background

The study was conducted to estimate the prevalence and risk factors of obstetric fistula in the rural area of the south eastern community of India and the training of community health workers for its prevention.

#### Methods

A population-based cross-sectional analytical study was conducted in the south eastern rural community of India. A total of 3939 women were included in the study and Probability proportional to size sampling was used in the study. Frequency distribution and logistic regression were computed to analyse the data using STATA version 11.2.

#### Results

Out of 3939 participants interviewed, 23.7% women reported obstetric fistula symptoms whereas after clinical

diagnosis and speculum examination the obstetric morbidity pattern was: Obstetric fistula 0.3%, stress urinary incontinence 20.0%, pelvic inflammatory diseases 1.2%, uterine prolapse 1.4% and urinary tract infection 3.8%. The awareness level of the rural women regarding the obstetric fistula was assessed by a structured knowledge questionnaire and found to be very poor, hence community based fistula training was implemented among community health workers as a health system based strategy for its prevention. Obstetric fistula found to be more prevalent among women of poor educational level, low socioeconomic status, less no of antenatal visits, delay in accessing the emergency obstetric care and prolonged labour ( $p \leq 0.05$ ).

#### Conclusion

Finding of the study indicated that the prevalence and risk of developing obstetric fistula was associated with less number of antenatal visits, prolonged labour, delay in timely intervention, delay in accessing emergency obstetric care and more number of movements from home to the delivery place. Finally, our study suggests that emphasis needs to be placed on training of community health workers to facilitate early screening for identification and referral of women with obstetric fistula. (31 references) (Author)

Full URL: <https://doi.org/10.1186/s12905-020-00906-w>

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#### 20200303-32\*

**G6PD genetic variations in neonatal Hyperbilirubinemia in Indonesian Deutromalay population.** Wisnumurti DA, Sribudiani Y, Porsch RM, et al (2019), BMC Pediatrics vol 19, no 506, 20 December 2019

#### Background

Neonatal jaundice is a common finding in newborns in Asia, including Indonesia. In some cases, the serum total bilirubin levels exceeds the 95th percentile for hours of life (neonatal hyperbilirubinemia). Severe neonatal hyperbilirubinemia (NH) could lead to kernicterus and neonatal death. Glucose-6-Phosphage Dehydrogenase (G6PD) genetic variations and deficiency have been reported in several studies to be associated with NH. This study aimed to analyze the G6PD genetic variations and its activity in neonates with and without hyperbilirubinemia in the Deutromalay Indonesian population.

#### Methods

Deoxyribose Nucleic Acid (DNA) was isolated from peripheral blood of 116 and 115 healthy term neonates with and without hyperbilirubinemia. All infants underwent the following laboratory examinations: routine hematologic evaluation, Coombs test, G6PD activity measurement using the Randox kit method, and serum total bilirubin level. All exons of the G6PD gene were targeted for deep sequencing using MiSeq (Illumina). An association study of G6PD polymorphisms with NH was performed using PLINK.

#### Results

The prevalence of G6PD deficiency in neonates with and without hyperbilirubinemia in Indonesian Deutromalay population were 1.72% (95% Confidence Interval (CI): 0.6-4.1%) and 1.74% (95% CI: 0.7-4.1%), respectively. The most common G6PD polymorphisms, i.e. rs1050757/c.\* + 357A > G, rs2230037/c.1311C > T, and rs2071429/c.1365-13 T/IVS11, were identified. However, none of those polymorphisms and their haplotype were associated with NH ( $p > 0.05$ , Odds Ratio (OR) ~1.00). The prevalence of G6PD mutations in neonates with and without hyperbilirubinemia were 6.8% (95% CI: 2.3-11.5%) and 6.9% (95% CI: 2.3-11.6%), respectively. The most frequently identified G6PD mutation was the Viangchan variant (p.V291 M), which was followed by the Canton (p.R459L) and Vanua Lava (p.L128P) variants. Two novel mutations were identified both in case (p.V369A, p.I167F) and control (p.L474=, p.I36T) groups.

#### Conclusion

The prevalence of G6PD deficiency is low in neonates with or without hyperbilirubinemia in Deutromalay Indonesian population. The majority of G6PD mutations identified among Indonesian Deutromalay population in this study are Viangchan, Canton and Vanua Lava variants. (21 references) (Author)

Full URL: <https://doi.org/10.1186/s12887-019-1882-z>

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#### 20200228-48\*

**Elevated C-reactive protein and complement C3 levels are associated with preterm birth: a nested case-control study in Chinese women.** Huang S, Tian J, Liu C, et al (2020), BMC Pregnancy and Childbirth vol 20, no131, 27 February 2020

#### Background

Currently, there are many studies researched the associations between maternal serum inflammatory indicators (i.e. ferritin, C-reactive protein [CRP], C3 and C4) and preterm birth (PTB). The results, however, are inconsistent. Therefore, the aim of this study was to estimate the relationship between maternal serum inflammatory indicators and PTB in a nested case-control (NCC) study.

#### Methods

A NCC study was conducted by Guangxi Birth Cohort Study which enrolled a total of 6203 pregnant women between

50/7 and 346/7 weeks of gestational age (wGA) from six cities in China between 2015 and 2016. There were 206 women who delivered preterm (< 370/7 wGA), and 412 women who delivered term birth, those women were matched by maternal age, birth place, gender of infants, and wGA at blood collection.

The inflammatory indicators were quantified by immunoturbidimetric methods.

#### Results

Highest quartile concentrations of all inflammatory indicators were determined versus median. After adjusting for maternal age, high levels of CRP (CRP > 16.60 mg/L) are related to the risk of PTB (OR = 2.16, 95% CI: 1.02-4.56, p = 0.044) in the first trimester. The association of C3 was extremely related to those who delivered PTB (OR = 2.53, 95% CI: 1.14-5.64, p = 0.023) in the first trimester. Moreover, no significant associations were found in C4 (p = 0.079) and ferritin (p = 0.067) between PTB.

#### Conclusions

Elevated concentrations of CRP and C3 in the first trimester were associated with increased risk of PTB. Inflammatory indicators may act a pivotal part in early diagnosis and prognosis of PTB.

(34 references) (Author)

Full URL: <https://doi.org/10.1186/s12884-020-2802-9>

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#### 20200220-95\*

**Evidence-based intrapartum practice and its associated factors at a tertiary teaching hospital in the Philippines, a descriptive mixed-methods study.** Masuda C, Ferolin SK, Masuda K, et al (2020), BMC Pregnancy and Childbirth vol 20, no 78, 5 February 2020

#### Background

Evidence-based practice is a key component of quality care. However, studies in the Philippines have identified gaps between evidence and actual maternity practices. This study aims to describe the practice of evidence-based intrapartum care and its associated factors, as well as exploring the perceptions of healthcare providers in a tertiary hospital in the Philippines.

#### Methods

A mixed-methods study was conducted, which consisted of direct observation of intrapartum practices during the second and third stages, as well as semi-structured interviews and focus group discussions with care providers to determine their perceptions and reasoning behind decisions to perform episiotomy or fundal pressure. Univariate and multivariate logistic regression were used to analyse the relationship between observed practices and maternal, neonatal, and environmental factors. Qualitative data were parsed and categorised to identify themes related to the decision-making process.

#### Results

A total of 170 deliveries were included. Recommended care, such as prophylactic use of oxytocin and controlled cord traction in the third stage, were applied in almost all the cases. However, harmful practices were also observed, such as intramuscular or intravenous oxytocin use in the second stage (14%) and lack of foetal heart rate monitoring (57%). Of primiparae, 92% received episiotomy and 31% of all deliveries received fundal pressure. Factors associated with the implementation of episiotomy included primipara (adjusted Odds Ratio [aOR] 62.3), duration of the second stage of more than 30 min (aOR 4.6), and assisted vaginal delivery (aOR 15.0). Factors associated with fundal pressure were primipara (aOR 3.0), augmentation with oxytocin (aOR 3.3), and assisted delivery (aOR 4.8). Healthcare providers believe that these practices can prevent laceration. The rate of obstetric anal sphincter injuries (OASIS) was 17%. Associated with OASIS were assisted delivery (aOR 6.0), baby weights of more than 3.5 kg (aOR 7.8), episiotomy (aOR 26.4), and fundal pressure (aOR 6.2).

#### Conclusions

Our study found that potentially harmful practices are still conducted that contribute to the occurrence of OASIS. The perception of these practices is divergent with current evidence, and empirical knowledge has more influence. To improve practices the scientific evidence and its underlying basis should be understood among providers. (48 references) (Author)

Full URL: <https://doi.org/10.1186/s12884-020-2778-5>

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#### 20200220-71\*

**Potential factors associated with institutional childbirth among women in rural villages of Lao People's Democratic Republic: a preliminary study.** Horiuchi S, Nakdouangma B, Khongsavat T, et al (2020), BMC Pregnancy and Childbirth vol 20, no 89, 10 February 2020

#### Background

The provision of quality health services has been a global priority to reduce neonatal and maternal deaths. In Lao

People's Democratic Republic (Lao PDR), the coverage of institutional childbirth stayed at a low level regardless of a sharp increase in the coverage of antenatal care (ANC) and fee exemption. The aim of the present study was to preliminary explore factors associated with increased institutional childbirth and the association between ANC attendance and maternal knowledge among women in rural villages of Lao PDR.

#### Methods

A secondary data analysis was conducted using data collected through a pilot survey in Sekong province in Lao PDR. The study participants were women with children under 5 years of age in villages within 10 km (km) from health centers staffed with skilled birth attendants. Data were collected via a face-to-face interview using a semi-structured questionnaire and were analysed using logistic regression models to estimate odds ratios (ORs) and their 95% confidence intervals (CIs) for having institutional childbirth in relation to potential factors.

#### Results

A total of 302 women, 203 (67.2%) of whom gave birth at a health facility. 277 (91.7%) attended ANC at least once. Sixty-nine women (22.9%) had received no formal education, 272 (90.1%) were of an ethnic minority, 174 (57.6%) were unwaged and 99 (32.8%) lived more than 6 km from the nearest health facility. 51 (16.6%) did not know about birth complications at interview. Institutional childbirth was negatively associated with a lack of maternal knowledge about birth complications (OR, 0.27; 95% CI, 0.14-0.54) after adjusting for covariates. Although there were few women who did not received ANC, the results suggested ANC might not be associated with maternal knowledge about birth complications (OR, 1.87; 95% CI, 0.43-8.12).

#### Conclusions

The present study suggests that maternal knowledge about birth complications is an important factor in increasing the institutional childbirth in rural villages of Lao PDR where majority of residents were ethnic minority. Improving quality of ANC and attitude among health care providers may be key to increasing health-seeking behavior. However, further research is needed to understand factors influencing choice of place of childbirth. (34 references) (Author)

Full URL: <https://doi.org/10.1186/s12884-020-2776-7>

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#### 20200220-47\*

**Self-medication and knowledge among pregnant women attending primary healthcare services in Malang, Indonesia: a cross-sectional study.** Atmadani RN, Nkoka O, Yunita SL, et al (2020), BMC Pregnancy and Childbirth vol 20, no 42, 16 January 2020

#### Background

Self-medication with over-the-counter (OTC) drugs is an important public health concern, especially in the vulnerable population of pregnant women due to potential risks to both the mother and fetus. Few studies have studied how factors, such as knowledge, affect self-medication. This study investigated self-medication and its associated factors among pregnant women attending healthcare services in Malang, Indonesia.

#### Methods

A cross-sectional study was conducted from July to September 2018 in five healthcare services. A self-administered questionnaire was used and the data were analyzed using multiple regression models.

#### Results

Of 333 female participants, 39 (11.7%) used OTC medication. Women with a higher level of knowledge of OTC medication were more likely to self-medicate-adjusted odds ratio (aOR) = 2.15, 95% confidence interval (CI) = 1.03-4.46. Compared with those with less knowledge, pregnant women with more correct knowledge of the possible risk of self-medication were less likely to self-medicate-aOR = 0.29; 95% CI = 0.14-0.60. The effect of a higher level of knowledge of OTC medication was significant among women who had middle school and lower education-aOR = 8.18; 95% CI = 1.70-39.35. The effect of correct knowledge on the possible risks of self-medication was significant only among women with high school and higher education-aOR = 0.17; 95% CI = 0.07-0.42.

#### Conclusion

Imparting specific knowledge of the potential risks of using non-prescribed medication during pregnancy may help pregnant women navigate and more safely manage their OTC use. We also suggest further collecting data from more healthcare services, such as hospitals, to obtain more findings generalizable to the Indonesian community. (44 references) (Author)

Full URL: <https://doi.org/10.1186/s12884-020-2736-2>

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#### 20200220-4\*

**Urinary tract infections in pregnancy in a rural population of Bangladesh: population-based prevalence, risk factors, etiology, and antibiotic resistance.** Lee ACC, Mullany LC, Koffi AK, et al (2019), BMC Pregnancy and Childbirth vol 20, no 1, 31 December 2019

## Background

Urinary tract infection (UTI) in pregnancy, including asymptomatic bacteriuria, is associated with maternal morbidity and adverse pregnancy outcomes, including preterm birth and low birthweight. In low-middle income countries (LMICs), the capacity for screening and treatment of UTIs is limited. The objective of this study was to describe the population-based prevalence, risk factors, etiology and antimicrobial resistance patterns of UTIs in pregnancy in Bangladesh.

## Methods

In a community-based cohort in Sylhet district, Bangladesh, urine specimens were collected at the household level in 4242 pregnant women (< 20 weeks gestation) for culture and antibiotic susceptibility testing. Basic descriptive analysis was performed, as well as logistic regression to calculate adjusted odds ratios (aOR) for UTI risk factors.

## Results

The prevalence of UTI was 8.9% (4.4% symptomatic UTI, 4.5% asymptomatic bacteriuria). Risk factors for UTI in this population included maternal undernutrition (mid-upper arm circumference <23 cm: aOR= 1.29, 95% CI: 1.03-1.61), primiparity (aOR= 1.45, 95% CI: 1.15-1.84), and low paternal education (no education: aOR= 1.56, 95% CI: 1.09-2.22). The predominant uro-pathogens were *E. coli* (38% of isolates), *Klebsiella* (12%), and staphylococcal species (23%). Group B streptococcus accounted for 5.3% of uro-pathogens. Rates of antibiotic resistance were high, with only two-thirds of *E. coli* susceptible to 3rd generation cephalosporins.

## Conclusions

In Sylhet, Bangladesh, one in 11 women had a UTI in pregnancy, and approximately half of cases were asymptomatic. There is a need for low-cost and accurate methods for UTI screening in pregnancy and efforts to address increasing rates of antibiotic resistance in LMIC. (50 references) (Author)

Full URL: <https://doi.org/10.1186/s12884-019-2665-0>

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## 20200219-34\*

**Improving post-partum family planning services provided by female community health volunteers in Nepal: a mixed methods study.** Thapa K, Dhital R, Rajbhandari S, et al (2020), BMC Health Services Research vol 20, no 123, 17 February 2020

## Background

Family planning services in the post-partum period, termed post-partum family planning (PPFP) is critical to cover the unmet need for contraception, especially when institutional delivery rates have increased. However, the intention to choose PPFP methods such as post-partum intrauterine devices (PPIUD) remains low in countries such as Nepal. Community health workers such as Female Community Health Volunteers (FCHVs) could play an important role in improving the service coverage of PPFP in Nepal. However, their knowledge of PPFP and community-based services related to PPFP remain unclear. This study aims to assess the effect on community-based PPFP services by improving FCHV's knowledge through orientation on PPFP.

## Methods

We conducted this mixed-methods study in Morang District in Nepal. The intervention involved orientation of FCHVs on PPFP methods. We collected quantitative data from three sources; via a survey of FCHVs that assessed their knowledge before and after the intervention, from their monthly reporting forms on counseling coverage of women at different stages of pregnancy from the communities, and by interviewing mothers in their immediate post-partum period in two selected hospitals. We also conducted six focus group discussions with the FCHVs to understand their perception of PPFP and the intervention. We performed descriptive and multivariable analyses for quantitative results and thematic analysis for qualitative data.

## Results

In total, 230 FCHVs participated in the intervention and their knowledge of PPFP improved significantly after it. The intervention was the only factor significantly associated with their improved knowledge (adjusted odds ratio = 24,  $P < 0.001$ ) in the multivariable analysis. FCHVs were able to counsel 83.3% of 1872 mothers at different stages of pregnancy in the communities. In the two hospitals, the proportion of mothers in their immediate post-partum period whom reported they were counseled by FCHVs during their pregnancy increased. It improved from 7% before the intervention to 18.1% ( $P < 0.001$ ) after the intervention. The qualitative findings suggested that the intervention improved their knowledge in providing PPFP counseling.

## Conclusion

The orientation improved the FCHV's knowledge of PPFP and their community-based counseling. Follow-up studies are needed to assess the longer term effect of the FCHV's role in improving community-based PPFP services.

(27 references) (Author)

Full URL: <https://doi.org/10.1186/s12913-020-4969-1>

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20200219-31\*

**Maternal, neonatal, and child health systems under rapid urbanization: a qualitative study in a suburban district in Vietnam.** Heo J, Kim SY, Yi J, et al (2020), BMC Health Services Research vol 20, no 90, 5 February 2020

#### Background

Vietnam has been successful in increasing access to maternal, neonatal, and child health (MNCH) services during last decades; however, little is known about whether the primary MNCH service utilization has been properly utilized under the recent rapid urbanization. We aimed to examine current MNCH service utilization patterns at a district level.

#### Methods

The study was conducted qualitatively in a rural district named Quốc Oai. Women who gave a birth within a year and medical staff at various levels participated through 43 individual in-depth interviews and 3 focus group interviews.

#### Results

Primary MNCH services were underutilized due to a failure to meet increased quality needs. Most of the mothers preferred private clinics for antenatal care and the district hospital for delivery due to the better service quality of these facilities compared to that of the commune health stations (CHSs). Mothers had few sociocultural barriers to acquiring service information or utilizing services based on their improved standard of living. A financial burden for some services, including caesarian section, still existed for uninsured mothers, while their insured counterparts had relatively few difficulties.

#### Conclusions

For the improved macro-efficiency of MNCH systems, the government needs to rearrange human resources and/or merge some CHSs to achieve economies of scale and align with service volume distribution across the different levels.

(27 references) (Author)

Full URL: <https://doi.org/10.1186/s12913-019-4874-7>

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20200206-19\*

**Looking toward 2030: Strengthening midwifery education through regional partnerships.** Srisaeng P, Upvall MJ (2020), Journal of Advanced Nursing vol 76, no 2, February 2020, pp 715-724

#### Aims

The purpose of this paper is to describe the impact of a regional capacity-building project between Thailand and Laos that supports the United Nation's sustainable development goal 3 through midwifery education.

#### Design

Discussion paper based on an exemplar.

#### Data Sources

The International Confederation of Midwifery's standards of midwifery education and World Health Organization midwifery educator core competencies provided the framework for capacity-building of Lao midwifery educators.

Implications for nursing: Knowledge gained from this 2-year project (October 2015-November 2017) increased the teaching confidence of midwifery educators while linking international standards and competencies to curriculum revision. In addition, capacity-building projects based on a needs assessment and implementation from regional partners may result in policy changes at the local and national level.

#### Conclusion

Partnerships are essential to meeting the sustainable development goals. These regional partnerships may be highly effective in creating sustainable capacity-building projects.

#### Impact

Maternal mortality and preventing deaths of children under 5 years old continues to be a challenge across the globe despite progress made in recent years. Progress toward sustainable development goal 3, requires efforts addressed in sustainable development goal 17, partnership. Laos has one of the highest maternal mortality rates in Southeast Asia. A project to increase capacity of midwifery educators demonstrated the benefit of regional partnerships in Laos to have an impact on sustainable development goal 3 ultimately improving maternal outcomes throughout the country.

Partnerships especially those between countries in the same region, are crucial to the success of meeting the sustainable development goals. (Author)

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20200131-31\*

**Remuneration systems of community health workers in India and promoted maternal health outcomes: a cross-sectional study.** Koehn HJ, Zheng S, Houser RF, et al (2020), BMC Health Services Research vol 20, no 48, 20 January 2020

#### Background

This study assessed the association of remuneration systems of paid-for-performance Accredited Social Health Activists (ASHAs) and salaried Anganwadi workers (AWWs) on seven maternal health outcomes in four states in India:

Andhra Pradesh (AP), Chhattisgarh, Odisha (Orissa), and Uttar Pradesh (UP).

#### Methods

The cross-sectional study surveyed mothers of children aged 6-23 months. A total of 3455 mothers were selected via multistage cluster sampling. The seven health outcomes related to the community health worker (CHW) visits were: institutional delivery, complete immunization, exclusive breastfeeding for six months, timely introduction of complementary feeding, continued breastfeeding during child's illness, handwashing, and awareness of Nutrition and Health Days (NHDs).

#### Results

The results varied by state. Mothers who received ASHA visits were significantly less likely to have an institutional delivery, timely introduction of complementary feeding, awareness of Nutrition and Health Days (NHDs), proper handwashing, and exclusive breastfeeding for the first six months in at least one of the four states. Conversely, AWW's home visits were positively predictive of the following health outcomes in certain states: complete immunization for index child, continued breastfeeding during the child's illness, handwashing, and awareness of NHDs.

#### Conclusions

ASHAs' home visits were not more strongly associated with health outcomes for which they were paid than outcomes for which they were unpaid. AWWs' home visits were positively associated with awareness of NHDs, and associations varied for other recommended health behaviors. Further research could elucidate the causes for successes and failures of CHW programs in different states of India.

(18 references) (Author)

Full URL: <https://doi.org/10.1186/s12913-019-4883-6>

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#### 20200131-27\*

**Assessment of facility and health worker readiness to provide quality antenatal, intrapartum and postpartum care in rural Southern Nepal.** Lama TP, Munos MK, Katz J, et al (2020), BMC Health Services Research vol 20, no 16, 6 January 2020

#### Background

Increased coverage of antenatal care and facility births might not improve maternal and newborn health outcomes if quality of care is sub-optimal. Our study aimed to assess the facility readiness and health worker knowledge required to provide quality maternal and newborn care.

#### Methods

Using an audit tool and interviews, respectively, facility readiness and health providers' knowledge of maternal and immediate newborn care were assessed at all 23 birthing centers (BCs) and the District hospital in the rural southern Nepal district of Sarlahi. Facility readiness to perform specific functions was assessed through descriptive analysis and comparisons by facility type (health post (HP), primary health care center (PHCC), private and District hospital). Knowledge was compared by facility type and by additional skilled birth attendant (SBA) training.

#### Results

Infection prevention items were lacking in more than one quarter of facilities, and widespread shortages of iron/folic acid tablets, injectable ampicillin/gentamicin, and magnesium sulfate were a major barrier to facility readiness. While parenteral oxytocin was commonly provided, only the District hospital was prepared to perform all seven basic emergency obstetric and newborn care signal functions. The required number of medical doctors, nurses and midwives were present in only 1 of 5 PHCCs. Private sector SBAs had significantly lower knowledge of active management of third stage of labor and correct diagnosis of severe pre-eclampsia. While half of the health workers had received the mandated additional two-month SBA training, comparison with the non-trained group showed no significant difference in knowledge indicators.

#### Conclusions

Facility readiness to provide quality maternal and newborn care is low in this rural area of Nepal. Addressing the gaps by facility type through regular monitoring, improving staffing and supply chains, supervision and refresher trainings is important to improve quality.

(60 references) (Author)

Full URL: <https://doi.org/10.1186/s12913-019-4871-x>

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#### 20200131-25\*

**Quality of maternity care provided by private sector healthcare facilities in three states of India: a situational analysis.**

Tripathi S, Srivastava A, Memon P, et al (2019), BMC Health Services Research vol 19, no 971, 16 December 2019

#### Background

Better quality of care around the time of childbirth can significantly improve maternal and newborn survival. In

countries like India, where the private sector contributes to a considerable proportion of institutional deliveries, it is important to assess the quality of maternity care offered by private sector healthcare facilities. This study seeks to fill that information gap by analysing baseline assessments conducted for the Manyata program, which aims to improve the quality of maternity care at private facilities.

#### Methods

An observation checklist based on 16 clinical standards endorsed by the Federation of Obstetric and Gynaecological Societies of India (FOGSI) was used to assess 201 private sector healthcare facilities in Maharashtra, Jharkhand, and Uttar Pradesh. Data on facility characteristics came from profiles completed when facilities enrolled in Manyata. Differences in the mean number of standards met were analysed by facility characteristics and the availability of essential supplies.

#### Results

Around half (47.1%) of all nursing staff engaged in maternity care services at these private healthcare facilities were under qualified. The mean number of clinical standards met by facilities was 3.2 (SD 2.4). Facilities with a monthly delivery load between 20 and 50 met a significantly higher number of standards, as did facilities that had more than 70% of essential supplies available. Both these factors were also significant in a multiple linear regression analysis.

#### Conclusions

The overall quality of maternity care in private healthcare facilities is poor in all three states, especially for clinical standards related to management of complications.

(49 references) (Author)

Full URL: <https://doi.org/10.1186/s12913-019-4782-x>

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#### 20200131-24\*

**Availability of emergency obstetric and newborn care services at public health facilities of Sindh province in Pakistan.** Kumar R, Ahmed J, Anwar F, et al (2019), BMC Health Services Research vol 19, no 968, 16 December 2019

#### Background

Basic and comprehensive emergency obstetric care services in Pakistan remain a challenge considering continued high burden of maternal and newborn mortality. This study aimed to assess the availability of emergency obstetric and newborn care in Sindh Province of Pakistan.

#### Methods

This cross-sectional survey was conducted in twelve districts of the Sindh province in Pakistan. The districts were selected based on the maternal neonatal and child health indicators. Data were collected from 63 public-sector health facilities including district, Taluka (subdistrict) headquarters hospitals and rural health centers. Basic and comprehensive emergency obstetric newborn care services were assessed through direct observations and interviews with the heads of the health facilities by using a World Health Organization pretested and validated data collection tool. Participants interviewed in this study included the managers and auxiliary staff and in health facilities.

#### Results

Availability of caesarean section (23, 95% C.I. 14.0-35.0) and blood transfusion services (57, 95% C.I. 44.0-68.0), the two components of comprehensive emergency obstetric and newborn care, was poor in our study. However, assessment of the seven components of basic emergency obstetric and newborn services showed that 92% of the health facilities (95% C.I. 88.0-96.0) had parenteral antibiotics, 90% (95% C.I. 80.0-95.0) had oxytocin, 92% (95% C.I. 88.0-96.0) had manual removal of the placenta service, 87% (95% C.I. 76.0-93.0) of the facilities had staff who could remove retained products of conception, 82% (95% C.I. 71.0-89.0) had facilities for normal birth and 80% (95% C.I. 69.0-88.0) reported presence of neonatal resuscitation service.

#### Conclusion

Though the basic obstetric and newborn services were reasonably available, comprehensive obstetric and newborn services were not available as per the World Health Organization's standards in the surveyed public health facilities. Ensuring the availability of caesarean section and blood transfusion services within these facilities may improve population's access to these essential services around birth.

(27 references) (Author)

Full URL: <https://doi.org/10.1186/s12913-019-4830-6>

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#### 20200131-2\*

**Determinants of home delivery in Nepal - A disaggregated analysis of marginalised and non-marginalised women from the 2016 Nepal Demographic and Health Survey.** Devkota B, Maskey J, Pandey AR, et al (2020), PLoS ONE vol 15, no 1, 30 January 2020, e0228440

#### Introduction

In Nepal, a substantial proportion of women still deliver their child at home. Disparities have been observed in utilisation of institutional delivery and skilled birth attendant services. We performed a disaggregated analysis among marginalised and non-marginalised women to identify if different factors are associated with home delivery among these groups.

#### Materials and methods

This study used data from the 2016 Nepal Demographic and Health Survey. It involves the analysis of 3,837 women who had experienced at least one live birth in the five years preceding the survey. Women were categorised as marginalised and non-marginalised based on ethnic group. Bivariate and multivariable logistic regression analysis were performed to identify factors associated with home delivery.

#### Results

A higher proportion of marginalised women delivered at home (47%) than non-marginalised women (26%). Compared to non-marginalised women (35%), a larger proportion of marginalised women (64%) felt that it was not necessary to give birth at health facility. The multivariable analysis indicated an independent association of having no or basic education, belonging to middle, poorer and the poorest wealth quintile, residing in Province 2 and not having completed of four antenatal care visits per protocol with home delivery among both marginalised and non-marginalised women. Whereas residing in a rural area, residing in Province 7, and at a distance of >30 minutes to a health facility were factors independently associated with home delivery only among marginalised women.

#### Conclusion

We conclude that poor education, poor economic status, non-completion of four ANC visits and belonging to Province 2 particularly determined either group of women to deliver at home, whereas residing in rural areas, living far from health facility, and belonging to Province 7 determined marginalised women to deliver at home. Preventing mothers from delivering at home would thus require focusing on specific geographical areas besides considering wider socio-economic determinants. (53 references) (Author)

Full URL: <https://doi.org/10.1371/journal.pone.0228440>

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#### 20200128-34\*

**Shared learning on an international clinical placement: Promoting symbiotic midwifery practice knowledge.** Dube M, Geraghty S, Bull A, et al (2020), *Women and Birth: Journal of the Australian College of Midwives* vol 33, no 6, November 2020, pp e558-e566

#### Aim

The aim of this study was to explore the experiences of shared learning between Australian and Balinese midwifery students during a two-week clinical placement in Bali Indonesia.

#### Background

Cultural safety in midwifery is a key concept that is underpinned by the provision of holistic quality midwifery care to all women. Therefore, culturally safe midwifery care identifies, protects and promotes women's individual cultures and is a key concept that is fostered in midwifery education. To educate culturally safe midwives, international placements to resource limited countries have become more common within midwifery education programs.

#### Methods

This study used a qualitative research design with a convenience sampling design. The participants were enrolled in midwifery courses in a University in the Northern Territory of Australia (n = 9), a Balinese private midwifery school (n = 4) and a Balinese public midwifery school (n = 4). Thematic analysis was used to analyse the data.

#### Findings

The findings were categorised into major themes under the headings of 'Learning together despite differences'; 'Cultural differences', 'Communication, Resources', and 'Recommendations for future placements'.

#### Conclusion

This study provides a valuable insight into how shared learning increases students' midwifery knowledge and is fundamental in understanding cultural differences that could be applied to students' clinical midwifery practice. (45 references) (Author)

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#### 20200128-1\*

**Readiness of emergency obstetric and newborn care in public health facilities in Afghanistan between 2010 and 2016.** Ansari N, Tappis H, Manalai P, et al (2020), *International Journal of Gynecology & Obstetrics* vol 148, no 3, March 2020, pp 361-368

#### Objective

To assess changes in readiness to provide emergency obstetric and newborn care (EmONC) in health facilities in Afghanistan between 2010 and 2016.

#### Methods

A secondary analysis was performed of a subset of data from cross-sectional health facility assessments conducted in December 2009 to February 2010 and May 2016 to January 2017. Interviews with health providers, facility inventory, and record review were conducted in both assessments. Descriptive statistics and  $\chi^2$  tests were used to compare readiness of EmONC at 59 public health facilities expected to provide comprehensive EmONC.

#### Results

The proportion of facilities reporting provision of uterotonic drugs, anticonvulsants, parenteral antibiotics, newborn resuscitation, and cesarean delivery did not change significantly between 2010 and 2016. Provision of assisted vaginal deliveries increased from 78% in 2010 to 98% in 2016 ( $P<0.001$ ). Fewer health facilities had amoxicillin (61% in 2016 vs 90% in 2010;  $P<0.001$ ) and gentamicin (74% in 2016 vs 95% in 2010;  $P<0.002$ ). The number of facilities with at least one midwife on duty 24 hours a day/7 days a week significantly declined (88% in 2016 vs 98% in 2010;  $P=0.028$ ).

#### Conclusion

Despite a few positive changes, readiness of EmONC services in Afghanistan in 2016 had declined from 2010 levels. (Author)

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#### 20200124-34\*

**Maternal depression in rural Pakistan: the protective associations with cultural postpartum practices.** LeMasters K, Andrabi N, Zalla L, et al (2020), BMC Public Health vol 20, no 68, 15 January 2020

#### Background

Traditional postpartum practices are intended to provide care to mothers, but there is mixed evidence concerning their impact on postpartum depression (PPD). It remains unknown if there is a unique impact of postpartum practices on PPD separately from other types of social support, or if practices differentially affect those with existing prenatal depression. In Pakistan, chilla (چله) is a traditional postpartum practice in which women receive relief from household work, additional familial support, and supplemental food for up to 40 days postpartum. This study aims to understand if chilla protects against PPD independent of other support and whether this relationship varies by prenatal depression status.

#### Methods

Data come from the Bachpan cohort study in rural Pakistan. Chilla participation and social support (Multidimensional Scale of Perceived Social Support) were assessed at 3 months postpartum. Women were assessed for major depressive episodes (MDE) with the Structured Clinical Interview, DSM-IV and for depression symptom severity with the Patient Health Questionnaire (PHQ-9) in their third trimester and at 6 months postpartum. Adjusted linear mixed models were used to assess the relationship between chilla participation and PPD.

#### Results

Eighty-nine percent of women ( $N = 786$ ) participated in chilla and almost 70% of those that participated took part in all of chilla's aspects. In adjusted models, chilla participation was inversely related to MDE ( $OR = 0.56; 95\%CI = 0.31, 1.03$ ) and symptom severity (Mean Difference (MD) =  $-1.54; 95\%CI: -2.94, -0.14$ ). Chilla participation was associated with lower odds of MDE ( $OR = 0.44; 95\%CI = 0.20, 0.97$ ) among those not prenatally depressed and with lower symptom severity among those prenatally depressed ( $MD = -2.05; 95\%CI: -3.81, -0.49$ ).

#### Conclusions

Chilla is inversely associated with both MDE and symptom severity at 6 months postpartum above and beyond social support. Specifically, chilla is inversely associated with MDE among those not prenatally depressed and with lower symptom severity among those prenatally depressed. This relationship signals an opportunity for interventions aimed at preventing and treating PPD in this region to draw upon chilla and similar traditional postpartum practices in creating community-based, low-cost, sustainable interventions for maternal mental health.

(36 references) (Author)

Full URL: <https://doi.org/10.1186/s12889-020-8176-0>

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#### 20200124-33\*

**District level inequality in reproductive, maternal, neonatal and child health coverage in India.** Panda BK, Kumar G, Awasthi A (2020), BMC Public Health vol 20, no 58, 14 January 2020

#### Background

As India already missed maternal and child health related millennium development goals, the maternal and child health outcomes are a matter of concern to achieve sustainable development goals (SDGs). This study is focused to assess the gap in coverage and inequality of various reproductive, maternal, neonatal and child health (RMNCH) indicators in 640 districts of India, using data from most recent round of National Family Health Survey.

#### Methods

A composite index named Coverage Gap Index (CGI) was calculated, as the weighted average of eight preventive

maternal and child care interventions at different administrative levels. Bivariate and spatial analysis were used to understand the geographical diversity and spatial clustering in districts of India. A socio-economic development index (SDI) was also derived and used to assess the interlinkages between CGI and development. The ratio method was used to assess the socio-economic inequality in CGI and its component at the national level.

#### Results

The average national CGI was 26.23% with the lowest in Kerala (10.48%) and highest in Nagaland (55.07%). Almost half of the Indian districts had CGI above the national average and mainly concentrated in high focus states and north-eastern part. From the geospatial analysis of CGI, 122 districts formed hotspots and 164 districts were in cold spot. The poorest households had 2.5 times higher CGI in comparison to the richest households and rural households have 1.5 times higher CGI as compared to urban households.

#### Conclusion

Evidence from the study suggests that many districts in India are lagging in terms of CGI and prioritize to achieve the desired level of maternal and child health outcomes. Efforts are needed to reduce the CGI among the poorest and rural resident which may curtail the inequality.

(34 references) (Author)

Full URL: <https://doi.org/10.1186/s12889-020-8151-9>

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#### 20200121-9\*

**A descriptive analysis of midwifery education, regulation and association in 73 countries: the baseline for a post-2015 pathway.** Castro Lopes S, Nove A, ten Hoop-Bender P, et al (2016), Human Resources for Health vol 14, no 37, 8 June 2016

#### Background

Education, regulation and association (ERA) are the supporting pillars of an enabling environment for midwives to provide quality care. This study explores these three pillars in the 73 low- and middle-income countries who participated in the State of the World's Midwifery (SoWMy) 2014 report. It also examines the progress made since the previous report in 2011.

#### Methods

A self-completion questionnaire collected quantitative and qualitative data on ERA characteristics and organisation in the 73 countries. The countries were grouped according to World Health Organization (WHO) regions. A descriptive analysis was conducted.

#### Results

In 82% of the participating countries, the minimum education level requirement to start midwifery training was grade 12 or above. The average length of training was higher for direct-entry programmes at 3.1 years than for post-nursing/healthcare provider programmes at 1.9 years. The median number of supervised births that must be conducted before graduation was 33 (range 0 to 240). Fewer than half of the countries had legislation recognising midwifery as an independent profession. This legislation was particularly lacking in the Western Pacific and South-East Asia regions. In most (90%) of the participating countries, governments were reported to have a regulatory role, but some reported challenges to the role being performed effectively. Professional associations were widely available to midwives in all regions although not all were exclusive to midwives.

#### Conclusions

Compared with the 2011 SoWMy report, there is evidence of increasing effort in low- and middle-income countries to improve midwifery education, to strengthen the profession and to follow international ERA standards and guidelines. However, not all elements are being implemented equally; some variability persists between and within regions. The education pillar showed more systematic improvement in the type of programme and length of training. The reinforcement of regulation through the development of legislation for midwifery, a recognised definition and the strengthening of midwives' associations would benefit the development of other ERA elements and the profession generally. (26 references) (Author)

Full URL: <https://human-resources-health.biomedcentral.com/articles/10.1186/s12960-016-0134-7#Bib1>

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#### 20200121-14\*

**Making the case for midwifery: a toolkit for using evidence from The State of the World's Midwifery 2014 Report to create policy change at the country level.** United Nations Population Fund (2014), New York: UNFPA 2014. 63 pages

The State of the World's Midwifery 2014 (SoWMy 2014) report contains a rich and valuable presentation and analysis of current data and trends on the state of midwifery in 73 countries, and recommendations for strengthening midwifery programmes and policies at all levels. This toolkit has been developed as a companion piece to support national efforts to use the SoWMy 2014 report, through national launches and other follow-up actions at the country level. This is not a stand-alone tool, but one meant to support the use of the SoWMy 2014 report. (Author)

### 20200114-13\*

**What factors do make quality improvement work in primary health care? Experiences of maternal health quality improvement teams in three Puskesmas in Indonesia.** Limato R, Tumbelaka P, Ahmed R, et al (2019), PLoS ONE vol 14, no 12, 20 December 2019, e0226804

#### Background

Indonesia has been shifting from ensuring access to health services towards improving service quality. Accreditation has been used as quality assurance (QA) mechanism, first in hospitals and subsequently in primary health care facilities, including Puskesmas (community health centres). QA provides measures of whether services meet quality targets, but quality improvement (QI) is needed to make change and achieve improvements. QI is a cyclical process with cycles of problem identification, solution testing and observation. We investigated the factors which influenced the process of QI based on experience of maternal health QI teams in three Puskesmas in Cianjur district, West Java province, Indonesia.

#### Methods

Qualitative data were collected using 28 in-depth interviews at two points of time: pre- (April 2016) and post- QI intervention (April 2017), involving national, provincial, district and Puskesmas managers; and Puskesmas QI team members. Thematic analysis of transcripts was conducted.

#### Results

We found four main factors contributed to the process of QI: 1) leadership, including awareness and attitude of leader(s) towards QI, involvement of leader(s) in the QI process and decision-making in budget allocation for QI; 2) staff enthusiasm and multidisciplinary collaboration; 3) a culture where QI is integrated in existing responsibilities; and 4) the ongoing Puskesmas accreditation process, which increased the value of QI to the organisation.

#### Conclusion

Making QI a success in the decentralised Indonesian system requires action at four levels. At individual level, leadership attributes can create an internal quality environment and drive organisational cultural change. At team level, staff enthusiasm and collaboration can be triggered through engaging and tasking everyone in the QI process and having a shared vision of what quality should look like. At organisational level, QI should be integrated in planned activities, ensuring financial and human resources. Lastly, QI can be encouraged when it is implemented by the wider health system as part of national accreditation programmes. (67 references) (Author)

Full URL: <https://doi.org/10.1371/journal.pone.0226804>

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### 20200114-10\*

**Factors governing the performance of Auxiliary Nurse Midwives in India: A study in Pune district.** Pyone T, Karvande S, Gopalakrishnan S, et al (2019), PLoS ONE vol 14, no 12, 27 December 2019, e0226831

#### Background

The Auxiliary nurse midwife (ANM) cadre was created to focus on maternal and child health. ANMs are respected members of their communities and established providers of maternal and child health care within the community and at the facility level. Over time, additional roles and responsibilities have been added. Despite the importance of ANMs in the primary healthcare system in India, studies that consider factors governing the performance of ANMs in their workplaces are limited. We aimed to study factors governing performance of ANMs in Pune district, India.

#### Methods

Semi-structured interviews were conducted with 13 purposely selected key informants at facility, district, state, and national levels. Focus group discussions were conducted with 41 ANMs and 25 members of the community. Non-participatory observations with eight ANMs provided information to expand on and scrutinise findings that emerged from the other lines of inquiry. A realist lens was applied to identify ANMs' performance as a result of 'mechanisms' (training, supervision, accountability mechanisms) within the given 'context' (regulatory system, infrastructure and resources, ANMs' expanded scope of work, gender roles and norms).

#### Results

Weak enforcement of regulatory system led to poor standardisation of training quality among training institutions. Challenges in internal accountability mechanisms governing ANMs within the health system hierarchy made it difficult to ensure individual accountability. Training and supervision received were inadequate to address current responsibilities. The supervisory approach focused on comparing information in periodic reports against expected outputs. Clinical support in workplaces was insufficient, with very little problem identification and solving.

#### Conclusion

Focusing on the tasks of ANMs with technical inputs alone is insufficient to achieve the full potential of ANMs in a

changing context. Systematic efforts tackling factors governing ANMs in their workplaces can produce a useful cadre, that can play an important role in achieving universal health coverage in India. (31 references) (Author)

Full URL: <https://doi.org/10.1371/journal.pone.0226831>

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#### 20191219-45\*

**Maternal nutritional adequacy and gestational weight gain and their associations with birth outcomes among Vietnamese women.** Tran NT, Nguyen LT, Berde Y, et al (2019), BMC Pregnancy and Childbirth vol 19, no 468, 4 December 2019

##### Background

During pregnancy, a mother's nutritional needs increase to meet the added nutrient demands for fetal growth and development. An enhanced understanding of adequate nutrition and sufficient weight gain during pregnancy can guide development of policies and strategies for maternal nutrition care, actions that will ultimately promote better pregnancy outcomes. In a sample of pregnant women in Vietnam, this study characterized maternal nutrition status and gestational weight gain at a mid-pregnancy baseline, then examined the association of these variables with specific birth outcomes.

##### Methods

The study used baseline data from a randomized, controlled trial that compared pregnant Vietnamese women who received a nutritional intervention group with those who received only standard dietary counseling (control group). At baseline (26-29 weeks gestation), mothers' dietary reports were collected, and intake of 10 macro- and micronutrients was estimated; data for baseline gestational weight gain was collected for all pregnant women enrolled into the study (n = 228). This analysis also used weights, lengths, and head circumferences at birth for infants of mothers in the control group.

##### Results

At baseline, 95% of the pregnant women had concurrent inadequacies for more than five nutrients, and nearly half had concurrent inadequacies for more than ten nutrients. Almost two-thirds of the pregnant women did not meet recommendations for gestational weight gain. We found a significant, inverse association between the number of nutrient inadequacies and gestational weight gain (overall  $p \leq 0.045$ ). After adjusting for potential confounders, gestational weight gain was positively associated with birth weight, length at birth, birth weight-for-age z-score and length-for-age z-score (all  $p \leq 0.006$ ).

##### Conclusions

Our findings raise concern over the high proportion of pregnant women in Vietnam who have multiple concurrent nutrient inadequacies and who fall short of meeting recommended gestational weight gain standards. To ensure better birth outcomes in this population, policies and strategies to improve the status of maternal nutrition are greatly needed.

##### Trial registration

The trial was retrospectively registered at [clinicaltrials.gov](https://clinicaltrials.gov) on December 20, 2013, registration identifier: NCT02016586. (59 references) (Author)

Full URL: <https://doi.org/10.1186/s12884-019-2643-6>

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#### 20191219-30\*

**Client perceived quality of the postnatal care provided by public sector specialized care institutions following a normal vaginal delivery in Sri Lanka: a cross sectional study.** Wickramasinghe SA, Gunathunga MW, Hemachandra DKNN (2019), BMC Pregnancy and Childbirth vol 19, no 485, 9 December 2019

##### Background

Majority of the maternal and neonatal adverse events take place during the postnatal period. Provision of high-quality care during this period can minimize these events. Assessment of mothers' perceptions of the quality of care received by them provides valuable feedback to improve the care and ultimately outcomes.

##### Methods

A cross sectional survey was conducted in specialized institutions of Colombo district, Sri Lanka, to assess the maternal perceptions of the quality of regular postnatal care and its correlations, using an interviewer administered questionnaire. The questionnaire contained 23 items distributed under three main domains: technical and information domain, interpersonal care domain and ward facilities and cleanliness domain. Each item was given a score from 1 to 5 and total scores were calculated for the total questionnaire and for each domain. Descriptive statistics were used to assess the perceptions and multivariate analysis was conducted to assess the significant correlates of positive perceptions.

##### Results

The median score obtained for the questionnaire was 108, (Inter Quartile Range 96-114). The median scores of the

technical care and information domain, interpersonal care domain and ward facilities and cleanliness domain were 43 (IQR 38-45), 33 (IQR 30-35) and 32 (IQR 28-35) respectively. Attending teaching/ specialized hospitals (aOR=1.6,  $p < 0.001$ ), 20-35 age group (1.8,  $p = 0.024$ ), and services such as initiation of breast feeding within 1 h of delivery (2.1,  $p = 0.009$ ), pain relief during episiotomy suturing (2.2,  $p < 0.001$ ), practicing Kangaroo Mother Care (1.4,  $p = 0.035$ ), receiving health advices by doctors or midwives (2.1,  $p < 0.001$ ) were significant correlates of positive perceptions.

#### Conclusions

Majority of mothers had favourable perceptions of the quality of care received by them. However, the ward facilities and environment domain has obtained lower ratings compared to technical and interpersonal care domains. Several services were significantly associated with favourable perceptions. Authorities should consider these findings when attempting to improve care quality. Further, this assessment should be carried out regularly to obtain more current data. (37 references) (Author)

Full URL: <https://doi.org/10.1186/s12884-019-2645-4>

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#### 20191219-28\*

**Quality of maternal and newborn healthcare services in two public hospitals of Bangladesh: identifying gaps and provisions for improvement.** Biswas TK, Sujon H, Rahman MH, et al (2019), BMC Pregnancy and Childbirth vol 19, no 488, 10 December 2019

#### Background

Healthcare service delivery systems need to ensure standard quality of care (QoC) for achieving expected health outcomes. Although Bangladesh has a good healthcare service delivery system, there are major concerns about the quality of maternal and newborn health (MNH) care services, which is imperative for achievements in health. The study aimed to measure the QoC for different MNH services in two selected public health facilities of Bangladesh. This study also documented the specific areas of each care which needs intervention.

#### Methods

The study was conducted in two district-level public health facilities—a district hospital (DH) and a mother and child welfare centre (MCWC). A total of 228 cases of MNH services were observed by using contextualized checklist 'Standards-based Management and Recognition (S-BMR)' for 8 selected MNH care services. For scoring, performed activities were calculated as percentages of the total recommended activities and categorized as high (> 80%), moderate (50 to 80%), and low (< 50%).

#### Results

Overall QoC scores were moderate for each DH (54.8%), and MCWC (56.1%). In DH, the QoC score was high for blood transfusion (80.3%); moderate for maternal complications management (77.0%), caesarean section (CS) (65.6%), infection prevention (64.3%), sick newborn care (54.1%), and normal vaginal delivery (NVD) (52.6%); and low for antenatal care (ANC) (25.6%) and postnatal care (PNC) (19.0%). In MCWC, the QoC scores were high for infection prevention (83.0%); moderate for CS (76.5%) and NVD (59.8%); and low for ANC (36.9%) and PNC (24.5%).

#### Conclusions

In the study facilities, the QoC for MNH services is found to be unsatisfactory, particularly for ANC and PNC. Urgent initiative needs to be taken by introducing contextualized quality monitoring tools at health facilities, along with training of the care providers and introducing a quality monitoring system. (27 references) (Author)

Full URL: <https://doi.org/10.1186/s12884-019-2656-1>

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#### 20191217-16\*

**Associated factors and their individual contributions to caesarean delivery among married women in Bangladesh: analysis of Bangladesh demographic and health survey data.** Hasan F, Alam MM, Hossain MG (2019), BMC Pregnancy and Childbirth vol 19, no 433, 21 November 2019

#### Background

Caesarean section (CS) delivery has a significant effect on maternal and neonatal health especially in a developing country like Bangladesh. The aim of the study was to determine the risk factors and their individual contribution to CS delivery among Bangladeshi married women in reproductive age.

#### Methods

The cross sectional secondary data was used in this study. Data was extracted from Bangladesh Demographic and Health Survey (BDHS), 2014 dataset. BDHS-2014 collected data from all over Bangladesh. Stepwise logistic regression analysis and population attributable fractions (PAF) were utilized in this study.

#### Results

A total number of 4422 married Bangladeshi women having at least one child (age  $\leq 5$  years) were considered in this study. The prevalence of CS delivery among Bangladeshi women was 23.94%. The stepwise logistic regression model

showed that location (division), type of residence, education of respondent and her husband, working status, age at first birth, number of children, wealth index and baby's birth weight were most important predictors of CS delivery among Bangladeshi mothers. PAF demonstrated that overweight or obese women had highest contribution (23.36%) among the risk factors of CS delivery, followed by age at first birth (age > 20 years) (18.97%), highest wealth quintile (17.39%), higher education (15.93%), living in urban environment (14.39%), having lower number of ever born children (1-2 children) (13.58%), living in Dhaka division (12.11%), delivering large size of child at birth (11.13%) and housewife (6.55%).

#### Conclusions

In the present study, we have identified the important risk factors and their individual contribution to CS delivery in Bangladesh. Consequently, these factors can be considered for reducing the rate of CS delivery in Bangladesh.

(36 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12884-019-2588-9>

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#### 20191125-9\*

**Effect of vaccine reminder and tracker bracelets on routine childhood immunization coverage and timeliness in urban Pakistan: protocol for a randomized controlled trial.** Siddiqi DA, Munir M, Shah MT, et al (2019), BMC Public Health vol 19, no 1421, 30 October 2019

#### Background

Inability to track children's vaccination history coupled with parents' lack of awareness of vaccination due dates compounds the problem of low immunization coverage and timeliness in developing countries. Traditional Reminder/Recall (RR) interventions such as paper-based immunization cards or mHealth based platforms do not yield optimal results in resource-constrained settings. There is thus a need for a low-cost intervention that can simultaneously stimulate demand and track immunization history to help reduce drop-outs and improve immunization coverage and timeliness. The objective of this study is to evaluate the impact of low-cost vaccine reminder and tracker bracelets for improving routine childhood immunization coverage and timeliness in Pakistani children under 2 years of age.

#### Methods

The study is an individually randomized, three-arm parallel Randomized Controlled Trial with two intervention groups and one control group. Infants in the two intervention groups will be given two different types of silicone bracelets at the time of recruitment, while infants in the control group will not receive any intervention. The two types of bracelets consist of symbols and/or numbers to denote the EPI vaccination schedule and each time the child will come for vaccination, the study staff will perforate a hole in the appropriate symbol to denote vaccine administration. Therefore, by looking at the bracelet, caregivers will be able to see how many vaccines have been received. Our primary outcome measure is the increase in coverage and timeliness of Pentavalent-3/PCV-3/Polio-3 and Measles-1 vaccine in the intervention versus control groups. A total of 1446 participants will be recruited from 4 Expanded Program on Immunization (EPI) centers in Landhi Town, Karachi. Each enrolled child will be followed up till the Measles-1 vaccine is administered, or till eleven months have elapsed since enrolment.

#### Discussion

Participant recruitment commenced on July 19, 2017, and was completed on October 10, 2017. Proposed duration of the study is 18 months and expected end date is December 1, 2018. This study constitutes one of the first attempts to rigorously evaluate an innovative, low-cost vaccine reminder bracelet.

#### Trial registration

ClinicalTrials.gov NCT03310762. Retrospectively Registered on October 16, 2017.

(30 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12889-019-7667-3>

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#### 20191121-1\*

**Study protocol to assess the impact of an integrated nutrition intervention on the growth and development of children under two in rural Bangladesh.** Ara G, Sanin KI, Khanam M, et al (2019), BMC Public Health vol 19, no 1437, 1 November 2019

#### Background

The period from birth to two years is the 'critical window' for achieving optimal growth and development. An inadequate quality and quantities of complementary foods, poor child-feeding practices and infection negatively impact the growth of under-twos. Approximately one-third of under-fives in developing countries are stunted; many are also micronutrient deficient. An estimated 6% of mortalities among under-fives can be prevented by ensuring optimal complementary feeding. The objective of the study was to assess the ability of a 12-month integrated

nutrition intervention to improve the nutritional status (length-for-age Z-score) of 6 to 12-month-old children in rural Bangladesh.

#### Methods

In this community-based randomized controlled trial, the intervention group received a package of interventions that includes, food vouchers; to prepare egg-based nutritious snacks (suji firni for < 1-year-olds, suji halwa for > 1-year-olds), micronutrient powder to fortify children's food at home, child feeding counselling and water, sanitation and hygiene (WASH), behaviour change communication. The control group received routine health messages provided by the government. Baseline and endline surveys were conducted; Data collection was performed monthly on children's growth, food voucher utilization, child feeding and morbidity. In addition, we assessed the cognitive development of the children after 12 months of intervention.

#### Conclusion

This trial aims to explore whether an integrated nutrition intervention can mitigate childhood stunting during the critical window of opportunity in rural Bangladesh. The results may provide robust evidence to improve the linear growth of children in developing countries.

#### Trial registration

The study was retrospectively registered on August 17, 2018 and is available online at ClinicalTrials.gov (ID: NCT02768181). (46 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12889-019-7777-y>

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### 20191113-45\*

#### **Association of Exposure to Civil Conflict With Maternal Resilience and Maternal and Child Health and Health System Performance in Afghanistan.** Akseer N, Rizvi A, Bhatti Z, et al (2019), JAMA Network Open vol 2, no 11, November 2019, e1914819

#### Key Points

**Question** Is conflict severity associated with the performance of health systems and population health outcomes in Afghanistan during the 2003 to 2018 reconstruction period?

**Findings** In this survey study of 64 815 women in Afghanistan, notable health and health system improvements were made despite increasing conflict after 2010. However, regions with greater conflict had lower gains in contraceptive use, skilled birth attendance, and child vaccination and increased child wasting, as well as poor health facility infrastructure, client background and physical assessments, and health care professionals' knowledge level.

**Meaning** These findings suggest that efforts to improve contraceptive use, measles vaccination, and functioning health service infrastructure should be prioritized in provinces of Afghanistan that experience severe conflict.

**Importance** Current studies examining the effects of Afghanistan's conflict transition on the performance of health systems, health service delivery, and health outcomes are outdated and small in scale and do not span all essential reproductive, maternal, newborn, and child health interventions.

**Objective** To evaluate associations of conflict severity with improvement of health system performance, use of health services, and child nutrition outcomes in Afghanistan during the 2003 to 2018 reconstruction period.

**Design, Setting, and Participants** This population-based survey study included a sequential cross-sectional analysis of individual-level panel data across 2 periods (2003-2010 and 2010-2018) and a difference-in-differences design. Surveys included the 2003 to 2004 and 2010 to 2011 Multiple Indicator Cluster Surveys and the 2018 Afghanistan Health Survey. Afghanistan's 2013 National Nutrition Survey was used to assess nutritional outcomes, and the annual Balanced Scorecard data sets were used to evaluate health system performance. Participants included girls and women aged 12 to 49 years and children younger than 5 years who completed nationally representative household surveys. All analyses were conducted from January 1 through April 30, 2019.

**Exposures** Provinces were categorized as experiencing minimal-, moderate-, and severe-intensity conflict using battle-related death data from the Uppsala Conflict Data Program.

**Main Outcomes and Measures** Health intervention coverage was examined using 10 standard indicators: contraceptive method (any or modern); antenatal care by a skilled health care professional; facility delivery; skilled birth attendance (SBA); bacille Calmette-Guérin vaccination (BCG); diphtheria, pertussis, and tetanus vaccination (DPT3) or DPT3 plus hepatitis B and poliomyelitis (penta); measles vaccination; care-seeking for acute respiratory infection; oral rehydration therapy for diarrhea; and the Composite Coverage Index. The health system performance was analyzed using the following standard Balanced Scorecard composite domains: client and community, human resources, physical capacity, quality of service provision, management systems, and overall mission. Child stunting, wasting, underweight, and co-occurrence of stunting and wasting were estimated using World Health Organization growth reference cutoffs.

**Results** Responses from 64 815 women (mean [SD] age, 31.0 [8.5] years) were analyzed. Provinces with

minimal-intensity conflict had greater gains in contraceptive use (mean annual percentage point change [MAPC], 1.3% vs 0.5%;  $P < .001$ ), SBA (MAPC, 2.7% vs 1.5%;  $P = .005$ ), BCG vaccination (MAPC, 3.3% vs  $-0.5\%$ ;  $P = .002$ ), measles vaccination (MAPC, 1.9% vs  $-1.0\%$ ;  $P = .01$ ), and DPT3/penta vaccination (MAPC, 1.0% vs  $-2.0\%$ ;  $P < .001$ ) compared with provinces with moderate- to severe-intensity conflict after controlling for confounders. Provinces with severe-intensity conflict fared significantly worse than those with minimal-intensity conflict in functioning infrastructure (MAPC,  $-1.6\%$  [95% CI,  $-2.4\%$  to  $-0.8\%$ ]) and the client background and physical assessment index (MAPC,  $-1.0\%$  [95% CI,  $-0.8\%$  to  $2.7\%$ ]) after adjusting for confounders. Child wasting was significantly worse in districts with greater conflict severity (full adjusted  $\beta$  for association between logarithm of battle-related deaths and wasting, 0.33 [95% CI, 0.01-0.66];  $P = .04$ ).

**Conclusions and Relevance** Associations between conflict and maternal and child health in Afghanistan differed by health care intervention and delivery domain, with several key indicators lagging behind in areas with higher-intensity conflict. These findings may be helpful for planning and prioritizing efforts to reach the United Nations' Sustainable Development Goals in Afghanistan.

(62 references) (Author)

**Full URL:** <https://doi.org/10.1001/jamanetworkopen.2019.14819>

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### 20190923-44\*

**Fertility and family planning in Uttar Pradesh, India: major progress and persistent gaps.** Halli SS, Ashwini D, Dehury B, et al (2019), *Reproductive Health* vol 16, no 129, 23 August 2019

#### Background

Uttar Pradesh (UP) is the most populous state in India with historically high levels of fertility rates than the national average. Though fertility levels in UP declined considerably in recent decades, the current level is well above the government's target of 2.1.

#### Data and methods

Fertility and family planning data obtained from the different rounds of Sample Registration System (SRS) and the National Family Health Survey (NFHS). We analyzed fertility and family planning trends in India and UP, including differences in methods mix, using SRS (1971-2016) and NFHS (1992-2016). Bivariate and multivariate regression analyses were used.

#### Results

From 2000, while the total fertility rate (TFR) declined in UP, it is still well above the national level in 2015-16 (2.7 vs 2.18, respectively). The demand for family planning satisfied increased from 52 to 72% during 1998-99 to 2015-16 in UP, compared to an increase from 75 to 81% in India. Traditional methods play a much greater role in UP than in India (22 and 9% of the demand satisfied respectively), while use of sterilization was relatively low in UP when compared to the national averages (18.0 and 36.3% of current married women 15-49 years in UP and India, respectively in 2015-16).

Within UP, district fertility ranged from 1.6 to 4.4, with higher fertility concentrated in districts with low female schooling, predominantly located in north-central UP. Fertility declines were largest in districts with high fertility in the late nineties ( $B = 7.33$ ,  $p < .001$ ). Among currently married women, use of traditional methods increased and accounted for almost one-third of users in 2015-16. Use of sterilization declined but remained the primary method (ranging from 33 to 41% of users in high and low fertility districts respectively) while condom use increased from 17 and 16% in 1998-99 to 23 and 25% in 2015-16 in low and high fertility districts respectively.

#### Conclusions and implications

Greater reliance on traditional methods and condoms coupled with relatively low demand for modern contraception suggest inadequate access to modern contraceptives, especially in district with high fertility rates. Family planning activities need to be appropriately scaled according to need and geography to ensure the achievement of state-level improvements in family planning programs and fertility outcomes.

(22 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

**Full URL:** <https://doi.org/10.1186/s12978-019-0790-x>

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### 20190918-14\*

**Availability of Safe Childbirth Supplies in 284 Facilities in Uttar Pradesh, India.** Galvin G, Hirschhorn LR, Shaikh M, et al (2019), *Maternal and Child Health Journal* vol 23, no 2, February 2019, pp 240-249

**Objectives** Vital to implementation of the World Health Organization (WHO) Safe Childbirth Checklist (SCC), designed to improve delivery of 28 essential birth practices (EBPs), is the availability of safe birth supplies: 22 EBPs on the SCC require one or more supplies. Mapping availability of these supplies can determine the scope of shortages and need for supply chain strengthening. **Methods** A cross-sectional survey on the availability of functional and/or unexpired supplies was assessed in 284 public-sector facilities in 38 districts in Uttar Pradesh, India. The twenty-three supplies

were categorized into three non-mutually exclusive groups: maternal (8), newborn (9), and infection control (6). Proportions and mean number of supplies available were calculated; means were compared across facility types using t-tests and across districts using a one-way ANOVA. Log-linear regression was used to evaluate facility characteristics associated with supply availability. Results Across 284 sites, an average of 16.9 (73.5%) of 23 basic childbirth supplies were available: 63.4% of maternal supplies, 79.1% of newborn supplies, and 78.7% of infection control supplies. No facility had all 23 supplies available and only 8.5% had all four medicines assessed. Significant variability was observed by facility type and district. In the linear model, facility type and distance from district hospital were significant predictors of higher supply availability. Conclusions for Practice In Uttar Pradesh, more remote sites, and primary and community health centers, were at higher risk of supply shortages. Supply chain management must be improved for facility-based delivery and quality of care initiatives to reduce maternal and neonatal harm. (Author)

Full URL: <https://doi.org/10.1007/s10995-018-2642-7>

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#### 20190912-160\*

**Utilisation, equity and determinants of full antenatal care in India: analysis from the National Family Health Survey 4.** Kumar G, Choudhary TS, Srivastava A, et al (2019), BMC Pregnancy and Childbirth vol 19, no 327, 5 September 2019

##### Objectives

We examined the utilisation, equity and determinants of full antenatal care (ANC), defined as 4 or more antenatal visits, at least one tetanus toxoid (TT) injection and consumption of iron folic acid (IFA) for a minimum of 100 days, in India.

##### Methods

We analysed a sample of 190,898 women from India's National Family Health Survey 4. Concentration curves and concentration index were used to assess equity in full ANC utilisation. Multivariable logistic regression model was used to examine the factors associated with full ANC utilisation.

##### Results

In India, 21% of pregnant women utilised full ANC, ranging from 2.3-65.9% across states. Overall, 51.6% had 4 or more ANC visits, 30.8% consumed IFA for atleast 100 days, and 91.1% had one or more doses of tetanus toxoid. Full ANC utilisation was inequitable across place of residence, caste and maternal education. Registration of pregnancy, utilisation of government's Integrated Child Development Services (ICDS) and health insurance coverage were associated with higher odds of full ANC utilisation. Lower maternal education, lower wealth quintile(s), lack of father's participation during antenatal visits, higher birth order, teenage and unintended pregnancy were associated with lower odds of full ANC utilisation.

##### Conclusions

Full ANC utilisation in India was inadequate and inequitable. Although half of the women did not receive the minimum recommended ANC visits, the utilisation of TT immunisation was almost universal. The positive association of full ANC with ICDS utilisation and child's father involvement may be leveraged for increasing the uptake of full ANC. Strategies to address the socio-demographic factors associated with low and inequitable utilisation of full ANC are imperative for strengthening India's maternal health program.

(30 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12884-019-2473-6>

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#### 20190912-158\*

**Knowledge, attitude, and practice among mothers about newborn care in Sindh, Pakistan.** Memon J, Holakouie-Naieni K, Majdzadeh R, et al (2019), BMC Pregnancy and Childbirth vol 19, no 329, 6 September 2019

##### Background

Each year nearly 7.7 million children under five years die around the world; out of which approximately 3.1 million of the newborns die during the neonatal period and almost all these (99%) deaths occur in the developing countries. According to the World Health Organization's estimation neonatal deaths account for 45% of the under-five deaths. More than one-third of these deaths occur in the first 24 h of birth, whereas three-quarter of the neonatal deaths takes place in the first seven days of birth. The purpose of this study is to assess the knowledge, attitude, and practices (KAP) among mothers about newborns' care and its related factors in district Badin Sindh province of Pakistan.

##### Methods

A community-based cross-sectional study was conducted from July 2017 to August 2017 to assess the Knowledge, Attitude, and Practices (KAP) in mothers regarding newborn care. A structured questionnaire was administered, after pretest, for data gathering through face to face interview. All survey participants were identified using multi-stage cluster sampling. A scoring system was used to calculate the level of KAP among participants. Independent sample t-test, ANOVA, and GLM were applied to identify the statistical difference between the means of various groups.

## Result

A total of 518 survey participants were interviewed. Among the study sample, more than half of the newborns were bathed within six hours of delivery. Around 50% started breastfeeding after 1 h of birth. A substantial proportion (45%) of mothers gave pre-lacteal feeding and 44.8% of them did not feed colostrum to their newborns. Among those who administered pre-lacteal to their newborn babies included animal/formula milk (15.4%), honey (24.5%) and fresh butter/ghee (5.2. %). Mothers with no education had less significant KAP score about newborn care as compared to those who had higher education ( $p < 0.05$ ).

## Conclusion

This study revealed that high-risk factors such as immediate bathing, application of traditional substances on the cord, delayed initiation of breastfeeding, discarding colostrum and giving pre-lacteal feed to newborns were highly prevalent. This requires urgent attention of Maternal, Newborn and Child Health (MNCH) programs and health care delivery system to prevent harmful care practices and adopt healthy practices especially in the rural settings.

(31 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12884-019-2479-0>

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## 20190906-43\*

**Villains or victims? An ethnography of Afghan maternity staff and the challenge of high quality respectful care.** Arnold R, van Teijlingen E, Ryan K, et al (2019), BMC Pregnancy and Childbirth vol 19, no 307, 22 August 2019

### Background

Healthcare providers are the vital link between evidence-based policies and women receiving high quality maternity care. Explanations for suboptimal care often include poor working conditions for staff and a lack of essential supplies. Other explanations suggest that doctors, midwives and care assistants might lack essential skills or be unaware of the rights of the women for whom they care. This ethnography examined the everyday lives of maternal healthcare providers working in a tertiary maternity hospital in Kabul, Afghanistan between 2010 and 2012. The aim was to understand their notions of care, varying levels of commitment, and the obstacles and dilemmas that affected standards.

### Methods

The culture of care was explored through six weeks of observation, 41 background interviews, 23 semi-structured interviews with doctors, midwives and care assistants. Focus groups were held with two diverse groups of women in community settings to understand their experiences and desires regarding care in maternity hospitals. Data were analysed thematically.

### Results

Women related many instances of neglect, verbal abuse and demands for bribes from staff. Doctors and midwives concurred that they did not provide care as they had been taught and blamed the workload, lack of a shift system, insufficient supplies and inadequate support from management. Closer inspection revealed a complex reality where care was impeded by low levels of supplies and medicines but theft reduced them further; where staff were unfairly blamed by management but others flouted rules with impunity; and where motivated staff tried hard to work well but, when overwhelmed with the workload, admitted that they lost patience and shouted at women in childbirth. In addition there were extreme examples of both abusive and vulnerable staff.

### Conclusions

Providing respectful quality maternity care for women in Afghanistan requires multifaceted initiatives because the factors leading to suboptimal care or mistreatment are complex and interrelated. Standards need enforcing and abusive practices confronting to provide a supportive, facilitating environment for both staff and childbearing women. Polarized perspectives such as 'villain' or 'victim' are unhelpful as they exclude the complex realities of human behaviour and consequently limit the scope of problem solving.

(67 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12884-019-2420-6>

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## 20190906-40\*

**Patterns and determinants of essential neonatal care utilization among underprivileged ethnic groups in Midwest Nepal: a mixed method study.** Sanjel K, Onta SR, Amatya A, et al (2019), BMC Pregnancy and Childbirth vol 19, no 310, 27 August 2019

### Background

Globally in 2017 neonatal death accounted for 46% of under-five deaths. Nepal is among the developing countries which has a high number of neonatal deaths. The rates are high among poor socio-economic groups, marginalized, as well as people living in remote areas of Nepal. This paper, thus tries to examine the utilization pattern and maternal,

household, and health service factors affecting underprivileged ethnic groups in Midwest Nepal.

#### Methods

A cross-sectional mixed method study was conducted from September 2017 to April 2018 in Bardiya district. Quantitative data were collected from a household survey of women who gave live births within the last 12 months prior to data collection (n = 362). Interviews were also undertaken with 10 purposively selected key informants. Logistic regression model was used to determine the factors associated with essential neonatal care utilization. Thematic analysis was undertaken on the qualitative data.

#### Results

Overall, neonatal care utilization was 58.6% (53.3-63.7%), with big variations seen in the coverage of selected neonatal care components. Factors such as birth order (2.059, 1.13-3.75), ethnicity (2.28, 1.33-3.91), religion (2.37, 1.03-5.46), perceived quality of maternal and neonatal services (2.66, 1.61-4.39) and awareness on immediate essential newborn cares (2.22, 1.28-3.87) were identified as the determining factors of neonatal care utilization.

#### Conclusions

The coverage of birth preparedness and complication readiness, adequate breastfeeding, and postnatal care attendance were very low as compared to the national target for each component. The determinants of essential neonatal care existed at maternal, household as well as health facility level and included ethnicity, religion, perceived quality of maternal and neonatal services, birth order and awareness on immediate essential newborn care. Appropriate birth spacing, improving the quality of maternal and neonatal services at health facilities and raising mother's level of awareness about neonatal care practices are recommended.

(48 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12884-019-2465-6>

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#### 20190807-39\*

**The effect of maternal health service utilization in early initiation of breastfeeding among Nepalese mothers.** Ghimire U (2019), International Breastfeeding Journal vol 14, no 33, 31 July 2019

#### Background

The World Health Organization (WHO) recommends early initiation of breastfeeding and exclusive breastfeeding for six months. Understanding the association of maternal health services and early initiation of breastfeeding might be useful on prioritizing the health services to promote early breastfeeding practices. The purpose of this study was to examine the association between utilization of maternal health services and early initiation of breastfeeding among Nepalese mothers.

#### Methods

Nationally representative data from the 2016 Nepal Demographic Health Survey (NDHS) was used to determine the association between early initiation of breastfeeding and variables related to maternal health services utilization. Association was measured by using Chi-square test followed by calculation of adjusted odds ratio (AOR) and 95% confidence intervals (CI) using multivariable logistic regression analysis.

#### Results

Out of 1,978 children, 55% were breastfed within an hour of birth. Early initiation of breastfeeding was associated among mothers who delivered at the health facilities (AOR 2.22; 95% CI 1.36, 3.60). Mothers who had a vaginal birth (AOR 6.70; 95% CI 4.30, 10.42) were significantly more likely to breastfeed within an hour of birth compared to mothers who had caesarean delivery. The odds of initiating early breastfeeding were higher among mothers from Province 5 (AOR 1.59; CI 1.02, 2.48), Province 6 (AOR 2.58; 95% CI 1.41, 4.69) and Province 7 (AOR 2.30; CI 1.36, 3.87).

#### Conclusions

Health facility delivery and a vaginal delivery were strongly associated with early initiation of breastfeeding. It is vital to intensify maternal health service up to the community to aware pregnant women to utilize maternal health services to improve breastfeeding practices. Skilled Birth Attendant (SBA) training should include comprehensive breastfeeding counselling package to motivate mothers to initiate early breastfeeding especially for mothers having caesarean delivery.

(42 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s13006-019-0228-7>

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#### 20190801-5\*

**Readiness of public health facilities to provide quality maternal and newborn care across the state of Bihar, India: a cross-sectional study of district hospitals and primary health centres.** Kaur J, Franzen SRP, Newton-Lewis T, et al (2019), BMJ Open vol 9, no 7, July 2019, e028370

Introduction Poor access to quality healthcare is one of the most important reasons of high maternal and neonatal

mortality in India, particularly in poorer states like Bihar. India has implemented initiatives to promote institutional maternal deliveries. It is important to ensure that health facilities are adequately equipped and staffed to provide quality care for mothers and newborns.

**Methods** We conducted a cross-sectional study of 190 primary health centres (PHCs) and 36 district hospitals (DHs) across all districts in Bihar to assess the readiness of facilities to provide quality maternal and neonatal care. Infrastructure, equipment and supplies and staffing were assessed using the WHO service availability and readiness assessment and Indian public health standard guidelines. Additionally, we used household survey data to assess the quality of care reported by mothers delivering at study facilities.

**Results** PHCs and DHs were found to have 61% and 67% of the mandated structural components to provide maternal and neonatal care, on average, respectively. DHs were, on average, slightly better equipped in terms of infrastructure, equipment and supplies by comparison to PHCs. DHs were found to be inadequately prepared to provide neonatal care. Lack of recommended handwashing stations and bins at both DHs and PHCs suggested low levels of hygiene. Only half of the essential drugs were available in both DHs and PHCs. While no association was revealed between structural capacity and patient-reported quality of care, adequacy of staffing was positively associated with the quality of care in DHs.

**Conclusion** Examining all DHs and a representative sample of PHCs in Bihar, this study revealed the gaps in structural components that need to be filled to provide quality care to mothers and newborns. Access to quality care is essential if progress in reducing maternal and neonatal mortality is to be achieved in this high-burden state. (Author)

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### 20190801-12\*

**Women's decision versus couples' decision on using postpartum intra-uterine contraceptives.** Husain S, Izhar R (2019), Eastern Mediterranean Health Journal vol 25, no 5, May 2019, pp 322-330

**Background:** In conservative societies of low- and middle-income countries, the decision-making process is heavily influenced by male partners. **Aims:** To assess the male partner's influence on female partner's ultimate decision regarding uptake of postpartum intrauterine contraceptive device (PPIUCD) **Methods:** This was a prospective, analytical study conducted at Abbasi Shaheed Hospital, Karachi, Pakistan, from 1 March 2016 to 30 August 2016. The study included 566 pregnant women who were counselled regarding postpartum contraception (PPC) and asked to choose their preferred method. The choice was noted before and after discussion with their spouse. Discordance was assessed using McNemar's test for paired samples, taking  $P \leq 0.05$  as statistically significant. **Results:** Among those counselled, 470 (83.03%) showed willingness to accept PPC. Out of these, 142 (30.2%) chose PPIUCD initially. After discussion with their spouse, only 82 (17.4%) accepted PPIUCD. The discordance between original decision of the woman and final decision to accept PPIUCD was statistically significant ( $P < 0.001$ ). **Conclusions:** The discordance between original decision and final decision shows considerable influence by males on uptake of PPIUCD. (31 references) (Author)

**Full URL:** <http://www.emro.who.int/emhj-volume-25-2019/volume-25-issue-5/womens-decision-versus-couples-decision-on-using-postpartum-intra-uterine-contraceptives.html>

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### 20190729-1\*

**Improvement of Quality of Antenatal Care (ANC) Service Provision at the Public Health Facilities in Lao PDR: Perspective and Experiences of Supply and Demand Sides.** Phommachanh S, Essink DR, Jansen M, et al (2019), BMC Pregnancy and Childbirth vol 19, no 255, 22 July 2019

#### Background

The maternal mortality rate in Lao PDR (Laos) is still the highest in Southeast Asia, at 197 per 100,000 live births. Antenatal care (ANC) could contribute to maternal and child mortality reduction. The quality of ANC service remains inadequate and little information is available on the quality of health education and counseling services of health providers in Laos. This study aims to gain insight into the perceptions of stakeholders on both supply and demand sides of public ANC services in Laos and evidence for recommendations to improve the quality of ANC services.

#### Methods

Semi-structured interviews were conducted with 50 participants from different stakeholder groups; on the demand side, couples with a currently pregnant woman and mothers with children under one year of age and a family member; and on the supply side, health providers, managers, policy makers of the Ministry of Health, and development partners. The interviews were voice recorded and transcribed verbatim for analysis by open and thematic coding, using the MAXQDA software program.

#### Results

All respondents reported that the number of pregnant women who visit ANC services has increased. However, an analysis of the supply side identified issues related to the quality of ANC that need to be improved in the areas of

facilities, human resources, privacy and confidentiality, providers' behavior, attitudes, and ineffective communication skills when it comes to providing health education and counseling to pregnant women and their family members. The analysis of the demand side mainly emphasized the issues of providers' behavior, attitude, communication and unequal treatment, and the lack of privacy. Both sides also suggested solutions to the problems, such as training, effective materials, rewarding good role models, and building a feedback system.

#### Conclusion

The number of public ANC services has increased, but both supply and demand sides experienced challenges with the quality of ANC. All respondents proposed possible solutions to improve quality of ANC service in public health facilities in Laos.

(32 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

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#### 20190723-68\*

**National and rural-urban prevalence and determinants of early initiation of breastfeeding in India.** Senanayake P, O'Connor E, Ogbo FA (2019), BMC Public Health vol 19, no 896, 8 July 2019

#### Background

Early initiation of breastfeeding (EIBF) reduces the risk of neonatal mortality. Previous studies from India have documented some factors associated with EIBF. However, those studies used data with limited sample size that potentially affect the application of the evidence. Additionally, the effectiveness of national breastfeeding programmes requires up-to-date analysis of new and robust EIBF data. The present study aimed to investigate the prevalence and determinants of EIBF in India and determine to what extent these factors differ by a mother's residence in the rural or urban area.

#### Methods

This study used information from a total weighted sample of 94,401 mothers from the 2015-2016 India National Family Health Survey. Multivariate logistic regression was used to investigate the association between the study factors and EIBF in India and rural-urban populations, after adjusting for confounders and sampling weight.

#### Results

Our analysis indicated that 41.5% (95% confidence interval (CI): 40.9-42.5,  $P < 0.001$ ) of Indian mothers initiated breastfeeding within 1-h post-birth, with similar but significant different proportions estimated for those who resided in rural (41.0, 95% CI: 40.3-41.6,  $P < 0.001$ ) and urban (42.9, 95% CI: 41.7-44.2,  $P < 0.001$ ) areas. Mothers who had frequent health service contacts and those with higher educational attainment reported higher EIBF practice. Multivariate analyses revealed that higher educational achievement, frequent antenatal care visits and birthing in a health facility were associated with EIBF in India and rural populations (only health facility birthing for urban mothers). Similarly, residing in the North-Eastern, Southern, Eastern and Western regions were also associated with EIBF. Birthing through caesarean, receiving delivery assistance from non-health professionals and residing in rural areas of the Central region were associated with delayed EIBF in all populations.

#### Conclusion

We estimated that more than half of Indian mothers delayed breastfeeding initiation, with different rural-urban prevalence. Key modifiable factors (higher maternal education and frequent health service contacts) were associated with EIBF in India, with notable difference in rural-urban populations. Our study suggests that targeted and well-coordinated infant feeding policies and interventions will improve EIBF for all Indian mothers.

(79 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12889-019-7246-7>

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#### 20190703-23

**Social, economic and professional barriers influencing midwives' realities in Bangladesh: a qualitative study of midwifery educators preparing midwifery students for clinical reality.** Byrskog U, Akther HA, Khatoon Z, et al (2019), Evidence Based Midwifery vol 17, no 1, March 2019, pp 19-26

**Introduction.** Identifying existing barriers inhibiting the provision of quality care in Bangladesh can guide both the government, in fulfilling its commitment to establishing the midwifery profession, and midwifery educators, in preparing midwifery students for the reality of midwifery clinical work.

**Aim.** The aim of this study was to describe midwifery educators' perceptions of midwives' realities in Bangladesh, focusing on social, economic, and professional barriers preventing them from carrying out quality care.

**Methods.** Data were collected through focus group discussions with 17 midwifery educators and analysed using qualitative content analysis, guided by the analytical framework 'What prevents quality midwifery care?'. Ethical clearance was obtained from Bangladesh's Directorate General of Nursing and Midwifery.

Results. The results generated by the application of the framework included social barriers of gender structures in Bangladeshi society. This influenced entry into midwifery education, carrying out midwifery work safely, and the development of the profession. Economic barriers included challenges for Bangladesh as a low-income country with a large population, inadequate salaries, and staff shortages, adding extra strain to midwives' working conditions. These social and economic barriers were further enhanced by professional barriers due to the midwifery profession not yet being fully established or acknowledged in the health system. Conclusions and implications. The study presents novel country-specific perspectives but confirms the general underlying issues of gender inequality as a base for barriers preventing midwives from carrying out quality care, in line with the framework 'What prevents quality midwifery care?'. Addressing these structures can facilitate more students to enter midwifery education, enable quality midwifery work free from discrimination, and provide sufficient working space and professional integrity. Leadership training is pivotal to increasing responsiveness to the needs of the new cadre of midwives. Midwifery educators should take the lead in sensitising clinical supervisors, mentors, and preceptors about midwives' realities in Bangladesh. (Author)

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#### 20190702-78\*

**Guidelines on midwifery services in India.** Ministry of Health and Family Welfare, Government of India (2018), Ministry of Health and Family Welfare, Government of India December 2018

First national guideline on midwifery services published by the Government of India, stating that midwives will be educated to meet International Confederation of Midwives competencies and will be deployed in newly developed midwife-led clinics. (MB)

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#### 20190702-60\*

**Risk factors for low birth weight among rural and urban Malaysian women.** Kaur S, Ng CM, Badon SE, et al (2019), BMC Public Health vol 19, suppl 4, no 539, 13 June 2019

##### Background

Low birth weight prevalence in Malaysia remains high. Socioeconomic background may lead to differences in physical activity and maternal nutritional status, which may play an important role in birth outcomes.

##### Methods

This prospective cross-sectional study aimed to identify rural-urban differences in risk factors for low birth weight among women in Malaysia. Pregnant women at  $\geq 20$  weeks of gestation in urban and rural Malaysia ( $n = 437$ ) completed questionnaires on sociodemographic characteristics and physical activity. Weight and middle-upper arm circumference were measured. Infant birth outcomes were extracted from medical records.

##### Results

The overall prevalence of low birth weight infants was 6.38%. Rural women had more low birth weight infants than urban women (9.8% vs 2.0%,  $p = 0.03$ ). Findings showed rural women were less sedentary ( $p = 0.003$ ) and participated in more household/caregiving activities ( $p = 0.036$ ), sports activities ( $p = 0.01$ ) and less occupational activity ( $p < 0.001$ ) than urban women. Logistic regression revealed that older age (OR = 1.395, 95% CI = 1.053 to 1.846), low parity (OR = 0.256, 95% CI = 0.088-0.747) and low middle-upper arm circumference (OR = 0.738, 95% CI = 0.552 to 0.987) increased the risk of low birth weight infants in rural, but not in urban women.

##### Conclusions

We observed differences in risk factors for low birth weight between urban and rural pregnant women. Age, malnutrition and low parity were risk factors for low birth weight among rural pregnant women. Our findings suggest that rural pregnant women with low nutritional status should be encouraged to monitor their middle-upper arm circumference consistently throughout pregnancy. Improving nutritional status in rural pregnant women may reduce the risk of low birth weight infants in this population.

(49 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

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#### 20190628-30\*

**Two thirds of the most disadvantaged Dalit population of Nepal still do not deliver in health facilities despite impressive success in maternal health.** Chaurasiya SP, Pravana NK, Khanal V, et al (2019), PLoS ONE vol 14, no 6, 3 June 2019, e0217337

##### Introduction

The gains in maternal and child health in Nepal was impressive in the last two decade but success was unevenly distributed. The Dalits of Nepal are the most disadvantaged caste group and have benefitted least from the advances

in maternal health service. This study investigated the rate of and factors associated with the institutional delivery among the Dalit women of the Mahottari, Nepal.

#### Materials and methods

A cross-sectional study was conducted during July-December 2014 using a structured questionnaire. A total of 328 mothers who had their childbirth within one year were interviewed. Descriptive statistics followed by binary and multivariable logistic regression analyses were computed to find the association of key variables with institutional delivery.

#### Results

In this study, only 30% of the mother had institutional delivery. Fifty eight percent mothers had no any birth preparedness and complication readiness. Four or more antenatal visits (Adjusted Odds Ratio (AOR): 3.54, CI: 1.82-6.90), birth preparedness (AOR: 3.15, CI: 1.61-6.18), planned pregnancy (AOR: 2.63, CI: 1.37-5.06) and receiving advice from health staffs (AOR: 3.96, CI: 2.00-7.86) and mother's autonomy (AOR: 2.25, CI: 1.03-4.49) were associated with child birth at the health facility.

#### Conclusion

This study indicated that birth preparedness, ANC visit frequency, planning of pregnancy, advice for institutional delivery and mother's autonomy were significantly associated with health facility delivery. Less than one-third mothers had institutional delivery and reasons were feeling of un-necessary, far distance, lack of transportation and associated cost; and birth preparedness is also low. Hence, promotion of birth preparedness, uptake of ANC service, proper counselling for institutional delivery, promoting women autonomy and strengthening women to have planned pregnancy were some recommendation to promote institutional delivery for such disadvantage community. (31 references) (Author)

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#### 20190628-24\*

**Impact of maternal antepartum depressive and anxiety symptoms on birth outcomes and mode of delivery: a prospective cohort study in east and west coasts of Malaysia.** Nasreen HE, Pasi HB, Rifin SM, et al (2019), BMC Pregnancy and Childbirth vol 19, no 201, 14 June 2019

#### Background

Antepartum depressive and anxiety symptoms (ADS and AAS) are prevalent in Malaysia. Prior evidence linking maternal ADS and AAS with adverse birth outcomes and caesarean section (CS) or instrumental delivery is conflicting. There is no research in Malaysia on the association between maternal mental disorders and adverse birth outcomes and mode of delivery. This study aims to investigate the independent effect of maternal ADS and AAS on low birth weight (LBW), preterm birth (PTB) and CS or instrumental delivery among women in east and west coasts of Malaysia.

#### Methods

We used data from a prospective cohort study of 799 pregnant women from health clinics of two states in east and west coasts of Malaysia. Baseline data were measured at the third trimester of pregnancy on ADS, AAS, socioeconomic condition, anthropometric status, reproductive history and intimate partner violence. Birth outcomes and mode of delivery were determined at the time of delivery. Univariate and multiple Cox's regressions were applied to assess the association between ADS and AAS and LBW, PTB and CS or instrumental delivery.

#### Results

ADS was significantly associated with an increased risk of giving birth to LBW babies in both east coast (RR = 3.64; 95% CI 1.79-7.40) and west coast (RR = 3.82; 95% CI 1.86-7.84), but not with PTB. AAS was associated with increased risk of both LBW (RR = 2.47; 95% CI 1.39-4.38) and PTB (RR = 2.49; 95% CI 1.16-5.36) in the east coast, but not in west coast. The risk of CS or instrumental delivery was evident among women with ADS (RR = 2.44; 95% CI 1.48-4.03) in west coast only.

#### Conclusion

ADS predicts LBW in both coasts, AAS predicts LBW and PTB in east coast, and ADS predicts CS or instrumental delivery in west coast. Policies aimed at detection and management of ADS and AAS during antenatal check-up in health clinics may help improve birth outcomes and reduce obstetric interventions.

(45 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12884-019-2349-9>

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#### 20190626-97\*

**Choice of contraceptive methods in public and private facilities in rural India.** Mozumdar A, Gautam V, Gautam A, et al (2019), BMC Health Services Research vol 19, no 421, 25 June 2019

#### Background

Client-centric quality of care (QoC) in family planning (FP) services are imperative for contraceptive method adoption

and continuation. Less is known about the choice of contraceptive method in India beyond responses to the three common questions regarding method information, asked in demographic and health surveys. This study argues for appropriate measurement of method choice and assesses its levels and correlates in rural India.

#### Methods

A cross-sectional study was conducted with new acceptors of family planning method (N = 454) recruited from public and private health facilities in rural Bihar and Uttar Pradesh, the two most populous states in India. The key quality of care indicator 'method choice' was assessed using four key questions from client-provider interactions that help in making a choice about a particular method: (1) whether the provider asked the client about their preferred method, (2) whether the provider told the client about at least one additional method, (3) whether the client received information without any single method being promoted by the provider, and (4) client's perception about receipt of method choice. The definition of method choice in this study included women who responded 'yes' to all four questions in the survey. The relationship between contraceptive communication and receipt of method choice was assessed using logistic regression analyses, after adjusting for socio-demographic characteristics of the respondents.

#### Results

Although 62% of clients responded to a global question and reported that they received the method of their choice, only 28% received it based on responses about client-provider interactions. Receipt of the information on side-effects of the selected method (Adjusted Odds Ratio [AOR]: 7.4, 95% Confidence Interval [CI]: 3.96-13.86) and facility readiness to provide a range of contraceptive choice (AOR: 2.67, 95% CI: 1.48-4.83) were significantly associated with receipt of method choice.

#### Conclusions

Findings demonstrated that women's choice of contraceptive could be improved in rural India if providers give full information prior to and during the acceptance of a method and if facilities are equipped to provide a range of choice of contraceptive methods.

(32 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

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#### 20190613-81\*

**'Our fear is finished,' but nothing changes: efforts of marginalized women to foment state accountability for maternal health care in a context of low state capacity.** Schaaf M, Dasgupta J (2019), BMC Public Health vol 19, no 732, 11 June 2019

#### Background

Women in India are often asked to make informal payments for maternal health care services that the government has mandated to be free. This paper is a descriptive case study of a social accountability project undertaken by SAHAYOG, a nongovernmental organization in Uttar Pradesh, India. SAHAYOG worked with community-based organizations and a grassroots forum comprised of low caste, Muslim, and tribal women to decrease the prevalence of health provider demands that women and their families make informal payments.

#### Methods

The study entailed document review; interviews and focus group discussions with program implementers, governmental stakeholders, and community activists; and participant observation in health facilities.

#### Results

The study found that SAHAYOG adapted their strategy over time to engender greater empowerment and satisfaction among program participants, as well as greater impact on the health system. Participants gained knowledge resources and agency; they learned about their entitlements, had access to mechanisms for complaints, and, despite risk of retaliation, many felt capable of demanding their rights in a variety of fora. However, only program participants seemed successfully able to avoid making informal payments to the health sector; health providers still demanded that other women make payments. Several features of the micro and macro context shaped the trajectory of SAHAYOG's efforts, including deeply rooted caste dynamics, low provider commitment to ending informal payments, the embeddedness of informal payments, human resources scarcity, and the overlapping private interests of pharmaceutical companies and providers.

#### Conclusion

Though changes were manifest in certain fora, providers have not necessarily embraced the notion of low caste, tribal, or Muslim women as citizens with entitlements, especially in the context of free government services for childbirth. Grassroots advocates, CBOs, and SAHAYOG assumed a supremely difficult task. Project strategy changes may have made the task somewhat less difficult, but given the population making the rights claims and the rights they were claiming, widespread changes in demands for informal payments may require a much larger and stronger coalition.

#### Keywords

(72 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

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#### 20190517-15\*

**Do four or more antenatal care visits increase skilled birth attendant use and institutional delivery in Bangladesh? A propensity-score matched analysis.** Ryan BL, Krishnan RJ, Terry A, et al (2019), BMC Public Health vol 19, no 583, 16 May 2019

##### Background

With Bangladesh's adoption of the third Sustainable Development Goal to reduce maternal mortality, the impetus for Bangladesh to continue to improve uptake of maternal healthcare is strong.

##### Methods

Using a propensity-score matched analysis, the present study utilized data from the 2014 Bangladesh Demographic Health survey to examine the impact of four or more antenatal care visits on skilled birth attendant use and institutional delivery.

##### Results

The results revealed a significant and positive impact of four or more antenatal care visits on skilled birth attendant use and institutional delivery after matching treated and untreated mothers on included socio-demographic characteristics.

##### Conclusions

Implementation of policies to provide at least four antenatal care visits may serve as an effective strategy to increase SBA use and institutional delivery in Bangladesh, which could contribute to the reduction of maternal mortality.

(31 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12889-019-6945-4>

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#### 20190516-32\*

**Determinants of infant breastfeeding practices in Nepal: a national study.** Bhandari S, Thorne-Lyman AL, Shrestha B, et al (2019), International Breastfeeding Journal vol 14, no 14, 3 April 2019

##### Background

Optimal breastfeeding practices, reflected by early initiation and feeding of colostrum, avoidance of prelacteal feeds, and continued exclusivity or predominance of breastfeeding, are critical for assuring proper infant nutrition, growth and development.

##### Methods

We used data from a nationally representative survey in 21 district sites across the Mountains, Hills and Terai (southern plains) of Nepal in 2013. Determinants of early initiation of breastfeeding, feeding of colostrum, prelacteal feeding and predominant breastfeeding were explored in 1015 infants < 12 months of age. Prelacteal feeds were defined as food/drink other than breast milk given to newborns in first 3 days. Predominant breastfeeding was defined as a child < 6 months of age is mainly breastfed, not fed solid/semi-solid foods, infant formula or non-human milk, in the past 7 days. Adjusted prevalence ratios (APR) and 95% confidence intervals (CI) were estimated, using log Poisson regression models with robust variance for clustering.

##### Results

The prevalence of breastfeeding within an hour of birth, colostrum feeding, prelacteal feeding and predominant breastfeeding was 41.8, 83.5, 32.7 and 57.2% respectively. Compared to infants not fed prelacteal feeds, infants given prelacteal feeds were 51% less likely to be breastfed within the first hour of birth (APR 0.49; 95% CI 0.36, 0.66) and 55% less likely to be predominantly breastfed (APR 0.45; 95% CI 0.32, 0.62). Infants reported to have received colostrum were more likely to have begun breastfeeding within an hour of birth (APR 1.26; 95% CI 1.04, 1.54) compared to those who did not receive colostrum. Infants born to mothers  $\geq 20$  years of age were less likely than adolescent mothers to initiate breastfeeding within 1 hour of birth. Infants in the Terai were 10% less likely to have received colostrum (APR 0.90; 95% CI 0.83, 0.97) and 2.72 times more likely to have received prelacteal feeds (APR 2.72; 95% CI 1.67, 4.45) than those in the Mountains.

##### Conclusions

Most infants in Nepal receive colostrum but less than half initiate breastfeeding within an hour of birth and one-third are fed prelacteal feeds, which may negatively affect breastfeeding and health throughout early infancy.

(63 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s13006-019-0208-y>

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#### 20190509-5\*

## 'If we miss this chance, it's futile later on' - late antenatal booking and its determinants in Bhutan: a mixed-methods study.

Dorji T, Das M, Van den Bergh R, et al (2019), BMC Pregnancy and Childbirth vol 19, no 158, 7 May 2019

### Background

To achieve the Sustainable Development Goal related to maternal and neonatal outcomes, the World Health Organization advocates for a first antenatal care (ANC) contact before 12 weeks of gestation. In order to guide interventions to achieve early ANC in the lower middle-income setting of Bhutan, we conducted an assessment of the magnitude and determinants of late ANC in this context.

### Methods

This was a mixed-methods study with quantitative (cross-sectional study) and qualitative (in-depth interviews with pregnant women and ANC providers) component in a concurrent triangulation design. The quantitative component retrospectively analysed the socio-demographic and clinical characteristics, and the gestational age at booking of women who were provided care for delivery or miscarriages at the three tertiary hospitals in Bhutan from May-August 2018. The qualitative component involved thematic analysis of in-depth interviews with ten women attending ANC visits and four healthcare workers involved in ANC provision.

### Results

Among 868 women studied, 67% (n = 584) had a late booking (after 12 weeks), and 1% (n = 13) had no booking. Women with only primary education and those residing in rural areas were more likely to have a late first ANC booking. While many women achieved the recommended eight ANC visits, this did not necessarily reflect early booking. Late booking was common among multigravida women. The interviews illustrated a general understanding and recognition of the importance of early ANC. Support from peers, family and co-workers, and male participation in accessing ANC were seen as enablers. The outreach clinics (ORCs) at the primary healthcare level were an important means of reaching the ANC services to women in rural areas where geographical accessibility was a barrier. Specific barriers to early ANC were gender insensitivity in providing care through male health workers, cost/time in ANC visits, and the inability to produce the documents of the father for booking ANC.

### Conclusion

Late ANC booking was common in Bhutan, and appeared to be associated with educational, geographic, socio-cultural and administrative characteristics. A comprehensive information package on ANC needs to be developed for pregnant mothers, and the quality of ANC coverage needs to be measured in terms of early ANC booking.

(30 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12884-019-2308-5>

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## 20190426-30\*

**Recognising the challenges of providing care for Thai pregnant adolescents: healthcare professionals' views.** Jittitaworn W, Fox D, Catling C, et al (2020), Women and Birth: Journal of the Australian College of Midwives vol 33, no 2, March 2020, pp e182-e190

### Background

In Thailand, maternal complications and poor neonatal outcomes are common in pregnant adolescents. There are attempts to improve outcomes for this group through specialised antenatal clinics, however, neither the way in which these clinics are provided nor the attitudes of healthcare professionals to pregnant adolescents are known. The aim of this study was to understand the experiences of healthcare professionals in caring for pregnant adolescent women in Thailand.

### Methods

A qualitative descriptive design was used. Semi-structured interviews were conducted with 21 healthcare professionals involved in caring for pregnant adolescents across three public hospitals in Bangkok, Thailand. All interviews were analysed thematically.

### Results

The core concept 'recognising the challenges of providing care for young Thai pregnant women' explained the provision of care. This concept contained three main themes: 1) having an awareness of the political and societal contexts and environment of care; 2) being aware of attitudes and the need to develop psychosocial skills in caring for adolescent women; and 3) having different approaches to caring for pregnant adolescents. A lack of continuity of care was a significant barrier in terms of structure and process. Effective communication was important to provide quality care.

### Conclusion

Healthcare professionals recognised that there were barriers to providing effective care for adolescent women. These findings may inform healthcare professionals and policymakers in Thailand in relation to the systems of care required and addressing the needs of pregnant adolescents. This would enable Thailand to meet the goal in providing a positive pregnancy experience for all women. (47 references) (Author)

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## 20190412-37\*

**Risk of adverse pregnancy outcomes and seroprevalence for brucellosis in pregnant women exposed to goats or raw goat products in southern Thailand: a prospective cohort study.** Kledmanee K, Liabsuetrakul T, Sretrirutchai S (2019), BMC Pregnancy and Childbirth vol 19, no 118, 5 April 2019

### Background

Pregnant women infected with brucellosis have been shown to have higher odds of having been exposed to goats and raw goat products and adverse pregnancy outcomes. However, information on these associations in asymptomatic pregnant women is limited, particularly in the brucellosis-endemic areas. This study aimed to assess the association of a history of exposure to goats and/or raw goat products and the serological status of anti-Brucella abortus immunoglobulin G (IgG) with adverse pregnancy outcomes among pregnant women, and explore factors associated with having exposure to goats and/or raw goat products.

### Methods

A prospective cohort study was conducted among pregnant women from July 2015 to July 2016 at Songkhla province in southern Thailand. All pregnant women who came for antenatal care (ANC) visits were approached. Blood samples from the women who agreed to participate were randomly tested for anti-Brucella abortus IgG. The women were then followed for adverse pregnancy outcomes.

### Results

Of 666 pregnant women, the majority (74.4%) were aged 20-34 years and Muslim (89.2%), 30.6% indicated exposure to goats or raw goat products, and 17.3% had adverse pregnancy outcomes. Women rearing goats at home or having neighbors rearing goats were more likely to be exposed to goats or raw goat products by cutaneous contact. Of 465 women having a blood test, 3.7% had seropositive results for anti-Brucella abortus IgG. No association with adverse pregnancy outcomes was found in the women reporting any exposure to goat and raw goat products. Having the first ANC visit at the first trimester and history of preterm birth or low birth weight newborn were independent risk factors of adverse pregnancy outcomes. Women who had positive serological results were more likely to have a history of drinking raw goat milk than those who had negative results significantly.

### Conclusions

Although no association between past exposure with goats and raw goat products and adverse pregnancy outcomes was found, women with past exposure showed positive anti-Brucella abortus IgG. Counseling on avoiding consumption of raw goat milk would be beneficial to prevent goat-related infection in pregnant women in this area.

(49 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12884-019-2267-x>

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## 20190403-36\*

**Advice on healthy pregnancy, delivery, motherhood and information on non-communicable diseases in the maternal care programme in Myanmar: a cross-sectional study.** Okawa S, Win HH, Nanishi K, et al (2019), BMJ Open vol 9, no 3, March 2019, e025186

Objective Pregnancy and delivery periods offer an opportunity for counselling women to improve behavioural risk and prevent complications, including non-communicable diseases (NCDs). However, little evidence is available on counselling offered during antenatal and postnatal care (PNC) in Myanmar. This study aimed to assess the contents of advice and information received by women during antenatal and postnatal counselling and to identify factors associated with receiving those advice and information.

Design Cross-sectional study.

Setting A predominantly rural township in the Ayeyawady region and a predominantly urban township in the Yangon region.

Participants 1500 women who had given birth in the last 6 weeks to 12 months prior to the survey.

Outcome measures Receiving advice on 18 items during antenatal counselling, 10 items during postnatal counselling and information on five major NCDs during antenatal care (ANC).

Results Nearly 52% of women received advice on 18 items during antenatal counselling, and 60% received advice on 10 items during postnatal counselling. About 28% received information on five NCDs during ANC. Women who were living in the Yangon site, who had primary school education or lower and who experienced complications were less likely to receive advice on all items during both antenatal and postnatal counselling. Women who received PNC outside of a healthcare facility and were primiparas were also less likely to receive advice on all items during postnatal counselling. Women living in the Yangon site and those who utilised a private care facility were less likely to receive information on NCDs.

Conclusions Only 60% of women received advice on healthy pregnancy, delivery and motherhood, whereas 30%

received information on NCDs. Although non-modifiable maternal factors were associated with these results, counselling practice can be improved and information on NCDs can be offered as the first step of integrated NCDs care in maternal care programme in Myanmar. (Author)

Full URL: <https://doi.org/10.1136/bmjopen-2018-025186>

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#### 20190402-55\*

**Prevention of Zika virus infection: Knowledge, attitudes, and practices of pregnant women in Korea.** Park S, Choi JS, Kim Y (2018), Health Care for Women International vol 39, no 11, 2018, pp 1209-1220

This study was performed to investigate the association of knowledge, attitudes, and preventive practices for the prevention of Zika virus infection. The study sample consisted of 185 pregnant women in Korea. The Zika virus-related knowledge and attitude of pregnant women significantly affected preventive practices. The younger pregnant women and pregnant women who had not taken the influenza vaccine had lesser preventive practices of the Zika virus, thereby necessitating educating them and emphasizing good preventive practices. Our results suggest that systematic education and effective prevention programs for Zika virus will contribute to the prevention of infection. (26 references) (Author)

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#### 20190402-54\*

**Maternal health in India: A survey of birth attendant competency through completeness of prescribed care during perinatal visits, in 12 randomly chosen districts of Uttar Pradesh, India.** Jaffari A, Troxel SAB (2018), Health Care for Women International vol 39, no 11, 2018, pp 1193-1208

We assessed the completeness of care provided during perinatal visits at public institutions in Uttar Pradesh (UP), India. Self-reported data from 53 interviews with birth attendants throughout 12 districts in UP showed that 52% of the items from a procedural checklist were covered during visits. Routine visits were found to be incomplete, provider training related to pharmaceuticals and counseling were suggested to be low, and the monitoring of vitals to be infrequent and inconsistent. We suggest further grassroots research be conducted in developing nations so that strategic and precise reform can be made to lower global maternal mortality. (21 references) (Author)

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#### 20190320-30\*

**Use of maternal health services among women in the ethnic rural areas of western China.** Wu Y, Zhou H, Wang Q, et al (2019), BMC Health Services Research vol 19, no 179, 19 March 2019

##### Background

The use of maternal health services can markedly promote the maternal health and safety, but there has been a low utilization rate in the ethnic rural areas of western China. Furthermore, the correlated factors have not been well studied. This study aims to assess factors related to the use of maternal health services among women in these areas.

##### Methods

A cross-sectional study of 68 villages in China's western Sichuan province was conducted in September 2014. All qualifying women from each sample village were involved. A structured questionnaire was administered in households through face-to-face interviews by trained enumerators to obtain information of use of maternal health services and related factors. Structural equation modeling (SEM) was used to evaluate the direct and indirect relationships between use of maternal health services and correlated factors.

##### Results

A total of 760 women from 68 villages were enrolled. The proportion of antenatal care (ANC), hospital delivery and postpartum visits were 68.94, 48.29 and 28.42% respectively. The SEM analysis demonstrated that social economic status (SES) ( $\beta = -0.75$ ,  $\beta < 0.01$ ), ANC ( $\beta = 0.13$ ,  $\beta < 0.01$ ), and time from home to the nearest hospital ( $\beta = -0.09$ ,  $\beta < 0.05$ ), were positively correlated to hospital delivery and postpartum care visits, while maternal care knowledge and perceived quality of hospital care did not have direct correlation. For ANC, SES ( $\beta = -0.36$ ,  $\beta < 0.01$ ), time from home to the nearest hospital ( $\beta = -0.13$ ,  $\beta < 0.05$ ), knowledge on maternal care ( $\beta = 0.12$ ,  $\beta < 0.01$ ) and perceived quality of hospital care ( $\beta = 0.10$ ,  $\beta < 0.01$ ) were all directly correlated factors. Treating ANC as an intermediate variable showed the indirect relationship that perceived quality of hospital care ( $\beta = 0.01$ ,  $\beta < 0.01$ ) and maternal care knowledge ( $\beta = 0.02$ ,  $\beta < 0.01$ ) had with hospital delivery and postpartum care rates.

##### Conclusions

Use of maternal health services is low among women in ethnic rural areas. ANC has important direct and intermediate effects on subsequent use of hospital delivery and postpartum care. Improving ANC behavior should be a priority of maternal health care reforms. Given the long travel times for these women, reforms must also prioritize breaking down practical barriers that prevent this population from accessing care.

### 20190307-42\*

**The salt between the beans: a qualitative study of the role of auxiliary midwives in a hard-to-reach area of Myanmar.** Than KK, Luchters S, Nwe Tin K, et al (2019), BMC Health Services Research vol 19, no 138, 28 February 2019

#### Background

Auxiliary Midwives (AMWs) are unpaid volunteer health workers assisting qualified paid midwives in maternal and child health care mainly in hard-to-reach areas of Myanmar. This paper describes the relationship between AMWs and the health system in providing maternal and child services as perceived by the community, AMWs themselves and health care providers in one remote township of Myanmar.

#### Method

A qualitative study was conducted in Ngape Township, Myanmar. A total of 15 focus group discussions with midwives, AMWs, community members and mothers were conducted. Ten key informant interviews were performed with national, district and township level health planners and implementers of maternal and child health services. Thematic analysis was done using the ATLAS.ti software.

#### Results

AMWs occupy a unique position between the community and the health sector in the study township. The relationship and trust with the community is built upon prolonged presence providing health care, skill building and fulfilling community expectations. Health care providers' expectations to provide only preventive care, health promotion and education and childbirth care are often exceeded in reality when emergencies occur in hard-to-reach areas. This challenge to handle emergency situations with no support and limited skills and training is considered as most difficult by the AMWs. This mismatch of service provision expectations by both the community and other health care providers has put AMWs in a position which they describe as being the 'salt between the beans' an essential ingredient but often invisible between the beans.

#### Conclusion

The trust and relationship developed by AMWs over four decades of community practice serving as the mediator role is an untapped resource that can facilitate future community-based maternal and child health interventions in Myanmar.

(27 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

### 20190124-45\*

**Correlates of knowledge on birth defects and associated factors among antenatal mothers in Galle, Sri Lanka: a cross-sectional analytical study.** De Silva J, Amarasena S, Jayaratne K, et al (2019), BMC Pregnancy and Childbirth vol 19, no 35, 17 January 2019

#### Background

Birth defects (BD) are considered a leading cause of childhood morbidity and mortality. Personal, cultural, and health care system barriers may increase the incidence of BD in low and middle income countries. In this study we assessed the knowledge of antenatal mothers on BD, associated factors, and prevention and management.

#### Methods

Three hundred and fifty (350) antenatal mothers were surveyed using a pretested, self-administered questionnaire. The knowledge on BD was evaluated under 3 categories; knowledge on BD, knowledge on associated factors, and knowledge on prevention and management. The total scores were calculated for each category and converted into percentages. A higher percentage score indicates a high level of knowledge. Descriptive statistics and regression models were used for data analysis. Level of significance was considered as  $p < 0.05$ .

#### Results

Mean age of the participants was 28.7 years (SD = 5.2). The age range was 17-44 years. Most of the participants (79%) had studied up to secondary or tertiary education. The average scores of knowledge on BD, associated factors, and prevention and management of BD were 57.6% (95% CI = 52.3-62.9%), 55.1% (95% CI = 49.8-60.4%) and 58.8% (95% CI = 53.5-64.1%) respectively. The average score on the overall total knowledge was 56.4% (95% CI = 51.1-61.7%). Mother's level of education, monthly income of the family and number of clinic visits made by the mother were found to be positively associated with the overall knowledge. About 62% of the participants had taken folic acid (FA) preconceptionally, a major preventive factor of BD associated with the nervous system. Folic acid intake was positively associated with age and educational level, but negatively associated with parity. Media (36.9%) and Public Health Midwives (PHMs) (20%) were found to be the major sources of knowledge on BD, associated factors and prevention in

this target group.

#### Conclusions

The average overall knowledge on BD in this group of antenatal mothers was moderate. Thus, there is a need to improve the knowledge in eligible women to reduce the occurrence of BD, ideally before they become pregnant. Media and PHMs were seem to be the effective and possible resources that can be used to educate the community on BD, associated factors and prevention of BD in Sri Lanka.

(31 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

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#### 20190123-79\*

**An investigation into mistreatment of women during labour and childbirth in maternity care facilities in Uttar Pradesh, India: a mixed methods study.** Sharma G, Penn-Kekana L, Halder K, et al (2019), *Reproductive Health* vol 16, no 7, 23 January 2019

#### Objectives

To investigate the nature and context of mistreatment during labour and childbirth at public and private sector maternity facilities in Uttar Pradesh, India.

#### Methods

This study analyses mixed-methods data obtained through systematic clinical observations and open-ended comments recorded by the observers to describe care provision for 275 mothers and their newborns at 26 hospitals in three districts of Uttar Pradesh from 26 May to 8 July 2015. We conducted a bivariate descriptive analysis of the quantitative data and used a thematic approach to analyse qualitative data.

#### Findings

All women in the study encountered at least one indicator of mistreatment. There was a high prevalence of not offering birthing position choice (92%) and routine manual exploration of the uterus (80%) in facilities in both sectors. Private sector facilities performed worse than the public sector for not allowing birth companions ( $p = 0.02$ ) and for perineal shaving ( $p < 0.001$ ), whereas the public sector performed worse for not ensuring adequate privacy ( $p < 0.001$ ), not informing women prior to a vaginal examination ( $p = 0.01$ ) and for physical violence ( $p = 0.04$ ). Prepared comments by observers provide further contextual insights into the quantitative data, and additional themes of mistreatment, such as deficiencies in infection prevention, lack of analgesia for episiotomy, informal payments and poor hygiene standards at maternity facilities were identified.

#### Conclusions

Mistreatment of women frequently occurs in both private and public sector facilities. This paper contributes to the literature on mistreatment of women during labour and childbirth at maternity facilities in India by articulating new constructs of overtreatment and under-treatment. There are five key implications of this study. First, a systematic and context-specific effort to measure mistreatment in public and private sector facilities in high burden states in India is required. Second, a training initiative to orient all maternity care personnel to the principles of respectful maternity care would be useful. Third, innovative mechanisms to improve accountability towards respectful maternity care are required. Fourth, participatory community and health system interventions to support respectful maternity care would be useful. Lastly, we note that there needs to be a long-term, sustained investment in health systems so that supportive and enabling work-environments are available to front-line health workers.

(61 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12978-019-0668-y>

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#### 20190123-76\*

**Prevalence and determinants of Caesarean delivery in Punjab,**

**Pakistan.** Abbas F, Amir ud Din R, Sadiq M (2018), *Eastern Mediterranean Health Journal* vol 24, no 11, November 2018, pp 1058-1065

Background: Caesarean section (C-section) is a life-saving obstetric procedure that reduces maternal mortality and improves reproductive health. Although, vaginal delivery is still an important safe and low-cost method of delivery, C-section is sometimes performed when it is not even required, which creates health challenges for pregnant women and their newborn infants. Aims: To estimate the effect of a set of institutional, demographic, socioeconomic and spatial variables on C-section delivery ( $n = 2424$ ) in Punjab, Pakistan. Methods: We used data from the Multiple Indicator Cluster Survey Punjab 2014 and multiple logistic regression analysis. Analysis was carried out using STATA version 12. Results: Higher maternal age at first marriage, higher number of antenatal care visits, and higher wealth quintiles were associated with higher risk of C-section. Women in Punjab were more likely to deliver through C-section in private health facilities and there was no significant difference between urban and rural areas. There was

a significant difference in the risk of C-section in different divisions of Punjab, for example, DG Khan and Rawalpindi showed the lowest risk compared with the reference division of Bahawalpur, which is partially explained by the developmental disparities and access to public healthcare facilities. Conclusions: The government should facilitate access to healthcare facilities in areas that are easily accessible, especially, to rural women. (30 references) (Author)

Full URL: <https://doi.org/10.26719/2018.24.11.1058>

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#### 20190110-94\*

**A community led innovation benefiting women and children: Health facilities and credit cooperative work together to promote maternal health care in Sahare VDC, Nepal.** Flueckiger RM, Colaco R, Adhikari B, et al (2018), Health Care for Women International vol 39, no 9, 2018, pp 1008-1019

Monetary incentives effectively promote antenatal care (ANC) attendance. However, in Nepal, late release of incentives is common, which leads to delays in payment to mothers, thereby negating the intended motivation. We evaluate a novel innovation where community organizers partnered with a Women's Saving and Credit Cooperative to provide interest-free loans for timely distribution to mothers. Through focus group discussions and interviews we found that monetary incentives motivate women to seek ANC services and timely incentives provide critical commodities postpartum. This qualitative evaluation shows the importance of timeliness in delivery of incentives and demonstrates the success of a community partnership innovation. (19 references) (Author)

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#### 20190110-118\*

**Assessment of country policies affecting reproductive health for adolescents in the Philippines.** Melgar JLD, Melgar AR, Festin MPR, et al (2018), Reproductive Health vol 15, no 205, 12 December 2018

##### Background

Adolescents in the Philippines face many legal, social and political barriers to access sexual and reproductive health (SRH) services, putting them at higher risk of unplanned pregnancy, abortion, sexually transmitted infections and HIV, and other health and development problems.

##### Objective

This study aims to evaluate whether current normative documents on SRH in the Philippines are in concurrence with adolescents' human rights principles using the World Health Organization (WHO) Guidance and Recommendations on ensuring human rights in the provision of contraceptive information and services.

##### Methods

The review focused on policies and normative guidance documents which included the national reproductive health law, its implementing rules and regulations, and the Supreme Court decisions on the law, and documents cited in the government's Adolescent and Youth Health Programme. Also included were documents identified through keyword searches in an online database of the health department. We assessed these documents on their agreement or non-agreement with WHO recommendations, and the presence or absence of adolescent-specific content.

##### Results

Of nine WHO summary recommendations, Philippine normative documents are in agreement with four, namely on acceptability, participation, accountability, and quality, and have adolescent-specific provisions in three. Philippine normative documents are partly in agreement with the remaining five WHO summary recommendations-nondiscrimination, availability, accessibility, informed decision-making, and privacy. Of twenty-four WHO sub-recommendations, Philippine normative documents are in agreement with fifteen, not in agreement with five, and partly in agreement with four. Two possible factors may explain the many documents with conflicting contents: devolution of the Philippine health system, and the deep social and policy divide on sexual and reproductive health.

##### Conclusion

Many Philippine-governmental norms and standards are in agreement with adolescents' human rights to contraceptive information and services as recommended by the WHO. However, a significant number are restrictive, reflecting the strong influence of conservative religious beliefs.

##### Recommendations

We recommend: 1) further elaboration of the laws and policies that are fully in agreement with WHO recommendations; 2) a more liberal interpretation of the law to ensure the provision, delivery and access to reproductive health care services, and to promote, protect and fulfill women's reproductive health and rights; and 3) popularization of ethical and human rights norms. (45 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

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20190110-106\*

**Rationale & design of the PROMISES study: a prospective assessment and validation study of salivary progesterone as a test for preterm birth in pregnant women from rural India.** Sharma P, Khan S, Ghule M, et al (2018), *Reproductive Health* vol 15, no 215, 22 December 2018

#### Background

In India, 3.6 million pregnancies are affected by preterm birth annually, with many infants dying or surviving with disability. Currently, there is no simple test available for screening all women at risk of spontaneous PTB in low income setting, although high resource settings routinely use cervical length measurement and cervico-vaginal fluid fetal fibronectin for identification and care of women at risk due to clinical history. In rural India, where the public health system has limited infrastructure, trained staff and equipment, there is a greater need to develop a low-cost screening approach for providing early referral, treatment and remedial support for pregnant women at risk of preterm birth. There is interest in the use of a salivary progesterone test as a screening tool preliminary evidence from India, Egypt and UK has shown promise for this type of test. The test requires further validation in a low resource community setting.

#### Methods

The Promises study aims to validate and test the feasibility of introducing a low-cost salivary progesterone preterm birth prediction test in two rural districts in India with high rates of prematurity. It is a prospective study of 2000 pregnant women recruited from Panna and Satna in Madhya Pradesh over approximately 24 months. Demographic and pregnancy outcome data will be collected, and pregnancies will be dated by ultrasound sonography. Saliva progesterone will be measured by ELISA in samples obtained between 24-28 weeks of gestation. The association between salivary progesterone and preterm birth will be determined and the utility of salivary progesterone to predict preterm birth < 34, as well as < 30 and < 37 weeks assessed. Additional qualitative data will be obtained in terms of acceptability and feasibility of saliva progesterone testing and knowledge of PTB.

#### Discussion

A validated cost-effective saliva test, which has potential for further adaptation to a 'point of care' setting will allow early identification of pregnant women at risk of preterm birth, who can be linked to an effective pathway of care and support to reduce preterm birth and associated adverse consequences. This will reduce both economic and emotional burden on the affected women and their families.

(35 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

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20190110-10\*

**Factors influencing decision to seek health care: a qualitative study among labour-migrants' wives in northern Tajikistan.** Nabieva J, Souares A (2019), *BMC Pregnancy and Childbirth* vol 19, no 7, 7 January 2019

#### Background

This qualitative study aimed to investigate the health seeking behaviour of rural women in northern Tajikistan, with specific focus on antenatal and obstetric complications as a result of delayed access to health services. Due to the unprecedented level of labour migration among men in the border region of Tajikistan, Isfara, the study specifically focused on migrants' wives residing with their in-laws.

#### Methods

Using an adapted 'Three delays' model which suggests three major causes of delayed access to maternity services - decision to seek care, reaching a healthcare facility and receiving necessary care - we conducted 29 in-depth interviews with labour migrants' wives, 16 semi-structured interviews with healthcare service providers and 2 focus-group discussions with 16 mothers-in-law in Isfara district.

#### Results

Our study demonstrated that the most crucial and conditioned factor of access to maternity services for labour migrants' wives is a decision to seek care. While reaching a healthcare facility (geographical accessibility, time and transportation costs) and receiving necessary care (availability of services, financial affordability and perceived quality of care) were rarely reported as obstacles towards timely access to maternity services, decision to seek care was found to be an intricate interplay of several factors: traditional gender and family roles (particularly in the absence of the husband), the age of the mother-in-law, cultural beliefs and perceptions about pregnancy and maternity, and widely spread myths about certain health conditions and services.

#### Conclusions

Our study concludes that the traditional pattern of seeking health care among women in northern Tajikistan may often cause delays in accessing necessary maternity services and result in adverse health outcomes for women. We suggest that effective strategies to reduce maternal morbidity and mortality in rural Tajikistan should, along with

strengthening healthcare structures, embark on community education and awareness raising with special focus on mothers-in-law and other traditional decision-makers in households.

(32 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12884-018-2166-6>

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#### 20190107-2\*

**The 'superwoman' midwife of the mountains.** BBC News (2019), BBC News 7 January 2019

Sherbano is the first midwife in a remote area of the Pakistan Himalayas. (MB)

Full URL: <https://www.bbc.co.uk/news/av/world-asia-46760119/the-superwoman-midwife-of-the-mountains>

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#### 20190102-12\*

**Determinants of antenatal care utilization in India: a spatial evaluation of evidence for public health reforms.** John AE, Nilima, Binu VS, et al (2019), Public Health vol 166, January 2019, pp 57-64

OBJECTIVE:

The objective is to examine the spatial variations and to identify the determinants of antenatal care (ANC) utilization while controlling for the spatial dependence in the data.

STUDY DESIGN:

This is an ecological study on ANC utilization data from District Level Household Survey-4 (2012-2013) in India.

METHODS:

A secondary data analysis was performed on the derived data. The unit of analysis in this ecological study was 275 districts from 20 states of India. The study comprises ever married women of reproductive age. Determinants of ANC utilization were obtained using ordinary least square (OLS), spatial lag, and spatial error models. Model adequacy check was performed using the Akaike information criterion, R-squared, log likelihood, and Schwarz criterion. The software used is GeoDa and Quantum Geographic Information System.

RESULTS:

The presence of spatial autocorrelation (Moran's I = 0.6210) enforces the usage of geographic properties while modeling. The geographic clustering of low-rate districts was observed in states in Northeast India. In the present study, the model adequacy check reveals that the spatial error model performs better than the spatial lag and OLS models. The spatial pattern of the percentage of pregnant women with full ANC was observed to be associated with literacy (P = 0.04), birth order (P < 0.001), Janani Suraksha Yojana beneficiaries (P = 0.048), and availability of health infrastructure, staff, and services (P = 0.023).

CONCLUSIONS:

The present study findings provide valuable insights into factors affecting ANC utilization. In addition to available ANC services, customized safe motherhood interventions and region-specific awareness programs would enhance the utilization, ensuring better maternal and child health. (36 references) (Author)

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#### 20181213-86\*

**Effect of midwife-led care on birth outcomes of primiparas.** Jlang X-M, Chen Q-Y, Guo S-B, et al (2018), International Journal of Nursing Practice vol 24, no 6, December 2018, e12686

Background

The high caesarean section rate is a prominent public health problem in China.

Aim

This study aimed to determine the effects of midwife-led care during labour on birth outcomes for healthy primiparas.

Design

Randomized controlled trial.

Setting

The Obstetrics Department of Fujian Provincial Maternity and Child Health Hospital.

Methods

A total of 666 primiparas in labour were randomly divided into an intervention and control group (333 in each group). The intervention group received a midwife-led model of care during labour.

Results

Data from 648 cases (331 intervention group and 317 control group) were analysed. The intervention group was less likely to experience caesarean section, postpartum haemorrhage, opiate analgesia, vaginal examinations, neonatal

asphyxia, and neonatal hospitalization and was more likely to experience shorter length of labour and vaginal birth than the control group (all,  $P < 0.05$ ). No differences were found in the number of artificial rupture of membranes and oxytocin use ( $P > 0.05$ ).

#### Conclusions

Midwife-led care can reduce the caesarean section rate, promote normal birth, improve birth outcomes, and promote maternal and child health. (Author)

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#### 20181213-127\*

**Prevalence of behavioral risk factors of cardiovascular diseases and associated socio-economic factors among pregnant women in a rural area in Southern Nepal.** Paudel R, Lee K, Singh JK, et al (2018), BMC Pregnancy and Childbirth vol 18, no 484, 7 December 2018

#### Background

Cardiovascular diseases (CVDs) have dramatically infiltrated populations living in abject poverty in Low- and Middle-income Countries (LMICs), and poor maternal and child health outcomes have been frequently reported for those with CVD risk factors. However, few studies have explored the behavioral risk factors of CVDs among pregnant women in rural settings. This study aimed at determining the prevalence and identifying the socio-economic predictors of behavioral risk factors of CVDs among pregnant women in rural area in Southern Nepal.

#### Methods

A Community-based cross-sectional study was conducted in 52 clusters of Dhanusha District of Nepal in a total of 426 pregnant women in their second trimester using multistage cluster sampling method. Multivariable logistic regression model was used to assess independent associations between behavioral risk factors during pregnancy and maternal socio-economic characteristics.

#### Results

Of the 426 study participants, 86.9, 53.9, 21.3 and 13.3%, respectively, reported insufficient fruits and vegetables consumption, insufficient physical activity, tobacco use, and harmful alcohol drinking. Socio-economic factors significantly associated with more than one behavioral risk factors in expectant mothers with a primary level education (adjusted odds ratio (AOR) 2.78; 95% Confidence Interval (CI) (1.35-5.72)), 20-34 years age group (Adjusted Odds Ratio (AOR) 0.27; 95% CI (0.13-0.56)), and those with the highest wealth index (AOR 0.36; 95% CI (0.16-0.84)).

#### Conclusion

Higher prevalence of behavioral risk factors for CVDs and their socio-economic factors prevailing among pregnant women living in rural Nepal call for immediate health promotion interventions such as community awareness and appropriate antenatal counseling.

(44 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12884-018-2122-5>

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#### 20181115-39\*

**Monitoring and interventions are needed to reduce the very high Caesarean section rates in Vietnam.** Giang HTN, Ulrich S, Tran HT, et al (2018), Acta Paediatrica vol 107, no 12, December 2018, pp 2109-2114

#### Aim

The aim of this study was to estimate the prevalence of Caesarean sections in the third largest city in Vietnam and identify the associated risk factors.

#### Methods

This descriptive study was conducted in Da Nang from April 2015 to March 2016 and the hospital-based sample comprised 20 535 women who delivered during this period. Caesarean section cases were categorised into private and public hospitals and groups of primiparous and multiparous women.

#### Results

We recruited 10 of the 12 hospitals in the City and they covered 90% of births during the study period. The overall Caesarean section rate was 58.6%: 57.9% in public hospitals and 70.6% in private hospitals. The three main indications for Caesarean sections were previous Caesarean sections, cephalopelvic disproportion and foetal distress. The factors that increased the likelihood of Caesarean sections were the mother being over 30, having an office job, a history of abortions, having a male infant and a higher neonatal birth weight.

#### Conclusion

Our study demonstrated an extremely high rate of Caesarean section and associated factors in public and private hospitals in one of the biggest cities in Vietnam. The findings highlight the need for monitoring and interventions to reduce the Caesarean section rates. (32 references) (Author)

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20181113-80\*

**Barriers and facilitators to the provision of optimal obstetric and neonatal emergency care and to the implementation of simulation-enhanced mentorship in primary care facilities in Bihar, India: a qualitative study.** Morgan MC, Dyer J, Abril A, et al (2018), BMC Pregnancy and Childbirth vol 18, no 420, 25 October 2018

#### Background

Globally, an estimated 275,000 maternal deaths, 2.7 million neonatal deaths, and 2.6 million third trimester stillbirths occurred in 2015. Major improvements could be achieved by providing effective care in low- and middle-income countries, where the majority of these deaths occur. Mentoring programs have become a popular modality to improve knowledge and skills among providers in low-resource settings. Thus, a detailed understanding of interrelated factors affecting care provision and mentorship is necessary both to improve the quality of care and to maximize the impact of mentoring programs.

#### Methods

In partnership with the Government of Bihar, CARE India and PRONTO International implemented simulation-enhanced mentoring in 320 primary health clinics (PHC) across the state of Bihar, India from 2015 to 2017, within the context of the AMANAT mobile nurse mentoring program. Between June and August 2016, we conducted semi-structured interviews with 20 AMANAT nurse mentors to explore barriers and facilitators to optimal care provision and to implementation of simulation-enhanced mentorship in PHCs in Bihar. Data were analyzed using the thematic content approach.

#### Results

Mentors identified numerous factors affecting care provision and mentorship, many of which were interdependent. Such barriers included human resource shortages, nurse-nurse hierarchy, distance between labor and training rooms, cultural norms, and low skill level and resistance to change among mentees. In contrast, physical resource shortages, doctor-nurse hierarchy, corruption, and violence against providers posed barriers to care provision alone. Facilitators included improved skills and confidence among providers, inclusion of doctors in training, increased training frequency, establishment of strong mentor-mentee relationships, administrative support, and nursing supervision and feedback.

#### Conclusions

This study has identified many interrelated factors affecting care provision and mentorship in Bihar. The mentoring program was not designed to address several barriers, including resource shortages, facility infrastructure, corruption, and cultural norms. These require government support, community awareness, and other systemic changes. Programs may be adapted to address some barriers beyond knowledge and skill deficiencies, notably hierarchy, violence against providers, and certain cultural taboos. An in-depth understanding of barriers and facilitators is essential to enable the design of targeted interventions to improve maternal and neonatal survival in Bihar and related contexts.

(64 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12884-018-2059-8>

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20180919-42\*

**The power of practice: simulation training improving the quality of neonatal resuscitation skills in Bihar, India.** Vail B, Morgan MC, Spindler H, et al (2018), BMC Pediatrics vol 18, no 291, 3 September 2018

#### Background

Globally, neonatal mortality accounts for nearly half of under-five mortality, and intrapartum related events are a leading cause. Despite the rise in neonatal resuscitation (NR) training programs in low- and middle-income countries, their impact on the quality of NR skills amongst providers with limited formal medical education, particularly those working in rural primary health centers (PHCs), remains incompletely understood.

#### Methods

This study evaluates the impact of PRONTO International simulation training on the quality of NR skills in simulated resuscitations and live deliveries in rural PHCs throughout Bihar, India. Further, it explores barriers to performance of key NR skills. PRONTO training was conducted within CARE India's AMANAT intervention, a maternal and child health quality improvement project. Performance in simulations was evaluated using video-recorded assessment simulations at weeks 4 and 8 of training. Performance in live deliveries was evaluated in real time using a mobile-phone application. Barriers were explored through semi-structured interviews with simulation facilitators.

#### Results

In total, 1342 nurses participated in PRONTO training and 226 NR assessment simulations were matched by PHC and evaluated. From week 4 to 8 of training, proper neck extension, positive pressure ventilation (PPV) with chest rise, and assessment of heart rate increased by 14%, 19%, and 12% respectively (all  $p \leq 0.01$ ). No difference was noted in stimulation, suction, proper PPV rate, or time to completion of key steps. In 252 live deliveries, identification of

non-vigorous neonates, use of suction, and use of PPV increased by 21%, 25%, and 23% respectively (all  $p < 0.01$ ) between weeks 1-3 and 4-8. Eighteen interviews revealed individual, logistical, and cultural barriers to key NR skills.

#### Conclusion

PRONTO simulation training had a positive impact on the quality of key skills in simulated and live resuscitations throughout Bihar. Nevertheless, there is need for ongoing improvement that will likely require both further clinical training and addressing barriers that go beyond the scope of such training. In settings where clinical outcome data is unreliable, data triangulation, the process of synthesizing multiple data sources to generate a better-informed evaluation, offers a powerful tool for guiding this process.

(42 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

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#### 20180919-35\*

**A newly developed tool for measuring the availability of human resources for emergency obstetric and newborn care services: prospective analytic study in two district-level public facilities in Bangladesh.** Biswas TK, Begum AA, Akther S, et al (2018), BMC Health Services Research vol 18, no 688, 4 September 2018

#### Background

In Bangladesh, while the infrastructure of public health facilities to provide maternal and newborn care services is adequate, services are not always available due to insufficient staffing. A human resource availability index for health facilities is needed for monitoring and advocacy. This study aimed to develop indices for measuring the availability of different types of human resources to provide round-the-clock emergency obstetric and newborn care (EmONC) service at district-level public facilities.

#### Methods

As part of a larger intervention study, 30 days of prospective observation of providers was done at a district hospital (DH) and a mother and child welfare centre (MCWC) in one district of Bangladesh using checklists. A scoring system was developed to create an index to quantify the availability of providers for maternal and newborn care.

#### Results

Based on the newly developed index, medical doctors in the emergency department of the DH were 100% available, but ranged from 27 to 41% availability in the obstetrics/gynecology (ob/gyn) and pediatric wards. In MCWC, the corresponding indices ranged from 32 to 36%. In the DH, the availability of nurses in the ob/gyn ward (96%) was relatively better than in the pediatric ward (65%) but that in operation theatre was only 31%. In the MCWC, the index for the presence of a paramedic or nursing aid was 82% in the ob/gyn ward and 63% in the operation theatre. However, the availability scores of facility support staff for maintenance and security were generally high (over 90%) in both facilities.

#### Conclusions

Our newly developed index on availability of providers demonstrated huge gaps in availability of providers in evening and night shifts in most of the disciplines in the study facilities. This provider availability index is easy to create and can be used as a meaningful tool to quantify gaps in human resources by type in various types of district-level health facilities. Further studies are needed for adaptation of this tool in different types of health facilities and to assess its implication as an advocacy tool.

(20 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12913-018-3511-1>

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#### 20180918-12\*

**Is hiesho in pregnant women a risk factor for postpartum haemorrhage?** Nakamura S, Horiuchi S (2018), New Zealand College of Midwives Journal vol 54, December 2018, pp 38-43

Background: In Japanese culture, a cold sensation known as 'hie' is an important symptom in traditional medicine. Hiesho is a condition whereby the sympathetic nervous system becomes dominant, causing peripheral blood vessels to contract, impairing circulation and leading to low skin temperatures in the extremities. A link between hiesho and prolonged labour and uterine inertia, both of which are risk factors for postpartum haemorrhage (PPH), has previously been identified. Aim: The aim of this study was to analyse whether hiesho has a direct impact on PPH by comparing the outcomes for women who experienced hiesho in their pregnancies with those who did not. Methods: The study design was a retrospective cohort study conducted over 12 months, between 19th October, 2009, and 8th October, 2010, involving 2,427 women who had given birth in six hospitals in Japan. Women were excluded if they had had a caesarean section. Data were extracted from medical records and a paper questionnaire. Analysis was conducted using multiple logistic regression analysis and the Mantel-Haenszel test. Findings: Of the women, 613 experienced PPH (25.3% of the entire sample), of whom 343 (56.0%) had experienced hiesho. In the analysis of covariance, the

regression coefficient for hiesho was 0.2,  $p=0.07$ , the odds ratio (OR) was 1.22, and the 95% confidence interval (CI) was 0.98-1.50. In a stratified analysis, the regression coefficient was 0.25,  $p=0.02$ , the common OR was 1.29, and 95% CI was 1.04-1.59. Thus, there was no significant link found between a woman experiencing heisho during pregnancy and having a PPH. Conclusion: Although the findings indicate that uterine inertia and prolonged labour are direct causes of PPH, hiesho may potentially have an indirect effect. Therefore, since hiesho potentially affects the occurrence of uterine inertia and prolonged labour, preventing hiesho may help avoid uterine inertia and prolonged labour and consequently PPH. For women who experience hiesho in pregnancy, lifestyle activities known to improve peripheral circulation should be promoted antenatally. (18 references) (Author)

Full URL: <https://doi.org/10.12784/nzcomjnl54.2018.5.38-43>

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#### 20180905-5\*

**Spousal discordance on reports of contraceptive communication, contraceptive use, and ideal family size in rural India: a cross-sectional study.** Shakya HB, Dasgupta A, Ghule M, et al (2018), BMC Women's Health vol 18, no 147, 4 September 2018

#### Background

Persistent low rates of spacing contraceptive use among young wives in rural India have been implicated in ongoing negative maternal, infant and child health outcomes throughout the country. Gender inequity has been found to consistently predict low rates of contraception. An issue around contraceptive reporting however is that when reporting on contraceptive use, spouses in rural India often provide discordant reports. While discordant reports of contraceptive use potentially impede promotion of contraceptive use, little research has investigated the predictors of discordant reporting.

#### Methods

Using data we collected from 867 couples in rural Maharashtra India as part of a men-focused family planning randomized controlled trial. We categorized couples on discordance of men's and women's reports of current contraceptive use, communication with their spouse regarding contraception, and ideal family size, and assessed the levels of discordance for each category. We then ran multinomial regression analyses to determine predictors of discordance categories with a focus on women's empowerment (household and fertility decision-making, women's education, and women's knowledge of contraception).

#### Results

When individuals reported communicating about contraception and their spouses did not, those individuals were also more likely to report using contraception when their spouses did not. Women's empowerment was higher in couples in which both couples reported contraception communication or use or in couples in which only wives reported contraception communication or use. There were couple-level characteristics that predicted husbands reporting either contraception use or contraception communication when their wives did not: husband's education, husband's familiarity with contraception, and number of children.

#### Conclusions

Overall there were clear patterns to differential reporting. Associations with women's empowerment and contraceptive communication and use suggest a strategy of women's empowerment to improve reproductive health. Discordant women-only reports suggest that even when programs interact with empowered women, the inclusion of husbands is essential. Husband-only discordant reports highlight the characteristics of men who may be more receptive to family planning messages than are their wives. Family planning programs may be most effective when working with couples rather than just with women, and should focus on improving communication between couples, and supporting them in achieving concordance in their reproductive preferences. (32 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

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#### 20180816-16\*

**What prevents midwifery quality care in Bangladesh? A focus group enquiry with midwifery students.** Bogren M, Erlandsson K, Members of the Midwifery Faculty Master's degree holders in Sexual and Reproductive Health and Rights, et al (2018), BMC Health Services Research vol 18, no 639, 15 August 2018

#### Background

With professional midwives being introduced in Bangladesh in 2013, the aim of this study was to describe midwifery students' perceptions on midwives' realities in Bangladesh, based on their own experiences.

#### Method

Data were collected through 14 focus group discussions that included a total of 67 third-year diploma midwifery students at public nursing institutes/colleges in different parts of Bangladesh. Data were analyzed deductively using

an analytical framework identifying social, professional and economical barriers to the provision of quality care by midwifery personnel.

#### Results

The social barriers preventing midwifery quality care falls outside the parameters of Bangladeshi cultural norms that have been shaped by beliefs associated with religion, society, and gender norms. This puts midwives in a vulnerable position due to cultural prejudice. Professional barriers include heavy workloads with a shortage of staff who were not utilized to their full capacity within the health system. The reason for this was a lack of recognition in the medical hierarchy, leaving midwives with low levels of autonomy. Economical barriers were reflected by lack of supplies and hospital beds, midwives earning only low and/or irregular salaries, a lack of opportunities for recreation, and personal insecurity related to lack of housing and transportation.

#### Conclusion

Without adequate support for midwives, to strengthen their self-confidence through education and through continuous professional and economic development, little can be achieved in terms of improving quality care of women during the period around early and late pregnancy including childbirth. The findings can be used for discussions aimed to mobilize a midwifery workforce across the continuum of care to deliver quality reproductive health care services. No matter how much adequate support is provided to midwives, to strengthen their self-confidence through education, continuous professional and economic development, addressing the social barriers is a prerequisite for provision of quality care.

(40 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

Full URL: <https://doi.org/10.1186/s12913-018-3447-5>

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#### 20180815-41

**Midwifery policy in contemporary and modern China: from the past to the future.** Zhu X, Yao J, Lu J, et al (2018), *Midwifery* vol 66, November 2018, pp 97-102

Objective: this study aims to outline the progress of midwifery-related policies in contemporary and modern China as well as the obstacles in this process, and to provide recommendations for policy makers in the establishment of Chinese midwifery policies, ultimately promoting the development of midwifery in China.

Background & introduction: Policy plays an increasingly important role in midwifery development, particularly needed in modern China. A review of policies of midwifery could help policy makers develop effective strategies to address current problems in China, including the insufficient numbers of midwives, the shrinking of responsibility and the degradation of midwives' competency.

Methods: The Policy Triangle was used to examine through literature the laws and regulations regarding midwifery from 1928 in China and was conducted from April to September in 2013. This was followed by insider interviews with two senior policy makers from the National Health Commission to explain nursing policy progress, thereby identifying the reasons why midwifery has developed more slowly than nursing.

Results: The development of midwifery in China could be classified into four stages: 1) the beginning period (1928-1949), beginning with the first midwifery rules; 2) the development period (1949~1979), in which the quality and quantity of midwives were significant; 3) the unclear positioning period (1979~2008), without clear midwifery policy; and 4) the subordination to nursing period (2008 ~ present), with the Nurse Byelaw 2008 stating that midwives must apply for nursing licenses.

Discussion: The main factors influencing midwifery policies are: 1) social background, such as the changes of different governments and health care reform, and 2) the powers of the actors. Currently, it is an appropriate time to develop strategies for policy makers to facilitate midwifery development in China.

Conclusions and Implications for Health Policy: Midwifery policy should be independently included in the frame of national medical industry reform because midwives are an indispensable part of the health care workforce. In-depth research should be conducted to confirm the position of midwifery in China to ensure its sustainable development. (27 references) (Author)

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#### 20180815-24\*

**Stillbirth and preterm birth and associated factors in one of the largest cities in central Vietnam.** Giang HTN, Bechtold-Dalla Pozza S, Tran HT, et al (2019), *Acta Paediatrica* vol 108, no 4, April 2019, pp 630-636

#### Aim

Little is known about the rate of stillbirths, preterm births and associated risk factors in resource-limited settings like Vietnam. This study reports those rates for Da Nang, which is one of the largest cities in central Vietnam.

#### Methods

Data on 20,762 births including stillbirths and preterm births and associated risk factors were prospectively collected

from health facilities from April 2015 to March 2016.

#### Results

The data represented 85% of the total births in Da Nang during the study period and a stillbirth rate of 9.7 per 1,000 live births was recorded. The preterm rate for live births was just under 5%. Independent factors associated with an increased risk of stillbirth and preterm births were mothers aged 35 plus, working as farmers, living in the provinces and a history of abortion. Mothers under 20 years with previous preterm births faced a higher risk of another preterm birth.

#### Conclusion

The stillbirth and premature birth rates in Da Nang were higher than rates in high-income countries. Developing registration programmes in Vietnam will provide improved data that will enable researchers and policy makers to identify strategies to reduce the number of stillbirths and premature births. (Author)

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### 20180803-33\*

**A review of midwifery in mainland China: Contemporary developments within historical, economic and sociopolitical contexts.** Gao L-I, Lu H, Leap N, et al (2018), *Women and Birth: Journal of the Australian College of Midwives* 2 August 2018, online

#### Background

With the recent surging economic and social development in China, midwifery has undergone transformation.

#### Aim

A narrative review of literature relating to midwifery in mainland China was undertaken to examine the characteristics of midwifery's potential development within relevant historical, economic and sociopolitical contexts. The aim was to assist future planning and the setting of strategic directions in policy in China.

#### Methods

Online bibliographic databases from 2000 to 2015 were searched including MEDLINE, WanFang Data and Chinese National Knowledge Infrastructure. A process of narrative synthesis was used to analyse the selected papers and major issues were identified.

#### Results

Twenty-one papers were included in the review. Two overarching issues were identified in relation to midwifery in mainland China: the history and status of midwifery education; and the practice and regulation of the midwifery profession. In recent decades, midwifery education, regulation and practice have occurred within systems that view midwifery as a specialisation of nursing. This means that there continues to be little opportunity for midwives to practise according to the international definition and scope of practice of the midwife.

#### Conclusion

Midwifery in China must continue to develop in parallel with international trends. Investment in midwifery education alone will not suffice; it will have to operate within strong government policy regarding regulation, effective human resources management, visibility of the role of the midwife and development of the service delivery environment in which future midwives will work in China.

(35 references) (Author) [Please note: this article is a digital version which may undergo minor changes in the future]

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### 20180723-22\*

**Have community health workers increased the delivery of maternal and child healthcare in India?** Wagner AL, Porth JM, Bettampadi D, et al (2018), *Journal of Public Health* vol 40, no 2, June 2018, pp e164-e170

#### Background

Accredited Social Health Activists (ASHAs) are community health workers in rural India. This study estimates the proportion of villages with an ASHA and examines the impact of increased ASHA placement on changes in healthcare.

#### Methods

Information about ASHA placement and maternal and child healthcare was obtained from the District-Level Household Surveys from 2007 to 2008 and 2012 to 2013. In this ecological analysis, the difference in district-level proportions of maternal and child healthcare outcomes between 2012-13 and 2007-08 was regressed onto the difference in ASHA placement between those years.

#### Results

Within 218 districts from 21 states, the average proportion of villages with an ASHA increased from 39.1 to 76.2%, unmet need for family planning increased from 14.7 to 22.4%, institutional delivery increased from 61.6 to 82.5%, and full immunization coverage decreased from 71.2 to 65.1%. A 1% increase in ASHA placement resulted in 0.05% less unmet need for family planning and 0.22% more full immunization, but no changes in institutional delivery.

#### Conclusions

ASHAs provide essential services to their community by acting as a conduit to healthcare services, but they may

require more training about certain services like promoting institutional delivery to be effective in increasing access to these health services. (Author)

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### 20180719-53\*

**Opportunities, challenges and strategies when building a midwifery profession. Findings from a qualitative study in Bangladesh and Nepal.** Bogren M, Erlandsson K (2018), *Sexual & Reproductive Healthcare* vol 16, June 2018, pp 45-49

#### Objective

The aim of this paper was to identify opportunities and challenges when building a midwifery profession in Bangladesh and Nepal.

#### Methods

Data were collected through 33 semi-structured interviews with government officials, policy-makers, donors, and individuals from academia and non-government organizations with an influence in building a midwifery profession in their respective countries. Data were analyzed using content analysis.

#### Findings

The opportunities and challenges found in Bangladesh and Nepal when building a midwifery profession emerged the theme 'A comprehensive collaborative approach, with a political desire, can build a midwifery profession while competing views, interest, priorities and unawareness hamper the process'. Several factors were found to facilitate the establishment of a midwifery profession in both countries. For example, global and national standards brought together midwifery professionals and stakeholders, and helped in the establishment of midwifery associations. The challenges for both countries were national commitments without a full set of supporting policy documents, lack of professional recognition, and competing views, interests and priorities.

#### Conclusion and clinical application

This study demonstrated that building a midwifery profession requires a political comprehensive collaborative approach supported by a political commitment. Through bringing professionals together in a professional association will bring a professional status. Global standards and guidelines need to be contextualized into national policies and plans where midwives are included as part of the national health workforce. This is a key for creating recognized midwives with a protected title to autonomously practice midwifery, to upholding the sexual and reproductive health and rights for women and girls. (36 references) (Author)

Full URL: <https://doi.org/10.1016/j.srhc.2018.02.003>

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### 20180717-72\*

**Are maternal healthcare services accessible to vulnerable group? A study among women with disabilities in rural Nepal.**

Devkota HR, Murray E, Kett M, et al (2018), *PLoS ONE* vol 13, no 7, 13 July 2018, e0200370

#### Background

Studies report that vulnerable groups like people with disabilities have less access to healthcare. This study compares health service access between women with and without disabilities in general and explores the challenges encountered by women with disabilities in accessing maternal healthcare services during pregnancy.

#### Methods

A mixed method study was conducted in Rupandehi district of Nepal implementing a cross-sectional survey among 354 women including 79 women with disabilities, supplemented by 43 in-depth interviews. Descriptive and bivariate statistical analysis of quantitative data using Pearson's Chi-square test for association was carried out, while qualitative data were analysed following the theme content analysis using a framework approach.

#### Results

The vast majority of women from both groups, women with and without disabilities (71% vs 74%) reported that the nearest health facility from their location was more than 30 minutes walking distance ( $P>0.05$ ). Half of the women with disabilities walked to health facilities for ANC check-ups. Over one-third of women without disabilities and a slightly lesser proportion of women with disabilities (29%) used a low-cost means of transport (rikshaw, bi/tri-cycles) ( $P>0.05$ ). Distribution of health facilities found uneven and poorly linked with road transport facilities. None of the health facilities accommodated the needs of women with disabilities with accessible buildings and convenient opening time. The travel cost and the extra cost of services, staff shortage, often delayed and inadequate drug supplies were common problems for both women with and without disabilities. Unavailability of beds during delivery, insensitive providers with negative attitudes and abusive behaviour, inadequate knowledge and experience in providing services to the people with disabilities as well as unwelcoming health facility environment made services particularly inaccessible to women with disabilities.

#### Conclusion

Maternal healthcare services are not easily and equitably accessible to women with disabilities. To increase access to

healthcare for this vulnerable group, improvements are needed in distribution and management of resources from transportation through service delivery, as well as improved provider knowledge and awareness of a human rights approach to disability and health. (43 references) (Author)

Full URL: <https://doi.org/10.1371/journal.pone.0200370>

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#### 20180712-32\*

**Using community health workers to refer pregnant women and young children to health care facilities in rural West Bengal, India: A prospective cohort study.** Wagner AL, Xia L, Ghosh A, et al (2018), PLoS ONE vol 13, no 6, 21 June 2018, e0199607

##### Background

Community health workers (CHWs) have been placed in many rural areas in India to increase villagers' connections to basic preventive health care. In this study, we describe how pregnant women and mothers of young children react when CHWs inform them that they, or their child, are at high risk of pregnancy-related complications or early childhood developmental delays, and further screening and health care from a physician is recommended.

##### Methods

In this longitudinal study in rural villages in West Bengal, India, pregnant mothers, as well as mothers of children aged 12-24 months, were screened for high risk complications. They were re-contacted and asked questions regarding how and to what extent did visits by the CHWs improve their household's overall health behavior, along with details about what additional care, if any, they sought. These responses are presented by different demographic and medical characteristics.

##### Results

Of the 231 pregnant women, all said they had sought additional care in response to the CHW visit, and all stated that feedback from the CHW resulted in improvement to their health behaviors. Most (90%) pregnant women gave birth at an institution. Among the 213 mothers of young children who were followed up, all sought additional care in response to the CHW's visit. Most (67%) mentioned that they had a significant improvement in their health behaviors following feedback from the CHW, and the rest stated that they had some improvement.

##### Conclusions

With the proper training, CHWs can be partners in health care to improve the health of vulnerable populations, not only in rural areas of India, but also in other developing countries. CHWs can promote positive health outcomes in their villages of residence. (26 references) (Author)

Full URL: <https://doi.org/10.1371/journal.pone.0199607>

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#### 20180711-77\*

**Study protocol of a cluster randomized controlled trial to evaluate effectiveness of a system for maintaining high-quality early essential newborn care in Lao PDR.** Horiuchi S, Rattana S, Saysanasongkham B, et al (2018), BMC Health Services Research vol 18, no 489, 25 June 2018

##### Background

Reduction in neonatal deaths has been a major challenge globally. To prevent neonatal deaths, improvements in newborn care have been promoted worldwide. The World Health Organization Western Pacific Regional Office has been promoting the Early Essential Newborn Care (EENC), a package of specific simple and cost-effective interventions, in their region. However, mere introduction of EENC cannot reduce neonatal deaths unless quality of care is ensured. In Lao PDR, the government introduced self-managed continuous monitoring as a sustainable way to improve the quality of care described in the EENC.

##### Methods

A clustered randomized controlled trial was designed to compare the effectiveness of self-managed continuous monitoring with external supervisory visits to monitor health workers' satisfactory EENC performance and their knowledge and skills related to the EENC in Lao PDR. Determinants of EENC performance will be measured with a structured questionnaire developed based on the Theory of Planned Behaviour, which predicts future behaviour. During self-managed continuous monitoring activities, health workers in each district hospital will conduct periodical peer reviews and feedback sessions.

Fifteen district hospitals will be randomly allocated into the self-managed continuous monitoring (intervention) and the supervision (control) groups. Fifteen health workers routinely involved in maternity and newborn care including physicians, midwives and other health staff will be recruited from each hospital (effect size 0.6, intra-cluster correlation coefficient 0.06, 5% alpha error and 80% power). We will compare the change in the mean score of the determinants before and one year after randomisation between the two groups. We will also compare the retention of knowledge and skills related to the EENC between the two groups. The expected enrolment period is July 20th,

2017 to July 20th, 2018.

Discussion

This is the first cluster randomized trial to evaluate a self-managed continuous monitoring system for quality maintenance of newborn care in a resource-limited country. This research is conducted in collaboration with the Ministry of Health and international organizations; therefore, if effective, this intervention would be applied in larger areas of the country and the region.

Trial registration

This trial was registered at UMIN-CTR on 15th of June, 2017. Registration number is UMIN000027794.

(31 references) (Author) [Please note: BMC initially publishes articles in a provisional format. If there is a note on the document to indicate that it is still provisional, it may undergo minor changes]

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**20180627-44\***

**Barriers and facilitators to institutional delivery in rural areas of Chitwan district, Nepal: a qualitative study.** Shah R, Rehfuess EA, Paudel D, et al (2018), Reproductive Health vol 15, no 110, 20 June 2018

Background

Giving birth assisted by skilled care in a health facility plays a vital role in preventing maternal deaths. In Nepal, delivery services are free and a cash incentive is provided to women giving birth at a health facility. Nevertheless, about half of women still deliver at home. This study explores socio-cultural and health service-related barriers to and facilitators of institutional delivery.

Methods

Six village development committees in hill and plain areas were selected in Chitwan district. We conducted a total of 10 focus group discussions and 12 in-depth-interviews with relevant stakeholder groups, including mothers, husbands, mothers-in-law, traditional birth attendants, female community health volunteers, health service providers and district health managers. Data were analyzed inductively using thematic analysis.

Results

Three main themes played a role in deciding the place of delivery, i.e. socio-cultural norms and values; access to birthing facilities; and perceptions regarding the quality of health services. Factors encouraging an institutional delivery included complications during labour, supportive husbands and mothers-in-law, the availability of an ambulance, having birthing centres nearby, locally sufficient financial incentives and/or material incentives, the 24-h availability of midwives and friendly health service providers. Socio-cultural barriers to institutional deliveries were deeply held beliefs about childbirth being a normal life event, the wish to be cared for by family members, greater freedom of movement at home, a warm environment, the possibility to obtain appropriate 'hot' foods, and shyness of young women and their position in the family hierarchy. Accessibility and quality of health services also presented barriers, including lack of road and transportation, insufficient financial incentives, poor infrastructure and equipment at birthing centres and the young age and perceived incompetence of midwives.

Conclusion

Despite much progress in recent years, this study revealed some important barriers to the utilization of health services. It suggests that a combination of upgrading birthing centres and strengthening the competencies of health personnel while embracing and addressing deeply rooted family values and traditions can improve existing programmes and further increase institutional delivery rates.

(56 references) (Author) [Please note: BMC initially publishes articles in a provisional format. If there is a note on the document to indicate that it is still provisional, it may undergo minor changes]

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**20180618-16\***

**Pregnancy care in Germany, France and Japan: an international comparison of quality and efficiency using structural equation modelling and data envelopment analysis.** Rump A, Schöffski O (2018), Public Health vol 160, July 2018, pp 129-142

Objectives

Healthcare systems in developed countries may differ in financing and organisation. Maternity services and delivery are particularly influenced by culture and habits. In this study, we compared the pregnancy care quality and efficiency of the German, French and Japanese healthcare systems.

Study design

Comparative healthcare data analysis.

Methods

In an international comparison based mainly on Organisation for Economic Co-operation and Development (OECD)

indicators, we analysed the health resources significantly affecting pregnancy care and quantified its quality using structural equation modelling. Pregnancy care efficiency was studied using data envelopment analysis. Pregnancy output was quantified overall or separately using indicators based on perinatal, neonatal or maternal mortality.

#### Results

The density of obstetricians, midwives, paediatricians and the average annual doctor's consultations were positively and the caesarean delivery rate negatively associated with pregnancy outcome. In the international comparison at an aggregate level, Japan ranked first for pregnancy care quality, whereas Germany and France were positioned in the second part of the ranking. Similarly, at an aggregate level, the Japanese system showed pure technical efficiency, whereas Germany and France revealed mediocre efficiency results. Perinatal, neonatal and maternal care quality and efficiency taken separately were quite similar and mediocre in Germany and France. In Japan, there was a marked difference between a highly effective and efficient care of the unborn and newborn baby, and a rather mediocre quality and efficiency of maternal care.

#### Conclusion

Germany, France, and Japan have to struggle with quality and efficiency issues that are nevertheless different: in Germany and France, disappointing pregnancy care quality does not correspond to the high health care expenditures and lead to low technical efficiency. The Japanese system shows a high variability in outcomes and technical efficiency. Maternal care quality during delivery seems to be a particular issue that could possibly be addressed by legally implementing quality assurance systems with stricter rules for reimbursement in obstetrics. (Author)

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### 20180614-45\*

#### **Obstetric outcomes and effects on babies born to women treated for epilepsy during pregnancy in a resource limited**

**setting: a comparative cohort study.** Galappathy P, Liyanage CK, Lucas MN, et al (2018), BMC Pregnancy and Childbirth vol 18, no 230, 14 June 2018

#### Background

Management of epilepsy during pregnancy in a resource-limited setting (RLS) is challenging. This study aimed to assess obstetric outcomes and effects on babies of women with epilepsy (WWE) exposed to Anti-epileptic drugs (AEDs) compared to non-exposed controls in a RLS.

#### Methods

Pregnant WWE were recruited from antenatal and neurology clinics of a tertiary care hospitals in Sri Lanka. Patients were reviewed in each trimester and post-partum. Medication adherence, adverse effects, seizure control and carbamazepine blood levels were monitored. Post-partum, measurements for anthropometric and dysmorphic features of the babies and congenital abnormalities were recorded. Age and sex matched babies not exposed to AED recruited as controls were also examined.

#### Results

Ninety-six pregnant WWE were recruited (mean period of gestation 22.9 weeks). Mean age was 28 years and 48(50%) were primigravidae. Fifty percent (48) were on monotherapy, while 23.8, 15.9 and 4.1% were on two, three and four AEDs respectively. AEDs in first trimester (T1) were carbamazepine (71%), valproate (25.8%) clobazam (29.5%), lamotrigine (7%) topiramate (5%) and others (3.4%). Sodium valproate use reduced significantly from T1 to T2 ( $p < 0.05$ ). Sub-therapeutic carbamazepine levels correlated positively ( $r = 0.547$ ) with poor medication adherence ( $p = 0.009$ ) and negatively ( $r = 0.306$ ) with adverse effects ( $p = 0.002$ ). Seventy-six WWE completed follow-up reporting 75 (98.6%) live births and one T1 miscarriage (1.3%). Three (4.3%) were preterm. Majority (73.33%) were normal vaginal deliveries. Cesarean sections were not increased in WWE. Fifty-nine (61.45%) babies were examined. For those examined during infancy, 53 age and sex matched controls were recruited and examined. Congenital abnormalities occurred in 5 (9.43%) babies of WWE [atrio-ventricular septal defect (2), renal hypoplasia (1), cryptorchidism (1), microcephaly (1)] compared to 2 (3.77%) in controls (2 microcephaly;  $p = 0.24$ ). Fetal exposure to AEDs increased a risk of low birth weight (RR 2.8;  $p = 0.049$ ). Anthropometric parameters of AED exposed babies were lower at birth but not statistically significant between the two groups (weight  $p = 0.263$ , length  $p = 0.363$ , occipito-frontal circumference (OFC)  $p = 0.307$ ). However, weight ( $p = 0.009$ ), length ( $p = 0.016$ ) and OFC ( $p = 0.002$ ) were significantly lower compared to controls at an average of 3.52 months.

#### Conclusion

Most pregnancies are unplanned in the RLS studied, and AEDs were altered during pregnancy. Congenital anomalies occurred at rates comparable to previous reports. Fetal exposure to AED had growth retardation in infancy compared to non-exposed babies.

(52 references) (Author) [Please note: BMC initially publishes articles in a provisional format. If there is a note on the document to indicate that it is still provisional, it may undergo minor changes]

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20180612-112\*

**Trends and inequities in use of maternal health care services in Indonesia, 1986–2012.** Nababan HY, Hasan M, Marthias T, et al (2017), International Journal of Women's Health vol 10, 29 December 2017, pp 11-24

Purpose: Overall health status indicators have improved significantly over the past three decades in Indonesia. However, the country's maternal mortality ratio remains high with a stark inequality by region. Fewer studies have explored access inequity in maternal health care service over time using multiple inequality markers. In this study, we analyzed Indonesian Demographic and Health Survey (DHS) data to explore trends and inequities in use of any antenatal care (ANC), four or more ANC (ANC4+), institutional birth, and cesarean section (c-section) birth in Indonesia during 1986-2012 to inform policy for future strategies ending preventable maternal deaths.

Methods: Indonesian DHS data from 1991, 1994, 1997, 2002/3, 2007, and 2012 surveys were downloaded, merged, and analyzed. Inequity was measured in terms of variation in use by asset quintile, parental education, urban-rural location, religion, and region. Trends in use inequities were assessed plotting changes in rich:poor ratio, rich:poor difference, and concentration indices over period based on asset quintiles. Sociodemographic determinants for service use were explored using multivariable logistic regression analysis.

Findings: Between 1986 and 2012, institutional birth rate increased from 22% to 73% and c-section rate from 2% to 16%. Private sector was increasingly contributing in maternal health. There were significant access inequities by asset quintile, parental education, area of residence, and geographical region. The richest women were 5.45 times (95% CI: 4.75-6.25) more likely to give birth in a health facility and 2.83 times (95% CI: 2.23-3.60) more likely to give birth by c-section than their poorest counterparts. Urban women were 3 times more likely to use institutional birth and 1.45 times more likely to give birth by c-section than rural women. Use of all services was higher in Java and Bali than in other regions. Access inequity was narrowing over time for use of ANC and institutional birth but not for c-section birth.

Conclusion: Ongoing pro-poor health-financing strategies should be strengthened with introduction of innovative ways to monitor access, equity, and quality of care in maternal health. (66 references) (Author)

Full URL: <https://www.dovepress.com/trends-and-inequities-in-use-of-maternal-health-care-services-in-indon-peer-reviewed-article-IJWH>

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20180606-29\*

**Can India's primary care facilities deliver? A cross-sectional assessment of the Indian public health system's capacity for basic delivery and newborn services.** Sharma J, Leslie HH, Regan M, et al (2018), BMJ Open vol 8, no 6, June 2018, e020532

Objectives To assess input and process capacity for basic delivery and newborn (intrapartum care hereafter) care in the Indian public health system and to describe differences in facility capacity between rural and urban areas and across states.

Design Cross-sectional study.

Setting Data from the nationally representative 2012-2014 District Level Household and Facility Survey, which includes a census of community health centres (CHC) and sample of primary health centres (PHC) across 30 states and union territories in India. Participants 8536 PHCs and 4810 CHCs.

Outcome measures We developed a summative index of 33 structural and process capacity items matching the Indian Public Health Standards for PHCs as a metric of minimum facility capacity for intrapartum care. We assessed differences in performance on this index across facility type and location.

Results About 30% of PHCs and 5% of CHCs reported not offering any intrapartum care. Among those offering services, volumes were low: median monthly delivery volume was 8 (IQR=13) in PHCs and 41 (IQR=73) in CHCs. Both PHCs and CHCs failed to meet the national standards for basic intrapartum care capacity. Mean facility capacity was low in PHCs in both urban (0.64) and rural (0.63) areas, while in CHCs, capacity was slightly higher in urban areas (0.77vs0.74). Gaps were most striking in availability of skilled human resources and emergency obstetric services. Poor capacity facilities were more concentrated in the more impoverished states, with 37% of districts from these states receiving scores in the lowest third of the facility capacity index (<0.70), compared with 21% of districts otherwise.

Conclusions Basic intrapartum care capacity in Indian public primary care facilities is weak in both rural and urban areas, especially lacking in the poorest states with worst health outcomes. Improving maternal and newborn health outcomes will require focused attention to quality measurement, accountability mechanisms and quality improvement. Policies to address deficits in skilled providers and emergency service availability are urgently required. (Author)

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20180605-64\*

**Gestational weight gain in Chinese women -- results from a retrospective cohort in Changsha, China.** Huang X, Tan H, Cai M, et al (2018), BMC Pregnancy and Childbirth vol 18, no 185, 29 May 2018

#### Background

The generalizability of the gestational weight gain (GWG) ranges recommended by the Institute of Medicine (IOM) to Chinese women is disputed.

#### Methods

In 2016, 16,780 pregnant women who gave birth to live singletons in Changsha, China, were enrolled. First, subjects with optimal pregnancy outcomes were identified for the GWG percentile distribution description and for comparison to the IOM recommendations. Second, all subjects with optimal GWG according to the IOM body mass index (BMI) cutoffs and those with optimal GWG according to the Asian BMI cutoffs were selected. Pregnancy outcomes were compared between those two groups.

#### Results

A total of 13,717 births with optimal pregnancy outcomes were selected to describe the GWG distribution. The height and central position of the GWG distributions determined by the Asian BMI cutoffs differed from those determined by the IOM BMI cutoffs among the overweight and obese groups. The recommended IOM GWG ranges were narrower than and shifted to the left of the observed distributions. In both BMI classification schemes, however, the IOM-recommended ranges were within the middle 70% (Pc 15th-85th) and 50% (Pc 25th-75th) of the observed distribution. A total of 6438 (38.37%) and 6110 (36.41%) women gained optimal GWG, according to the IOM and Asian BMI classifications, respectively. Compared with those with optimal GWG according to IOM BMI cutoffs, women with optimal GWG according to the Asian BMI cutoffs had lower risks of both macrosomia (adjusted OR = 0.79, 95%CI: 0.67-0.94) and large-for-gestational age (adjusted OR = 0.86, 95%CI: 0.76, 0.98). However, no significantly different risks of preterm, low birthweight, small-for-gestational age, pregnancy-induced hypertension, or gestational diabetes were found between them.

#### Conclusions

The IOM-recommended GWG ranges are within the middle 70% of the distributions in Chinese women, and pre-pregnancy weight status should be determined by the Asian BMI cut-off points for monitoring and making GWG recommendations to Chinese women.

(24 references) (Author) [Please note: BMC initially publishes articles in a provisional format. If there is a note on the document to indicate that it is still provisional, it may undergo minor changes]

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#### 20180605-38\*

**Mobility patterns and associated factors among pregnant internal migrant women in China: a cross-sectional study from a National Monitoring Survey.** Ji Y, Zhao X, Wang Z, et al (2018), BMC Pregnancy and Childbirth vol 18, no 165, 15 May 2018

#### Background

Residential instability during pregnancy has been linked to poor health outcomes. As a first step toward providing better health care to pregnant migrant women, the size and characteristics of this population and factors associated with mobility during pregnancy should be studied.

#### Methods

Using the 'Monitoring Data of Chinese Migrants' for 2012, from the Chinese National Population and Family Planning Commission, this study explored mobility patterns during pregnancy and associated factors among migrants within China. From a library of 158,556 participants, two subsamples were selected. Percentages, with chi-squared tests, and means and standard deviations, with ANOVAs, were adopted to describe mobility patterns during pregnancy (always staying in sending area, mainly staying in sending area, mainly staying in receiving area, and always staying in receiving area) and delivery location choice. Logistic regression analysis was used to explore the associated factors.

#### Results

We found that the percentage of migrants always or mainly staying in receiving areas during pregnancy rose from nearly 40% in 1985 to more than 80% in 2012, while the percentage of migrants who were mobile between receiving and sending areas during pregnancy fluctuated between 30 and 40% before 1995, and between 40 and 45% after 1995, decreasing to around 40% after 2008. The percentage of respondents who chose to deliver in receiving areas fluctuated but increased from 10% in 1985 to more than 50% in 2011. Among respondents who had delivered during the last year of the survey period, families with older pregnant women (OR = 1.09, 95% CI 1.05-1.13), their own housing (OR = 5.66, 95% CI 2.45-13.05), longer time in the receiving area (OR = 1.14, 95% CI 1.09-1.20), and strong will to integrate (OR = 1.32, 95% CI 1.15-1.51) always stayed in the receiving area during pregnancy, rather than the sending area, and families with broadly similar characteristics were inclined to choose the receiving area for their delivery.

#### Conclusions

The mobility patterns of pregnant migrant women in China have been changing in recent years, with the percentage of them staying in receiving areas during pregnancy and delivering there increasing. Individual and family characteristics were also associated with mobility patterns and delivery location choice.

(46 references) (Author) [Please note: BMC initially publishes articles in a provisional format. If there is a note on the document to indicate that it is still provisional, it may undergo minor changes]

Full URL: <https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-018-1813-2>

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#### 20180521-15\*

**Institutional delivery in India, 2004-14: unravelling the equity-enhancing contributions of the public sector.** Joe W, Perkins JM, Kumar S, et al (2018), Health Policy and Planning vol 33, no 5, June 2018, pp 645-653

To achieve faster and equitable improvements in maternal and child health outcomes, the government of India launched the National Rural Health Mission in 2005. This paper describes the equity-enhancing role of the public sector in increasing use of institutional delivery care services in India between 2004 and 2014. Information on 24 661 births from nationally representative survey data for 2004 and 2014 is analysed. Concentration index is computed to describe socioeconomic-rank-related relative inequalities in institutional delivery and decomposition is used to assess the contributions of public and private sectors in overall socioeconomic inequality. Multilevel logistic regression is applied to examine the changes in socioeconomic gradient between 2004 and 2014. The analysis finds that utilization of institutional delivery care in India increased from 43% in 2004 to 83% in 2014. The bulk of the increase was in public sector use (21% in 2004 to 53% in 2014) with a modest increase in private sector use (22% in 2004 to 30% in 2014). The shift from a pro-rich to pro-poor distribution of public sector use is confirmed. Decomposition analysis indicates that 51% of these reductions in socioeconomic inequality are associated with improved pro-poor distribution of public sector births. Multilevel logistic regressions confirm the disappearance of a wealth-based gradient in public sector births between 2004 and 2014. We conclude that public health investments in India have significantly contributed towards an equitable increase in the coverage of institutional delivery care. Sustained policy efforts are necessary, however, with an emphasis on education, sociocultural and geographical factors to ensure universal coverage of institutional delivery care services in India. (Author)

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#### 20180510-25\*

**Psycho-social impact of stillbirths on women and their families in Tamil Nadu, India - a qualitative study.** Gopichandran V, Subramaniam S, Kalsingh MJ (2018), BMC Pregnancy and Childbirth vol 18, no 109, 20 April 2018

##### Background

Stillbirth has serious psycho-social consequences on the parents and on the family. The psychological impact of stillbirth is strongly influenced by the social and cultural context. There is very scarce information on this from the Indian context. This qualitative study was conducted to understand the psycho-social impact, aggravating factors, coping styles and health system response to stillbirths.

##### Methods

A qualitative study was conducted using in-depth interviews with mothers who experienced stillbirth in the past 1 year and their families. A total of 8 women and two health care providers were interviewed by trained interviewers. The interviews were transcribed into the local language and thematic analysis was performed by the researchers retaining the transcripts in the local language. Themes were identified, and a conceptual framework was developed.

##### Results

Women who experienced stillbirths suffered from serious forms of grief and guilt. These emotions were aggravated by the insensitive health system, health care providers, friends, and neighbours, as well as strained marital relationship and financial burdens. The women and their families were disturbed by the 'suddenness' of the stillbirth and frantically searched for the cause. They were frustrated when they couldn't find the cause and blamed various people in their lives. The women and their families perceived poor quality of services provided in the health system and reported that the health care providers were inconsiderate and insensitive. On the other hand, the health care providers reported that they were over-worked, and the health facilities were under-staffed. The community health workers reported that they felt caught in the crossfire between the health facility staff and the family who suffered the stillbirth. The women reported several coping mechanisms including isolation, immersion in work, placing maternal love on other children, the anticipation of next pregnancy and religiosity.

##### Conclusion

Stillbirth is a major cause of psycho-social morbidity. Health systems should be responsive to the psycho-social needs of women who suffer stillbirths and their families.

(31 references) (Author) [Please note: BMC initially publishes articles in a provisional format. If there is a note on the document to indicate that it is still provisional, it may undergo minor changes]

## 20180510-24\*

**Factors associated with caesarean deliveries among child-bearing women in Pakistan: secondary analysis of data from the Demographic and Health Survey, 2012-13.** Amjad A, Amjad U, Zakar R, et al (2018), BMC Pregnancy and Childbirth vol 18, no 113, 23 April 2018

### Background

The increasing rate of caesarean deliveries has become a serious concern for public health experts globally. Various medical and non-medical factors, such as maternal socio-demographics, are found to be responsible for this upsurge. Like in other countries, the rate of caesarean sections has increased in Pakistan as well. Therefore, there is a need to investigate the factors behind this increase. This study aims to assess the determinants associated with caesarean deliveries among child-bearing women aged 15-49 years in Pakistan.

### Methods

Secondary data analysis was conducted on nationally representative cross-sectional survey data from the Pakistan Demographic and Health Survey, 2012-2013. The analysis was limited to mothers aged 15-49 years, who had given birth to at least one child during the 5 years immediately preceding the survey (n = 7461). Maternal socio-demographic characteristics and pregnancy-related variables, including antenatal care utilisation, place of delivery and pregnancy complications were considered as independent variables. The association between caesarean section deliveries (outcome variable) and its determinants was assessed by calculating unadjusted and adjusted odds ratios with 95% confidence intervals using a multivariable binary logistic regression.

### Results

Of the women who had given birth to at least one child during the previous 5 years, the percentage of mothers who delivered their babies through caesarean section was found to be 13.6%. The likelihood of caesarean deliveries was associated with mothers aged more than 24 years, women residing in Punjab province, women belonging to the richest class, women with higher education, women employed at professional/managerial/technical level, and women residing in an urban setting. Additionally, the women who had pregnancy complications, a high utilisation of antenatal care and delivered their babies in private hospitals were found to have higher chances of caesarean deliveries.

### Conclusions

The study revealed that there are a high percentage of women delivering babies through caesarean section in Pakistan. Therefore, strict measures need to be taken to deal with this concern. For example, detailed medical justifications by doctors for performing caesarean sections and awareness among women regarding the reduction of pregnancy complications can help to reduce the chances of malpractice related to caesarean deliveries.

(34 references) (Author) [Please note: BMC initially publishes articles in a provisional format. If there is a note on the document to indicate that it is still provisional, it may undergo minor changes]

## 20180510-23\*

**Prevalence, risk factors and associated adverse pregnancy outcomes of anaemia in Chinese pregnant women: a multicentre retrospective study.** Lin L, Wei Y, Zhu W, et al (2018), BMC Pregnancy and Childbirth vol 18, no 111, 23 April 2018

### Background

Anaemia in pregnant women is a public health problem, especially in developing countries. The aim of this study was to assess the prevalence and related risk factors of anaemia during pregnancy in a large multicentre retrospective study (n = 44,002) and to determine the adverse pregnancy outcomes in women with or without anaemia.

### Methods

The study is a secondary data analysis of a retrospective study named 'Gestational diabetes mellitus Prevalence Survey (GPS) study in China'. Structured questionnaires were used to collect socio-demographic characteristics, haemoglobin levels and pregnancy outcomes from all the participants. Anaemia in pregnancy is defined as haemoglobin < 110 g/L. We used SPSS software to assess the predictors of anaemia and associated adverse pregnancy outcomes.

### Results

The overall prevalence of anaemia was 23.5%. Maternal anaemia was significantly associated with maternal age  $\geq$  35 years (AOR = 1.386), family per capita monthly income < 1000 CNY (AOR = 1.671), rural residence (AOR = 1.308) and pre-pregnancy BMI < 18.5 kg/m<sup>2</sup> (AOR = 1.237). Adverse pregnancy outcomes, including GDM, polyhydramnios, preterm birth, low birth weight (< 2500 g), neonatal complications and NICU admission, increased significantly (P < 0.001) in those with anaemia than those without.

## Conclusions

The results indicated that anaemia continues to be a severe health problem among pregnant women in China. Anaemia is associated with adverse pregnancy outcomes. Pregnant women should receive routine antenatal care and be given selective iron supplementation when appropriate.

(30 references) (Author) [Please note: BMC initially publishes articles in a provisional format. If there is a note on the document to indicate that it is still provisional, it may undergo minor changes]

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## 20180510-10\*

**A comparison of practices, distributions and determinants of birth attendance in two divisions with highest and lowest skilled delivery attendance in Bangladesh.** Al Kibria GM, Burrowes V, Choudhury A, et al (2018), BMC Pregnancy and Childbirth vol 18, no 122, 2 May 2018

### Background

Delivery by skilled birth attendants (SBAs) is strongly recommended to reduce maternal and neonatal mortality. The percentage of births attended by SBAs is low in Bangladesh (42% in 2014), though this rate varies widely by divisions, with the highest 58% in Khulna and only 27% in Sylhet. Comparing and critically analyzing the practices, distributions and determinants of delivery attendance in two divisions with the highest and lowest SBA attendance could help to understand the differences and to employ the findings of the high-performing division to the low-performing division.

### Methods

The 7th Bangladesh Demographic and Health Survey (BDHS 2014) data were analyzed. After reporting the types of delivery attendants, logistic regression analyses were applied to calculate the odds ratios of determinants of deliveries attended by SBAs.

### Results

SBAs attended 225 (58.6%) and 128 (27.4%) deliveries in Khulna and Sylhet, respectively. Khulna had higher birth attendance by qualified doctors (42.5%, n = 163) than Sylhet (15.8%, n = 74). Sylhet had higher attendance by traditional attendants (60.8%, n = 285) than Khulna (33.7%, n = 129). In both regions, attendance by community skilled birth attendants (CSBAs) was very low (< 1%). Khulna had higher percentages of women with higher education level, husbands' higher education, antenatal care (ANC) visits by SBAs, and higher wealth quintiles than Sylhet.

In multivariable analyses, higher education level (adjusted odds ratio (AOR): 8.4; 95% confidence interval (CI): 1.9-36.7), ANC visits (AOR: 3.6; 95% CI: 2.0-6.5), family planning workers' visit (AOR: 3.0; 95% CI: 1.6-5.4), and belonging to richer (AOR: 2.6; 95% CI: 1.4-5.1) or richest (AOR: 3.8; 95% CI: 1.9-7.6) household wealth quintiles had significant positive associations with deliveries by SBAs in Sylhet. Similarly, ANC visits (AOR: 2.5; 95% CI: 1.4-4.6) and higher wealth quintile (AOR: 4.7; 95% CI: 1.9-11.5) were positive predictors in Khulna.

### Conclusions

The higher proportion of educated women and their husbands, wealth status and ANC visits were associated with higher SBA utilization in Khulna compared to Sylhet. Improvement of socioeconomic status, increasing birth attendant awareness programs, providing ANC services, and family-planning workers' visits could increase the proportion of SBA-attended deliveries in Sylhet Division. CSBA program should be re-evaluated for both divisions.

(38 references) (Author) [Please note: BMC initially publishes articles in a provisional format. If there is a note on the document to indicate that it is still provisional, it may undergo minor changes]

Full URL: <https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/s12884-018-1770-9>

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## 20180503-65\*

**Misuse of antenatal care and its association with adverse outcomes of pregnancy in a Southern rural area of Vietnam.** Ngo T-T-D, Nguyen T-D, Goyens P, et al (2018), Health Care for Women International vol 39, no 4, 2018, pp 472-492

Researchers in Vietnam reported a high percentage of pregnant women attending ANC at least once, but an insufficient utilization of ANC services remains. The evidence demonstrating how the utilization of these services affect pregnancy outcome is not documented in Vietnam. We investigated the association between the misuse of ANC services and pregnancy outcome, and assessed other determinants associated with ANC services utilization. We conducted a prospective community-based study in Trang Bom district, Dong Nai, during 12 consecutive months. Data were collected using a structured questionnaire and medical records. Women were followed up to delivery. Misuse of ANC services, related factors and its association with adverse events were assessed using logistic regression. Out of 3301 pregnant women, 91% initiated an ANC visit within first trimester, 95% attended at least three ANC visits, but a low percentage of pregnant women underwent blood and urine tests at least once (20% and 39%, respectively). Factors significantly associated with a higher risk of adverse outcomes were lack of blood test and urine test, parity  $\geq$

3, ANC visits < 3, history of an adverse outcome, and having a clinical condition. Blood and urine tests were less frequently used by young women, women from ethnic minorities, women using only private facilities for ANC attendance, and women with a low number of ANC visits. Despite a high percentage of early entry into ANC and of at least three ANC visits, misuse of ANC services still exists and contributes to adverse outcomes. There is a need to increase the awareness of women on the benefits of ANC services by educating young women as well as women with several children. Health workers should be encouraged to propose suitable ANC services to pregnant women. (56 references) (Author)

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#### 20180503-61\*

**Progress on maternal health care in Vietnam: Findings from Vietnam Multiple Indicator Cluster Survey 2000, 2006, 2011, and 2014.** Chuong NC, Minh HV, Duong DTT, et al (2018), *Health Care for Women International* vol 39, no 4, 2018, pp 368-376

This paper aims to describe a trend in coverage of maternal care services, and provides a detailed analysis of socio-economic correlations to the existing inequities. The paper uses data from the Vietnam Multiple Indicator Cluster Survey 2000, 2006, 2011, and 2014. In the MICS, there were 9,117 women in 2000, 9,473 women in 2006, 11,614 women in 2011, and 9,827 women in 2014 participated in. We found the coverage of antenatal care increase from 68.6% in 2000 to 95.9% in 2014. Similarly, the percentages of women who gave birth with the assistance of skilled staff increased during the studied period (from 69.9% in 2000, 87.7% to 94.5% in 2014). However, improvements in antenatal care and skilled birth attendance in Vietnam have been uneven across different segments of the population. In all the four surveys, the proportions of women who received ANC by a skilled staff and percentages of women who gave birth with the assistance of a skilled health personnel were much higher among those with higher education, belonged to Kinh majority tribe, had better economic status, and lived in an urban area. The degrees of inequity in both antenatal and delivery care in Vietnam are likely to increase over time. (22 references) (Author)

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#### 20180501-77

**Kurenme birth clips: a Japanese midwifery alternative to suturing.** Shinohara E, Yamamoto U, Ito M, et al (2018), *Midwifery Matters (USA)* vol 5, no 1, Spring 2018, pp13-14

Explains that midwives in Japan are not permitted to suture the perineum except in emergency situations, therefore they have adopted an alternative practice using birth clips known as 'Kurenme' for treating perineal tears. Although midwives in the United States of America keep birth clips as part of their suturing clips, instructions are usually in Japanese so they are often unsure of how to use them. This paper describes the appropriate and effective use of birth clips. (JSM)

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#### 20180419-15\*

**Identifying bottlenecks in the iron and folic acid supply chain in Bihar, India: a mixed-methods study.** Wendt AS, Stephenson R, Young MF, et al (2018), *BMC Health Services Research* vol 18, no 281, 12 April 2018

##### Background

Maternal anaemia prevalence in Bihar, India remains high despite government mandated iron supplementation targeting pregnant women. Inadequate supply has been identified as a potential barrier to iron and folic acid (IFA) receipt. Our study objective was to examine the government health system's IFA supply and distribution system and identify bottlenecks contributing to insufficient IFA supply.

##### Methods

Primary data collection was conducted in November 2011 and July 2012 across 8 districts in Bihar, India. A cross-sectional, observational, mixed methods approach was utilized. Auxiliary Nurse Midwives were surveyed on current IFA supply and practices. In-depth interviews (n = 59) were conducted with health workers at state, district, block, health sub-centre, and village levels.

##### Results

Overall, 44% of Auxiliary Nurse Midwives were out of IFA stock. Stock levels and supply chain practices varied greatly across districts. Qualitative data revealed specific bottlenecks impacting IFA forecasting, procurement, storage, disposal, lack of personnel, and few training opportunities for key players in the supply chain.

##### Conclusions

Inadequate IFA supply is a major constraint to the IFA supplementation program, the extent of which varies widely across districts. Improvements at all levels of infrastructure, practices, and effective monitoring will be critical to strengthen the IFA supply chain in Bihar.

(57 references) (Author) [Please note: BMC initially publishes articles in a provisional format. If there is a note on the document to indicate that it is still provisional, it may undergo minor changes]

## 20180322-11\*

**Barriers for pregnant women living in rural, agricultural villages to accessing antenatal care in Cambodia: a community-based cross-sectional study combined with a geographic information system.** Yasuoka J, Nanishi K, Kikuchi K, et al (2018), PLoS ONE vol 13, no 3, 19 March 2018, e0194103

### Background

Maternal morbidity and mortality is still a major public health issue in low- and middle-income countries such as Cambodia. Improving access to antenatal care (ANC) services for pregnant women has been widely recognized as one of the most effective means of reducing maternal mortality and morbidity. As such, this study examined the barriers for pregnant women living in rural, agricultural villages to accessing ANC based on data collected in the Ratanakiri province, one of the least developed provinces in Cambodia, using a combination of a community-based cross-sectional survey and a geographic information system (GIS).

### Methods

A community-based cross-sectional survey was conducted among 377 mothers with children under the age of two living in 62 villages in the Ratanakiri province, Cambodia, in December 2015. Face-to-face interviews were conducted to ask mothers about their ANC service use, knowledge of ANC, barriers to accessing health facilities, and complications they experienced during the most recent pregnancy. At the same time, GIS data were also collected using a Global Positioning System (GPS) to accurately measure actual travel distance of pregnant women to access health facilities and to examine geographical and environmental barriers in greater detail.

### Results

Only a third of the mothers met the recommendations made by the World Health Organization (WHO) of receiving ANC four times or more (achieved ANC4+), and a quarter of the mothers had never received ANC during their most recent pregnancy. Factors positively associated with achieving ANC4+ were mother's secondary or higher education (adjusted odds ratio [AOR] = 5.50, 95% confidence interval [CI]: 1.74, 17.37), being aware that receiving ANC is recommended (AOR = 2.74, 95% CI: 1.25, 6.00), and knowledge about the recommended frequency for ANC (AOR = 2.26, 95% CI: 7.22). Actual travel distance was negatively associated with achieving ANC4+. Mothers who had to travel 10.0-14.9 km were 68% less likely (AOR = 0.32, 95% CI: 0.10, 0.99), and those who had to travel 15.0 km or longer were 79% less likely (AOR = 0.21, 95% CI: 0.07, 0.62) to have achieved ANC 4+, both compared to those who travelled 5.0 km or less. While most previous studies have used a straight-line to measure distance traveled, this study much more accurately measured the actual distance traveled by using a GIS. As a result, there was a statistically significant discrepancy between actual travel distance and straight-line distance.

### Conclusions

This study revealed promoting factors and barriers for ANC use among pregnant women living in remote, agricultural villages in Cambodia. Furthermore, this study highlights the importance of measuring travel distances accurately to ensure that targeted interventions for ANC are not misguided by straight-line distances. The methodology used in this study can be applied widely to other developing countries, especially in remote areas with limited road networks where there may be a large discrepancy between actual and straight-line distances. (45 references) (Author)

Full URL: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0194103>

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## 20180221-46

**Development of a context specific accreditation assessment tool for affirming quality midwifery education in Bangladesh.** Bogren M, Doraiswamy S, Erlandsson K (2018), Midwifery vol 61, June 2018, pp 74-80

### Highlights

- Participatory approach to develop an accreditation tool strengthened ownership
- This initiative can be used as a lessons learned from Bangladesh
- Using ICM's Global Standards for Midwifery Education can help develop a country specific accreditation tool
- A consensus building approach increased national motivation and commitment

### Objective

Using the International Confederation of Midwives (ICM) Global Standards for Midwifery Education as a conceptual framework, the aim of this study was to explore and describe important 'must haves' for inclusion in a context-specific accreditation assessment tool in Bangladesh.

### Design

A questionnaire study was conducted using a Likert rating scale and 111 closed-response single items on adherence to accreditation-related statements, ending with an open-ended question. The ICM Global Standards guided data

collection, deductive content analysis and description of the quantitative results.

#### Setting

Twenty-five public institutes/colleges (out of 38 in Bangladesh), covering seven out of eight geographical divisions in the country.

#### Participants

One hundred and twenty-three nursing educators teaching the 3-year diploma midwifery education programme.

#### Findings

This study provides insight into the development of a context-specific accreditation assessment tool for Bangladesh. Important components to be included in this accreditation tool are presented under the following categories and domains: 'organization and administration', 'midwifery faculty', 'student body', 'curriculum content', 'resources, facilities and services' and 'assessment strategies'. The identified components were a prerequisite to ensure that midwifery students achieve the intended learning outcomes of the midwifery curriculum, and hence contribute to a strong midwifery workforce. The components further ensure well-prepared teachers and a standardized curriculum supported at policy level to enable effective deployment of professional midwives in the existing health system.

#### Key conclusions

As part of developing an accreditation assessment tool, it is imperative to build ownership and capacity when translating the ICM Global Standards for Midwifery Education into the national context.

#### Implications for practice

This initiative can be used as lessons learned from Bangladesh to develop a context-specific accreditation assessment tool in line with national priorities, supporting the development of national policies. (24 references) (Author)

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### 20180131-31

**A new maternal health profession in India: how professional midwifery is perceived by women, and by the midwives themselves.** Beckingham A, Fernandez E (2018), MIDIRS Midwifery Digest vol 28, no 1, March 2018, pp 113-120

This article reports on the development of a model of midwifery care in one Indian hospital which aims instead to 'humanise childbirth' and to discover - through a pilot programme - whether in India, a new midwifery profession could bring about more compassionate, respectful, evidence-based maternity care. Since a major objective in developing 'professional midwifery' was to achieve woman-centred care, this new profession is examined mainly through the words of the women themselves. (24 references) (Author)

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### 20180131-126\*

**Comparison of policies for the management of care for women and newborns during the third stage of labor among Japanese hospitals, clinics, and midwifery birth centers.** Kataoka Y, Nakayama K, Yaju Y, et al (2015), International Journal of Childbirth. Official publication of the International Confederation of Midwives vol 5, no 4, December 2015, pp 200-209

**OBJECTIVE:** To determine the care policies for both mothers and newborns implemented during and after the third stage of labor and to compare the rate of adoption of these care policies among hospitals, clinics, and midwifery birth centers in Japan.

**METHOD:** A cross-sectional survey of the care policies affecting mothers and newborns during and after the third stage of labor was conducted from October 2010 to July 2011. A postal questionnaire with follow-up was sent to all 684 maternity institutions in Tokyo metropolitan areas.

**RESULTS:** The overall response rate was 255 (37%). Most hospitals and clinics had a policy of early cord clamping; however, nearly 70% of the midwifery birth centers adopted the policy of waiting until the cord stopped pulsating. The policy of administering prophylactic uterotonics was adopted by 50% of the hospitals and 63% of the clinics, although midwifery birth centers did not adopt this policy. All midwifery birth centers, 50% of the hospitals, and 50% of the clinics routinely adopted the policy of early skin-to-skin contact.

**CONCLUSION:** Adoption of various care policies differed considerably among the hospitals, clinics, and midwifery birth centers. In addition, there were several gaps between evidence-based care and care policies. (Author)

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### 20180130-180\*

**The State of Essential Newborn Care by Delivery Location in Bangladesh.** Kim ET, Singh K (2017), Maternal and Child Health Journal vol 21, no 11, November 2017, pp 2078-2085

**Introduction** Essential newborn care (ENC) around the time of birth is critical in improving neonatal survival. There is

currently a gap in our knowledge of the use of ENC by place of delivery in Bangladesh. This study assesses the provision of ENC and examines the odds of newborns receiving ENC by different levels of delivery care in Bangladesh. Methods Descriptive statistics and logistic regressions were performed on ENC practices from the 2011 Bangladesh Demographic and Health Survey dataset. ENC practices included nonapplication of substances to the cord; application of antiseptic to the cord; drying newborn within 5 min; wrapping newborn within 5 min; delaying first bath until the first 72 h; and breastfeeding within 1 h. Key predictors included home delivery with a lay attendant, delivery with primary healthcare services and delivery with higher-level healthcare services. Results Coverage of ENC practices was low. Women who delivered with primary and higher-level healthcare services generally reported greater odds of their newborns receiving recommended ENC than women who had home delivery with a lay attendant, the referent category. However, the odds of delayed first bath until 72 h and breastfeeding within 1 h were not statistically different for newborns who were delivered with primary healthcare services. Discussion These findings have significant public health implications as primary healthcare facilities are the first point of entry into the healthcare system. Provision of ENC, particularly delayed first bath until 72 h and breastfeeding within 1 h, should be encouraged for all healthy mother-newborn pairs in Bangladesh. (Author)

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## 20180122-2

### **Experiences of the graduates of the first baccalaureate midwifery programme in Pakistan: a descriptive exploratory study.**

Lakhani A, Jan R, Baig M, et al (2018), *Midwifery* vol 59, April 2018, pp 94-99

#### Background

In 2012 the Aga Khan University in Karachi, Pakistan opened the country's first bachelor's degree program in midwifery for women who held diplomas in nursing and midwifery. The principal aims were to prepare midwives who would be competent to provide full-scope practice. For quality assurance, the programme was continuously monitored and assessed. As part of this ongoing evaluation process we sought in-depth feedback from the first graduates about their student experiences.

#### Objective

This study aimed to explore the experiences of the first graduates of a Bachelor of Science in Midwifery (BScM) program to deepen our understanding of their views of the program's strengths and difficulties and to obtain their suggestions for change. Design and Methods: This qualitative descriptive exploratory study used universal sampling to collect data from all 21 of the first graduates of the BScM Program. Data collection involved focus group discussions using a semi structured interview guide and content analysis. The study was approved by Institutional Ethics Review Committee.

#### Findings

Three main themes emerged from the data: a) Competence acquisition, b) Attitude transformation, and c) Strengths and limitations of the program.

#### Conclusions

The study findings highlighted that the degree program in midwifery had a positive impact on graduates' perceptions of their knowledge, skills, attitudes and ability to implement evidence-based midwifery practice. The graduates regarded the university's environment, teaching-learning strategies, preceptorship model, self-directed learning and exposure to diverse clinical settings as major facilitators in achieving competence. (27 references) (Author)

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## 20180111-73\*

### **The potential of task shifting selected maternal interventions to auxiliary midwives in Myanmar: a mixed-method study.**

Than KK, Tin KN, La T, et al (2018), *BMC Public Health* vol 18, no 99, 8 January 2018

#### Background

An estimated 282 women die for every 100,000 live births in Myanmar, most due to preventable causes. Auxiliary Midwives (AMWs) in Myanmar are responsible for providing a package of care during pregnancy and childbirth to women in rural hard to reach areas where skilled birth attendants (Midwives) are not accessible. This study aims to examine the role of AMWs in Myanmar and to assess the current practices of three proposed essential maternal interventions (oral supplement distribution to pregnant women; administration of misoprostol to prevent postpartum haemorrhage; management of puerperal sepsis with oral antibiotics) in order to facilitate a formal integration of these tasks to AMWs in Myanmar.

#### Methods

A mixed methods study was conducted in Magwe Region, Myanmar involving a survey of 262 AMWs, complemented by 15 focus group discussions with midwives (MWs), AMWs, mothers and community members, and 10 key informant interviews with health care providers at different levels within the health care system.

## Results

According to current government policy, AMWs are responsible for identifying pregnant women, screening for danger signs and facilitating early referral, provision of counselling on nutrition and birth preparedness for women in hard-to-reach areas. AMWs also assist at normal deliveries and help MWs provide immunization services. In practice, they also provide oral supplements to pregnant women (84%), provide antibiotics to mothers during the puerperium (43%), and provide misoprostol to prevent postpartum haemorrhage (41%). The current practices of AMWs demonstrate the potential for task shifting on selected essential maternal interventions. However, to integrate these interventions into formal practice they must be complemented with appropriate training, clear guidelines on drug use, systematic recording and reporting, supportive monitoring and supervision and a clear political commitment towards task shifting.

## Conclusion

With the current national government's commitment towards one AMW in one village, this study highlights the potential for shifting specific maternal lifesaving tasks to AMWs.

(36 references) (Author) [Please note: BMC initially publishes articles in a provisional format. If there is a note on the document to indicate that it is still provisional, it may undergo minor changes]

**Full URL:** <https://bmcpublikealth.biomedcentral.com/articles/10.1186/s12889-017-5020-2>

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## 20171024-102

**India's fierce wimyn and you.** MorningStar S (2017), Midwifery Today no 123, Autumn 2017, pp 24-28

The author recounts her travels to India to speak at the Human Rights in Childbirth conference. She held a Red Tent experience in Goa, visited a traditional community midwife's home in a slum in Mumbai and one of India's two birth centres in Hyderabad, and met a dynamic and inspiring speaker at the conference. (KRB)

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## 20171006-8\*

**Impact of the community-based newborn care package in Nepal: a quasi-experimental evaluation.** Paudel D, Shrestha IB, Siebeck M, et al (2017), BMJ Open vol 7, no 10, October 2017, e015285

**Objective** To evaluate the impact of the community-based newborn care package (CBNCP) on six essential practices to improve neonatal health.

**Methods** CBNCP pilot districts were matched to comparison districts using propensity scores. Impact on birth preparedness, antenatal care seeking, antenatal care quality, delivery by skilled birth attendant, immediate newborn care and postnatal care within 48 hours were assessed using Demographic and Health Survey (DHS) and Health Management Information System (HMIS) data through difference-in-differences and multivariate logistic regression analyses.

**Findings** Changes over time in intervention and comparison areas were similar in difference-in-differences analysis of DHS and HMIS data. Logistic regression of DHS data also did not reveal any significant improvement in combined outcomes: birth preparedness, adjusted OR (aOR)=0.8 (95% CI 0.4 to 1.7); antenatal care seeking, aOR=1.0 (0.6 to 1.5); antenatal care quality, aOR=1.4 (0.9 to 2.1); delivery by skilled birth attendant, aOR=1.5 (1.0 to 2.3); immediate newborn care, aOR=1.1 (0.7 to 1.9); postnatal care, aOR=1.3 (0.9 to 1.9). Health providers' knowledge and skills in intervention districts were fair but showed much variation between different providers and districts.

**Conclusions** This study, while representing an early assessment of impact, did not identify significant improvements in newborn care practices and raises concerns regarding CBNCP implementation. It has contributed to revisions of the package and it being merged with the Integrated Management of Neonatal and Childhood Illness programme. This is now being implemented in 35 districts and carefully monitored for quality and impact. The study also highlights general challenges in evaluating the impacts of a complex health intervention under 'real life' conditions. (38 references) (Author)

**Full URL:** <http://bmjopen.bmj.com/content/7/10/e015285>

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## 20171003-48

**Global midwifery matters: 4. Stillbirth in Sri Lanka.** Tierney G (2017), The Practising Midwife vol 20, no 9, October 2017, pp 21-24

A student midwife reflects on her two-week placement in a maternity hospital in Sri Lanka during her third year, with a focus on a case in which a woman had a 28-week intrauterine fetal death. Gives an overview of stillbirth and the guidelines in Sri Lanka and the United Kingdom, and contrasts these with the barriers to providing optimal midwifery care the author encountered in Sri Lanka. These included financial constraints, geography (the region she worked in was still in the early stages of recovering from a tsunami in 2004), and a large contrast in the role of the midwife

#### 20170929-6\*

##### **Has India's national rural health mission reduced inequities in maternal health services? A pre-post repeated cross-sectional study.** Vellakkal S, Gupta A, Khan Z, et al (2017), *Health Policy and Planning* vol 32, no 1, pp 79-90

Background: In 2005, India launched the National Rural Health Mission (NRHM) to strengthen the primary healthcare system. NRHM also aims to encourage pregnant women, particularly of low socioeconomic backgrounds, to use institutional maternal healthcare. We evaluated the impacts of NRHM on socioeconomic inequities in the uptake of institutional delivery and antenatal care (ANC) across high-focus (deprived) Indian states.

Methods: Data from District Level Household and Facility Surveys (DLHS) Rounds 1 (1995-99) and 2 (2000-04) from the pre-NRHM period, and Round 3 (2007-08), Round 4 and Annual Health Survey (2011-12) from post-NRHM period were used. Wealth-related and education-related relative indexes of inequality, and pre-post difference-in-differences models for wealth and education tertiles, adjusted for maternal age, rural-urban, caste, parity and state-level fixed effects, were estimated. Results: Inequities in institutional delivery declined between pre-NRHM Period 1 (1995-99) and pre-NRHM Period 2 (2000-04), but thereafter demonstrated steeper decline in post-NRHM periods. Uptake of institutional delivery increased among all socioeconomic groups, with (1) greater effects among the lowest and middle wealth and education tertiles than highest tertile, and (2) larger equity impacts in the late post-NRHM period 2011-12 than in the early post-NRHM period 2007-08. No positive impact on the uptake of ANC was found in the early post-NRHM period 2007-08; however, there was considerable increase in the uptake of, and decline in inequity, in uptake of ANC in most states in the late post-NRHM period 2011-12. Conclusion: In high-focus states, NRHM resulted in increased uptake of maternal healthcare, and decline in its socioeconomic inequity. Our study suggests that public health programs in developing country settings will have larger equity impacts after its almost full implementation and widest outreach. Targeting deprived populations and designing public health programs by linking maternal and child healthcare components are critical for universal access to healthcare. (55 references) (Author)

Full URL: <https://academic.oup.com/heapol/article/32/1/79/2555417/Has-India-s-national-rural-health-mission-reduced>

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#### 20170914-20

##### **Shaken into action.** Royal College of Midwives (2017), *Midwives* vol 20, Autumn 2017, pp 74-76

Joy Kemp, Eleanor Shaw and Kiran Bajracharya report how the RCM helped the fledgling midwifery society in Nepal provide care to thousands of pregnant women at risk after the 2015 earthquake. (Author)

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#### 20170810-51

##### **Evaluating the results of mentorship training for community midwives in Sindh, Pakistan.** Sayani AH, Jan R, Lennox S, et al (2017), *British Journal of Midwifery* vol 25, no 8, August 2017, pp 511-518

###### Aims

The aim of the study was to measure the impact of the mentorship training on the community midwives' knowledge, perceptions, and willingness to mentor.

###### Methods

A quasi-experimental pre- and post-design was used. A total of 50 community midwives were educated about mentorship, and data were collected through pre- and post-test questionnaires, and a 3-month follow-up.

###### Findings

There was a significant improvement in the knowledge of community midwives about mentorship ( $P < 0.001$ ) and their willingness to mentor ( $P < 0.001$ ). Their perceptions about the cost versus benefit of mentoring had improved ( $P < 0.001$ ). During the follow-up, the majority of participants reported that they had begun working as a mentor.

###### Conclusions

Mentorship training was found to be effective in improving the knowledge, perceptions, and willingness of community midwives to mentor. A larger study in a different area of Pakistan is also recommended using a similar scheme. (37 references) (Author)

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#### 20170808-111\*

##### **Rapid initiation of fetal therapy services with a system of learner-centred training under proctorship: the National**

**University Hospital (Singapore) experience.** Gosavi A, Vijayakumar PD, Ng BSW, et al (2017), Singapore Medical Journal vol 58, no 6, June 2017, pp 311-320

#### INTRODUCTION

Management of complicated monochorionic twins and certain intrauterine structural anomalies is a pressing challenge in communities that still lack advanced fetal therapy. We describe our efforts to rapidly initiate selective feticide using radiofrequency ablation (RFA) and selective fetoscopic laser photocoagulation (SFLP) for twin-to-twin transfusion syndrome (TTTS), and present the latter as a potential model for aspiring fetal therapy units.

#### METHODS

Five pregnancies with fetal complications were identified for RFA. Three pregnancies with Stage II TTTS were selected for SFLP. While RFA techniques utilising ultrasonography skills were quickly mastered, SFLP required stepwise technical learning with an overseas-based proctor, who provided real-time hands-off supervision.

#### RESULTS

All co-twins were live-born following selective feticide; one singleton pregnancy was lost. Fetoscopy techniques were learned in a stepwise manner and procedures were performed by a novice team of surgeons under proctorship. Dichorionisation was completed in only one patient. Five of six twins were live-born near term. One pregnancy developed twin anaemia-polycythaemia sequence, while another was complicated by co-twin demise.

#### DISCUSSION

Proctor-supervised directed learning facilitated the rapid provision of basic fetal therapy services by our unit. While traditional apprenticeship is important for building individual expertise, this system is complementary and may benefit other small units committed to providing these services. (62 references) (Author)

Full URL: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5474526/>

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#### 20170807-20\*

**Safe delivery care practices in western Nepal: Does women's autonomy influence the utilization of skilled care at birth?**

Bhandari TR, Kuty VR, Sarma PS, et al (2017), PLoS ONE

Despite various efforts to increase the utilization of skilled birth attendants (SBA), nearly two-thirds of deliveries take place at home without the assistance of SBAs in Nepal. We hypothesized that the ability of women to take decisions about their own lives-women's autonomy-plays an important part in birth choices. To know this, we conducted a community-based cross-sectional study for assessing women's autonomy and utilization of safe delivery care service in Kapilvastu district of Nepal from June to October 2014. We used multivariate modeling to associate socioeconomic factors and women's autonomy with the utilization of safe delivery care services. Just over one-third of women sought institutional delivery care during the birth of their last child. Out of the total deliveries at health facilities, nearly 58% women visited health facility for self-reported emergency obstructive care. Only 6.2% home deliveries were handled by health workers and 14.7% women used the safe delivery kit for home delivery care. Higher levels of women's education had a strong positive association (odds ratio = 24.11, CI = 9.43-61.64) with institutional delivery care. Stratified analysis showed that when the husband is educated, women's education seems to work partly through their autonomy in decision making. Educational status of women emerged as one of the key predictors of the utilization of delivery care services in Kapilvastu district. Economic status of household and husband's education are other dominant predictors of the utilization of safe delivery care services. Improving the economic and educational status may be the way out for improving the proportion of institutional deliveries. Women's autonomy may be an important mediating factor in this pathway. (38 references) (Author)

Full URL: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0182485>

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#### 20170803-31\*

**An innovative approach to in-service training of maternal health staff in Cambodian hospitals.** Woods J, Gagliardi L, Nara S, et al (2015), International Journal of Gynecology & Obstetrics vol 129, no 2, May 2015, pp 178-183

#### Objective

To demonstrate the feasibility of implementing evidence-based continuing medical education (CME) to improve key skills among maternity staff in Cambodia.

#### Methods

A skills-based CME program was implemented in 33 Cambodian hospitals. Each clinical skills practice (CSP) module consisted of a 1-day practice session, focusing on three maternal and newborn interventions, followed by support visits to participating hospitals. Skills were assessed at 27 intervention hospitals and five control hospitals 7-11 months after the practice sessions through observation of neonatal resuscitation, magnesium sulfate dilution, and aortic compression simulations.

#### Results

A total of 559 healthcare workers attended at least one CSP practice session. The skills assessment included 47 doctors and 210 midwives. Hospital staff who participated in CSP performed significantly better than did those from control hospitals on neonatal resuscitation (mean score 31.22 vs 17.00;  $P < 0.001$ ), magnesium sulfate dilution (mean score 11.01 vs 8.47;  $P < 0.001$ ), and aortic compression (mean score 13.87 vs 4.33;  $P < 0.001$ ). CSP participants were also significantly more likely to score higher than the 70% cutoff for neonatal resuscitation and magnesium sulfate dilution than were those from control hospitals, after adjustment for hospital level and profession ( $P \leq 0.05$ ).

#### Conclusion

Key clinical skills in low-resource settings can be improved by implementing CME using simulations and supportive follow-up.

(Author)

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#### 20170726-127

**Supporting student practice: Reflections on the first University of Canberra International Midwifery Student Placement in Vinh Long, Vietnam.** Lewis E (2017), Australian Midwifery News vol 17, no 2, Winter 2017, pp 54-55

A brief account of a two-week clinical placement for Australian student midwives in a hospital in Vietnam. Describes the maternity department, focusing on its physical layout and basic equipment; and includes observations on the hospital's labour and birthing practices and care. Most women gave birth in the supine position, and had episiotomies as soon as the infant's head crowned so the baby could be lifted out. The students introduced skin-to-skin contact to mothers and midwives, and provided breastfeeding workshops. (KRB)

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#### 20170724-22

**Comparison of midwife-led care and obstetrician-led care on maternal and neonatal outcomes in Singapore: A retrospective cohort study.** Voon ST, Lay JTS, San WTW, et al (2017), Midwifery vol 53, October 2017, pp 71-79

#### Objectives

To examine the maternal and neonatal outcomes of low-risk women receiving midwife-led care and obstetrician-led care.

#### Design, Setting, & Participants

A retrospective cohort study design was used. Data were collected from a large tertiary maternity hospital in Singapore. This involved a medical record review of 368 women who had singleton, normal to low-risk, term pregnancy, and received midwife-led care and obstetrician-led care between 2013 to 2014.

#### Measurements

A data extraction tool was used to solicit information on the outcome measures, including duration of labour, mode of delivery, episiotomy, and 5-minutes Apgar score ( $<7$ ). Descriptive statistics were used to summarize the women's characteristics. Chi-square and independent sample t-test were used to assess the differences in demographics and birth outcomes. Multiple linear and logistic regressions were used to examine the difference between the two comparison groups after adjusted for potential confounders.

#### Findings

Statistically significant differences ( $p < 0.05$ ) between the midwife-led care group and the obstetrician-led care group in terms of the total duration of labour and total antenatal visits were found. No statistically significant differences were observed for mode of delivery, episiotomy, intrapartum pain management, labour augmentation, labour induction, postpartum haemorrhage, perineal trauma, birth status, 5-minutes Apgar score ( $<7$ ), low birth weight ( $<2500$  g), and neonatal admission to intensive care units between the midwife-led care group and the obstetrician-led care group.

#### Key conclusions

While interventions such as episiotomies and labour augmentation were more common in the midwife-led care group, no significant differences were found for most of the outcome measures between the two maternity groups except for total antenatal visits and duration of labour. Findings suggest that midwife-led care is as safe and effective as obstetrician-led care in achieving optimal birth outcomes, with no higher risk of adversities for low-risk women. Additional studies are necessary to continuously evaluate midwife-led care and to promote normal birth and reduce excessive use of obstetric procedures.

#### Implications for practice

The provision of midwife-led care should continue to be extended as an additional choice in maternity care for women with low-risk pregnancies. Professional staff development with continuous education is needed to clear misconceptions about midwife-led care and to promote awareness in current practice guidelines. Prospective evaluation of midwife-led care will be beneficial in informing policies and practise guidelines. (45 references) (Author)

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20170719-68

**Sanhujori: Korea's traditional postnatal care culture.** Kim S (2017), International Journal of Childbirth Education vol 32, no 3, July 2017, pp 13-16

The purpose of this paper is to introduce Korean traditional postpartum care, Sanhujori, and to explain its principles to benefit new mothers. Sanhujori principles are keeping the body warm, getting enough rest, taking in quality food, refraining from straining the joints, and taking sitz baths. Traditional and contemporary applications of Sanhujori principles are examined, including the traditional use of gold chains, breastfeeding, sitz baths, nutrition, and activity recommendations. (12 references) (Author)

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20170718-7\*

**Measuring patient safety culture in maternal and child health institutions in China: a qualitative study.** Wang Y, Liu W, Shi H, et al (2017), BMJ Open vol 7, no 7, July 2017, e015458

**Introduction** Patient safety culture (PSC) plays a critical role in ensuring safe and quality care. Extensive PSC studies have been undertaken in hospitals. However, little is known about PSC in maternal and child health (MCH) institutions in China, which provide both population-based preventive services as well as individual care for patients.

**Objectives** This study aimed to develop a theoretical framework for conceptualising PSC in MCH institutions in China.

**Methods** The study was undertaken in six MCH institutions (three in Hebei and three in Beijing). Participants (n=118) were recruited through stratified purposive sampling: 20 managers/administrators, 59 care providers and 39 patients. In-depth interviews were conducted with the participants. The interview data were coded using both inductive (based on the existing PSC theory developed by the Agency for Healthcare Research and Quality) and deductive (open coding arising from data) approaches. A PSC framework was formulated through axial coding that connected initial codes and selective coding that extracted a small number of themes.

**Results** The interviewees considered patient safety in relation to six aspects: safety and security in public spaces, safety of medical services, privacy and information security, financial security, psychological safety and gap in services. A 12-dimensional PSC framework was developed, containing 69 items. While the existing PSC theory was confirmed by this study, some new themes emerged from the data. Patients expressed particular concerns about psychological safety and financial security. Defensive medical practices emerged as a PSC dimension that is associated with not only medical safety but also financial security and psychological safety. Patient engagement was also valued by the interviewees, especially the patients, as part of PSC.

**Conclusions** Although there are some common features in PSC across different healthcare delivery systems, PSC can also be context specific. In MCH settings in China, the meaning of 'patient safety' goes beyond the traditional definition of patients. General well-being, health and disease prevention are important anchor points for defining PSC in such settings. (74 references) (Author)

**Full URL:** <http://bmjopen.bmj.com/content/7/7/e015458>

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20170718-56\*

**Improved postnatal care is needed to maintain gains in neonatal survival after the implementation of the Helping Babies Breathe initiative.** Wrammert J, Kc A, Ewald U, et al (2017), Acta Paediatrica vol 106, no 8, August 2017, pp 1280-1285

**Aim**

Helping Babies Breathe (HBB) is a neonatal resuscitation protocol proven to reduce intrapartum-related mortality in low-income settings. The aim of this study was to describe the timing and causes of neonatal in-hospital deaths before and after HBB training at a maternity health facility in Nepal.

**Methods**

A prospective cohort study was conducted at the facility between July 2012 and September 2013. All 137 staffs, including medical doctors and midwives, were trained in January 2013. The causes of 299 neonatal deaths and the day of death, up to 27 days, were collected before and after the training course.

**Results**

Deaths caused by intrapartum-related complications were reduced from 51% to 33%. Preterm infants survived for more days ( $p < 0.01$ ) during the neonatal period, but overall in-hospital neonatal mortality was unchanged ( $p = 0.46$ ) after training. The survival rates linked to complications of infection, congenital anomalies and other causes were unaffected by the intervention.

**Conclusion**

The continuum of postnatal care for newborn infants needs to be strengthened after Helping Babies Breathe training, to maintain the gains in neonatal survival on the day of delivery. Additional interventions in the postnatal period are therefore required to increase neonatal survival at facilities in low-income settings. (Author) (26 references)

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## 20170718-32\*

**Determinants of knowledge of critical danger signs, safe childbirth and immediate newborn care practices among auxiliary midwives: a cross sectional survey in Myanmar.** Than KK, Morgan A, Pham MD, et al (2017), *BMJ Open* vol 7, no 7, July 2017, e017180

**Objectives** The re-emergence of community-based health workers such as the auxiliary midwives (AMWs) in Myanmar, who are local female volunteers, has been an important strategy to address global health workforce shortages. The Myanmar government recommends one AMW for every village. The aim of this study is to investigate the current knowledge of critical danger signs and practices for safe childbirth and immediate newborn care of AMWs to inform potential task shifting of additional healthcare responsibilities.

**Methods** A cross-sectional survey was conducted from July 2015 to June 2016 in three hard-to-reach areas in Myanmar. Face-to-face interviews were conducted using a pretested questionnaire.

**Results** Among 262 AMWs participating in the study, only 8% of AMWs were able to identify at least 80% of 20 critical danger signs. Factors associated with greater knowledge of critical danger signs included older age over 35 years (adjusted OR (AOR) 2.19, 95% CI 0.99 to 4.83), having received refresher training within the last year (AOR 2.20, 95% CI 1.21 to 4.01) and receiving adequate supervision (AOR 5.04, 95% CI 2.74 to 9.29). Those who employed all six safe childbirth and immediate newborn care practices were more likely to report greater knowledge of danger signs (AOR 2.81, 95% CI 1.50 to 5.26), adequate work supervision (AOR 3.18 95% CI 1.62 to 6.24) and less education (AOR 0.44, 95% CI 0.23 to 0.88).

**Conclusion** The low level of knowledge of critical danger signs and reported practices for safe childbirth identified suggest that an evaluation of the current AMW training and supervision programme needs to be revisited to ensure that existing practices, including recognition of danger signs, meet quality care standards before new interventions are introduced or new responsibilities given to AMWs. (25 references) (Author)

**Full URL:** <http://bmjopen.bmj.com/content/7/6/e017180>

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## 20170711-15\*

**Teamwork among midwives during neonatal resuscitation at a maternity hospital in Nepal.** Wrammer J, Sapkota S, Baral K, et al (2017), *Women and Birth: Journal of the Australian College of Midwives* vol 30, no 3, June 2017, pp 262-269

### Background

Simulation training is a powerful and evidence-based teaching method in healthcare. It allows students to develop essential competences that are often difficult to achieve during internships. High-Fidelity Perinatal Simulation exposes them to real-life scenarios in a safe environment. Although student midwives' experiences need to be considered to make the simulation training work, these have been overlooked so far.

### Aim

To explore the experiences of last-year student midwives with High-Fidelity Perinatal Simulation training.

### Methods

A qualitative descriptive study, using three focus group conversations with last-year student midwives (n = 24). Audio tapes were transcribed and a thematic content analysis was performed. The entire data set was coded according to recurrent or common themes. To achieve investigator triangulation and confirm themes, discussions among the researchers was incorporated in the analysis.

### Findings

Students found High-Fidelity Perinatal Simulation training to be a positive learning method that increased both their competence and confidence. Their experiences varied over the different phases of the High-Fidelity Perinatal Simulation training. Although uncertainty, tension, confusion and disappointment were experienced throughout the simulation trajectory, they reported that this did not affect their learning and confidence-building.

### Conclusion

As High-Fidelity Perinatal Simulation training constitutes a helpful learning experience in midwifery education, it could have a positive influence on maternal and neonatal outcomes. In the long term, it could therefore enhance the midwifery profession in several ways. The present study is an important first step in opening up the debate about the pedagogical use of High-Fidelity Perinatal Simulation training within midwifery education. (28 references) (Author)

**Full URL:** [http://www.womenandbirth.org/article/S1871-5192\(17\)30088-4/fulltext](http://www.womenandbirth.org/article/S1871-5192(17)30088-4/fulltext)

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## 20170623-4\*

**Facilitators and barriers to participation of private sector health facilities in government-led schemes for maternity services in India: a qualitative study.** Yadav V, Kumar S, Balasubramaniam S, et al (2017), *BMJ Open* vol 7, no 7, July 2017, e017092

**Objective** Despite provision of accreditation of private sector health providers in government-led schemes for maternity services in India, their participation has been low. This has led to an underutilisation of their presence, resources and expertise for providing quality maternal and newborn health services. This study explores the perception of various stakeholders on expectations, benefits, barriers and facilitators to private sector participation in government-led schemes-specifically Janani Suraksha Yojana (JSY)-for maternity service delivery.

**Design** Narrative-based qualitative study. Face-to-face in-depth interviews were conducted with study participants. The interviews were transcribed, translated and analysed using a reflexive and inductive approach to allow codes, categories and themes to emerge from within the data.

**Setting** Private obstetricians, government health officials and FOGSI (Federation of Obstetrics and Gynaecological Societies of India) members, Jharkhand and Uttar Pradesh, India.

**Participants** Eighteen purposefully selected private obstetricians from 9 cities across states of Uttar Pradesh and Jharkhand, 11 government health officials and 2 FOGSI members.

**Results** The major factors serving as barriers to participation of private practitioners in JSY-which emerged on thematic analysis-were low reimbursement amounts, delayed reimbursements, process of interaction with the government and administrative issues, previous experiences and trust deficit, lack of clarity on the accreditation process and patient-level barriers. On the other hand, factors which were facilitators to participation of private practitioners were ease of process, better communication, branding, motivation of increasing clientele as well as satisfaction of doing social service.

**Conclusion** Factors such as financial processes and administrative delays, mistrust between the stakeholders, ambiguity in processes, lack of transparency and lack of ease in the process of empanelment of private sector are hindering effective public-private partnerships under JSY. Simplifying and strengthening the processes, communication strategies and branding can help revitalise it. (36 references) (Author)

**Full URL:** <http://bmjopen.bmj.com/content/7/6/e017092?rss=1>

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#### **20170614-51\***

##### **Effect of political decentralization and female leadership on institutional births and child mortality in rural Bihar, India.**

Kumar S, Prakash N (2017), *Social Science and Medicine* vol 185, May 2017, pp 171-178

In this paper, we investigate the impacts of political decentralization and women reservation in local governance on institutional births and child mortality in the state of Bihar, India. Using the difference-in-differences methodology, we find a significant positive association between political decentralization and institutional births. We also find that the increased participation of women at local governance led to an increased survival rate of children belonging to richer households. We argue that our results are consistent with female leaders having policy preference for women and child well-being. (Author)

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#### **20170613-1\***

**Longer exposure to a new refugee food ration is associated with reduced prevalence of small for gestational age: results from 2 cross-sectional surveys on the Thailand-Myanmar border.** Carrara VI, Stuetz W, Lee S, et al (2017), *The American Journal of Clinical Nutrition* vol 105, no 6, June 2017, pp 1382-1390

**Background:** Despite the high risk of compromised nutrition, evidence of the effect of refugee rations on fetal growth is limited. A new ration containing micronutrient-fortified flour without increased caloric content of the general food basket was introduced to the Maela refugee camp in Thailand, July 2004. **Objective:** The effect of the length of gestational exposure of the new ration on fetal growth was compared with birth outcomes [small for gestational age (SGA), preterm birth (PTB)]. **Design:** In an observational study in 987 newborns from 1048 prospectively followed antenatal clinic (ANC) attendees enrolled in 2 cross-sectional surveys, exposure was categorized in 2004 according to gestation at the time of commencing the new ration and in 2006 as comprehensive (preconception and pregnancy). In both surveys, the pregnancy-specific ration and vitamin supplements were routine. **Results:** In 2004, the proportions of SGA decreased with longer exposure to the new ration: no exposure during pregnancy (27.7%; n = 13 of 47) and exposure in the third (27.6%; n = 37 of 134), second (18.6%; n = 35 of 188), and first (19.4%; n = 6 of 31) trimesters, respectively (adjusted P-trend = 0.046). In 2006, the new ration was available to all women and there was no significant additional impact of the pregnancy-specific ration and vitamin supplements. Between 2004 and 2006, SGA decreased from 28.9% (13 of 45) to 17.3% (69 of 398) (adjusted P = 0.050), a reduction of 40.1% (95% CI: 34.7%, 45.9%); there was also a decrease in the percentage of underweight women on admission to the ANC (38.2%; 95% CI: 31.4%, 45.5%). PTB rates were low and not significantly different with exposure to the new ration. **Conclusions:** In 2004, the earlier in gestation in which the new ration was available the greater the effect on fetal growth as shown by a reduced prevalence of SGA. In 2006, additional benefits to fetal growth from the pregnancy-specific ration and vitamin supplements beyond those of the preconception ration were not observed.

#### 20170608-22

**Global maternal health 1. Traditions and birth in the Philippines.** Billinge T (2017), *The Practising Midwife* vol 20, no 6, June 2017, pp 15-19

This occasional series aims to share, discuss and promote midwifery in a global context. Midwifery is a truly global profession and even those of us who work solely in the UK will care for women from many different cultures; these articles reflect the experiences of midwives and students working in both the UK and in Asia, Australasia, Africa and Europe. The first few articles of the series have been developed by students undertaking a global maternity module at The University of Leeds. Tara Billinge describes her work for a maternity charity based in the Philippines, helping to improve access to care for indigenous tribe, the Aetas. (23 references) (Author)

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#### 20170606-42

**Maternity services in China and professional identity of the midwife.** Butler J (2017), *British Journal of Midwifery* vol 25, no 6, June 2017, pp 396-400

Maternity services in China are highly medicalised and government policy for obstetric-led hospital care has resulted in marginalisation of the midwife's role. The broader historical, political and cultural context of Chinese society has also influenced how midwifery care is provided. By focusing on the professional identity of midwives, this article explores factors that impact on how midwives in China practice in comparison to midwives in the UK. The article concludes that midwives in China face significant challenges and are not adequately enabled to provide care from conception through to the end of the postnatal period. By comparing midwifery practice between the two countries, it is suggested that there are seven key factors that appear to promote and contribute to a strong professional identity. It is important to note that this is a personal view based on observation and reflection. (17 references) (Author)

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#### 20170606-38

**Exploring community midwives' perceptions of their work experience after deployment in the rural areas of Chitral, Pakistan.** Jaffer MQ, Jan R, Kaufman K, et al (2017), *British Journal of Midwifery* vol 25, no 6, June 2017, pp 372-378

##### Aims:

To explore the perceptions of community midwives about their work experiences after deployment in the rural settings of Chitral, Khyber Pakhtunkhwa, Pakistan.

##### Methods:

A qualitative descriptive approach was used, conducting in-depth semi-structured interviews with 13 community midwives.

##### Findings:

The three major themes that emerged from the analysis of the data were: (1) rural community midwives' perceptions of their role and competencies, (2) factors facilitating and hindering the rural community midwives' ability to function, and (3) continuation of community midwives' services in the future.

##### Conclusions:

The study findings highlighted the factors that empower and obstruct community midwives in providing services in rural areas. The majority of the community midwives felt empowered because of their increased earning capacity and enhanced competencies in performing their roles. However, some of them shared challenges in terms of socio-cultural and financial constraints. These findings have important implications for midwives working in rural areas. (35 references) (Author)

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#### 20170518-48\*

**Outcomes of blood loss post physiological birth with physiological management in the third stage of labour at a maternity home in Japan.** Oishi T, Tamura T, Yamamoto U (2017), *New Zealand College of Midwives Journal* no 53, December 2017, pp 23-29

Background: Debate continues as to whether active or physiological management of the third stage of labour reduces the risk of postpartum haemorrhage for healthy well women. However, little attention has been paid to what volume

of blood loss should be considered within normal range when the birth has been physiological, including physiological management of the third stage. At midwife-run maternity homes in Japan, midwives support physiological labour and birth, including the third stage, with protocols in place which govern when to intervene, refer and transfer to hospital obstetric care. Objectives: To describe and quantify and gauge the significance of blood loss volume following birth when labour, birth and third stage have been physiological at one Japanese maternity home.

Method: Retrospective cohort study with data being extracted from the birth records of 512 women who gave birth at a maternity home between January 2007 and February 2010. Blood loss was measured up to two hours postpartum.

Findings: Among the 512 births, we determined the means of parity as 2.2 (SD=0.86), blood loss up to two hours post-delivery as 608.7ml (SD=403.1), and length of the third stage of labour as 12.9min (SD=7.7). Blood losses of between 0-499ml, 500-999ml, 1000-1499ml, 1500-1999ml and  $\geq 2000$ ml were 52.3%, 31.6%, 11.3%, 4.1% and 0.6%, respectively. Therapeutic intravenous uterotonics were provided to 3.1% of women when blood loss was  $<1000$ ml but given to 83.3% when blood loss exceeded 1500ml. Furthermore, 5.6% of the women received IV iron therapy when blood loss was  $<1000$ ml, while all the women did when blood loss exceeded 1500ml. Mean haemoglobin level at four days postpartum with blood loss  $>1500$ ml was 8.3 g/dl (SD=1.0) which was significantly lower than the mean of 9.8 g/dl (SD=1.2) calculated for the women who had a blood loss of 1000-1499ml and the 9.6 g/dl mean (SD=0.9) for the women with a blood loss of 500-999ml ( $F=27.92$ ,  $p<0.001$ ). Of those reported ( $n=11$ ), mean haemoglobin levels in all groups increased to almost 11 g/dl after two weeks.

Conclusion: Although these data are only from one maternity home in Japan, they clearly demonstrate that for these women, when births were physiological and the third stage was physiologically managed, blood loss during the third stage and up to two hours postpartum could be more than 500ml and may be as much as 1000ml without adversely affecting them.

(30 references) (Author)

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#### 20170515-22\*

**Determinants of utilization of antenatal care services among adolescent girls and young women in Indonesia.** Efendi F, Chen CM, Kurniati A, et al (2017), *Women and Health* vol 57, no 5, May 2017, pp 614-629

Millennium Development Goals agenda. This study aimed to assess the key factors determining use of ANC by adolescent girls and young women in Indonesia. Data from the Indonesia Demographic and Health Survey 2012 were used, with a focus on married adolescent girls (aged 15-19 years,  $n = 543$ ) and young women (20-24 years,  $n = 2,916$ ) who were mothers. Bivariate and multiple logistic regression analyses were performed to determine the factors associated with ANC use. The findings indicated that adolescents were less likely to make ANC visits than young women. Richer women were more likely to make four ANC visits in both groups compared to the poorer women. Living in urban areas, higher educational attainment, and lower birth order were also all associated with higher levels of receiving ANC among young women. The results showed that socio-economic factors were related to the use of ANC among adolescent girls and young women. Ongoing health-care interventions should thus put a priority on adolescent mothers coming from poor socio-economic backgrounds. (50 references) (Author)

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#### 20170512-43\*

**Barriers to utilization of childbirth services of a rural birthing center in Nepal: A qualitative study.** Khatri RB, Dangi TP, Gautam R, et al (2017), *PLoS ONE* vol 12, no 5, 11 May 2017, e0177602

##### Background

Maternal mortality and morbidity are public health problems in Nepal. In rural communities, many women give birth at home without the support of a skilled birth attendant, despite the existence of rural birthing centers. The aim of this study was to explore the barriers and provide pragmatic recommendations for better service delivery and use of rural birthing centers.

##### Methods

We conducted 26 in-depth interviews with service users and providers, and three focus group discussions with community key informants in a rural community of Rukum district. We used the Aditya Cattamanchi logic model as a guiding framework for data analysis.

##### Results

Irregular and poor quality services, inadequate human and capital resources, and poor governance were health system challenges which prevented service delivery. Contextual barriers including difficult geography, poor birth preparedness practices, harmful culture practices and traditions and low level of trust were also found to contribute to underutilization of the birthing center.

## Conclusion

The rural birthing center was not providing quality services when women were in need, which meant women did not use the available services properly because of systematic and contextual barriers. Approaches such as awareness-raising activities, local resource mobilization, ensuring access to skilled providers and equipment and other long-term infrastructure development works could improve the quality and utilization of childbirth services in the rural birthing center. This has resonance for other centers in Nepal and similar countries. (63 references) (Author)

Full URL: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0177602>

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## 20170425-47

**A randomised controlled trial in comparing maternal and neonatal outcomes between hands-and-knees delivery position and supine position in China.** Zhang H, Huang S, Guo X, et al (2017), *Midwifery* vol 50, July 2017, pp 117-124

### Background

the supine position is the most frequently offered for birth delivery in China and many other countries, but the hands-and-knees position is now gaining prominence with doctors in China. This study aims to examine the differences in maternal and neonatal outcomes among low-risk women who gave birth either in the hands-and-knees position or the supine position.

### Methods

a randomised controlled trial was conducted in 11 hospitals in China from May to December in 2012. In total, 1400 women were recruited and randomly allocated to either the experimental group (n=700, 446 completed the protocol) who delivered in hands-and-knees position and the control group (n=700, 440 completed the protocol) who delivered in supine position. Women who could not maintain the randomised position during the second stage of labour were allowed to withdraw from the study. The primary maternal outcome measured was rate of episiotomy. Secondary outcomes included degree of perineum laceration, rate of emergency caesarean section, rate of shoulder dystocia, and duration of labour, postpartum bleeding, neonatal Apgar score, and the rate of neonatal asphyxia. Because outcome data were only collected for women who gave birth in the randomised position, per-protocol analyses were used to compare groups. The primary outcome, episiotomy, was also compared between groups using logistic regression adjusting for maternal age, gestational age at birth, whether the woman was primiparous, the process of second stage of labour and birthweight.

### Findings

as compared with the control group, the experimental group had lower rates of episiotomy and second-degree perineum laceration (including episiotomy), and higher rates of intact perineum and first-degree perineum laceration, with a longer duration of second stage of labour. No significant differences were found in the amount of postpartum bleeding, shoulder dystocia, neonatal asphyxia and neonatal Apgar scores at 1 minute and 5 minutes. Adjusted for maternal age, gestational age, parity, duration of second stage of labour and birth weight, the hands-and-knees position reduced the need for episiotomy (OR=0.024, p<0.001).

### Conclusions

this study provided evidence that women who could maintain the hands-and-knees position during the second stage of labour had lower rates of episiotomy and second-degree perineum laceration (including episiotomy). Both midwives and obstetricians are suggested to learn the skills to assist women with delivery in this position. (35 references) (Author)

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## 20170425-32\*

**ICM Annual Report 2015.** International Confederation of Midwives (2016), International Confederation of Midwives April 2016. 21 pages

This report provides an overview of the main activities undertaken during 2015 by the International Confederation of Midwives (ICM). It includes a budget summary for 2016 and forms a backdrop to the annual financial report. (Author, edited)

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## 20170420-86\*

**What socioeconomic factors are associated with different levels of antenatal care visits in Bangladesh? A behavioral model.**

Saha S, Mubarak M, Jarl J (2017), *Health Care for Women International* vol 38, no 1, 2017, pp 2-16

We identify the socioeconomic determinants of three levels of antenatal care (ANC) visits (no, intermediate [1-3], and recommended [ $\geq 4$ ]) in Bangladesh using a behavior model framework for health care utilization. Using multinomial logistic regression, we found that different levels of visits had different determinants; for example, media exposure increased the likelihood of intermediate compared with no visits while desire for pregnancy increased the likelihood

of recommended compared with intermediate visits. We therefore highlight that ANC policies or interventions should be target-group specific because determinants differ depending on level of ANC visits. (39 references) (Author)

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#### 20170418-18\*

**Determinants of institutional delivery among young married women in Nepal: Evidence from the Nepal Demographic and Health Survey, 2011.** Shahabuddin A, De Brouwere V, Adhikari R, et al (2017), *BMJ Open* vol 7, no 4, April 2017, e012446

##### OBJECTIVES:

To identify the determinants of institutional delivery among young married women in Nepal.

##### DESIGN:

Nepal Demographic and Health Survey (NDHS) data sets 2011 were analysed. Bivariate and multivariate logistic regression analyses were performed using a subset of 1662 ever-married young women (aged 15-24 years).

##### OUTCOME MEASURE:

Place of delivery.

##### RESULTS:

The rate of institutional delivery among young married women was 46%, which is higher than the national average (35%) among all women of reproductive age. Young women who had more than four antenatal care (ANC) visits were three times more likely to deliver in a health institution compared with women who had no antenatal care visit (OR: 3.05; 95% CI: 2.40 to 3.87). The probability of delivering in an institution was 69% higher among young urban women than among young women who lived in rural areas. Young women who had secondary or above secondary level education were 1.63 times more likely to choose institutional delivery than young women who had no formal education (OR: 1.626; 95% CI: 1.171 to 2.258). Lower use of a health institution for delivery was also observed among poor young women. Results showed that wealthy young women were 2.12 times more likely to deliver their child in an institution compared with poor young women (OR: 2.107; 95% CI: 1.53 to 2.898). Other factors such as the age of the young woman, religion, ethnicity, and ecological zone were also associated with institutional delivery.

##### CONCLUSIONS:

Maternal health programs should be designed to encourage young women to receive adequate ANC (at least four visits). Moreover, health programs should target poor, less educated, rural, young women who live in mountain regions, are of Janajati ethnicity and have at least one child as such women are less likely to choose institutional delivery in Nepal. [Erratum: *BMJ Open*, vol 8, no 2, 23 February 2018, <http://bmjopen.bmj.com/content/8/2/bmjopen-2016-012446corr1.info>] (47 references) (Author)

Full URL: <http://bmjopen.bmj.com/content/7/4/e012446?rss=1>

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#### 20170403-1\*

**Myanmar trains midwives to tackle maternal death rate.** Myint AW (2017), Reuters 1 April 2017

Reports on a midwifery training programme in Myanmar (formerly known as Burma), which is funded by the United Nations Population Fund (UNFP). The programme is training 200 new midwives who will be sent to rural parts of the country once qualified, in order to try and reduce the number of maternal deaths. The maternal mortality rate is currently much higher than that of Thailand or Singapore, which neighbour Myanmar. (AB)

Full URL: <http://uk.reuters.com/article/uk-myanmar-midwives-idUKKBN1733LH>

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#### 20170324-23\*

**Auxiliary midwives in hard to reach rural areas of Myanmar: filling MCH gaps.** Wangmo S, Suphanchaimat R, Htun WMM, et al (2016), *BMC Public Health* vol 16, no 914, Sept 2016,

##### Background

Auxiliary Midwives (AMWs) are community health volunteers supporting the work of midwives, especially maternal and child health services in hard to-reach areas in Myanmar. This paper assessed the contributions of AMW to maternal and child health services, factors influencing their productivity and their willingness to serve the community.

##### Method

The study applied quantitative cross-sectional survey using census method. Total of 1,185 AMWs belonging to three batches: trained prior to 2000, between 2000 and 2011, and in 2012, from 21 townships of 17 states and regions in Myanmar participated in the study. Multiple logit regression was used to examine the impact of age, marital status, education, domicile, recruitment pattern and 'batch of training', on AMW's confidence level in providing care, and their intention to serve the community more than 5 years.

##### Results

All AMWs were able to provide essential maternal and child health services including antenatal care, normal delivery and post-natal care. They could identify and refer high-risk pregnancies to larger health facilities for proper management. On average, 9 deliveries, 11 antenatal and 9 postnatal cases were performed by an AMW during the six months prior to this study. AMWs had a comparative advantage for longer service in hard-to-reach villages where they lived, spoke the same dialect as the locals, understood the socio-cultural dimensions, and were well accepted by the community. Despite these contributions, 90 % of the respondents expressed receiving no adequate supervision, refresher training, replenishment of the AMW kits and transportation cost. AMWs in the elder age group are significantly more confident in taking care of the patients than those in the younger groups. Over 90 % of the respondents intended to stay more than five years in the community. The confidence in catering services appeared to have significant association with a longer period of stay in AMW jobs as evidenced by the odds ratio of 3.5, compared to those reporting unconfident.

#### Conclusions

Comprehensive support system and national policy are needed to sustain and strengthen the contributions of AMWs, in sharing the workload of midwives, particularly in hard-to-reach areas of Myanmar. [Erratum, Wangmo S; Suphanchaimat R; Htun WMM; et al. BMC Public Health, vol 16, no 1074, 2016.

<https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-016-3747-9> (34 references) (Author)

Full URL: <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-016-3584-x>

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#### 20170303-69\*

**Regional differences in usage of antenatal care and safe delivery services in Indonesia: findings from a nationally representative survey..** Tripathi V, Singh R (2017), BMJ Open vol 7, no 2, February 2017

#### BACKGROUND:

Indonesia has shown a nominal increase in antenatal care (ANC) coverage from 93% to 96% in the Indonesia Demographic Health Survey (IDHS)-2012. This is high but for a comprehensive assessment of maternal health coverage in Indonesia, safe delivery services need to be assessed in conjunction with ANC coverage.

#### MATERIALS AND METHODS:

The study uses survey data from the IDHS-2012 that was conducted among women aged 15-49 years who gave birth during the past 3 years preceding the survey. Socioeconomic and demographic factors affecting ANC coverage and safe delivery services are analysed by segregating the data into 7 regions of Indonesia.

#### RESULTS:

Multivariate results show that besides wealth and education differentials, regional differences significantly affect the usage of ANC and safe delivery services across the 7 regions. Univariate analyses show that Sulawesi, Maluku and Western New Guinea islands are at a disadvantage in accessing ANC and safe delivery services.

#### CONCLUSIONS:

The study recommends that disaggregated regional targets be set in order to further reduce maternal mortality rates in Indonesia.

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Full URL: <http://bmjopen.bmj.com/content/7/2/e013408>

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#### 20170303-58\*

**Coverage of emergency obstetric care and availability of services in public and private health facilities in Bangladesh.** Alam B, Mridha MK, Biswas TK, et al (2015), International Journal of Gynecology & Obstetrics vol 131, no 1, October 2015, pp 63-69

#### Objective

To assess the coverage of emergency obstetric care (EmOC) and the availability of obstetric services in Bangladesh.

#### Methods

In a national health facility assessment performed between November 2007 and July 2008, all public EmOC facilities and private facilities providing obstetric services in the 64 districts of Bangladesh were mapped. The performance of EmOC services in these facilities during the preceding month was investigated using a semi-structured questionnaire completed through interviews of managers and service providers, and record review.

#### Results

In total, 8.6 (2.1 public and 6.5 private) facilities per 500 000 population offered obstetric care services. Population coverage by obstetric care facilities varied by region. Among 281 public facilities designated for comprehensive EmOC, cesarean delivery was available in only 215 (76.5%) and blood transfusion services in 198 (70.5%). In the private sector (for profit and not for profit), these services were available in more than 80% of facilities. In all facility types, performance of assisted vaginal delivery (range 12.2%-48.4%) and use of parenteral anticonvulsants to treat

pre-eclampsia/eclampsia (range 48.6%-80.8%) were low. The main reason for non-availability of EmOC services was a lack of specialist/trained providers.

#### Conclusion

Bangladesh needs to increase the availability of EmOC services through innovative public-private partnerships. In the public sector, additional trained manpower supported by an incentivized package should be deployed. (Author)

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#### 20170302-18\*

**Hidden Costs of Hospital Based Delivery from Two Tertiary Hospitals in Western Nepal.** Acharya J, Kaehler N, Marahatta SB, et al (2016), PLoS ONE vol 11, no 6, 16 June 2016, e0157746

#### Introduction

Hospital based delivery has been an expensive experience for poor households because of hidden costs which are usually unaccounted in hospital costs. The main aim of this study was to estimate the hidden costs of hospital based delivery and determine the factors associated with the hidden costs.

#### Methods

A hospital based cross-sectional study was conducted among 384 post-partum mothers with their husbands/house heads during the discharge time in Manipal Teaching Hospital and Western Regional Hospital, Pokhara, Nepal. A face to face interview with each respondent was conducted using a structured questionnaire. Hidden costs were calculated based on the price rate of the market during the time of the study.

#### Results

The total hidden costs for normal delivery and C-section delivery were 243.4 USD (US Dollar) and 321.6 USD respectively. Of the total maternity care expenditures; higher mean expenditures were found for food & drinking (53.07%), clothes (9.8%) and transport (7.3%). For postpartum women with their husband or house head, the total mean opportunity cost of 'days of work loss' were 84.1 USD and 81.9 USD for normal delivery and C-section respectively. Factors such as literate mother ( $p = 0.007$ ), employed house head ( $p = 0.011$ ), monthly family income more than 25,000 NRs (Nepalese Rupees) ( $p = 0.014$ ), private hospital as a place of delivery ( $p = 0.0001$ ), C-section as a mode of delivery ( $p = 0.0001$ ), longer duration (>5days) of stay in hospital ( $p = 0.0001$ ), longer distance (>15km) from house to hospital ( $p = 0.0001$ ) and longer travel time (>240 minutes) from house to hospital ( $p = 0.007$ ) showed a significant association with the higher hidden costs (>25000 NRs).

#### Conclusion

Experiences of hidden costs on hospital based delivery and opportunity costs of days of work loss were found high. Several socio-demographic factors, delivery related factors (place and mode of delivery, length of stay, distance from hospital and travel time) were associated with hidden costs. Hidden costs can be a critical factor for many poor and remote households who attend the hospital for delivery. Current remuneration (10-15 USD for normal delivery, 30 USD for complicated delivery and 70 USD for caesarean section delivery) for maternity incentive needs to account the hidden costs by increasing it to 250 USD for normal delivery and 350 USD for C-section. Decentralization of the obstetric care to remote and under-privileged population might reduce the economic burden of pregnant women and can facilitate their attendance at the health care centers.

(26 references) (Author)

Full URL: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0157746>

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#### 20170302-14\*

**Maternal Pregnancy Intention and Professional Antenatal Care Utilization in Bangladesh: A Nationwide Population-Based Survey.** Rahman M, Tareque I, et al (2016), PLoS ONE vol 11, no 6, 16 June 2016, e0157760

#### Objective

To investigate the association between maternal pregnancy intention and professional antenatal and delivery care utilization.

#### Methods

Our data were derived from the 2011 nationally representative Bangladesh Demographic Health Survey. We included antenatal and delivery care utilization data of the most recent live births for women for the previous three years ( $n = 4672$ ). We used multilevel logistic regression models to assess the relationship between pregnancy intention and use of professional antenatal and delivery care, with adjustment for potential confounding variables.

#### Results

Approximately 13% and 16% of children were reported by their mothers as unwanted and mistimed at the time of conception, respectively. Among the women, 55% received at least one professional antenatal care service; 21% received four or more professional antenatal services, while 32% were attended by professionals during deliveries. Mothers of children whose pregnancies had been unwanted had a greater risk for not seeking professional antenatal

and professional delivery care than those whose pregnancies had been wanted [1≥ ANC from professionals: AOR: 0.66; 95% CI:0.51-0.93; 4≥ ANC from professionals: AOR:0.56; 95% CI:0.37-0.84; and delivery care from professionals: AOR: 0.70; 95% CI:0.50-0.97]. Women who were married after age 18, had secondary or higher level of education, and were from the wealthiest households were more likely to utilize antenatal and delivery care.

#### Conclusion

Unwanted pregnancy is significantly associated with lower utilization of professional antenatal and delivery care services in Bangladesh. Reducing unwanted births and promoting access to professional antenatal and delivery care are crucial for achieving the Sustainable Development Goals (SDGs) 3 in Bangladesh. (55 references) (Author)

Full URL: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0157760>

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#### 20170223-31

**Community midwives' acceptability in their communities: a qualitative study from two provinces of Pakistan.** Ahmed J, Rehman SU, Shahab M (2017), *Midwifery* vol 47, April 2017, pp 53-59

#### Objectives

This study was aimed to understand in depth how the community midwives (CMWs) in Pakistan perceive are the important factors for their acceptability and community related barriers to their practice of maternal and child health care services.

#### Design

Qualitative study design using in-depth interviews (IDIs) and focus group discussions (FGDs).

#### Setting

Two districts in Khyber Pakhtunkhwa and Punjab provinces in Pakistan.

#### Participants

We used qualitative study design and conducted 34 in depth interviews (IDIs) and 9 focus group discussions (FGDs) with 100 participants which included CMWs, lady health supervisors (LHSs) and managers in maternal neonatal and child health (MNCH) program of two provinces of Pakistan.

#### Measurements

Content analysis of the findings was performed manually and findings were arranged in relevant themes originating from the study.

#### Findings

CMWs in our study experienced restrictions from their families, especially husbands and in-laws, to be independently available to attend to women during pregnancy and delivery. Communication between the communities and MNCH program was found to be weak therefore CMWs had to struggle to win the trust of and persuade pregnant women to use their services. Most CMWs attributed low utilization of their services to inherent taboos prevalent in the communities under which they relied more on unskilled traditional birth attendants (TBAs). Gender insensitivity and fears of insecurity in many conflict hit areas affected CMWs' mobility within their own communities which affected the access of rural women to skilled maternal and child care. (Author) (29 references)

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#### 20170105-57\*

**Utilization of services provided by village based ethnic minority midwives in mountainous villages of Vietnam.** Doan DTT, Bui HTT, Le TM, et al (2016), *International Journal of Women's Health* vol 8, 20 October 2016, pp 571-580

Introduction: Since 2011, the Vietnam's Ministry of Health implemented the ethnic minority midwives (EMMs) scheme in order to increase the utilization of maternal health services by women from ethnic minorities and those living in hard-to-reach mountainous areas. This paper analyzes the utilization of antenatal, delivery, and postpartum care provided by EMMs and reports the key determinants of utilization of EMM services as perceived by service users.

Methods: A structured questionnaire was administered in 2015 to all mothers (n=320) who gave birth to a live-born during a 1-year period in 31 villages which had EMM in two provinces, Dien Bien and Kon Tum. A multivariate logistic regression model was used to examine the association between all potential factors and the use of services provided by EMMs.

Results: We found that EMMs provided more antenatal care and postnatal care as compared with delivery services, which corresponded to their job descriptions. The results also showed that utilization of antenatal care provided by EMMs was lower than that of postnatal care. The proportion of those who never heard about EMM was high (24%). Among the mothers who knew about EMM services, 33.4% had antenatal checkups, 20.1% were attended during home deliveries, and 57.3% had postnatal visits by an EMM. Key factors that determined the use of EMM services included knowledge of the location of EMM's house, being aware about EMMs by health workers, trust in services provided by EMMs, and perception that many others mothers in a village also knew about EMM services.

Conclusion: EMM seems to be an important mechanism to ensure assistance during home births and postnatal care for

ethnic minority groups, who are often resistant to attend health facilities. Building trust and engaging with communities are the key facilitators to increase the utilization of services provided by EMMs. Communication campaigns to raise awareness about EMMs and to promote their services in the village, particularly by other health workers, represent an important strategy to further improve effectiveness of EMM scheme. (37 references) (Author) [Full article available online at: <https://www.dovepress.com/utilization-of-services-provided-by-village-based-ethnic-minority-midw-peer-reviewed-fulltext-article-IJWH>]

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#### **20161222-23\***

**Utilization of maternal health care services among indigenous women in Bangladesh: A study on the Mru tribe.** Islam RM (2017), *Women and Health* vol 57, no 1, 2017, pp 108-18

Despite startling developments in maternal health care services, use of these services has been disproportionately distributed among different minority groups in Bangladesh. This study aimed to explore the factors associated with the use of these services among the Mru indigenous women in Bangladesh. A total of 374 currently married Mru women were interviewed using convenience sampling from three administrative sub-districts of the Bandarban district from June to August of 2009. Associations were assessed using Chi-square tests, and a binary logistic regression model was employed to explore factors associated with the use of maternal health care services. Among the women surveyed, 30% had ever visited maternal health care services in the Mru community, a very low proportion compared with mainstream society. Multivariable logistic regression analyses revealed that place of residence, religion, school attendance, place of service provided, distance to the service center, and exposure to mass media were factors significantly associated with the use of maternal health care services among Mru women. Considering indigenous socio-cultural beliefs and practices, comprehensive community-based outreach health programs are recommended in the community with a special emphasis on awareness through maternal health education and training packages for the Mru adolescents. (Author)

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#### **20161207-6\***

**Shaping the midwifery profession in Nepal - uncovering actors' connections using a Complex Adaptive Systems framework.** Bogren MU, Berg M, Edgren L, et al (2016), *Sexual & Reproductive Healthcare* vol 10, December 2016, pp 48-55

##### Objectives

To explore how actors connect in a system aiming at promoting the establishment of a midwifery profession in Nepal.

##### Methods

A qualitative explorative study based on the framework of Complex Adaptive Systems. Semi-structured interviews were conducted with 17 key people representing eight different organisations (actors) promoting the development of the midwifery profession.

##### Results

The actors' connections can be described with a complex set of facilitators for and barriers to promoting the establishment of a midwifery profession. The identified facilitators for this establishment in Nepal are (1) a common goal and (2) a desire to collaborate, whilst the barriers are (1) different political interests and priorities, (2) competing interests of the nursing profession and societal views, (3) divergent academic opinions on a midwifery profession, and (4) insufficient communication. The results also showed that Nepalese society cannot distinguish between nursing and midwifery and that the public support for a midwifery profession was hence minimal.

##### Conclusion

The move of midwifery from an occupation to a profession in Nepal is an on-going, challenging process. The study indicates the importance of understanding the motivations of, and barriers perceived by, actors that can promote or obstruct the establishment of the midwifery profession. It also points to the importance of informing the wider public about the role and responsibility of an autonomous midwifery profession. (Author)

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#### **20161202-46\***

**Village midwives and their changing roles in Brunei Darussalam: a qualitative study.** Abdul-Mumin KH (2016), *Women and Birth: Journal of the Australian College of Midwives* vol 29, no 5, October 2016, pp e73-e81

There are lay midwives worldwide, interchangeably and universally called traditional birth attendants or traditional midwives by organisations such as the World Health Organization and the International Confederation of Midwives.

##### Aim

This study aimed to explore the history of lay midwives (village midwives) in Brunei, describe the evolution from their previous to current roles and determine if they are still needed by women today.

#### Methods

This qualitative, descriptive study included in-depth, semi-structured interviews with eight women who had received care from village midwives. Data analysis was based on the principles underpinning thematic analysis and used a constant comparative method.

#### Findings

Village midwives have been popular in Brunei since the 1900s, with their major role being to assist women with childbirth. However, since the 1960s, their roles and practices have changed to focus on pre-conception, antenatal, postnatal and women's general healthcare. Traditional practices were influenced by religion, culture and the social context of and within Brunei.

#### Discussion

The major changes in village midwives' roles and practices resulted from the enforcement of the Brunei Midwives' Act in 1956. Village midwives' traditional practices became juxtaposed with modern complementary alternative medicine practices, and they began charging a fee for their services.

#### Conclusion

Brunei village midwives are trusted by women, and their practices may still be widely accepted in Brunei. Further research is necessary to confirm their existence, determine the detailed scope and appropriateness of their practices and verify the feasibility of them working together with healthcare professionals. (30 references) (Author)

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### 20161202-36\*

**Development and assessment of the validity and reliability of a scale for measuring the mentoring competencies of Japanese clinical midwives: an exploratory quantitative research study.** Hishinuma Y, Horiuchi S, Yanai H (2016), Nurse Education Today vol 41, June 2016, pp 60-66

#### BACKGROUND:

Midwives are always involved in educational activities whenever novice midwives are present. Although various scales for measuring the educational competencies of nurses have already been developed in previous studies, a scale for the educational competencies particular to midwives has yet to be developed, or even no previous studies have revealed their functions as clinical educators.

#### OBJECTIVES:

The purpose of this study was to develop a scale to measure the mentoring competencies of clinical midwives (MCCM Scale) and to confirm its validity and reliability.

#### DESIGN:

An exploratory quantitative research study.

#### METHODS:

Questionnaires were distributed to 1,645 midwives at 148 facilities who had previously instructed novice midwives. 1,004 midwives (61.0%) voluntarily returned valid responses and 296 (18.0%) voluntarily agreed to participate in the survey for test-retest reliability.

#### RESULTS:

Exploratory factor analyses were performed over 41 items and the following seven factors were extracted with a reliability coefficient (Cronbach's  $\alpha$ ) of 0.953: (i) supporting experimental study, (ii) personal characteristics particularly in clinical educators, (iii) thoughtfulness and empathy for new midwives, (iv) self-awareness and self-reflection for finding confidence, (v) making effective use of the new midwives' own experience, (vi) commitment to educational activities, and (vii) sharing their midwifery practice. Test-retest reliability was measured based on a convenience sample of 246 (83.1%). Pearson's test-retest correlation coefficient for the entire scale was  $r=0.863$ . The factor loadings of each item on its respective factor were 0.313-0.925. The total score of the MCCM Scale was positively correlated with that of the Quality of Nurses' Occupational Experience Scale ( $r=0.641$ ,  $p=0.000$ ) and was negatively correlated with the total score of the Japanese Burnout Scale ( $r=-0.480$ ,  $p=0.000$ ). (Author)

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### 20161104-6

**Reflecting on Fiji - highlights from the Midwifery Today Conference.** Tritten J (2016), Midwifery Today no 119, Autumn 2016, pp 28-29

Overview of the Midwifery Today conference that took place in Fiji, where the midwives attending pledged to implement the knowledge they had gained to improve their woman-centred care. (MB)

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### 20161102-70\*

**Midwifery the Sri Lankan way.** Wagner R, Henson E (2016), MIDIRS Midwifery Digest vol 26, no 4, December 2016, pp 531-534

In April 2016, twenty wide-eyed midwives, partners and friends from around the world arrived in the tropical location of Sri Lanka, one of the most beautiful places most of us had ever visited, to embark on a midwifery and childcare tour integrated with an amazing cultural experience. This was an organised tour led by the Royal College of Midwives' Chief Executive Officer, Professor Cathy Warwick. (5 references) (Author)

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### 20161102-23

**Midwifery education in India.** Ashwin C, Anderson M, Fernandez E (2016), MIDIRS Midwifery Digest vol 26, no 4, December 2016, pp 413-418

Midwifery education and the professional status of midwives can vary throughout the world, with the UK often cited as an excellent example to be emulated elsewhere. In India, or more precisely within the city of Hyderabad, midwifery is raising its profile - thanks to one dedicated obstetrician, Dr Evita Fernandez, and her colleague, Dr Rajitha Reddy. Although the Indian government recognises nursing as a profession, midwifery is not accepted as a professional qualification in its own right. This quarter's Hot Topic describes our recent trip to Hyderabad at the behest of Dr Fernandez to support her aim in regulating and recognising midwifery as a profession in India. (8 references) (Author)

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### 20161020-34\*

**Spousal violence and receipt of skilled maternity care during and after pregnancy in Nepal.** Furata M, Bick D, Matsufuji H, et al (2016), Midwifery 19 October 2016. Online ahead of print

#### Objectives

A substantial number of Nepali women experience spousal violence, which affects their health in many ways, including during and after pregnancy. This study aimed to examine associations between women's experiences of spousal violence and their receipt of skilled maternity care, using two indicators: (1) receiving skilled maternity care across a continuum from pregnancy to the early postnatal period and (2) receiving any skilled maternity care in pregnancy, childbirth, or postpartum.

#### Methods

Data were analysed for married women aged 15-49 from the 2011 Nepal Demographic and Health Survey. Data were included on women who completed an interview on spousal violence as part of the survey and had given birth within the five years preceding the survey (weighted n=1375). Logistic regression models were developed for analyses.

#### Results

The proportion of women who received skilled maternity care across the pregnancy continuum and those who received any skilled maternity care was 24.1% and 53.7%, respectively. Logistic regression analyses showed that spousal violence was statistically significantly associated with receiving low levels of skilled maternity care, after adjusting for accessibility of health care. However, after controlling for women's sociodemographic backgrounds (age, number of children born, educational level, husband's education level, husband's occupation, region of residence, urban/rural residence, wealth index), these significant associations disappeared. Better-educated women, women whose husbands were professionals or skilled workers and women from well-off households were more likely to receive skilled maternity care either across the pregnancy continuum or at recommended points during or after pregnancy.

#### Conclusion

Spousal violence and low uptake of skilled maternity care are deeply embedded in a society in which gender inequality prevails. Factors affecting the receipt of skilled maternity care are multidimensional; simply expanding geographical access to maternity services may not be sufficient to ensure that all women receive skilled maternity care. (15 references) (Author)

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### 20161020-14

**The hands of midwives: broadening the perspectives of midwifery students through an international clinical placement and experiential tour in Bali, Indonesia.** Clasquin T (2016), Australian Midwifery News vol 16, no 3, Spring 2016, pp 41-43

In June this year I had the incredible opportunity of taking a group of Charles Darwin University (CDU) midwifery students to Bali to complete a clinical placement and experiential tour as part of their studies on midwifery in the global perspective. This was the first trip of its kind for CDU midwifery students being offered the rare opportunity to work alongside Indonesian students and midwives in providing women-centred care in midwifery led clinics. (Author)

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**20161020-10**

**Merging midwives - a cross cultural experience.** Facius C (2016), Australian Midwifery News vol 16, no 3, Spring 2016, pp 28-30

I am a long term volunteer midwife at Bumi Sehat birth centre in Bali, Indonesia. After a life education of global travelling, I was witness to the grave disparities in the provision and quality of health care between developing countries and Australia. My travels concluded with the somber understanding that chance determines where we are born and in turn what privileges we will enjoy in our lives. The death of women and babies because of no care or poor quality care was the catalyst for me to become a midwife. After I completed my midwifery education and worked in Australia for a short time, I moved to Indonesia to volunteer in a small midwifery clinic. (Author)

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**20161013-19\***

**Accelerated training of skilled birth attendants in a marginalized population on the Thai-Myanmar border: a multiple methods program evaluation.** White AL, Min TH, Gross MM, et al (2016), PLoS ONE vol 11, no 10, 6 October 2016, e0164363

Background: To evaluate a skilled birth attendant (SBA) training program in a neglected population on the Thai-Myanmar border, we used multiple methods to show that refugee and migrant health workers can be given effective training in their own environment to become SBAs and teachers of SBAs. The loss of SBAs through resettlement to third countries necessitated urgent training of available workers to meet local needs. Methods and findings: All results were obtained from student records of theory grades and clinical log books. Qualitative evaluation of both the SBA and teacher programs was obtained using semi-structured interviews with supervisors and teachers. We also reviewed perinatal indicators over an eight-year period, starting prior to the first training program until after the graduation of the fourth cohort of SBAs. Results: Four SBA training programs scheduled between 2009 and 2015 resulted in 79/88 (90%) of students successfully completing a training program of 250 theory hours and 625 supervised clinical hours. All 79 students were able to: achieve pass grades on theory examination (median 80%, range [70-89]); obtain the required clinical experience within twelve months; achieve clinical competence to provide safe care during childbirth. In 2010-2011, five experienced SBAs completed a train-the-trainer (TOT) program and went on to facilitate further training programs. Perinatal indicators within Shoklo Malaria Research Unit (SMRU), such as place of birth, maternal and newborn outcomes, showed no significant differences before and after introduction of training or following graduate deployment in the local maternity units. Confidence, competence and teamwork emerged from qualitative evaluation by senior SBAs working with and supervising students in the clinics. Conclusions: We demonstrate that in resource-limited settings or in marginalized populations, it is possible to accelerate training of skilled birth attendants to provide safe maternity care. Education needs to be tailored to local needs to ensure evidence-based care of women and their families. (59 references) (Author) [Full article available online at: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0164363>]

Full URL: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0164363>

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**20161012-12**

**Japanese neonatal nursing with a historic perspective.** Konishi M (2016), The Journal of Neonatal Nursing vol 22, no 5, October 2016, pp 218-222

Neonatal Nurses' scope of practice and scope of knowledge varies widely across the globe. The development of professional roles is unique to specific regions and is often driven by a number of factors, including local culture and health priorities. Japanese neonatal nurses have traditionally practiced with limited scope compared to the other parts of the world. However, the present climate in Japan presents an opportunity for the innovative developments. An exploration into advancing the role of neonatal nurses revealed complexities that impacted on current Japanese nursing practice. This article will discuss the legal and historic influences that have shaped current neonatal nursing practice, the training, educational opportunities for nurses pursuing neonatal nursing, and the challenges for those who wish to practice beyond the scope of traditional practice in Japan today.

This report regarding the legal and historic influences on Neonatal Nursing in Japan aims to provide a backdrop to future reports from Japan. It is hoped that this knowledge will add clarity to future discussions on issues surrounding Neonatal Nursing globally. (24 references) (Author)

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**20161006-10\***

**Effectiveness of onsite nurse mentoring in improving quality of institutional births in the primary health centres of high priority districts of Karnataka, South India: a cluster randomized trial.** Jayanna K, Bradley J, Mony P, et al (2016), PLoS ONE vol 11, no 9, 22 September 2016, e0161957

Background: In India, although the proportion of institutional births is increasing, there are concerns regarding quality of care. We assessed the effectiveness of a nurse-led onsite mentoring program in improving quality of care of institutional births in 24/7 primary health centres (PHCs that are open 24 hours a day, 7 days a week) of two high priority districts in Karnataka state, South India. Primary outcomes were improved facility readiness and provider preparedness in managing institutional births and associated complications during child birth. Methods: All functional 24/7 PHCs in the two districts were included in the study. We used a parallel, cluster randomized trial design in which 54 of 108 facilities received six onsite mentoring visits, along with an initial training update and specially designed case sheets for providers; the control arm received just the initial training update and the case sheets. Pre- and post-intervention surveys were administered in April-2012 and August-2013 using facility audits, provider interviews and case sheet audits. The provider interviews were administered to all staff nurses available at the PHCs and audits were done of all the filled case sheets during the month prior to data collection. In addition, a cost analysis of the intervention was undertaken. Results: Between the surveys, we achieved coverage of 100% of facilities and 91.2% of staff nurse interviews. Since the case sheets were newly designed, case-sheet audit data were available only from the end line survey for about 80.2% of all women in the intervention facilities and 57.3% in the control facilities. A higher number of facilities in the intervention arm had all appropriate drugs, equipment and supplies to deal with gestational hypertension (19 vs.3, OR (odds ratio) 9.2, 95% C.I 2.5 to33.6), postpartum haemorrhage (29 vs. 12, OR 3.7, 95% C.I 1.6 to8.3); and obstructed labour (25 vs.9, OR 3.4, 95% CI 1.6 to8.3). The providers in the intervention arm had better knowledge of active management of the third stage of labour (82.4% vs.35.8%, AOR (adjusted odds ratio) 10, 95% C.I 5.5 to 18.2); management of maternal sepsis (73.5% vs. 10.9%, AOR 36.1, 95% C.I 13.6 to 95.9); neonatal resuscitation (48.5% vs.11.7%, AOR 10.7, 95% C.I 4.6 to 25.0) and low birth weight newborn care (58.1% vs. 40.9%, AOR 2.4, 95% C.I 1.2 to 4.7). The case sheet audits revealed that providers in the intervention arm showed greater compliance with the protocols during labour monitoring (77.3% vs. 32.1%, AOR 25.8, 95% C.I 9.6 to 69.4); delivery and immediate post-partum care for mothers (78.6% vs. 31.8%, AOR 22.1, 95% C.I 8.0 to 61.4) and for newborns (73.9% vs. 32.8%, AOR 24.1, 95% C.I 8.1 to 72.0). The cost analysis showed that the intervention cost an additional \$5.60 overall per delivery. Conclusions: The mentoring program successfully improved provider preparedness and facility readiness to deal with institutional births and associated complications. It is feasible to improve the quality of institutional births at a large operational scale, without substantial incremental costs. (32 references) (Author) [Full article available online at: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0161957>]

Full URL: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0161957>

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#### 20160927-26

**Assessing the Midwifery Workforce Demand: utilizing Birthrate Plus in China.** Yao J, Zhu X, Lu H (2016), *Midwifery* vol 42, November 2016, pp 61-66

##### Objective

to assess the ability of the Birthrate Plus Workforce Planning Methodology (BR+) to forecast midwifery workforce demand in Chinese settings.

##### Design

a retrospective analysis of medical records.

##### Setting

ten hospitals in Beijing District.

##### Methods

hospitals were selected using stratified sampling methods. The client category and midwife hours in each hospital were analyzed over 1 month in consecutive three years (2013, 2014, and 2015).

##### Findings

Client category allocation varied between different hospital levels; Clients in higher category tended to need longer midwife hours; Mean birthrate of the ten hospitals was 154.30 (SD=40.700). Seven out of the ten hospitals were in need of more midwives.

##### Conclusions

Birthrate Plus was proved to be effective and efficient in Chinese settings; Gaps between available and needed midwives were large and prevalent in Chinese hospitals. (Author)

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#### 20160916-10

**Inspired by the midwives of Japan: a journey to expand the horizons of midwifery students - part 2.** Shorten A (2016), *Australian Midwifery News* vol 16, no 1, Autumn 2016, pp 42-43

The second part of a reflection on a mentored student research experience to explore Japanese midwifery. Gives an overview of themes from the programme, including Japanese traditions around pregnancy and birth; midwifery

presence and patience, with the prioritisation of non-pharmacological pain relief; the importance of freedom in choosing birth positions; nutrition in pregnancy and beyond; and sharing ideas for the future. (KRB)

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#### 20160914-33\*

**Feasibility and acceptability of clean birth kits containing misoprostol for self-administration to prevent postpartum hemorrhage in rural Papua New Guinea.** Vallely LM, Homiehomb P, Walep E, et al (2016), International Journal of Gynecology & Obstetrics vol 133, no 3, June 2016, pp 301-306

##### Objective

To determine the feasibility and acceptability of providing clean birth kits (CBKs) containing misoprostol for self-administration in a rural setting in Papua New Guinea.

##### Methods

A prospective intervention study was conducted between April 8, 2013, and October 24, 2014. Eligible participants were women in the third trimester of pregnancy who attended a prenatal clinic in Unggai Bena. Participants received individual instruction and were then given a CBK containing 600 µg misoprostol tablets for self-administration following an unsupervised birth if they could demonstrate their understanding of correct use of items in the CBK. Data regarding the use and acceptability of the CBK and misoprostol were collected during postpartum follow-up.

##### Results

Among 200 participants, 106 (53.0%) had an unsupervised birth, and 99 (93.4%) of these women used the CBK. All would use the CBK again and would recommend it to others. Among these 99 women, misoprostol was self-administered by 98 (99.0%), all of whom would take the drug again and would recommend it to others.

##### Conclusion

The findings strengthen the case for community-based use of misoprostol to prevent postpartum hemorrhage in remote communities. Large-scale interventions should be planned to further evaluate impact and acceptability. (Author)

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#### 20160912-55\*

**Utilization of maternal health care services in post-conflict Nepal.** Bhandari TR, Sarma PS, Kutty VR (2015), International Journal of Women's Health vol 7, 25 August 2015, pp783-790

Background: Despite a decade-long armed conflict in Nepal, the country made progress in reducing maternal mortality and is on its way to achieve the Millennium Development Goal Five. This study aimed to assess the degree of the utilization of maternal health care services during and after the armed conflict in Nepal.

Methods: This study is based on Nepal Demographic and Health Survey data 2006 and 2011. The units of analysis were women who had given birth to at least one child in the past 5 years preceding the survey. First, we compared the utilization of maternal health care services of 2006 with that of 2011. Second, we merged the two data sets and applied logistic regression to distinguish whether the utilization of maternal health care services had improved after the peace process 2006 was underway.

Results: In 2011, 85% of the women sought antenatal care at least once. Skilled health workers for delivery care assisted 36.1% of the women, and 46% of the women attended postnatal care visit at least once. These figures were 70%, 18.7%, and 16%, respectively, in 2006. Similarly, women were more likely to utilize antenatal care at least once (odds ratio [OR] =2.18, confidence interval [CI] =1.95-2.43), skilled care at birth (OR =2.58, CI =2.36-2.81), and postnatal care at least once (OR =4.13, CI =3.75-4.50) in 2011.

Conclusion: The utilization of maternal health care services tended to increase continuously during both the armed conflict and the post-conflict period in Nepal. However, the increasing proportion of the utilization was higher after the Comprehensive Peace Process Agreement 2006.

(30 references) (Author) [Full article available online at:

<https://www.dovepress.com/utilization-of-maternal-health-care-services-in-post-conflict-nepal-peer-reviewed-article-IJWH>]

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Full URL: <https://www.dovepress.com/utilization-of-maternal-health-care-services-in-post-conflict-nepal-peer-reviewed-article-IJWH>

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#### 20160808-17

**Midwives along the Thai-Myanmar border.** Proust V (2016), Australian Midwifery News vol 16, no 2, Winter 2016, pp 56-57

The author shares her experience of teaching at the Shoklo Malaria Research Unit on the Thai-Myanmar border. (MB)

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#### 20160728-22

**ELLY Appeal: twinning with India.** Kaur I (2016), MIDIRS Midwifery Digest vol 26, no 3, September 2016, pp 391-393

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India's maternal mortality rate is still very high; in 2012 there were 178 deaths per 100,000 live births. In comparison, in 2007 13 women died for every 100,000 live births in the United States (US) and in the United Kingdom (UK), the maternal death rate in London has risen from 9.1 per 100,000 maternities in 2005-6 to 21.6 per 100,000 in 2010-11 (World Health Organization (WHO) et al 2015). In India, about 56,000 women each year are lost in childbirth, that's one every eight minutes. This accounts for 19% of maternal deaths around the world. Seventy per cent of these can be prevented. The main causes of death are heavy bleeding (haemorrhage) and eclampsia (high blood pressure) (WHO et al 2015). On the one hand, there has been economic progress in India but on the other, the country is still grappling with inequalities and the basic rights to safe childbirth. This report describes the twinning between India and Barts Health NHS Trust under the ELLY (East London International Women's Health) Appeal and the recent international trip with twin hospital, Fernandez, Hyderabad, India between the 31st January and the 5th February 2016. (2 references) (Author)

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#### **20160718-34**

**Rebirth of a midwife in China.** Yinzi J (2016), *Midwifery Today* no 118, Summer 2016, p 26

The author recounts her experience of leaving a midwifery post that she hated in a large hospital in China to work as a midwife educator in Hangzhou. (MB)

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#### **20160706-40**

**Education, employment and practice: Midwifery graduates in Papua New Guinea.** Moores A, Puawe P, Buasi N, et al (2016), *Midwifery* vol 41, October 2016, pp 22-29

##### Background

Papua New Guinea has a very high maternal mortality rate (773/100,000), low rates of supervised births and a critical shortage of skilled midwives. A midwifery education initiative commenced in 2012, funded by the Australian Government and led by the National Department of Health. One specific objective of the initiative was to improve the standard of clinical teaching and practice in four schools of midwifery. There were 394 midwives educated over the 4 year period (2012-2015) representing half of all midwives in Papua New Guinea. A study was undertaken to describe the educational program, employment, practices and experiences of graduates who studied midwifery in 2012 and 2013 as part of the initiative.

##### Objective

The aim of this paper is to explore the education, employment and practice of newly graduated midwives in Papua New Guinea.

##### Design

A mixed methods descriptive study design was used. Surveys and focus groups were used to gather data. Ethical approval was granted by the relevant Human Research Ethics Committees.

##### Setting and Participants

All midwifery graduates in 2012 and 2013 from the four midwifery schools in Papua New Guinea were included in the study and almost 80% were contacted.

##### Findings

Nearly 90% of graduates were working as midwives, with an additional 3% working as midwifery or nursing educators. This study discovered that graduates exhibited increased skills acquisition and confidence, leadership in maternal and newborn care services and a marked improvement in the provision of respectful care to women. The graduates faced challenges to implement evidence based care with barriers including the lack of appropriate resources and differences of opinion with senior staff.

##### Conclusions

Factors affecting the quality of midwifery education will need to be addressed if Papua New Guinea is to continue to improve the status of maternal and newborn health. Specifically, the length of the midwifery education, the quality of clinical practice and the exposure to rural and remote area practice need addressing in many contexts like Papua New Guinea. (Author)

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#### **20160516-8\***

**Korean traditional Taegyo prenatal education based on Sajudang Lee's 'Taegyo singi'.** Lee Y, Lee J, Tulo NB (2016), *International Journal of Childbirth Education* vol 31, no 2, April 2016, pp 34-37

This is a literature research on Taegyo, a traditional Korean form of prenatal education. The purpose of the paper is to share the prenatal education in Korean traditional society through 'Taegyo singi' and to help to understand fundamental principles of prenatal education and to find the significance of it in modern times. The composition and

contents of 'Taeyo singi' are identified. Concrete methods of Taeyo can help the mind be calm and can make the person become more respectful. Taeyo can make people more caring for others in mind, words, and deeds. The pregnant woman is taught to be cautious of the food she eats (those that are allowed and those that are forbidden). Traditional prenatal education is based on the wisdom of ancestors who desired balanced life between human and human, and even human and nature, which could proceed from 'harmony' as Korean cultural traits. [The full article is available free of charge at: <http://icea.org/wp-content/uploads/2016/04/CBEEd-Apr-web-FINAL-1.pdf>] (38 references) (Author)

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#### 20160427-55\*

**Factors associated with four or more antenatal care services among pregnant women: a cross-sectional survey in eight South Central Coast provinces of Vietnam.** Ha BT, Tac PV, Duc DM, et al (2015), International Journal of Women's Health vol 7, 16 July 2015, pp 699-706

**Background:** In Vietnam, four or more antenatal care (ANC4+) visits/services among pregnant women have not been officially reported in the health system. Moreover, the factors associated with the use of ANC4+ services have not been studied in previous studies. In this study, we conducted an exploratory analysis to identify the rate of utilization of ANC4+ services and factors associated with use of ANC4+ services among pregnant women in rural areas of Vietnam.

**Methods:** The study was conducted in eight provinces in the South Central Coast region of Vietnam between August 2013 and May 2014. A total of 907 women, who delivered in the past 1 year, participated in the study. Multivariate logistic regression model was used to examine the association between all potential factors and utilization of ANC4+ services.

**Results:** The rate of utilization of ANC4+ services by women in eight South Central Coast provinces was 53.9%. Factors negatively associated with using ANC4+ services were belonging to ethnic minority groups having lower education, doing informal works, having lower income, having lower knowledge on ANC4+ services, and receiving no financial support from the husband. In particular, financial support from the husband was considered important in improving the use of ANC4+ services by women in rural areas.

**Conclusion:** The study asserted an inadequacy for ANC4+ utilization and can contribute to missed opportunities to achieve better maternal outcomes for women in rural areas of Vietnam. The necessity of introducing ANC4+ services in the national guidelines on maternal health care should be disseminated to health policy-makers. Strategies to increase ANC4+ utilization should focus on knowledge improvement and on poor, low-income, and ethnic minority women. (42 References) (Author) [Full article available online at:

<https://www.dovepress.com/factors-associated-with-four-or-more-antenatal-care-services-among-pre-peer-reviewed-fulltext-article-IJWH>]

**Full URL:** <https://www.dovepress.com/factors-associated-with-four-or-more-antenatal-care-services-among-pre-peer-reviewed-fulltext-article-IJWH>

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#### 20160427-2\*

**Pakistan and the millennium development goals for maternal and child health: progress and the way forward.** Rizvi A, Bhatti Z, Das JK, et al (2015), Paediatrics and International Child Health vol 35, No 4, November 2015, pp 287-297

The world has made substantial progress in reducing maternal and child mortality, but many countries are projected to fall short of achieving their Millennium Development Goals (MDGs) 4 and 5 targets. The major objective of this paper is to examine progress in Pakistan in reducing maternal and child mortality and malnutrition over the last two decades. Data from recent national and international surveys suggest that Pakistan lags behind on all of its MDGs related to maternal and child health and, for some indicators especially related to nutrition, the situation has worsened from the baseline of 1990. Progress in addressing key social determinants such as poverty, female education and empowerment has also been slow and unregulated population growth has further compromised progress. There is a need to integrate the various different sectors and programmes to achieve the desired results effectively and efficiently as many of the determinants and influencing factors are outside the health sector. (43 references) (Author) [The full version of this article is available free of charge at:

<http://www.tandfonline.com/doi/full/10.1080/20469047.2015.1109257>]

**Full URL:** <http://www.tandfonline.com/doi/full/10.1080/20469047.2015.1109257>

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#### 20160324-24\*

**Individual, family and local community involvement in improving mother and child health: pilot experience in South Kazakhstan oblast.** Cazotes I, Kuttumuratova A, Abuova G, et al (2011), Entre Nous (European Magazine for Sexual and Reproductive Health) no 74, 2011, pp 20-21

Charts the steps involved in implementing and piloting the Individual, Family and Local Community (IFC) framework in Kazakhstan. (3 references) (JSM)

Full URL: [http://www.euro.who.int/\\_data/assets/pdf\\_file/0008/146978/313914\\_Entre\\_Nous\\_74\\_low.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0008/146978/313914_Entre_Nous_74_low.pdf?ua=1)

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#### 20160324-21\*

**Regionalization of perinatal care in South Kazakhstan oblast.** Siupsinskas G, Maciulevicius A, Glazebnaya I, et al (2011), *Entre Nous* (European Magazine for Sexual and Reproductive Health) no 74, 2011, pp 14-15

Discusses the issues faced by Kazakhstan during the regionalisation of perinatal care, which was introduced in the country in January 2008, with the aim of delivering as high a proportion of very low birthweight infants (below <1500 g) as possible in perinatal centres. (9 references) (JSM)

Full URL: [http://www.euro.who.int/\\_data/assets/pdf\\_file/0008/146978/313914\\_Entre\\_Nous\\_74\\_low.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0008/146978/313914_Entre_Nous_74_low.pdf?ua=1)

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#### 20160324-14\*

**Women's experience and views of changes in childbirth.** Dyadchuk A, Abuova G, Abzullin A (2011), *Entre Nous* (European Magazine for Sexual and Reproductive Health) no 74, 2011, pp 12-13

In November 2009 and April 2011, an assessment of the quality of maternal and neonatal care was conducted in key pilot maternities of the WHO/Europe Project 'Support for Maternal and Child Health in Kazakhstan' financed by the European Union. This assessment was performed within the framework for implementation of the Making Pregnancy Safer strategic approach, using a WHO/Europe tool 'Making Pregnancy Safer - Assessment tool for the quality of hospital care for mothers and newborn babies' (1). One of the components of this tool is a questionnaire which is used by psychologists to enquire on family friendly healthcare services, as described in this article. 1. World Health Organization. Making Pregnancy Safer - Assessment tool for the quality of hospital care for mothers and newborn babies, 2009. Geneva: WHO Regional Office for Europe. (1 reference) (Author)

Full URL: [http://www.euro.who.int/\\_data/assets/pdf\\_file/0008/146978/313914\\_Entre\\_Nous\\_74\\_low.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0008/146978/313914_Entre_Nous_74_low.pdf?ua=1)

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#### 20160324-13\*

**Effective perinatal technologies: the experience of Kazakhstan.** An Z, Maishina M, Omarova G, et al (2011), *Entre Nous* (European Magazine for Sexual and Reproductive Health) no 74, 2011, pp 10-11

Looks at the ways in which the World Health Organization implemented effective perinatal care (EPC) in Kazakhstan to improve maternal and infant health, as part of its Making Pregnancy Safer (MPS) initiative. (2 references) (JSM)

Full URL: [http://www.euro.who.int/\\_data/assets/pdf\\_file/0008/146978/313914\\_Entre\\_Nous\\_74\\_low.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0008/146978/313914_Entre_Nous_74_low.pdf?ua=1)

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#### 20160324-12\*

**Partnership for change: the role of who and health managers in improving perinatal health services.** Abuova G, Mussagaliyeva A, Ismailov Z, et al (2011), *Entre Nous* (European Magazine for Sexual and Reproductive Health) no 74, 2011, pp 8-9

Discusses the changes in the health system in Kazakhstan made by the nation's health managers with the technical support of the World Health Organization (WHO), as a result of Making Pregnancy Safer (MPS) programme, and the National Programme on Health System Development for 2011-2015. (JSM)

Full URL: [http://www.euro.who.int/\\_data/assets/pdf\\_file/0008/146978/313914\\_Entre\\_Nous\\_74\\_low.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0008/146978/313914_Entre_Nous_74_low.pdf?ua=1)

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#### 20160304-34

**The first competency-based higher education programme for midwives in the South Asian region - Pakistan.** Jan R, Lakhani A, Kaufman K, et al (2016), *Midwifery* no 33, February 2016, pp 37-39

Midwives in Pakistan and the South Asian region who complete a diploma program face many challenges for career growth and development. The absence of higher education in professional midwifery in the region has contributed to general non-acceptance and invisibility of midwifery. In response to the interest, Aga Khan University (AKU) developed bachelors program in midwifery based on the Global Standards for Midwifery Education developed by the International Confederation of Midwives (ICM) with the vision to equip midwives to provide full-scope practice, develop confidence to practice midwifery independently, become clinical leaders and contribute to the future of midwifery. The final curriculum had a balance of theory and clinical practice in order to develop a high level of clinical competence that would meet the ICM standards and guidelines. The two year bachelors program is currently in

progress. The first cohort of 21 midwives graduated in 2014 and a second cohort was enrolled in 2015. There is a planning for a future graduate program in midwifery to prepare individuals for leadership roles in practice, teaching, maternal-child health provision and policy making through a master's degree in midwifery. (7 references) (Author)

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### 20160223-23

**Inspired by the midwives of Japan: a journey to expand the horizons of midwifery students - Part 1.** Shorten A (2015), Australian Midwifery News vol 15, no 4, Summer 2015, pp 38-39

The first part of a reflection on visiting Japan and working with midwives there. Discusses josaniin, birth homes which provide a calm, nurturing, family-friendly environment in which women can receive antenatal care and have their babies. A sponsorship enabled the author, an associate professor at the Yale School of Nursing, to take two students over to Japan each year for two weeks' learning experience. Compares Japan with the US and Australia, with the idea that using traditional Japanese midwifery models and practices could help reverse the increasing trend for birth intervention. Includes a short reflection by a student midwife. (KRB)

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### 20151215-17

**Community midwives' workplace experiences: a case study from a resource-poor country.** Mohammad Y, Jan R, McIntyre H, et al (2015), British Journal of Midwifery vol 23, no 12, December 2015, pp 886-893

Objective:

To explore community midwives' (CMs') experiences with respect to deployment policies and processes developed and used in Pakistan.

Methods:

A qualitative, descriptive, exploratory design was used; 11 CMs' perspectives were gained through two focus groups.

Results:

The findings are summarised under a key theme, 'Surviving as community midwives', and four related categories: (1) lack of identity and recognition; (2) state of helplessness; (3) depletion of competence and confidence; (4) unavailability of resources and financial support.

Conclusion:

The study findings highlight the need for revising the deployment policies, especially those related to the preparation of CMs for working independently in communities; introducing the CMs and their roles within the communities; establishing independent work stations (birthing centres); and streamlining the remuneration processes. The findings recommend greater preparation of district and regional-level government officials by policy makers for the implementation of the new CMs' deployment plan. (37 references) (Author)

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### 20151214-21\*

**Towards a midwifery profession in Bangladesh - a systems approach for a complex world.** Bogren MU, Wigert H, Edgren L, et al (2015), BMC Pregnancy and Childbirth vol 15, no 325, 7 December 2015

BACKGROUND:

The midwifery profession is crucial for a functioning health system aiming at improved maternal and child health outcomes. Complex Adaptive Systems (CAS) can be used as a tool to understand actors' interactions in the system around midwifery profession for improved maternal and child health. The purpose of this study is to explore how actors connect to promote the Bangladesh's midwifery profession.

METHODS:

An explorative study based on the framework of CAS was performed. Data were collected through semi-structured interviews with 16 key persons representing nine different organisations promoting the establishment of the midwifery profession. Qualitative analysis was used.

RESULTS:

Findings show that the actors were intertwined and driving towards a common goal; to save lives through education and deployment of 3000 midwives. The unique knowledge contributions of everyone involved were giving the system strength and power to perform. Collaboration was seen as more could be achieved compared to what an individual organisation could do. Significant results of this were that two midwifery curricula and faculty development had been produced. Although collaboration was mostly seen as something positive to move the system forward, the approach to reach the set goal varied with different interests, priorities and concerns, both on individual organisational level as well as at system level. Frequent struggles of individual philosophies versus organisational mandates were seen as competing interests for advancing the national priorities. It would appear that newcomers with innovative ideas were denied access on the same terms as other actors.

## CONCLUSIONS:

This study illustrates that CAS thinking can be used as a metaphor to understand how to adapt more emergent ways of working instead of the traditional planned approaches to change and develop in order to deal better with a more complex world. Through examining how actors connect for establishing a midwifery profession, offers insights of shared interests towards stepping up efforts for a competent midwifery profession in Bangladesh and elsewhere. Good relationships, where everyone's expertise and innovations, are used to the full, are crucial for establishing a strong midwifery profession and thus improved maternal and child health. (41 references) (Author) [The full text of this article is available free of charge at: <http://www.biomedcentral.com/1471-2393/15/325>] [Please note: BMC initially publish articles in a provisional format. If there is a note on the document to indicate that it is still provisional, it may undergo minor changes]

Full URL: <http://www.biomedcentral.com/1471-2393/15/325>

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## 20151127-45\*

**Evaluation of socio-economic inequalities in the use of maternal health services in rural western China.** Li C, Zeng L, Dibley MJ, et al (2015), Public Health vol 129, no 9, September 2015, pp 1251-1257

### OBJECTIVES:

To describe the use of maternal health services according to the standards of the Chinese Ministry of Health, and assess socio-economic inequalities in usage in rural Shaanxi province, western China.

### STUDY DESIGN:

Cross-sectional survey.

### METHODS:

Principal components analysis was used to measure the economic status of households. A concentration index (CI) approach was used as a measure of socio-economic inequalities in the use of maternal health services, and a decomposable CI was used to identify the factors that contributed to the socio-economic inequalities in usage.

### RESULTS:

In total, 4760 women who had given birth in the preceding three years were selected at random to be interviewed in the five counties. Household wealth index was calculated by constructing a linear index from asset ownership indicators using principal components analysis to derive weights. The CI approach is a standard measure in the analysis of inequalities in health. If the CI for the use of maternal health services is positive, it is pro-rich; if it is negative, it is pro-poor. The decomposition method was used to estimate the contributions of individual factors to CI. The overall CI for five or more prenatal visits was 0.075. The household wealth index was found to make the greatest contribution to socio-economic inequalities for five or more prenatal visits (35.5%), followed by maternal education (28.8%), receipt of a health handbook during pregnancy (12.1%), age group (11.0%), distance from health facility (10.5%), family members (1.5%) and district of residence (0.6%).

### CONCLUSIONS:

Socio-economic inequalities in the use of prenatal health services were pro-rich in rural western China. Socio-economic inequalities in hospital delivery and postnatal health check-ups were not evident. Improving household economic status, providing prenatal health services for women with low income and low educational level, providing health handbooks and improving traffic conditions should be promoted as methods to eliminate socio-economic inequalities in the use of maternal health services.

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## 20151111-64

**A partnership for change - breastfeeding in Cambodia.** Halliwell S (2015), Essence [Magazine of the Australian Breastfeeding Association] vol 51, no 4, July 2015, p 12

The author describes her experiences of voluntary work in as a midwife in Cambodia, where educates families about birth, breastfeeding and nutrition. (MB)

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## 20151028-58

**Providing hope: midwifery teaching in Bangladesh.** Kent A (2015), The Practising Midwife vol 18, no 9, October 2015, pp 34-36

Bangladesh is recognised as a resource-poor country that has made some very positive steps to reducing maternal mortality over the last decade. However the death rate of women directly caused by pregnancy and childbirth still remains much higher than countries such as the UK, often due to lack of access to good quality and affordable basic health care.

In this article, Anna Kent writes of her experiences teaching obstetric emergency clinical skills to Bangladesh's first ever student midwives. The students were recruited from rural villages to complete a three-year fully funded Midwifery Diploma Programme at one of seven education centres across the country. The goal of the programme is for the students to eventually return and practise as midwives in their home communities, enabling greater access for women to good quality basic health care, directly reducing maternal mortality across Bangladesh. (4 references) (Author)

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#### 20151028-41

**Towards midwifery education and regulation in Nepal.** Asha J (2015), *The Practising Midwife* vol 18, no 8, September 2015, pp 24-26

This is a short reflection of four wonderful weeks spent in Nepal supporting, advocating and strengthening the existing work of the Midwifery Society of Nepal and the Global midwifery twinning project (GMTP) with the Royal College of Midwives. Although Nepal is on target to achieve reduction in its maternal mortality rate for millennium goal 5 there is still no registered protected title of 'midwife'. In order to establish a strong midwifery workforce in Nepal, the three pillars that need to be highlighted are: midwifery education, midwifery regulation and professional midwifery association. The four-week programme led by GMTP volunteers helped towards building capacity in leadership, advocacy and campaigning skills in Nepal. (3 references) (Author)

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#### 20151023-38\*

**Pregnancy outcomes in Southeast Asian migrant workers at Southern Thailand.** Hanprasertpong T, Hanprasertpong J (2015), *Journal of Obstetrics and Gynaecology* vol 35, no 6, August 2015, pp 565-569

This retrospective study was conducted to determine the pregnancy outcomes and identify predictive factors of adverse outcomes in pregnant migrant workers who delivered at Songklanagarind Hospital from January 2002 to December 2012. Two hundred and forty migrant worker pregnancies were enrolled. Pre-eclampsia, gestational diabetes mellitus, pre-term birth and foetal intrauterine growth restriction found were 15, 7.9, 13.7 and 3.7%, respectively. No stillbirth was found. Apgar score was  $\leq 7$  at 1 and 5 min and neonatal intensive care unit admission was found to be 12.1, 4.2 and 11.3%, respectively. Antenatal care place, low haemoglobin level and the presence of maternal underlying disease were significantly related to increased risk of overall adverse maternal outcomes. Only pre-term birth was significantly related to overall adverse neonatal outcomes. (11 references) (Author)

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#### 20150907-32

**The development of midwifery education in Brunei Darussalam.** Mumin KHA (2015), *British Journal of Midwifery* vol 23, no 8, August 2015, pp 580-587

This article reviews and explores midwifery education in Brunei Darussalam (henceforth Brunei), including the rationale and the factors influencing its development. There were two phases of development of midwifery education in Brunei; pre- and post-World War II. Midwifery education was established as a response to the increase in maternal and infant mortality in Brunei, believed to result from the unsafe and risky practices of traditional midwives. The development of midwifery education in Brunei was largely influenced by British midwifery, and international organisations, such as the World Health Organization and the International Confederation of Midwives. (44 references) (Author)

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#### 20150821-40

**History of midwifery in Japan.** Brett I (2015), *Midwifery Today* no 114, Summer 2015, pp 58-60

Presents an overview of the history and development of midwifery in Japan, from the 18th century to the present day. (CI)

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#### 20150805-19

**Snapshot: the People's Republic of China.** Anon (2015), *Essentially MIDIRS* vol 6, no 4, May 2015, p 51

Presents a selection of facts and statistics relating to midwifery and maternal and newborn health in the People's Republic of China. (3 references) (JSM)

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#### 20150805-14

**Reflecting on India.** Garland D (2015), *Essentially MIDIRS* vol 6, no 4, May 2015, p 17

The author shares her experiences of observing midwifery care in India and explains how, with the aid of organisations such as Waterbirth International and Birth India, she is addressing the lack of evidence-based care, promoting her vision for undisturbed birth, and assisting with plans to install a normal pool room in birthing facilities, which form part of Gentle Birth Guardianship, which was introduced on a three week lecture tour of the country. (JSM)

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#### 20150805-13

**Midwifery in India.** Duncan L (2015), Essentially MIDIRS vol 6, no 4, May 2015, pp 14-16

Describes how the author, a global midwife, used her experiences of attending births in low income countries such as Mexico and the Philippines, to support pregnant and labouring mothers and their families in India through the establishment of a private limited company, formed with colleagues. Explains how, with other midwives and doulas, she is able to prepare women for birth and parenthood by offering antenatal education which covers topics such as how to decide if a caesarean section is appropriate, and how skin-to-skin care can aid breastfeeding. Recounts how in the past six years, she and her team have created a medical setting which allows midwifery care and promotes informed choice. (JSM)

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#### 20150707-19

**Snapshot: Republic of Indonesia.** Anon (2015), Essentially MIDIRS vol 6, no 3, April 2015, p 51

Presents a collection of statistics on birth and maternal health services in Indonesia. (6 references) (JSM)

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#### 20150615-14\*

**Antenatal care and women's birthing decisions in an Indonesian setting: does location matter?.** Ansariadi A, Manderson L (2015), Rural and Remote Health vol 15, no 2959 (online), 8 June 2015

Introduction: Poor maternal health outcome, still a major health problem in developing countries, is influenced by both women's personal characteristics and the characteristics of the place where they live. Identifying the spatial distribution and clusters of poor maternal health outcomes can assist in developing geographically specific interventions. This article examines the influence of urban and rural settings on antenatal care and birthing decisions in South Sulawesi, a province in Indonesia, and investigates the existence of geographical clusters of women's decision regarding antenatal care and birth assistance. Methods: Data were derived from a survey of 485 women who recently gave birth. Household coordinates, midwives' location and hospital location were recorded using a handheld global positioning system (GPS). Logistic regression was used to examine the influence of place of residence on antenatal care and women's birthing decisions. SaTScan software was used to identify the location of geographical clusters. ArcGIS v9.3 was used to visualize and interpret the distribution of facilities and clusters. Results: Area of residence determines the likelihood of a woman presenting for antenatal care - care that pregnant women receive from skilled birth attendants. The likelihood of hospital delivery or delivery at home with the support of a skilled birth attendant (SBA), however, was not determined by residential area. Distance to nearest SBA, working as a village midwife, was associated with the likelihood to be assisted by her at home. Attendance of SBA at home, or delivery at a hospital, were clustered in urban areas at different geographical locations, but no similar clustering occurred in rural areas. In contrast, women with low numbers of antenatal care visits and a traditional birthing assistant (TBA) at home were clustered in particular rural areas, but low antenatal care visits and use of TBA were not clustered in urban areas. Conclusions: Although area of residence did not appear to influence the likelihood of women delivering at hospital or with SBA at home, clusters of women follow particular patterns of behaviour in different geographic settings. This clustering highlights the heterogeneity of both urban and rural areas. (55 references) (Author) [Full article available online at: <http://www.rrh.org.au/articles/subviewnew.asp?ArticleID=2959>]

Full URL: <http://www.rrh.org.au/articles/subviewnew.asp?ArticleID=2959>

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#### 20150325-55

**Midwives' perception about their practice in a midwifery-led care model in Karachi, Pakistan.** Saleem Z, Jan R, McIntyre H, et al (2015), British Journal of Midwifery vol 23, no 3, March 2015, p 200-7

Objective: To explore the experiences and perceptions of midwives practising the midwifery-led care model at two private facilities of women and children hospital in Karachi, Pakistan. Methods: The descriptive qualitative data was collected through semi-structured questionnaires with 10 midwives. Results: The findings of the study emerged as

'struggling to be a professional midwife' and the related four categories were: (1) asking to perform within the full scope of practice, (ii) obstetricians' reliance and trust in midwives' expertise, (iii) raising concerns about expensive midwifery services, and (iv) encountering barriers to practise midwifery as independent practitioners. Conclusion: Midwives face some challenges practising the midwifery-led care model such as lack of visibility in society, low salaries and increased workload due to the shortage of staff. Lack of higher education was also highlighted by the midwives as they have no opportunities for career growth. This study will increase midwives' autonomous role and decision-making in the clinical setting. (22 results) (Author)

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#### 20150128-83

**Birth in India: an update.** Duncan L, Krishnan V (2014), *Midwifery Today* no 112, Winter 2014, pp 60-61

Describes the beginning of changing attitudes to birth in India, from an unquering acceptance of medicalisation to one based on choice and information. (JR)

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#### 20150123-61\*

**Explaining women's high satisfaction with objectively poor quality childbirth services: Armenia as a case study.** Grigoryan R, Thompson ME, Crape B, et al (2015), *Health Care for Women International* vol 36, no 1, 2015, pp 121-134

Despite documented low-quality care in Armenia, surveys document high ratings of patient satisfaction with health care services. We explored reasons for high satisfaction in Armenia despite poor quality. Twenty-five women who recently delivered participated in this qualitative study through in-depth interviews. Patients avoided critiquing health care services because of personal relationships with and respect for providers and fear of losing services. Although they shared an understanding of what quality care should be, many were satisfied because their low expectations were met. Further mixed methods research may explain this dissonance. Until then, patient satisfaction measures need careful, contextual interpretations. (Author)

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#### 20150123-56\*

**Culture and maternity care in Kazakhstan: what new mothers expected.** Craig BJ, Kabylbekova Z (2015), *Health Care for Women International* vol 36, no 1, 2015, pp 41-56

Maternity care in the developing nation of Kazakhstan has been characterized as low in quality, with mothers having low levels of health knowledge. Some nongovernmental organizations have been offering childbirth preparation courses to address the lack of knowledge and encourage participation and decision making among expecting mothers. The participants of this study, however, report that information is more for preparation than for decision making, and that the relational aspects of their care, namely, emotional support and trust, are most important. This emphasis reflects the cultural and historical influences that need to be considered when adopting foreign models of care and health education. (Author)

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#### 20150123-55\*

**Conceptualizing prenatal care: recent research and the application of tae-kyo, korean traditional beliefs and practices.** Kim Y (2015), *Health Care for Women International* vol 36, no 1, 2015, pp 26-40

The value of prenatal care has long been recognized by various cultures. The author's purpose in this article is to propose a framework to conceptualize prenatal care using the traditional Korean practice of prenatal care called Tae-Kyo, which means education for the fetus. The philosophy of Tae-Kyo shows the importance of children's development from the very beginning of life and indicates the moral and social responsibilities of pregnant women, family members, and communities in delivering healthy babies. This comprehensive view implies a framework for conceptualizing prenatal care that encompasses multidimensional aspects of prenatal care. (Author)

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#### 20150121-57

**Reflection on an international experience at Denpasar, Bali.** Skinner V (2014), *Australian Midwifery News* vol 14, Summer 2014, pp 38-39

Describes the author's experience of presenting at an International Conference in Bali, Indonesia, and reflects on the disparities between maternal health services in Indonesia and Australia. (SB)

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#### 20150106-41\*

**Prevalence and determinants of caesarean section in private and public health facilities in underserved South Asian**

**communities: cross-sectional analysis of data from Bangladesh, India and Nepal.** Neuman M, Alcock G, Azad K, et al (2014), *BMJ Open* vol 4, no 12, 30 December 2014

**Objectives** To describe the prevalence and determinants of births by caesarean section in private and public health facilities in underserved communities in South Asia. **Design** Cross-sectional study. **Setting** 81 community-based geographical clusters in four locations in Bangladesh, India and Nepal (three rural, one urban). **Participants** 45 327 births occurring in the study areas between 2005 and 2012. **Outcome measures** Proportion of caesarean section deliveries by location and type of facility; determinants of caesarean section delivery by location. **Results** Institutional delivery rates varied widely between settings, from 21% in rural India to 90% in urban India. The proportion of private and charitable facility births delivered by caesarean section was 73% in Bangladesh, 30% in rural Nepal, 18% in urban India and 5% in rural India. The odds of caesarean section were greater in private and charitable health facilities than in public facilities in three of four study locations, even when adjusted for pregnancy and delivery characteristics, maternal characteristics and year of delivery (Bangladesh: adjusted OR (AOR) 5.91, 95% CI 5.15 to 6.78; Nepal: AOR 2.37, 95% CI 1.62 to 3.44; urban India: AOR 1.22, 95% CI 1.09 to 1.38). We found that highly educated women were particularly likely to deliver by caesarean in private facilities in urban India (AOR 2.10; 95% CI 1.61 to 2.75) and also in rural Bangladesh (AOR 11.09, 95% CI 6.28 to 19.57). **Conclusions** Our results lend support to the hypothesis that increased caesarean section rates in these South Asian countries may be driven in part by the private sector. They also suggest that preferences for caesarean delivery may be higher among highly educated women, and that individual-level and provider-level factors interact in driving caesarean rates higher. Rates of caesarean section in the private sector, and their maternal and neonatal health outcomes, require close monitoring. (Author) [The full text of this article is available free of charge via <http://bmjopen.bmj.com>]

**Full URL:** [bmjopen.bmj.com/content/4/12/e005982.full](http://bmjopen.bmj.com/content/4/12/e005982.full)

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#### 20141027-55\*

**Good on paper: the gap between programme theory and real-world context in Pakistan's Community Midwife programme.**

Mumtaz Z, Levay A, Bhatti A, et al (2015), *BJOG: An International Journal of Obstetrics and Gynaecology* vol 22, no 2, January 2015, pp 249-58

**Objective:**

To understand why skilled birth attendance—an acknowledged strategy for reducing maternal deaths—has been effective in some settings but is failing in Pakistan and to demonstrate the value of a theory-driven approach to evaluating implementation of maternal healthcare interventions.

**Design:**

Implementation research was conducted using an institutional ethnographic approach.

**Setting and population:**

National programme and local community levels in Pakistan.

**Methods:**

Observations, focus group discussions, and in-depth interviews were conducted with 38 Community Midwives (CMWs), 20 policymakers, 45 healthcare providers and 136 community members. A critical policy document review was conducted.

National and local level data were brought together.

**Main outcomes:**

Alignment of programme theory with real-world practice.

**Results:**

Data revealed gaps between programme theory, assumptions and reality on the ground. The design of the programme failed to take into account: (1) the incongruity between the role of a midwife and dominant class and gendered norms that devalue such a role; (2) market and consumer behaviour that prevented CMWs from establishing private practices; (3) the complexity of public-private sector cooperation. Uniform deployment policies failed to consider existing provider density and geography.

**Conclusions:**

Greater attention to programme theory and the 'real-world' setting during design of maternal health strategies is needed to achieve consistent results in different contexts. (Author)

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#### 20140917-67

**Exploring operational barriers encountered by community midwives when delivering services in two provinces of Pakistan: A qualitative study.** Ur Rehman S, Ahmed J, Bahadur S, et al (2015), *Midwifery* vol 31, no 1, January 2015, pp 177-183

**OBJECTIVES:** to explore barriers experienced by community midwives (CMWs) when delivering services, from their own and their managers' perspectives, at provincial and district level in the context of organisational factors, and to determine other factors linked with the poor performance of CMWs in the delivery of maternal, neonatal and child

health (MNCH)-related services within their communities. DESIGN: qualitative study design using in-depth interviews (IDIs) and focus group discussions (FGDs). SETTING: two districts in Khyber Pakhtunkhwa and Punjab provinces in Pakistan. PARTICIPANTS: 41 participants were interviewed in depth; they included CMWs, lady health supervisors and managerial staff of the MNCH programme. MEASUREMENTS: participants were interviewed about administrative issues including financial and policy areas, training and deployment in the community, functioning in the community, and supervision and referral for emergency cases. FINDINGS: CMWs reported financial constraints, training needs and difficulty with building relationships in the community. They required support in terms of logistics, essential supplies, and mechanisms for referral of complicated cases to higher-level health facilities. CONCLUSIONS: CMWs working in developing countries face many challenges; starting from their training, deployment in the field and delivery of services in their respective communities. Facilitating their work and efforts through improved programming of the CMW's services can overcome these challenges. IMPLICATIONS FOR PRACTICE: the MNCH programme, provincial government and other stakeholders need to take ownership of the CMW programme and implement it comprehensively. Long-term adequate resource allocation is needed to sustain the programme so that improvements in maternal and child health are visible. (Author)

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#### 20140917-32

**A comparison of midwife-led care versus obstetrician-led care for low-risk women in Japan.** Iida M, Horiuchi S, Nagamori K (2014), *Women and Birth: Journal of the Australian College of Midwives* vol 27, no 3, September 2014, pp 202-207

BACKGROUND: Continuity of midwife-led care is recommended in maternity care because of its various positive outcomes. In Japan, midwife-led care is receiving broad attention as well. In order to popularise midwifery care within the entire system of perinatal care in Japan, there is a need to show evidence that continuity of midwife care for women will bring about positive outcomes. AIM: The objectives of this study were to compare the health outcomes of women and infants who received midwife-led care with obstetrician-led care in Japan. METHODS: This was an observational study using non-random purposive sampling with a survey questionnaire. Settings where midwife-led care and obstetrician-led care were chosen by purposive samples. Participants were low-risk women who received antenatal care and delivered a term-singleton-infant at the participating settings during the research period. Measurements were: Women-centred care pregnancy questionnaire, Stein's maternity blues questionnaire, and Edinburgh Postnatal Depression Scale. FINDINGS: Midwife-led care was perceived by women to be beneficial and had no adverse outcomes compared to obstetrician-led care. Main findings are: (1) Perception of Women-centred care was higher; (2) Less premature rupture of membranes, and the Apgar scores of the infants were similar; (3) Exclusively breast-feeding during hospitalisation and at one-month postpartum; (4) Stein's maternity blues scale scores was lower in women who received midwife-led care than those who received obstetrician-led care. CONCLUSIONS: Continuity of midwife-led care was perceived by women to be beneficial and had no adverse outcomes. Therefore, midwife-led care in low-risk pregnancy could be applicable and recommended. (30 references) (Author)

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#### 20140804-22\*

**International perspectives: current status and needs of perinatal health-care in India.** Pejaver RK (2014), *NeoReviews* vol 15, no 8, August 2014, pp e311-e315

India is often referred to as a subcontinent with a wide variety of cultural, religious, and traditional populations. India has a multitude of health-care delivery systems through the public sector, private hospitals, and herbal and traditional health-care systems. Though India is growing significantly, especially with regard to information technology and the knowledge industry, its health indices can still be improved considerably. India is unlikely to achieve the Millennium Development Goals. There are many government sponsored health programs currently operating to improve the perinatal health of the people. Coordinating all these activities, developing a sustainable private-public partnership, and developing affordable health insurance schemes that are available and affordable to all cross sections of the society seem to be the way forward. (Author)

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#### 20140716-70

**From Robin Lim in the Philippines.** Lim R (2014), *Midwifery Today* no 110, Summer 2014, p 63

A midwife based in the Philippines describes her work on her return to the Philippines since the super typhoon and how midwives are working to resurrect maternity services. (JR)

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#### 20140610-80\*

**Factors affecting attendance at and timing of formal antenatal care: results from a qualitative study in Madang, Papua**

**New Guinea.** Andrew EVW, Pell C, Angwin A, et al (2014), PLoS ONE vol 9, no 5, 19 May 2014, e0093025

Background: Appropriate antenatal care (ANC) is key for the health of mother and child. However, in Papua New Guinea (PNG), only a third of women receive any ANC during pregnancy. Drawing on qualitative research, this paper explores the influences on ANC attendance and timing of first visit in the Madang region of Papua New Guinea. Methods: Data were collected in three sites utilizing several qualitative methods: free-listing and sorting of terms and definitions, focus group discussions, in-depth interviews, observation in health care facilities and case studies of pregnant women. Respondents included pregnant women, their relatives, biomedical and traditional health providers, opinion leaders and community members. Results: Although generally reported to be important, respondents' understanding of the procedures involved in ANC was limited. Factors influencing attendance fell into three main categories: accessibility, attitudes to ANC, and interpersonal issues. Although women saw accessibility (distance and cost) as a barrier, those who lived close to health facilities and could easily afford ANC also demonstrated poor attendance. Attitudes were shaped by previous experiences of ANC, such as waiting times, quality of care, and perceptions of preventative care and medical interventions during pregnancy. Interpersonal factors included relationships with healthcare providers, pregnancy disclosure, and family conflict. A desire to avoid repeat clinic visits, ideas about the strength of the fetus and parity were particularly relevant to the timing of first ANC visit. Conclusions: This long-term in-depth study (the first of its kind in Madang, PNG) shows how socio-cultural and economic factors influence ANC attendance. These factors must be addressed to encourage timely ANC visits: interventions could focus on ANC delivery in health facilities, for example, by addressing healthcare staff's attitudes towards pregnant women. [The full text of this article is available free of charge at: <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0093025>] (67 references) (Author)

**Full URL:** <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0093025>

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#### **20140603-5**

**Safety before comfort: a focused enquiry of Nepal skilled birth attendants' concepts of respectful maternity care.** Erlandsson K, Tamrakar Sayami J, Sapkota S (2014), Evidence Based Midwifery vol 12, no 2, June 2014, pp 59-64

Background: Respectful maternity care is the universal right of childbearing women, but in Nepal there are no midwives to deliver this care and it is provided by skilled birth attendants (SBAs), who may be physicians, certified nurses, auxiliary nurse-midwives or degree-trained nurses. Aim: To explore how this concept of respectful maternity care was perceived by SBAs in practice. Design: Focus group discussions were used and the setting was two tertiary level maternity hospitals in Nepal. Ethical approval for the study was obtained from the Nepal Health Research Council. A total of 24 SBAs were recruited voluntarily from the maternity units. Data were analysed using a phenomenographic approach and interpretation was verified by the focus group facilitator and note-taker. Findings: Five categories, divided into 16 sub-categories, present the SBAs' collective description and respectful care. Conclusions: SBAs understood that respectful care at birth was important, but argued that 'safety comes before comfort'. To achieve safe maternity care, the contribution of relatives is essential, in addition to the provision of medical care. Implications: Family members need to accompany the woman and her newborn from admission to discharge to provide basic care and this needs to be reviewed. Professional midwives need to be trained, recruited, and deployed in areas where they are most needed and the government needs to regulate the profession and make it legal. (33 references) (Author)

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#### **20140528-11**

**Celebrate midwifery - in Nepal.** Ireland J (2014), The Practising Midwife vol 17, no 6, June 2014, pp 35-36, 38

This paper describes a workshop which was supported by the Iolanthe Midwifery Trust and facilitated in Nepal. The groups were introduced to the concept of emotion work in maternity care and ways of using reflection to manage it in themselves. A practical element was used, following the belief that engaging the right side of the brain in craft frees the left side to work optimally on logical/rational thinking. (6 references) (Author)

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#### **20140527-40\***

**Why women choose to give birth at home: a situational analysis from urban slums of Delhi.** Devasenapathy N, George MS, Jerath SG, et al (2014), BMJ Open vol 4, no 5, 22 May 2014

##### **OBJECTIVES:**

Increasing institutional births is an important strategy for attaining Millennium Development Goal -5. However, rapid growth of low income and migrant populations in urban settings in low-income and middle-income countries, including India, presents unique challenges for programmes to improve utilisation of institutional care. Better understanding of the factors influencing home or institutional birth among the urban poor is urgently needed to

enhance programme impact. To measure the prevalence of home and institutional births in an urban slum population and identify factors influencing these events.

**DESIGN:**

Cross-sectional survey using quantitative and qualitative methods.

**SETTING:**

Urban poor settlements in Delhi, India.

**PARTICIPANTS:**

A house-to-house survey was conducted of all households in three slum clusters in north-east Delhi (n=32 034 individuals). Data on birthing place and sociodemographic characteristics were collected using structured questionnaires (n=6092 households). Detailed information on pregnancy and postnatal care was obtained from women who gave birth in the past 3 months (n=160). Focus group discussions and in-depth interviews were conducted with stakeholders from the community and healthcare facilities.

**RESULTS:**

Of the 824 women who gave birth in the previous year, 53% (95% CI 49.7 to 56.6) had given birth at home. In adjusted analyses, multiparity, low literacy and migrant status were independently predictive of home births. Fear of hospitals (36%), comfort of home (20.7%) and lack of social support for child care (12.2%) emerged as the primary reasons for home births.

**CONCLUSIONS:**

Home births are frequent among the urban poor. This study highlights the urgent need for improvements in the quality and hospitality of client services and need for family support as the key modifiable factors affecting over two-thirds of this population. These findings should inform the design of strategies to promote institutional births. (Author) [The full text of this article is available free of charge via <http://bmjopen.bmj.com>]

**Full URL:** [bmjopen.bmj.com/content/4/5/e004401.short?rss=1](http://bmjopen.bmj.com/content/4/5/e004401.short?rss=1)

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**20140522-50\***

**Prenatal diagnostic testing among women referred for advanced maternal age in Beijing, 2001-2012.** Ma J, Hong P, Fu J, et al (2014), International Journal of Gynecology & Obstetrics vol 125, no 3, 2014, pp 232-236

**OBJECTIVE:**

To determine the proportion of women with advanced maternal age (AMA) undergoing amniocentesis and assess the recommended indication of 35years or older in China.

**METHODS:**

Data were retrospectively evaluated from 9641 patients who underwent diagnostic prenatal amniocentesis in Beijing, China, between January 2001 and December 2012. Maternal age, indication for testing, and karyotype data were collected. Patients referred for AMA were stratified in 2 ways: 35-37years, 38-40years, and 41years or older; and indication of AMA alone or combined with other screening. Outcomes and safety performance were compared among the groups.

**RESULTS:**

From 2001 to 2012, the annual rate of amniocentesis and the proportion of AMA-related indications increased ( $P<0.01$ ). Overall, 82 abnormalities were detected. In the AMA group, the spontaneous abortion rate was 0.5% (22/4748). The positive predictive value (PPV) of AMA alone was 0.5% for women aged 35-37years. Only among women aged 41years or older was the PPV of AMA alone better than that of AMA plus other indications (2.3% vs 1.5%, respectively).

**CONCLUSION:**

The PPV of 35years or older did not offset the risk of spontaneous abortion. AMA alone should not be used as an indication for amniocentesis especially among women aged 35-40years. (Author)

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**20140514-68\***

**Quality of Obstetric Referral Services in India's JSY Cash Transfer Programme for Institutional Births: A Study from Madhya Pradesh Province.** Chaturvedi S, Randive B, Diwan V, et al (2014), PLoS ONE 8 May 2014

**BACKGROUND:**

India launched JSY cash transfer programme to increase access to emergency obstetric and neonatal care (EmONC) by incentivising in-facility births. This increased in-facility births from 30% in 2005 to 73% in 2012 however, decline in maternal mortality follows a secular trend. Dysfunctional referral services can contribute to poor programme impact on outcomes. We hence describe inter-facility referrals and study quality of referral services in JSY.

**METHODS AND RESULTS:**

Women accessing intra natal care (n = 1182) at facilities (reporting >10 deliveries/month, n = 96) were interviewed in a 5 day cross sectional survey in 3 districts of Madhya Pradesh province. A nested matched case control study (n = 68

pairs) was performed to study association between maternal referral and adverse birth outcomes. There were 111 (9.4%) in referrals and 69 (5.8%) out referrals. Secondary level facilities sent most referrals and 40% were for conditions expected to be treated at this level. There were 36 adverse birth outcomes (intra partum and in-facility deaths). After matching for type of complication and place of delivery, conditional logistic regression model showed maternal referral at term delivery was associated with higher odds of adverse birth outcomes (OR- 2.6, 95% CI: 1.0-6.6 p=0.04). Maternal death record review (April 10-March 12) was conducted at the CEmOC facility in one district. Spatial analysis of transfer time from sending to the receiving CEmOC facility among in-facility maternal deaths was conducted in ArcGIS10 applying two hours (equated to 100 Km) as desired transfer time. There were 124 maternal deaths, 55 of which were among mothers referred in. Buffer analysis revealed 98% mothers were referred from <2 hours. Median time between arrival and death was 6.75 hours.

#### CONCLUSIONS:

High odds of adverse birth outcomes associated with maternal referral and high maternal deaths despite spatial access to referral care indicate poor quality of referral services. (Author)

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#### 20140508-57\*

**The evaluation of maternal health in rural western China.** Pei L, Ren L, Wang D, et al (2014), *Ethnicity and Health* vol 19, no 3, 2014, pp 297-310

Objective: The double burden of undernutrition and overnutrition is recognized as a global devastating problem. However, few studies have investigated the maternal nutritional status among different ethnicities and the socio-demographic characteristics in rural areas of western China. This study attempted to fill this gap. Design: Data on 10,495 women with children under three years old were collected using a three-stage probability proportion to size sampling from 45 counties of 10 provinces in western China. Generalized Estimating Equation (GEE) was used to assess the maternal nutrition conditions, including chronic energy deficiency (CED) and overweight/obesity. Results: According to the WHO BMI standard, the prevalences of CED and overweight/obesity were 12.3% (BMI  $\leq$  18.5 kg/m<sup>2</sup>) and 12.4% (BMI  $\geq$  25 kg/m<sup>2</sup>), respectively, while overweight/obesity rate was 18.5% (BMI  $\geq$  24 kg/m<sup>2</sup>) based on the Chinese standard. A significant difference in malnutrition between Han and Minority was not observed. The relationship between breastfeeding and CED was inverse (OR 0.64, 95%CI: 0.48, 0.87), but higher parity were positively correlated with CED (OR 1.57, 95%CI: 1.36, 1.82). The highest odds of CED were observed in the group with 1-5 years of education (OR 1.21, 95%CI: 1.03, 1.43). Higher parity was also associated with overweight/obesity (OR 0.78, 95%CI: 0.67, 0.91), and rural women aged 30-39 years old were more likely to be overweight/obese (OR 2.21, 95%CI: 1.47, 3.32). In addition, higher socioeconomic status was positively related to overweight women (OR 1.19, 95%CI: 1.01, 1.43), and inversely associated with CED (OR 0.83, 95%CI: 0.72, 0.97). Conclusion: The coexistence of undernutrition and overweight among women of reproductive age are determined in rural western China. It appears that socio-demographic factors considerably influence maternal nutritional status in the study. These findings have important policy implications for recommendations on maternal health intervention in China. (Author)

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#### 20140507-30

**Utilisation of antenatal care in four counties in Ningxia, China.** Ren Z (2011), *Midwifery* vol 27, no 6, December 2011, e260-66

#### OBJECTIVES:

To analyse and evaluate the antenatal care services and its quality so as to improve the antenatal care, and make it more available and cost-effective.

#### DESIGN:

Retrospective survey. A multistage sampling technique was used to select townships and villages.

#### SETTING:

The four rural counties of a project in Ningxia Hui Autonomous Region in northwest China, where more than one half of the population was Hui ethnicity, the average hospital delivery rate was 47% in 2005, and the maternal mortality ratio was estimated to be higher than 65 deaths per 100,000 live births in 2005.

#### PARTICIPANTS:

Five hundred and fifty-four mothers of children under the age of five were interviewed at home using a structured questionnaire between August and September in 2006. No mothers refused to take part in the survey.

#### MEASUREMENTS AND FINDINGS:

The percentage using antenatal care, the number of antenatal visits and the timing of the first antenatal visit during the pregnancy of the youngest child were analysed. 78.2% of the mothers had received antenatal care services, but only 12.9% had at least five antenatal visits and 35.2% had their initial visit in the first trimester. Only 9.0% whose first

antenatal visit took place during the first trimester had at least five antenatal visits. Ethnicity was an important factor determining antenatal care use. Hui mothers had significantly lower odds ratios of obtaining antenatal care in the first trimester (OR = 0.32, P < 0.001) or having at least five antenatal visits (OR = 0.11, P < 0.001) than Han mothers.

**KEY CONCLUSIONS:**

The quality of the antenatal care which the women received was low. It is necessary to rethink the current model of antenatal care, and to develop and standardise a new model of antenatal care. (Author) [The full text can be purchased online at: <http://www.midwiferyjournal.com>]

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**20140501-64\***

**Professional quality of life of Japanese nurses/midwives providing abortion/childbirth care.** Mizuno M, Kinefuchi E, Kimura R, et al (2013), *Nursing Ethics* vol 20, no 5, 2013, pp 539-550

This study explored the relationship between professional quality of life and emotion work and the major stress factors related to abortion care in Japanese obstetric and gynecological nurses and midwives. Between October 2011 and January 2012, questionnaires that included questions concerning eight stress factors, the Professional Quality of Life Scale, and the Japanese version of the Frankfurt Emotional Work Scale, were answered by 255 nurses and midwives working in abortion and childbirth services. Professional Quality of Life scores (compassion fatigue, compassion satisfaction, burnout) were significantly associated with stress factors and emotion work. Multiple regression analysis revealed that of all the evaluated variables, the Japanese version of the Frankfurt Emotional Work Scale score for negative emotions display was the most significant positive predictor of compassion fatigue and burnout. The stress factors 'thinking that the aborted fetus deserved to live' and 'difficulty in controlling emotions during abortion care' were associated with compassion fatigue. These findings indicate that providing abortion services is a highly distressing experience for nurses and midwives. (Author)

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**20140403-99\***

**Innovations in Maternal Health Case Studies from India.** Satia JK, Misra M, Arora R, et al (2014), Los Angeles: Sage Publications 2014. 314 pages

Innovations in Maternal Health presents a compilation of twenty-three innovations from the area of Maternal and Newborn Health. These innovations have been written in the case-study style for teaching, which will be beneficial for capacity building initiatives for health-care professionals. These descriptive cases cover innovative programmes, initiatives and technologies implemented in India. Each case is complemented by a documentary film provided in the accompanying DVD. The book takes us on a boat ride through the rarely travelled riverine areas of the Majuli Islands of Assam and the Sunderbans in West Bengal to the state of Tamil Nadu, which is known for its constant endeavours to improve its health-care system, considered one of the best in the country. Technological innovations to address hypothermia in newborns and buy time in cases of postpartum haemorrhage in low-resource settings have been documented in detail. The book hopes to encourage readers to analytically view the need for innovations, critically analyse their success and challenges and the need for information sharing for better utilization of existing knowledge. (Publisher)

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**20140317-3\***

**Nepal's young women endure painful 'fallen womb' syndrome.** Kannampilly A (2014), *Medical Xpress* 16 March 2014

Highlights the problem of uterine prolapse, a painful and distressing condition where the uterus descends into and protrudes from the vagina. Explains that the condition usually affects post-menopausal women but, according to statistics from the United Nations, in Nepal, women in their twenties account for 44% of such cases. Suggests that possible reasons for the high incidence among young women in the country include: social deprivation, making it necessary for them to endure hard physical work such as cutting wood, feeding cattle, farming and housework late into pregnancy and early on in the postnatal period; and social pressure for them to produce sons, which may mean several pregnancies with only short intervals between them. (JSM)

**Full URL:** <http://medicalxpress.com/news/2014-03-nepal-young-women-painful-fallen.html>

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**20140213-41\***

**Challenges in delivery of skilled maternal care - experiences of community midwives in Pakistan.** Sarfraz M, Hamid S (2014), *BMC Pregnancy and Childbirth* vol 14, no 59, 5 February 2014

**BACKGROUND:**

Maternal mortality ratio in Pakistan remains high at 276 per 100000 live births (175 in the urban areas and 319 in rural) with a mother dying as a result of giving birth every 20 minutes. Despite the intervening years since the Safe

Motherhood Initiative launch and the Millennium Development Goals (MDGs), there have been few improvements in MDGs 4 and 5 in Pakistan. A key underlying reason is that only 39% of the births are attended by skilled birth attendants. Pakistan, like many other developing countries has been struggling to make improvements in maternal and neonatal health, amongst other measures, which include a nationwide health infrastructure network. Recently, government of Pakistan revised its maternal and newborn health program and introduced a new cadre of community based birth attendants, called community midwives (CMW), trained to conduct home-based deliveries. There is limited research available on field experiences of community midwives as maternal health care providers. Formative research was designed and conducted in a rural district of Pakistan with the objective of exploring role of CMWs as home based skilled service providers and the challenges they face in provision of skilled maternal care.

#### METHODS:

A qualitative research using content analysis was conducted in one rural district (Attock) of Pakistan. Focus group discussions were conducted with CMWs and other community based health workers as LHWs and LHSs, focusing on the role of CMWs in the existing primary health care infrastructure.

#### RESULTS:

Results of this study reveal that the community midwives are struggling for survival in rural areas as maternal care providers as they are inadequately trained, lack sufficient resources to deliver services in their catchment areas and lack facilitation for integration in district health system.

#### CONCLUSIONS:

CMWs face many challenges in the field related to the communities' attitude and the health system. With adequate training and facilitation by health department, CMWs have potential to play a vital role in reducing burden of maternal morbidity and in achieving significant gains in improving maternal and child health. (Author)

Full URL: [www.biomedcentral.com](http://www.biomedcentral.com)

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#### 20140131-46

**Cultural exploration.** Thomas-Hamblin C (2014), *Midwives* vol 17, no 1, 2014, pp 28-29

Midwifery student Chelsea Thomas-Hamblin compares the maternity services in a busy hospital in the Philippines to those in the UK. (Author)

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#### 20140123-44\*

**Impact of prenatal care utilization on infant care practices in Nepal: a national representative cross-sectional survey.**

Neupane S, Nwaru BI (2014), *European Journal of Pediatrics* vol 173, no 1, 2014, pp 99-109

This study aimed to examine the utilization of prenatal care and its association with infant care practices using a nationally representative sample of Nepalese mothers and children. The study data was based on the 2006 Nepal Demographic and Health Survey which comprised of women age 15-49 years old who had delivered within three years prior to the survey (N = 4,136). A multilevel logistic regression model was fitted to assess the influence of prenatal care utilization on several indicators of infant care. Neonatal mortality is still high in Nepal (46 per 1,000 live births). After taking into account several maternal and child characteristics, children of mothers with no prenatal care were at increased risk of neonatal death (OR = 2.03, 95 % CI = 1.28-3.23). Compared to women with no prenatal care, those with more than three visits were more likely to immunize their children (OR = 2.66, 95 % CI = 2.10-3.36) and more likely to initiate breastfeeding within 1 h after birth (OR = 1.25, 95 % CI = 1.02-1.54). Having skilled attendants at prenatal care and at birth was also associated with better infant care practices. Conclusion: Neonatal mortality is still high in Nepal. Adequate prenatal care utilization may represent a key preventative strategy, which, in the present study, was associated with improvement in neonatal mortality, higher likelihood of having immunization, and initiation of breastfeeding within 1 h after birth. Public health awareness programs and interventions are needed in Nepal to increase the utilization of prenatal care as well as delivery assisted by skilled attendants. (Author)

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#### 20140122-3\*

**A cross-sectional analytic study of postpartum health care service utilization in the Philippines.** Yamashita T, Suplido SA, Ladines-Lave C, et al (2014), *PLoS ONE* vol 9, no 1, 20 January 2014, e85627

Background: The maternal mortality ratio in the Philippines remains high; thus, it will be difficult to achieve the Millennium Development Goals 5 by 2015. Approximately two-thirds of all maternal deaths occur during the postpartum period. Therefore, we conducted the present study to examine the current state of postpartum health care service utilization in the Philippines, and identify challenges to accessing postpartum care. Methods: A questionnaire and knowledge test were distributed to postpartum women in the Philippines. The questionnaire collected demographical characteristics and information about their utilization of health care services during

pregnancy and the postpartum period. The knowledge test consisted of 11 questions regarding 6 topics related to possible physical and mental symptoms after delivery. Sixty-four questionnaires and knowledge tests were analyzed. Results: The mean time of first postpartum health care visit was 5.1±5.2 days after delivery. Postpartum utilization of health care services was significantly correlated with delivery location ( $P<0.01$ ). Women who delivered at home had a lower rate of postpartum health care service utilization than women who delivered at medical facilities. The majority of participants scored low on the knowledge test. Conclusions: We found inadequate postpartum health care service utilization, especially for women who delivered at home. Our results also suggest that postpartum women lack knowledge about postpartum health concerns. In the Philippines, Barangay health workers may play a role in educating postpartum women regarding health care service utilization to improve their knowledge of possible concerns and their overall utilization of health care services. [The full text of this article is available free of charge at: <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0085627>] (35 references) (Author)

**Full URL:** <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0085627>

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#### **20140103-84\***

##### **Maternal complications and the utilisation of maternal health care services with special reference to West Bengal, India.**

Subba D (2013), *Open Journal of Obstetrics and Gynecology* vol 3. no 9, November 2013, pp 694-701

The study aims to examine maternal complications in the eastern states of India. Further, an attempt is also made to understand the socioeconomic factors that determine the utilization of health care services during maternity in the state of West Bengal. The data used for the study are District Level Household Survey (DLHS) 2007-08, which reveals wide regional variations in maternal complications in India. But the state of West Bengal depicts a unique picture. It has the dubious distinction of achieving low fertility and mortality with high maternal complications. The utilisation of health care services in West Bengal was never near completion. Full utilisation of ANC which is essential for safe motherhood is just above national average. A large number of deliveries still take place out of the institution and are unsafe. Analysis reveals that higher age at motherhood increases the probability of utilising maternal health care services. Social groups, years of schooling, wealth index and place of residence also show significant relationship. The findings of the study provide an insight that efforts should be made to create awareness among socially and economically disadvantaged groups of the society about the benefits of utilisation of health care services. Further it also addresses the issue of creating awareness about MDG's. [The full text of this article is available free of charge at: <http://dx.doi.org/10.4236/ojog.2013.39128>] (19 references) (Author)

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#### **20131220-57\***

**Effect of village midwife program on contraceptive prevalence and method choice in Indonesia.** Weaver EH, Frankenberg E, Fried BJ, et al (2013), *Perspectives on Sexual and Reproductive Health* vol 44, no 4, 2013, pp 389-409

Indonesia established its Village Midwife Program in 1989 to combat high rates of maternal mortality. The program's goals were to address gaps in access to reproductive health care for rural women, increase access to and use of family planning services, and broaden the mix of available contraceptive methods. In this study, we use longitudinal data from the Indonesia Family Life Survey to examine the program's effect on contraceptive practice. We find that the program did not affect overall contraceptive prevalence but did affect method choice. Over time, for women using contraceptives, midwives were associated with increased odds of injectable contraceptive use and decreased odds of oral contraceptive and implant use. Although the Indonesian government had hoped that the Village Midwife Program would channel women into using longer-lasting methods, the women's 'switching behavior' indicates that the program succeeded in providing additional outlets for and promoting the use of injectable contraceptives. (Author)

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#### **20131121-81\***

**Perinatal outcomes of low-risk planned home and hospital births under midwife-led care in Japan.** Hiraizumi Y, Suzuki S (2013), *Journal of Obstetrics and Gynaecology Research* vol 39, no 11, 2013, pp 1500-1504

AIM:

It has not been extensively studied whether planned home and planned hospital births under primary midwife-led care increase risk of adverse events among low-risk women in Japan.

METHODS:

A retrospective cohort study was performed to compare perinatal outcome between 291 women who were given primary midwife-led care during labor and 217 women who were given standard obstetric shared care. Among 291 women with primary midwife-led care, 168 and 123 chose home deliver and hospital delivery, respectively. Perinatal outcomes included length of labor of 24 h or more, augmentation of labor pains, delivery mode, severe perineal

laceration, postpartum hemorrhage of 1000 mL or more, maternal fever of 38°C or more and neonatal asphyxia (Apgar score, <7). Analysis was by intention to treat.

**RESULTS:**

The incidence of transfer from primary midwife-led care to obstetric shared care was 27% (77 women) mainly due to failure of labor progress (21%, 16 women), postpartum hemorrhage (19%, 15 women) and non-reassuring fetal status (19%, 15 women). Significantly higher incidence of transfer to obstetric shared care from primary midwife-led care was seen among women who chose hospital delivery compared with women who chose home delivery (34 vs 21%, P = 0.011). There were no significant differences in the incidence of adverse perinatal outcomes between women with obstetric shared care and women with primary midwife-led care (regardless of being hospital delivery or home delivery).

**CONCLUSION:**

Approximately one-quarter of low-risk women with primary midwife-led care required obstetric care during labor or postpartum. However, primary midwife-led care during labor at home and hospital for low-risk pregnant women was not associated with adverse perinatal outcomes in Japan. (Author)

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**20131111-6**

**Occupational stress experienced by Japanese midwives.** Sato K, Adachi K (2013), British Journal of Midwifery vol 21, no 11, November 2013, pp 801-806

Studies have shown that half of Japanese midwives experience depression (Akizuki and Fujimura, 2006), but the stress experienced by them is not well understood. This study examines job stress among midwives in hospitals and clinics in the Tokyo area. The Brief Job Stress Questionnaire (BJSQ) was distributed to 1397 midwives at 90 facilities. Responses were received from 606, and the valid responses of 556 respondents were analysed. The results showed that 442 midwives (79.5%) experienced a qualitative burden, 513 (92.3%) experienced a physical burden, and 25-35% reported high stress reactions. Progress is needed in the identification of tasks that contribute to qualitative job overload. A survey is needed to determine the specific workload that will lead to a reduction of midwives' stress and an improvement of their workplace environment. (14 references) (Author)

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**20131107-72**

**Exploring women's perspectives of access to care during pregnancy and childbirth: a qualitative study from rural Papua New Guinea.** Vallely LM, Homiehombo P, Kelly AM, et al (2013), Midwifery vol 29, no 10, October 2013, pp 1222-1229

**OBJECTIVES:**

to explore women's perceptions and experiences of pregnancy and childbirth in a rural community in PNG.

**DESIGN:**

a qualitative, descriptive study comprising focus group discussions (FGDs) and in depth interviews.

**SETTING:**

this study took place in a rural community in Eastern Highlands Province, PNG.

**PARTICIPANTS:**

51 women participated in seven focus group discussions. In depth interviews were undertaken with 21 women, including women recruited at the antenatal clinic, women purposively selected in the community and three key informants in the community.

**FINDINGS:**

the majority of women mentioned the benefits of receiving antenatal care at the health facility and the importance of a supervised, facility birth. Women faced numerous challenges with regards to accessing these services, including geographical, financial and language barriers. Cultural and customary beliefs surrounding childbirth and lack of decision making powers also impacted on whether women had a supervised birth.

**KEY CONCLUSIONS AND IMPLICATIONS FOR PRACTICE:**

distance, terrain and transport as well as decision making processes and customary beliefs influenced whether a woman did or did not reach a health facility to give birth. While the wider issue of availability and location of health services and health system strengthening is addressed shorter term, community based interventions could be of benefit. These interventions should include safe motherhood and birth preparedness messages disseminated to women, men and key family and community members. (31 references) (Author)

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**20131107-69**

**Birth preparedness and skilled attendance at birth in Nepal: implications for achieving millennium development goal 5.**

Karkee R, Lee AH, Binns CW (2013), Midwifery vol 29, no 10, October 2013, pp 1206-1210

**OBJECTIVE:**

to assess birth preparedness in expectant mothers and to evaluate its association with skilled attendance at birth in central Nepal.

**DESIGN:**

a community-based prospective cohort study using structured questionnaires.

**SETTING:**

Kaski district of Nepal.

**PARTICIPANTS:**

a total of 701 pregnant women of more than 5 months gestation were recruited and interviewed, followed by a second interview within 45 days of delivery.

**MEASUREMENTS:**

outcome was skilled attendance at birth. Birth preparedness was measured by five indicators: identification of delivery place, identification of transport, identification of blood donor, money saving and antenatal care check-up.

**FINDINGS:**

level of birth preparedness was high with 65% of the women reported preparing for at least 4 of the 5 arrangements. It appears that the more arrangements made, the more likely were the women to have skilled attendance at birth (OR=1.51, p<0.001). For those pregnant women who intended to save money, identified a delivery place or identified a potential blood donor, their likelihood of actual delivery at a health facility increased by two to three fold. However, making arrangements for transportation and antenatal care check-up were not significantly associated with skilled attendance at birth.

**CONCLUSIONS:**

intention to deliver in a health-care facility as measured by birth preparedness indicators was associated with actual skilled attendance at birth. Birth preparedness packages could increase the proportion of skilled attendance at birth in the pathway of meeting the Millennium Development Goal 5. (42 references) (Author)

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**20131107-64**

**Childbirth traditions and cultural perceptions of safety in Nepal: critical spaces to ensure the survival of mothers and newborns in remote mountain villages.** Kaphle S, Hancock H, Newman LA (2013), *Midwifery* vol 29, no 10, October 2013, pp 1173-1181

**OBJECTIVE:**

to uncover local beliefs regarding pregnancy and birth in remote mountainous villages of Nepal in order to understand the factors which impact on women's experiences of pregnancy and childbirth and the related interplay of tradition, spiritual beliefs, risk and safety which impact on those experiences.

**DESIGN:**

this study used a qualitative methodological approach with in-depth interviews framework within social constructionist and feminist critical theories.

**SETTING:**

the setting comprised two remote Nepalese mountain villages where women have high rates of illiteracy, poverty, disadvantage, maternal and newborn mortality, and low life expectancy. Interviews were conducted between February and June, 2010.

**PARTICIPANTS:**

twenty five pregnant/postnatal women, five husbands, five mothers-in-law, one father-in-law, five service providers and five community stakeholders from the local communities were involved.

**FINDINGS:**

Nepalese women, their families and most of their community strongly value their childbirth traditions and associated spiritual beliefs and they profoundly shape women's views of safety and risk during pregnancy and childbirth, influencing how birth and new motherhood fit into daily life. These intense culturally-based views of childbirth safety and risk conflict starkly with the medical view of childbirth safety and risk.

**KEY CONCLUSIONS AND IMPLICATIONS FOR PRACTICE:**

if maternity services are to improve maternal and neonatal survival rates in Nepal, maternity care providers must genuinely partner with local women inclusive of their cultural beliefs, and provide locally based primary maternity care. Women will then be more likely to attend maternity care services, and benefit from feeling culturally safe and culturally respected within their spiritual traditions of birth supported by the reduction of risk provided by informed and reverent medicalised care. (49 references) (Author)

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**20131107-55**

**Where midwives are not yet recognised: a feasibility study of professional midwives in Nepal.** Bogren MU, van Teijhlingen E, Berg M (2013), *Midwifery* vol 29, no 10, October 2013, pp 1103-1109

**BACKGROUND AND OBJECTIVE:**

the professional midwife is a key person for promoting maternal and family health. Not all countries have yet reached the professional standard for midwives set by the International Confederation of Midwives (ICM) and Nepal is one of these countries. This study explores the feasibility to establish a professional midwifery cadre in Nepal that meets the global standards of competencies, and to define a strategy to reach this.

**METHOD:**

a mixed-methods study comprised (1) policy-review (2) interviews and (3) observations. An assessment tool was designed for data collection and analysis using variables from three sources: ICM's Global Standards, the skilled birth attendant programme in Nepal, and JHPIEGO's site assessment tool for maternal health and new-born programmes. Data were collected in a desk review of education and policy documents, interviews with stakeholders, and site assessment of five higher education institutions and their hospital-based maternity departments. The analysis resulted in a recommended strategy.

**FINDINGS:**

six levels of education of nurse staff providing midwifery care were identified; all regulated under the Nepal Nursing Council. No legislation was in place authorising midwifery as an autonomous profession. A post-basic midwifery programme on first cycle-bachelor level was under development. A well-organised midwifery association was established consisting of nurses providing maternal health care. Four university colleges offering higher education for nurses and clinicians had a capability to run a midwifery programme and the fifth had a genuine interest in starting a midwifery programme at bachelor level. The proposed strategy includes four strategic objectives and interventions in relation to four components identified by UNFPA: Legislation and regulation; Training and education; Deployment and utilisation; and Professional associations.

**CONCLUSION AND IMPLICATION FOR PRACTICE:**

the study has delivered a proposed strategy for the Government of Nepal for effective management of the midwifery workforce in order to enhance midwives' contribution in maternity care and thus promoting improved maternal and new-born health. The developed analytical framework could be used as an assessment tool also in other countries to establish professional midwifery cadres that meets the global standards of competencies. (32 references) (Author)

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**20131107-42**

**Midwifery and maternity care in Nepal: the vital link.** van Teijlingen E, Simkhada B, Simkhada P (2013), *The Practising Midwife* vol 16, no 10, November 2013, pp 24, 26-27

Nepal is one of the poorest countries of the world and its people suffer from many health problems associated with poverty. Maternity care is underdeveloped, women do not always seek maternity care or the help of a skilled birth attendant, even if the service is available. One key underlying problem is that Nepal lacks proper midwifery, as defined by international standards. There have been some very positive developments towards recognition of the distinct skills required for midwifery. In this paper, we describe a maternal health promotion intervention funded by a London-based Buddhist organisation. The intervention is community-based and works with women's groups in rural areas. (6 references) (Author)

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**20131011-13**

**Access Nepal.** Grant R (2013), *Midwives* no 3, 2013, p 54

A new grant, funded by the RCM and Wellbeing of Women, is helping researchers identify ways to improve maternity care access on an international level. Rebecca Grant meets the award recipient. (Author)

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**20131011-11**

**Healthy babies, hopeful hearts.** Brieskorn B (2013), *Midwives* no 3, 2013, pp 50-51

Bernadette Brieskorn shares the story of the Glory Reborn Clinic, which is dedicated to providing free maternity care to the poor and disadvantaged women of Cebu in the Philippines. (Author)

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**20130916-7**

**The power of thinking small.** Scott P (2013), *O & G* vol 15, no 2, Winter 2013, pp 33-35

The author describes his experiences of being involved in two successful small projects aimed at improving the emergency obstetric skills of midwives in Indonesia. (1 reference) (SB)

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**20130909-9**

**Maternal and child health services in China.** Zheng X, Morrell J, Watts K, et al (2013), British Journal of Midwifery vol 21, no 9, September 2013, pp 664-671

This article acts as an introduction to maternal and child health services in China, including descriptions of the maternal and child health service system, related legislation such as the one-child policy, antenatal, intrapartum and postnatal care-for example, 'doing the month' in China - and a comparison of maternal and child health statistics for the UK and China. (67 references) (Author)

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**20130909-77**

**Neonatal-perinatal medicine in a transitional period in China.** Sun B, Shao X, Cao Y, et al (2013), Archives of Disease in Childhood: Fetal and Neonatal Edition vol 98, no 5, September 2013, pp F440-F444

With an annual birth rate of 12‰, or 16 millions, of all population (1.34 billions), and an implementation of universal healthcare policy for all rural residents in recent years, China is undergoing a dramatic and profound transition in perinatal and neonatal healthcare as a part of the global campaign for reduction in mortality of children under 5 years old. This review describes recent development in neonatal-perinatal medicine, with special emphasis on general neonatal-perinatal care, respiratory and intensive care, neurological and infectious diseases, for a comprehensive view of the trend and challenge in relation with problems and solutions of the field. (37 references) (Author)

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**20130820-1\***

**Impact of financial and educational interventions on maternity care: results of cluster randomized trials in rural China, CHIMACA.** Hemminki E, Long Q, Zhang WH, et al (2013), Maternal and Child Health Journal vol 17, no 2, February 2013, pp 208-221

To report on the design and basic outcomes of three interventions aimed at improving the use and quality of maternity care in rural China: financial interventions, training in clinical skills, and training in health education. Community-based cluster randomized trials were carried out in one central and two western provinces between 2007 and 2009: (1) financial interventions covered part of women's costs for prenatal and postnatal care, (2) training of midwives in clinical skills was given by local maternity care experts in two- or three-group training courses, (3) health education training for midwives and village doctors were given by local experts in health education in two- or three-group training courses. A survey was conducted in a stratified random sample of women who had been pregnant in the study period. 73% of women (n = 3,673) were interviewed within 1-10 months of giving birth. Outcomes were compared by the different intervention and control groups. Adjusted odds ratios were calculated by logistic regression to adjust for varying maternal characteristics. Most of the differences found between the groups were small and some varied between provinces. The financial intervention did not influence the number of visits, but was associated with increased caesarean sections and a decrease in many ultrasound tests. The clinical intervention influenced some indicators of care content. There was no consistent finding for the health education intervention. Financial and training interventions have the potential to improve maternity care, but better implementation is required. Unintended consequences, including overuse of technology, are possible. (Author)

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**20130805-30\***

**Outcomes of independent midwifery attended births in birth centres and home births: A retrospective cohort study in Japan.** Kataoka Y, Eto H, Iida M (2013), Midwifery vol 29, no 8, August 2013, pp 965-972

**OBJECTIVE:** the objective of this study was to describe and compare perinatal and neonatal outcomes of women who received care from independent midwives practicing home births and at birth centres in Tokyo. **DESIGN:** a retrospective cohort study. **SETTINGS:** birth centres and homes serviced by independent midwives in Tokyo. **PARTICIPANTS:** of the 43 eligible independent midwives 19 (44%) (10 assisted birth at birth centres, nine assisted home birth) participated in the study. A total of 5477 women received care during their pregnancy and gave birth assisted by these midwives between 2001 and 2006. **METHODS:** researchers conducted a retrospective chart review of women's individual data. Collected data included demographic characteristics, process of pregnancy and perinatal and neonatal outcomes. We also collected data about independent midwives and their practice. **FINDINGS:** of the 5477 women, 83.9% gave birth at birth centres and 16.1% gave birth at home. The average age was 31.7 years old and the majority (70.6%) were multiparas. All women had vaginal spontaneous deliveries, with no vacuum, forceps or caesarean section interventions. No maternal fatalities were reported, nor were breech or multiple births. The average duration of the first and second stages of labour was 14.9 hours for primiparas and 6.2 hours for multiparas. Most women (97.1%) gave birth within 24 hours of

membrane rupture. Maternal position during labour varied and family attended birth was common. The average blood loss was 371.3mL, while blood loss over 500mL was 22.6% and over 1000mL was 3.6%. Nearly 60% of women had intact perineae. There were few preterm births (0.6%) and post mature births (1.3%). Infant's average birth weight was 3126g and 0.5% were low-birthweight-infants, while 3.3% had macrosomia. Among primiparas, the birth centre group had more women experiencing an excess of 500mL blood loss compared to the home birth group (27.2% versus 17.6% respectively; RR 1.54; 95%CI 1.10 to 2.16). Multiparas delivering at birth centres were more likely to have a blood loss over 500mL (RR1.28; 95%CI 1.07 to 1.53) and over 1000mL (RR1.75; 95%CI 1.04 to 2.82) compared to women birthing at home. CONCLUSION: our results for birth outcomes with independent midwives at birth centres and home births in Japan indicated a high degree of safety and evidence-based practice. This study had some limitations because of its incomplete data and low response rate. However, this is one of the few studies that reported outcomes of Japanese independent midwives and the safety of their practice. A birth registry system would provide us with more accurate and complete information of all childbirths with which to evaluate the safety of independent Japanese midwives. (45 references) (Author)

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### 20130805-19\*

**Uterotonic use during childbirth in Uttar Pradesh: Accounts from community members and health providers.** Mirzabagi E, Deepak NN, Koski A, et al (2013), *Midwifery* vol 29, no 8, August 2013, pp 902-910

OBJECTIVE: this qualitative study aimed to document provider and community practices regarding uterotonic use during labour and delivery in Uttar Pradesh, India, as well as the knowledge, attitudes, and values that underlie such use. METHODS, SETTING, AND PARTICIPANTS: a total of 140 in-depth interviews were conducted between May and July 2011 in Agra and Gorakhpur districts, with clinicians, nurses, recently delivered women, mothers-in-law with at least one grandchild, traditional birth attendants, unlicensed village doctors, and pharmacist assistants at chemical shops. FINDINGS: interviews reveal that injectable uterotonic use for the purposes of labour augmentation is widespread in both clinical and community settings. However, use of uterotonics for postpartum haemorrhage prevention and treatment appears to be relatively limited and was rarely discussed by respondents. Key beliefs underlying uterotonic use were identified, including high valuation of labour pain, rapid delivery, and biomedical intervention, particularly administration of medicines. Other factors promoting the use of uterotonics for labour augmentation included lack of knowledge about adverse effects, provider beliefs that prolonged labour poses risks to the baby, community perceptions that modern women are less able to have spontaneous delivery, and financial incentives for uterotonic administration. CONCLUSIONS AND IMPLICATIONS: major challenges to overcome in minimising uterotonic misuse include entrenched use for labour augmentation in both institutional and community deliveries, perceptions of injectable uterotonics as curative agents symbolic of biomedical care, and the widespread availability of these drugs. The findings demonstrate a need for programmes that reduce inappropriate use of uterotonics, promote appropriate use for postpartum haemorrhage prevention and treatment, and ensure adherence to evidence-based guidelines. (44 references) (Author)

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### 20130722-3\*

**My day: Maternity nurse Wen Xiaowei.** Hatton C (2013), *BBC News* 18 July 2013

Looks at a day in the life of Wen Xiaowei in her role as a yuesao, a Chinese maternity nurse who lives with new parents offering support and taking care of the mother and her baby for the first month following the birth. (Author)

Full URL: <http://www.bbc.co.uk/news/world-asia-22815142#>

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### 20130502-13

**Practices of skilled birth attendants during labour, birth and the immediate postpartum period in Cambodia.** Ith P, Dawson A, Homer CSE, et al (2013), *Midwifery* vol 29, no 4, April 2013, pp 300-307

Objective: maternal and perinatal morbidity and mortality rates in Cambodia are high. The provision of quality care by skilled birth attendants (SBAs) in a supportive working environment is an important strategy to reduce morbidity and mortality. There has been little emphasis on examining this issue in Cambodia. The objective of this study was to establish SBA reported practices during labour, birth and the immediate postpartum periods and the factors affecting this. Methods: a descriptive qualitative design was employed using in-depth interviews and focus group discussions with midwives, nurses and doctors with midwifery skills in two health centres and three referral hospitals in one province of Cambodia. Data were analysed using a thematic framework. Findings:

SBA practice is not always consistent with evidence-based standards known to reduce morbidity and mortality. Ten inter-related themes emerged, which described patterns of SBA practice, were identified. These were: skills in the care of labouring women; provision of support in labour; interventions in the second stage of labour; management of

the third stage of labour; cleanliness during birth; immediate care of the newborn infant and immediate postnatal care; lack of policy and authority; fear of litigation; workload and lack of human resources; and financial incentives and socio-economic influences. Conclusions: a gap exists between evidence-based standards and current SBA practice during labour, birth and the immediate postpartum care. This is largely driven by the lack of a supportive working environment. Implications for practice: the findings of this research provide maternal health services, workforce planners and policy makers with valuable information to contribute to the continuous quality improvement of maternity care. The findings highlight implications for practice that may improve the quality of maternal health care. Recommendations for decision makers were made and further research is needed in order to develop theories and recommendations to improve SBA practice in Cambodia, to the benefit of the Cambodia women and newborn babies. (52 references) (Author)

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#### 20130322-12

**Women's perspective of maternity care in Cambodia.** Ith P, Dawson A, Homer CSE (2013), *Women and Birth: Journal of the Australian College of Midwives* vol 26, no 1, March 2013, pp 71-75

Background: Consideration of the needs of pregnant women and their ability and willingness to attend maternal services and pay for them is central to the provision of accessible and acceptable maternal care. Women's satisfaction with maternal services is poorly understood in many developing countries, including Cambodia in South East Asia. The objective of this study was to investigate women's perceptions and experiences of private and public skilled birth attendants, including midwives, during childbirth in Cambodia. Methods: A qualitative design using a naturalistic inquiry approach was undertaken to seek sensitive personal issue. Thirty individual in-depth interviews were conducted with women who had recently given birth at private and public health facilities in one province in Cambodia. Data were analysed using a thematic approach. Findings: Women's choice of health facility was influenced by their perceptions of safety and staff attitudes. Reported barriers to the effective utilisation of public maternity services were costs associated with the birth, staff attitudes and a lack of supportive care during labour and in the postpartum period. Although private health care is more expensive than public health care, some women reported a preference for private birth attendants as they perceived them to provide safer and more supportive care in labour. Conclusion: Women expect, but do not always receive humane, professional, supportive and respectful treatment from public skilled birth attendants. While the removal of unexpected costs and geographical barriers are important to increasing public maternity care and service utilisation, improvements in maternity services should focus on addressing provider attitudes and enhancing communication skills during labour, birth and the immediate postpartum period. (32 references) (Author)

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#### 20130225-29\*

**The knowledge and attitudes of Thai obstetrics and gynaecology residents towards Down syndrome screening.** Kor-anantakul O, Awapark P, Suwanrath C, et al (2013), *Journal of the Medical Association of Thailand* vol 96, no 1, January 2013, pp 7-12

Objective: To survey the knowledge and attitudes towards Down syndrome screening in the final year of training of Thai obstetrics and gynaecology residents. Material and Method: A self-administered structured questionnaire of knowledge and attitudes towards Down syndrome screening was developed. One hundred thirty six residents were asked to respond to the questionnaire on their last day of the Thai board examination in the year 2006 and 2007. The data was analyzed using SPSS for windows version 15.0. Results: Eighty-two completed questionnaires surveys were returned (60% response rate). The mean total score of knowledge of Down syndrome and its screening test was 81%. Eighty percent of respondents (65/82) had positive attitudes towards counseling for screening Down syndrome for all pregnant women. Fifty-four percent (44/82) had negative attitudes towards Down syndrome screening for all pregnant women. Sixty percent (49/82) favored nuchal translucency measurement by ultrasonography for screening in the first trimester. Training institutes, age, sex, and the counseling experience of residents did not affect the attitudes. Conclusion: The final-year Thai Obstetrics and Gynaecology residents had good knowledge and positive attitudes towards Down syndrome screening. More than half of the residents had negative attitudes towards the screening of all pregnant women. Educational programs and training are needed to address these deficiencies before screening programs are widely implemented.

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#### 20130116-8

**Unintended consequences of policy decisions to reduce maternal mortality in the Asia Pacific.** Barclay L, Gao Y, Homer C, et al (2012), *International Journal of Childbirth* vol 2, no 4, 2012, pp 222-229

OBJECTIVES: To describe the role of midwives and maternity care in three low resource settings and to challenge some

policy options introduced to reduce maternal mortality for women residing in rural and remote areas. **APPROACH:** A series of retrospective analyses were undertaken drawing on work the authors have conducted in rural and remote China, Timor-Leste, and Samoa over the past 5-20 years. Sources include our own empirical research, grey literature, as well as published secondary sources. **FINDINGS:** In China, hospital birthing is promoted as a major strategy in reducing maternal mortality. This has greatly increased financial burdens for women and their families. In Samoa, traditional birth attendants (TBAs) are integrated into Samoa's health system alongside midwives and other health professionals, and they play a critical role in providing support for pregnant and birthing women. In Timor-Leste, the government has moved away from training TBAs and has shifted the focus from skilled attendance to facility-based delivery. Evaluation of a national maternity waiting home strategy, designed to improve access to facility-based delivery, did not improve access for women in remote areas. **CONCLUSIONS:** Low-income countries need to be cautious when adopting global solutions, such as facility-based delivery, to tackle maternal deaths. Women-centered and cost-effective care should be provided locally. Culturally compatible maternity care can be achieved in concert with safety and emergency obstetric care. Midwives can create the bridges between social and professional systems that allow this to happen. (55 references) (Author)

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#### 20121211-15

**A review of midwifery in Mongolia utilising the 'Strengthening Midwifery Toolkit'.** Kildea S, Larsson M, Govind S (2012), *Women and Birth: Journal of the Australian College of Midwives* vol 25, no 4, December 2012, pp 166-173

##### OBJECTIVE:

The World Health Organization (WHO) developed the 'Strengthening Midwifery Toolkit' in response to an international emphasis on increasing midwifery's role in providing maternal newborn health services. It was used to assist a review of midwifery in Mongolia.

##### METHOD:

A rapid situational assessment included site visits to eight health facilities and four educational institutions resulting in 30 key informant interviews and six focus group discussions (67 midwives and students). A desk review of pertinent documents (n=19) was undertaken. Data collected included assessments of: midwife competency (n=96), scope of practice (n=2), health facilities (n=8), educational institutions (n=4), legislation and regulation (n=1), and midwifery (n=4) Feldsher-Nurse (n=4) and Bachelor-Nurse (n=1) curricula.

##### FINDINGS:

Stakeholders in Mongolia are committed to strengthening midwifery across the country to better align with international standards. This requires: a long-term investment in reorientating the health workforce and educational institutions, regulatory changes, educational investment, job description changes which will impact on other maternal newborn health service providers. Additional support and incentives for providers in rural and remote areas is needed and investment in health facilities to enable appropriate infection control; and adequate provision of essential equipment and drugs, are important strategies needed to protect staff. Maternity emergency training is required across the country.

##### CONCLUSION:

The Midwifery Toolkit was adapted to suit the local context and provided an excellent framework for this review. (19 references) (Author)

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#### 20121002-1\*

**Giving birth in China: being pregnant in Shanghai has its advantages.** Thorniley T (2012), *The Telegraph* 2 October 2012

The author, a British woman now living in Shanghai, describes her experiences of pregnancy, antenatal care, undergoing a caesarean section for a breech baby, and postnatal care in China, comparing the Chinese traditions surrounding birth with the British way of having a baby. (JSM)

**Full URL:** <http://www.telegraph.co.uk/women/mother-tongue/9577478/Giving-birth-in-China-being-pregnant-in-Shanghai-has-its-advantages.html>

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#### 20120920-40

**Giving birth: the voices of women in Tamil Nadu, India.** Corbett CA, Callister LC (2012), *MCN - American Journal of Maternal/Child Nursing* vol 37, no 5, September/October 2012, pp 298-305

**PURPOSE:** The purpose of this qualitative descriptive study is to describe the perceptions of childbearing women living in Tamil Nadu, India. This study can increase cultural understanding and foster cultural competence in nurses caring for Indian women.

**STUDY DESIGN AND METHODS:** Women were invited to share their childbearing experiences. Following institutional review board approval, interviews were held with 22 women who had given birth in the

previous 18 months to a viable infant. The women were grateful for the opportunity to share their perspectives with an interested nurse investigator. Data collection proceeded concurrently with data analysis. Themes were generated collaboratively by the research team. RESULTS: This research provides insights into the perspectives of mothers living in Tamil Nadu, India. Themes included anticipating becoming a mother, following the advice of mothers-in-law and other 'wise' women, fear of childbirth related to lack of knowledge, and valuing support during labor and birth. Others included having the greater blessing of giving birth to a son, making the transition to motherhood, following postpartum rituals/ceremonies, and having a desire to give their child the best that life circumstances allow. CLINICAL IMPLICATIONS: Nurses should be sensitive to the social determinants of health, which frame giving birth. Listening to the voices of women is helpful in guiding clinical practice. Understanding of childbirth practices in culturally diverse women is essential. Potentially harmful practices can be changed through appropriate educational offerings. (41 references) (Author)

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#### 20120910-30

**Safe delivery and newborn care practices in Sindh, Pakistan: a community-based investigation of mothers and health workers.** Hassan H, Jokhio AH, Winter H, et al (2012), *Midwifery* vol 28, no 4, August 2012, pp 466-471

OBJECTIVE: to determine the prevalence of specific intrapartum practices in Sindh province, Pakistan. DESIGN: a cross-sectional, questionnaire based study. SETTING: 6 health clinics in Mirpurkhas, Sindh province, rural Pakistan. PARTICIPANTS: 225 mothers and 82 health workers. MEASUREMENTS AND FINDINGS: outcome measures were indicators of safe delivery practices and referral following an obstetric complication. Prevalence of unhygienic and unsafe practices in deliveries attended by Traditional Birth Attendants (TBAs) was common. Deliveries by skilled attendants were significantly safer but with some failures in hygienic practices. 29% of women who had experienced an obstetric complication had not received emergency obstetric care. CONCLUSIONS AND IMPLICATIONS FOR PRACTICE: safe delivery practices and newborn care needs to be improved in rural Pakistan. This may be achieved by training health workers and TBAs in safe delivery practices, using safe delivery kits and with an effective referral system. (30 references) (Author)

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#### 20120824-46

**Further midwifery development to improve maternal health in PNG.** Brodie P (2012), *Australian Midwifery News* vol 12, no 1, Autumn 2012, pp 18-19

Pat Brodie's long association with Papua New Guinea continues as she seeks the help of Australian and New Zealand midwifery facilitators. (Author)

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#### 20120802-13

**Maternal health care utilization among ever married youths in Kyimyindaing Township, Myanmar.** Sein KK (2012), *Maternal and Child Health Journal* vol 16, no 5, July 2012, pp 1021-1030

This study aimed to identify maternal care services utilization among ever married female youths (15-24 years) in Kyimyindaing Township, Yangon, Myanmar. A quantitative cross-sectional survey was conducted. A total of 196 ever married females who had delivered at least one child were included. Multistage sampling was employed. Face to face interviews using a structured questionnaire were carried out. Respondents were asked about their maternal care services utilization at the last pregnancy. Bivariate and logistic regression analyses were applied to determine the factors associated with utilization of maternal care services. Overall 96% of respondents received antenatal care (ANC) at least once and 79% had at least 4 ANC visits. The mean number of antenatal visits increased with women's education level. The majority received late ANC regardless of residence, age, education and family income. Nearly 39% delivered at home, especially in rural areas and 79% of home deliveries were attended by traditional birth attendants (TBAs). Only 56.6% of women received at least one postnatal care visit. Inadequate postnatal care (<6 times) was identified (82.6%). Place of residence, women's education and ANC frequency were the key determinants for a delivery place and postnatal care. Despite relatively high antenatal care attendance, most women practiced home deliveries and received inadequate postnatal care. Maternal health services need to be focused on rural women and women with little or no education. Quality ANC should be the entry point of safe delivery and postnatal care. Further intensification of information, education and communication activities on 'safe motherhood' is needed. (30 references) (Author)

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#### 20120412-52

**Midwifery in Toraja, Indonesia.** Hoppenbrouwers T (2012), *Midwifery Today* no 101, Spring 2012, pp 54-56

Describes midwifery and childbirth practices in the province of Toraja on the Indonesian island of Sulawesi. (5 references) (SB)

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#### 20120307-10

**The challenge of promoting normality and midwifery in China.** Pan A, Cheung NF (2011), In: Donna S ed, Promoting normal birth: research, reflections and guidelines. Chester le Street: Fresh Heart Publishing 2011, pp 190-203

Considers the history of childbirth in China and examines how Western medicalised practices have replaced many of the traditional practices. It also examines birth statistics, normal birth and ways in which midwives are being replaced by obstetricians. (52 references) (JR)

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#### 20120214-19

**Providing midwifery care in Kamrangirchar, Bangladesh.** Wills L (2012), British Journal of Midwifery vol 20, no 2, February 2012, pp 140-141

Describes the author's experiences of providing midwifery care in Kamrangirchar, a slum outside Dhaka in Bangladesh, as her first placement with Medecins Sans Frontieres. (SB)

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#### 20120105-99

**A new beginning in India.** Reed B (2012), Practising Midwife vol 15, no 1, January 2012, pp 34-35

Becky Reed introduces the project in India and how she came to be involved. (Author)

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#### 20120105-100

**Changing childbirth in India.** Beckingham A, Reed B (2012), Practising Midwife vol 15, no 1, January 2012, pp 36-38

Andy Beckingham and Becky Reed describe an innovative project in Hyderabad. (1 reference) (Author)

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#### 20120104-2

**Australian midwives in the Pacific.** (2012), Australian Midwifery News vol 11, no 4, Summer 2011, pp 22-23

Australian midwives in NSW public hospitals are providing clinical and leadership skills to Pacific midwives. (Author)

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#### 20111109-9

**Introducing a massage programme to Hong Kong.** Kimber L, McNabb M, Thomas A, et al (2011), Practising Midwife vol 14, no 10, November 2011, pp 27-28, 30-31

This paper reports on the process of implementing a research based Massage Programme for labour pain which was initiated to offer women a non-pharmacological intervention for pain relief during labour. This report summarises key developments during the first two years of a project in which UK based midwives have worked with colleagues from Hong Kong on an intervention initially designed for couples in the UK. The adoption of the programme in two obstetric units in Hong Kong has led to a decline in the use of pharmacological analgesia. Results of a survey in one unit also indicate that the majority of couples were very satisfied with their experience. (6 references) (Author)

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#### 20111026-35

**Female empowerment and the traditional midwives of India.** Mukhopadhyay S (2011), Midwifery Today no 99, Autumn 2011, pp 60-61

Describes the work, history and practices of 'dais', traditional midwives, in India. Includes an interview with a dai in West Bengal. (JR)

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#### 20111026-31

**Birth and the establishment of a professional organization in Nepal.** Tamang L (2011), Midwifery Today no 99, Autumn 2011, pp 53-54, 68-69

Describes how the Nepalese government is working to reduce maternal and child mortality by changing the way that skilled birth attendants are trained and by increasing their numbers. They have also created a professional organisation in order to regulate and support these workers. (8 references) (JR)

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**2011005-29**

**Midwives of India: Missing in action.** Mavalankar D, Raman PS, Vora K (2011), *Midwifery* vol 27, no 5, October 2011, pp 700-706

India had well-trained European and indigenous midwives during the time of British rule. The strong midwifery profession lost its importance after independence for various reasons. As a result maternal mortality remains high in India. This paper analyses reasons for the dilution in the midwifery profession, which include amended regulations, lack of social or political priorities, and change in health programme directions. This paper also presents a framework for midwifery-based maternal health services. This analysis shows that there are local as well as internationally supported efforts to improve midwifery in India. (50 references) (Author)

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**20110718-7\***

**Indonesian babies held hostage by unpaid midwives.** Henschke R (2011), *BBC News* 17 July 2011

Reports that babies are being taken hostage in some hospitals in Indonesia as their parents are too poor to be able to afford health care fees. (MB)

Full URL: <http://www.bbc.co.uk/news/mobile/world-south-asia-14021340>

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**20110711-6**

**From the editor.** Marchant S (2011), *MIDIRS Midwifery Digest* vol 21, no 2, June 2011, p 141

Discusses the various challenges faced not only by women during pregnancy, labour and beyond, but also by health professionals in meeting the standards and competencies required of them. Also uses the theme of challenges to introduce articles within this month's issue about obesity and body image in pregnancy, prevention of premature birth, the threat of necrotising enterocolitis. Two midwives' experiences of maternity services in Nepal and Ethiopia are also discussed. (MB)

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**20110615-9\***

**Rediscovering birth.** Kitzinger S (2011), London: Pinter & Martin Publishers 2011. 302 pages

Lavishly illustrated, *Rediscovering Birth* is packed with information not only for prospective parents but for anyone interested in birth and women's lives and well being. Sheila explores the universal experience of pregnancy and birth. She looks closely at the place of birth, how women move in childbirth and what is done to help them. She examines the role of the midwife, and the bond traditionally formed between mothers and midwives. (Publisher)

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**20110613-54**

**'My mother-in-law tells me what to do'.** Simkhada B, Porter M, van Teijlingen E (2011), *Midwives* no 4, 2011, pp 34-36

University of Aberdeen's Bibha Simkhada and Maureen Porter and Bournemouth University's Edwin van Teijlingen explore some of the key issues surrounding the role of mothers-in-law in antenatal care decision-making in Nepal. (Author)

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**20110601-16**

**Implementing midwifery led care in Pakistan.** Jan R, Mohammed YJ, McIntyre H (2011), *Practising Midwife* vol 14, no 6, June 2011, pp 32-34

Pakistan's maternal and neonatal mortality rate compares unfavourably with the UK and much of the world (McIntyre 2010). The high rates of maternal and neonatal mortality in Pakistan are due to inadequate maternal, neonatal and child care, too few skilled birth attendants, insufficient competent midwives, ineffective and unaffordable basic and comprehensive emergency obstetric services. In this article, the introduction of the first midwifery led units in an urban hospital setting in Karachi, its rationale and projected future plans will be described. (11 references) (Author)

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**20110526-44\***

**Evaluation of a community-based randomized controlled prenatal care trial in rural China.** Wu Z, Viisainen K, Wang Y, et al (2011), *BMC Health Services Research* vol 11, no 92, 4 May 2011. 10 pages

Background: A community-based randomized control prenatal care trial was performed in a rural county of China during 2000-2003. The purpose of this paper is to describe the trial implementation and the impact of the trial on the utilization of prenatal care and perinatal outcomes. Materials and methods: In the study county, 10 townships (from a total of 55) were each paired with a control (20 study townships in total), with the criteria for pairing being the

township's socioeconomic development, perinatal health, and maternal care utilization and provision. One of each township pair was randomly allocated to the intervention or control groups. The trial interventions were: 1) training township hospital midwives and instructing them in how to provide systematic maternal care, 2) informing women in the community of the importance of prenatal care, 3) if needed, providing basic medical instruments to the hospitals. A variety of data sources were used to describe the trial implementation (observations, group discussions, field notes, survey to women). The data on pregnancy and perinatal outcomes were from the original hand-written work-records in the village family planning centers of the study townships. Results: Implementation of the intervention was deficient. The factors hindering the trial implementation included poor coordination between midwives and family planning officers, broader policy changes implemented by the provincial government during the trial, the decentralization of county governance, and the lack of government funding for maternal care. There was only little difference in the use of maternal care, in women's opinions related to maternal care or content of prenatal care, and no difference in the perinatal outcomes between the intervention and control townships. Conclusions: A community based randomized controlled trial could not be fully carried out in rural China as planned due to the changing political landscape, the complexity of the socio-economic situation and a lengthy planning stage. The study could not answer if perinatal outcomes could be improved by increased use of prenatal care. Trial registration: NCT 01054235 [The full text of this article can be accessed at: <http://www.biomedcentral.com/content/pdf/1472-6963-11-92.pdf>] (26 references) (Author)

Full URL: <http://www.biomedcentral.com/content/pdf/1472-6963-11-92.pdf>

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### 20110525-12

**What is a quality maternity service? Reflections after an elective placement in Bhotechaur, Nepal, supported by the Iolanthe Midwifery Trust.** Norris A (2011), MIDIRS Midwifery Digest vol 21, no 2, June 2011, pp 247-251

Alison Norris gives an insight into the health provision for women in Nepal which she visited on an elective placement supported by the Iolanthe Midwifery Trust. She discusses the differences in access to care between the UK and Nepal and reflects upon her experiences and the inspiring Nepali colleagues she met during her placement. (21 references) (ABS)

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### 20110506-33

**Chinese midwives' experience of providing continuity of care to labouring women.** Gu C, Zhang Z, Ding Y (2011), Midwifery vol 27, no 2, April 2011, pp 243-249

OBJECTIVE: to explore and describe Chinese midwives' experience of providing one-to-one continuity of care to labouring women. DESIGN: a qualitative study using a phenomenological approach. Data were collected using open-ended, tape-recorded interviews. The analysis of the transcribed texts included searching for themes sorted into clusters for a final expression of the essential structure of the phenomenon. SETTING: Obstetrics and gynaecology hospital of Fudan University, Shanghai, China. PARTICIPANTS: 12 midwives, providing one-to-one continuity of care to labouring women. FINDINGS: two main categories were identified: (1) midwives' feelings on providing continuity of care, and (2) impact of on-call system on midwives providing continuity of care. Key themes emerged from each main category: (1) 'playing important roles in labour care', 'gaining a sense of self-achievement', 'falling into exhaustion and frustration' and 'coping with caring work'; and (2) 'on-call syndrome', 'affecting personal lives' and 'managing on-call shift'. The midwives experienced mixed feelings of being with women and expressed their adaptation to being on-call, which was the essence of this study. They played important roles in caring for women, gained a sense of self-achievement and developed suitable coping strategies. However, they also indicated the impact of the on-call system upon them in the process of providing continuity of care. CONCLUSION AND IMPLICATIONS FOR PRACTICE: midwives have gained both positive and negative experiences when providing continuity of care to labouring women. The positive aspects may facilitate other professional midwives working in a similar role, whereas the negative aspects may inform them of learning to live with this situation, and may also have implications for managers to develop new approaches to the organisation and provision of continuity of care to support midwives' practice, and to fully utilise 'flexibility' under an on-call system. (42 references) (Author)

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### 20110504-21

**Birth the Filipino way.** Heppner D (2011), Midwifery Today no 97, Spring 2011, pp 58-59

Presents the author's personal and professional experiences of assisting at the births of Filipino women as a missionary midwife in Metro Manila. Describes how, together with her husband, she set up 'Gentle Hands', a foundation to educate and help poor, urban women by providing them with safe childbirth catering for their particular cultural and maternal needs. (JSM)

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**20110128-25**

**Midwifery on the move in Papua New Guinea.** Boride P (2011), Australian Midwifery News vol 10, no 4, Summer 2010, pp 10-11

A professor of midwifery explains her role as a midwifery advisor for the World Health Organization in Papua New Guinea, describing the current maternal and child health situation there as well as the current state of midwifery practice and a need for more qualified midwives to help improve things. (JR)

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**20101129-28**

**Midwifery education and practice in Mongolia.** Barnsley F, Carter M (2010), MIDIRS Midwifery Digest vol 20, no 4, December 2010, pp 520-525

As two experienced community midwives working in a midwifery-led unit in rural Oxfordshire within the NHS, we obtained sponsorship to visit maternity care facilities in rural Mongolia. The first visit took place in April 2008, and from that we gained insight into the strengths and limitations of current practice, and learnt about the training and development for midwives. Following a second visit we identified a small education project that we felt would offer more opportunities for midwifery in Mongolia and our third visit set out to determine whether this would be feasible and if it would be welcomed by the midwives. (3 references) (Author)

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**20101015-49**

**Born in Borneo.** Jenkins LB (2010), Midwifery Today no 95, Autumn 2010, pp 50-51, 69

The author describes her experiences travelling in Borneo and the customs and rituals relating to pregnancy and birth that she encountered there. (MB)

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**20101006-33\***

**Utilisation of maternal health care in western rural China under a new rural health insurance system (New Co-operative Medical System).** Long Q, Zhang T, Xu L, et al (2010), Tropical Medicine & International Health vol 15, no 10, 2010, pp 1210-1217

OBJECTIVE: To investigate factors influencing maternal health care utilisation in western rural China and its relation to income before (2002) and after (2007) introducing a new rural health insurance system (NCMS). METHODS: Data from cross-sectional household-based health surveys carried out in ten western rural provinces of China in 2003 and 2008 were used in the study. The study population comprised women giving birth in 2002 or 2007, with 917 and 809 births, respectively. Correlations between outcomes and explanatory variables were studied by logistic regression models and a log-linear model. RESULTS: Between 2002 and 2007, having no any pre-natal visit decreased from 25% to 12% (difference 13%, 95% CI 10-17%); facility-based delivery increased from 45% to 80% (difference 35%, 95% CI 29-37%); and differences in using pre-natal and delivery care between the income groups narrowed. In a logistic regression analysis, women with lower education, from minority groups, or high parity were less likely to use pre-natal and delivery care in 2007. The expenditure for facility-based delivery increased over the period, but the out-of-pocket expenditure for delivery as a percentage of the annual household income decreased. In 2007, it was 14% in the low-income group. NCMS participation was found positively correlated with lower out-of-pocket expenditure for facility-based delivery (coefficient -1.14 P < 0.05) in 2007. CONCLUSIONS: Facility-based delivery greatly increased between 2002 and 2007, coinciding with the introduction of the NCMS. The rural poor were still facing substantial payment for facility-based delivery, although NCMS participation reduced the out-of-pocket expenditure on average. (Author)

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**20100730-15**

**The first midwifery-led normal birth unit in Hangzhou City, East China.** Honghua G (2010), Midwives August 2010, p 24

Guo Honghua from the nursing school of Hangzhou Normal University reports from China on the first midwife-led normal birth unit in Hangzhou City. (16 references) (Author) (This is just a summary. Full article available online at [www.rcm.org.uk/midwives/in-depth-papers](http://www.rcm.org.uk/midwives/in-depth-papers))

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**20100730-12**

**Midwifery teaching in China.** Grabowska C (2010), Midwives August 2010, p 24

Thames Valley University's senior lecturer in midwifery Christine Grabowska reflects on a teaching visit to the Chinese

#### 20100623-36\*

**Facilitators and barriers in the humanization of childbirth practice in Japan.** Behruzi R, Hatem M, Fraser W, et al (2010), BMC Pregnancy and Childbirth vol 10, no 25, 27 May 2010. 18 pages

Background: Humanizing birth means considering women's values, beliefs, and feelings and respecting their dignity and autonomy during the birthing process. Reducing over-medicalized childbirths, empowering women and the use of evidence-based maternity practice are strategies that promote humanized birth. Nevertheless, the territory of birth and its socio-cultural values and beliefs concerning child bearing can deeply affect birthing practices. The present study aims to explore the Japanese child birthing experience in different birth settings where the humanization of childbirth has been identified among the priority goals of the institutions concerned, and also to explore the obstacles and facilitators encountered in the practice of humanized birth in those centres. Methods: A qualitative field research design was used in this study. Forty four individuals and nine institutions were recruited. Data was collected through observation, field notes, focus groups, informal and semi-structured interviews. A qualitative content analysis was performed. Results: All the settings had implemented strategies aimed at reducing caesarean sections, and keeping childbirth as natural as possible. The barriers and facilitators encountered in the practice of humanized birth were categorized into four main groups: rules and strategies, physical structure, contingency factors, and individual factors. The most important barriers identified in humanized birth care were the institutional rules and strategies that restricted the presence of a birth companion. The main facilitators were women's own cultural values and beliefs in a natural birth, and institutional strategies designed to prevent unnecessary medical interventions. Conclusions: The Japanese birthing institutions which have identified as part of their mission to instate humanized birth have, as a whole, been successful in improving care. However, barriers remain to achieving the ultimate goal. Importantly, the cultural values and beliefs of Japanese women regarding natural birth is an important factor promoting the humanization of childbirth in Japan. [The full text of this article can be accessed at: <http://www.biomedcentral.com/content/pdf/1471-2393-10-25.pdf>] (37 references) (Author)

Full URL: [www.biomedcentral.com](http://www.biomedcentral.com)

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#### 20100615-4\*

**Equity in maternal and child health in Thailand.** Limwattananon S, Tangcharoensathien V, Prakongsai P (2010), Bulletin of the World Health Organization vol 88, no 6, June 2010, pp 420-427

Objective To assess equity in health outcomes and interventions for maternal and child health (MCH) services in Thailand. Methods Women of reproductive age in 40 000 nationally representative households responded to the Multiple Indicator Cluster Survey in 2005-2006. We used a concentration index (CI) to assess distribution of nine MCH indicator groups across the household wealth index. For each indicator we also compared the richest and poorest quintiles or deciles, urban and rural domiciles, and mothers or caregivers with or without secondary school education. Findings Child underweight (CI: -0.2192; P < 0.01) and stunting (CI: -0.1767; P < 0.01) were least equitably distributed, being disproportionately concentrated among the poor; these were followed by teenage pregnancy (CI: -0.1073; P < 0.01), and child pneumonia (CI: -0.0896; P < 0.05) and diarrhoea (CI: -0.0531; P < 0.1). Distribution of the MCH interventions was fairly equitable, but richer women were more likely to receive prenatal care and delivery by a skilled health worker or in a health facility. The most equitably distributed interventions were child immunization and family planning. All undesirable health outcomes were more prevalent among rural residents, although the urban-rural gap in MCH services was small. Where mothers or caregivers had no formal education, all outcome indicators were worse than in the group with the highest level of education. Conclusion Equity of coverage in key MCH services is high throughout Thailand. Inequitable health outcomes are largely due to socioeconomic factors, especially differences in the educational level of mothers or caregivers. [A full text version of this article can be accessed online at <http://www.who.int/bulletin/volumes/88/6/09-068791.pdf>] (26 references) (Author)

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#### 20100528-46

**A dying breed.** (2010), Midwives June/July 2010, pp 16-17

Traditional birth attendants (TBA) in Cambodia are now forbidden to practise. Retired community midwife Kate Skillington speaks to TBA Eng about her role and the practices that have been in her family for generations. (4 references) (Author)

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#### 20100202-58\*

**Beginning an action research project to investigate the feasibility of a midwife-led normal birthing unit in China.** Mander R, Cheung NF, Wang X, et al (2010), *Journal of Clinical Nursing* vol 19, no 3-4, 2010, pp 517-526

**Aim.** To explore issues arising during preliminary stages of a research project in order to consider the feasibility of a midwife-led normal birthing unit in mainland China. **Background.** Midwife-led normal birthing units, as a route to ensuring normality, have become a feature of western maternity care, but are unknown in China. **Design.** Action research, using a qualitative descriptive approach, was performed. Data were collected at meetings, by non-participant observation and by face-to-face semi-structured interviews. Observation was undertaken in the midwife-led normal birthing unit and a standard care setting. Data analysis was by thematic analysis using constant comparison techniques. **Methods.** In the labour ward of a large general hospital in a major city, stakeholders included midwifery staff, managers, university staff and researchers. Childbearing women proved keen to use this service, but were unable to participate in the planning. The midwife-led normal birthing unit sought to provide one-to-one care in labour and support by a birth companion. Routine interventions were to be avoided. **Results.** The midwives in the midwife-led normal birthing unit created a more suitable environment for supportive care. The midwives demonstrated high-quality communication skills. The woman's choice of position/mobility was limited. Difficulties with staffing were identified. **Conclusions.** The preliminary findings suggest that continuation of the project is feasible. The woman's role demonstrates passivity. The perception of staff shortage has serious implications. **Relevance to clinical practice.** This action research project suggests that a study of a midwife-led normal birthing unit in China is feasible, with some attention to staffing issues. (Author)

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### 20030303-6

**The effects on the gender-discriminatory of nature of the Japanese medical system on the relationship among women, midwives and obstetricians.** Sato Y, Asano M, Omuta S (2002), In: International Confederation of Midwives. *Midwives and women working together for the family of the world: ICM proceedings CD-ROM Vienna 2002.* The Hague: ICM 2002. 10 pages

Review of the medical dominance of the maternal health services in Japan and the effect this has on midwifery practice. (28 references) (RGW)

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### 20030227-34\*

**Continuous midwifery care in Hong Kong.** Sham A, Tang PL, Hui HY, et al (2002), In: International Confederation of Midwives. *Midwives and women working together for the family of the world: ICM proceedings CD-ROM Vienna 2002.* The Hague: ICM 2002. 9 pages

The maternity services in Hong Kong have achieved an outstanding record among developed countries in terms of lowest perinatal mortality and morbidity rates. The advancement of professional expertise and improved socio-economical conditions have brought about better childbearing and childbirth outcomes. For the past 2 decades, a more medical approach to childbirth had been adopted and nearly all births took place in hospitals. However, maternity service has been fragmented with little attention to the psychosocial support of women and their families. The contemporary changes towards women-centered care are aimed at an integrated and holistic approach in maternity care. Midwives are educated to provide professional midwifery care and remain to be the main workforces providing maternity services in Hong Kong. In order to meet the need of women for continuous care and support, midwives in Hong Kong had rejuvenated midwifery care delivery recently. In 1993, the Midwives Clinic was resurrected in the Department of Obstetrics and Gynaecology of Kwong Wah Hospital in Hong Kong to provide choices for women. Women choosing to be cared in the Midwives Clinic showed higher satisfaction. Since April 1999, a continuous midwifery care model was piloted in the same department. A team of five midwives - the Continuous Midwifery Care (CMC) team, supported by a senior obstetrician, provides comprehensive maternity care to a group of low risk pregnant women throughout antenatal, labour, delivery and postnatal periods. The same team of midwives provides customized care and health education according to the individualized needs of the women and their families. A randomized control clinical trial for this continuous midwifery care model was conducted to evaluate the quality indices including maternal and fetal outcomes, psychological outcomes, breastfeeding rate, client satisfaction and staff satisfaction. The findings showed higher maternal satisfaction, higher breastfeeding rate and achieving more spontaneous vaginal deliveries. Professionally, midwives have enhanced job satisfaction and a better client-staff relation while trusting relationship is developed in the course of care. (8 references) (Author)

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### 20010713-57

**Developing a midwifery newsletter: lessons learned in Cambodia.** Sass J (2001), *International Midwifery* vol 14, no 3, May/June 2001, p 8

Relates some of the lessons learnt by the Population Reference Bureau through the time they spent helping to equip

**20010101-32**

**WHO/SEARO Standards of Midwifery Practice: A new tool for Safe Motherhood.** Sherratt DR (2000), RCM Midwives Journal vol 3, no 12, December 2000, pp 380-381

The 'Standards of Midwifery Practice for Safe Motherhood' are a new initiative developed by the World Health Organization South East Asia Regional Office to improve the quality of care provided to women in pregnancy, birth and the postnatal period. (2 references) (Author)

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**20000804-19**

**Mountains of mortality... making motherhood safer in Nepal.** MacDonagh SE, Clapham S, Simpson H (2000), MIDIRS Midwifery Digest vol 10, no 3, September 2000, pp 308-312

Nepal has one of the highest rates of maternal mortality in the world. Here, the author describes her work in this fascinating country and the efforts it is making to reduce its horrifying maternal mortality rate. (8 references) (VDD)

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**20000501-20\***

**Standards of midwifery practice for safe motherhood. Vol 4: Guidelines for implementation.** World Health Organization. Regional Office for South East Asia (1999), New Delhi, India: World Health Organization. Regional Office for South-East Asia 1999. 163 pages

Maternal mortality and morbidity are a major public health concern in many countries of the WHO South-East Asia Region. Despite concerted efforts made by the WHO Regional Office and Member States over the past few decades to improve maternal health in the countries, maternal morbidity and mortality remain high, and the Region still accounts for 40 per cent of the world's maternal deaths. It has long been recognized that the cornerstone of good quality maternal health care is a person with adequate knowledge and skills in midwifery. In light of this, and in response to the needs expressed by Member States, the Regional Office for South-East Asia has undertaken a number of activities to strengthen national capacity in the areas of midwifery education and practice. One of the most important initiatives within the context is the development of Standards of Midwifery Practice for Safe Motherhood. These standards have been prepared in close consultation with Member States. To assess their relevance and applicability, they have been field-tested in the countries of the Region where midwifery services are at different stages of development. During the field test, they were found to be a useful tool for improving the quality of maternal care. The midwifery practice standards, if implemented appropriately, will no doubt enhance the level of performance that is required to ensure quality maternal care. Their utility and relevance to the Region's needs is therefore most timely and fulfills a long-felt need of midwifery personnel, especially those working in remote or rural areas, to improve their life-saving skills in settings where medical assistance is not readily available. The standards can also serve as a foundation from which advocacy efforts can be launched to make quality assurance an integral component of the Safe Motherhood Programme and upon which, most importantly, public confidence can be built. This volume, the last in a set of four, provides guidelines for the implementation of the standards for midwifery care in the antenatal, intrapartum and postnatal periods, as outlined in the previous volumes. (9 references) (Author, edited)

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**20000501-19\***

**Standards of midwifery practice for safe motherhood. Vol 3: Notes on advances in practice.** World Health Organization. Regional Office for South East Asia (1999), New Delhi, India: World Health Organization. Regional Office for South-East Asia 1999. 68 pages

Maternal mortality and morbidity are a major public health concern in many countries of the WHO South-East Asia Region. Despite concerted efforts made by the WHO Regional Office and Member States over the past few decades to improve maternal health in the countries, maternal morbidity and mortality remain high, and the Region still accounts for 40 per cent of the world's maternal deaths. It has long been recognized that the cornerstone of good quality maternal health care is a person with adequate knowledge and skills in midwifery. In light of this, and in response to the needs expressed by Member States, the Regional Office for South-East Asia has undertaken a number of activities to strengthen national capacity in the areas of midwifery education and practice. One of the most important initiatives within the context is the development of Standards of Midwifery Practice for Safe Motherhood. These standards have been prepared in close consultation with Member States. To assess their relevance and applicability, they have been field-tested in the countries of the Region where midwifery services are at different stages of development. During the field test, they were found to be a useful tool for improving the quality of maternal care. The midwifery practice standards, if implemented appropriately, will no doubt enhance the level of performance that is required to ensure

quality maternal care. Their utility and relevance to the Region's needs is therefore most timely and fulfills a long-felt need of midwifery personnel, especially those working in remote or rural areas, to improve their life-saving skills in settings where medical assistance is not readily available. The standards can also serve as a foundation from which advocacy efforts can be launched to make quality assurance an integral component of the Safe Motherhood Programme and upon which, most importantly, public confidence can be built. This volume, the third of four, contains critical notes on the latest evidence supporting recommended changes in practice included in the standards for antenatal care, intrapartum and postnatal care. (13 references) (Author, edited)

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#### 20000501-18\*

**Standards of midwifery practice for safe motherhood. Vol 2: Audit tool.** World Health Organization. Regional Office for South East Asia (1999), New Delhi, India: World Health Organization. Regional Office for South-East Asia 1999. 103 pages

Maternal mortality and morbidity are a major public health concern in many countries of the WHO South-East Asia Region. Despite concerted efforts made by the WHO Regional Office and Member States over the past few decades to improve maternal health in the countries, maternal morbidity and mortality remain high, and the Region still accounts for 40 per cent of the world's maternal deaths. It has long been recognized that the cornerstone of good quality maternal health care is a person with adequate knowledge and skills in midwifery. In light of this, and in response to the needs expressed by Member States, the Regional Office for South-East Asia has undertaken a number of activities to strengthen national capacity in the areas of midwifery education and practice. One of the most important initiatives within the context is the development of Standards of Midwifery Practice for Safe Motherhood. These standards have been prepared in close consultation with Member States. To assess their relevance and applicability, they have been field-tested in the countries of the Region where midwifery services are at different stages of development. During the field test, they were found to be a useful tool for improving the quality of maternal care. The midwifery practice standards, if implemented appropriately, will no doubt enhance the level of performance that is required to ensure quality maternal care. Their utility and relevance to the Region's needs is therefore most timely and fulfills a long-felt need of midwifery personnel, especially those working in remote or rural areas, to improve their life-saving skills in settings where medical assistance is not readily available. The standards can also serve as a foundation from which advocacy efforts can be launched to make quality assurance an integral component of the Safe Motherhood Programme and upon which, most importantly, public confidence can be built. This volume, second in a set of four, provides the audit tool for each standard described in volume one, to determine whether the standards are being met. It is divided into five sections covering: audit of general midwifery practice standards; Audit of antenatal care standards; audit of intrapartum care standards; audit of postpartum care standards; and audit of life-saving midwifery practice standards. (7 references) (Author, edited)

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#### 20000501-17\*

**Standards of midwifery practice for safe motherhood. Vol 1: Standard document.** World Health Organization. Regional Office for South East Asia (1999), New Delhi, India: World Health Organization. Regional Office for South-East Asia 1999. 130 pages

Maternal mortality and morbidity are a major public health concern in many countries of the WHO South-East Asia Region. Despite concerted efforts made by the WHO Regional Office and Member States over the past few decades to improve maternal health in the countries, maternal morbidity and mortality remain high, and the Region still accounts for 40 per cent of the world's maternal deaths. It has long been recognized that the cornerstone of good quality maternal health care is a person with adequate knowledge and skills in midwifery. In light of this, and in response to the needs expressed by Member States, the Regional Office for South-East Asia has undertaken a number of activities to strengthen national capacity in the areas of midwifery education and practice. One of the most important initiatives within the context is the development of Standards of Midwifery Practice for Safe Motherhood. These standards have been prepared in close consultation with Member States. To assess their relevance and applicability, they have been field-tested in the countries of the Region where midwifery services are at different stages of development. During the field test, they were found to be a useful tool for improving the quality of maternal care. The midwifery practice standards, if implemented appropriately, will no doubt enhance the level of performance that is required to ensure quality maternal care. Their utility and relevance to the Region's needs is therefore most timely and fulfills a long-felt need of midwifery personnel, especially those working in remote or rural areas, to improve their life-saving skills in settings where medical assistance is not readily available. The standards can also serve as a foundation from which advocacy efforts can be launched to make quality assurance an integral component of the Safe Motherhood Programme and upon which, most importantly, public confidence can be built. This volume, the first of four, provides detailed standards for: general midwifery practice; antenatal care; intrapartum care; postnatal care; and life-saving midwifery practice. All standards are presented in a common format of standard statement, outcome, prerequisites, and process. (7 references) (Author)

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