

## University of Dundee

### Asking different questions

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# Asking different questions: research priorities to improve the quality of care for every woman, every child



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Unacceptably high rates of adverse outcomes persist for childbearing women and infants, including maternal and newborn mortality, stillbirth, and short-term and long-term morbidity.<sup>1</sup> In light of the challenges to achieve the UN Sustainable Development Goals, it is timely to reconsider priorities for research in maternal and newborn health. Are we asking the right questions?<sup>2</sup> Recent evidence indicates the importance of seeking knowledge beyond the treatment of complications, to inform better ways of providing sustainable, high quality care, including preventing problems before they occur.<sup>3</sup>

The 2014 publication of *The Lancet's Series on Midwifery* presented a unique opportunity to generate future areas of inquiry by drawing on the most extensive examination to date of evidence on the care that all women and newborn infants need across the continuum from pre-pregnancy, birth, post partum, and the early weeks of life.<sup>4-6</sup> The Series summarised the evidence base for quality maternal and newborn care in a new framework that focuses on the needs of women, infants, and families and differentiates between *what* care is provided, *how* it is provided, and

by *whom*.<sup>4</sup> These are concepts that are often confused or ignored in existing studies. Midwifery was identified as a cost-effective and fundamentally important element of quality care, with the potential to improve over 50 different maternal and newborn outcomes including mortality and morbidity. However, there are substantive barriers to proper implementation and integration of midwifery into health systems.<sup>1</sup>

We adapted the Child Health and Nutrition Research Initiative (CHNRI) methodology to score competing future research topics on quality maternal and newborn care and the contribution of midwifery to that care.<sup>7</sup> This method has been used to set health research priorities for infant and childhood conditions,<sup>8,9</sup> reduction of maternal and perinatal mortality,<sup>2</sup> and preterm birth and stillbirths.<sup>10</sup>

A team representing expertise in maternal and newborn health research, including authors from *The Lancet's Series on Midwifery*, contributors from WHO, UNFPA, the International Confederation of Midwives, and a representative of or advocate for service users conducted the work. The team identified

| Research priorities   | Research priority score |
|---|-------------------------|
| 1 Evaluate the effectiveness of midwifery care across the continuum in increasing access to and acceptability of family planning services for women   | 90.4                    |
| 2 Evaluate the effectiveness of midwife-led care when compared to other models of care across various settings, particularly on rates of fetal and infant death, preterm birth, and low birthweight   | 89.8                    |
| 3 Determine which indicators are most valuable in assessing quality maternal and newborn care   | 89.7                    |
| 4 Identify and describe aspects of care that optimise, and those that disturb, the biological/physiological processes for healthy childbearing women and fetus/newborn infants and those who experience complications   | 89.3                    |
| 5 Evaluate the effectiveness of midwifery care in providing culturally appropriate information, education, and health promotion (eg, nutrition, substance use, domestic violence, and mental health)  | 89.1                    |
| 6 Identify and describe enabling factors from examples of successful implementation of evidence-based maternal and newborn care across a variety of settings  | 89                      |
| 7 Describe and evaluate the effectiveness of midwives working with others (such as health professionals, community health workers, and traditional birth attendants) in achieving quality maternal and newborn care including, but not limited to:<br>Timely transfer of women to appropriate level/site of care<br>Management of emergency situations<br>Maximal use of skills and competencies<br>Shared decision-making and accountability | 89                      |
| 8 Assess the views and preferences of women and families across a variety of settings about their experiences of maternal and newborn care including, but not limited to, care providers and sites of care (eg, place of birth, antenatal care)   | 88.8                    |
| 9 Develop setting-specific benchmarks to assess measurable progress on implementation of quality maternal and newborn care  | 88.3                    |
| 10 Identify and describe aspects of maternal and newborn care that strengthen or weaken women's psychosocial wellbeing and mental health  | 88.0                    |
| 11 Assess whether new measures of morbidity are needed to more effectively evaluate outcomes of maternal and newborn care   | 88.0                    |

**Table: Ranking of research topics by overall research priority score**

30 research topics based on an analysis of gaps in the evidence presented in the 2014 *Lancet Series on Midwifery*. Stakeholders were asked to consider the potential research topics in terms of their relevance, significance, and potential future implementation based on five criteria: answerability, community involvement, sustainability, equity, and maximal impact.<sup>7</sup> The 30 research topics and scoring criteria were distributed in English, French, and Spanish online surveys to 1191 stakeholders, including constituents of the global Partnership for Maternal, Newborn, and Child Health (PMNCH) and representatives from all WHO regions. Stakeholders were asked to score each of the 30 research topics as 1-0 (yes), 0-5 (informed but undecided answer), or 0 (no) on whether they met each of the five criteria. It was possible to omit a score if a respondent did not feel confident to decide on a criterion; these were regarded as missing data and not part of the denominator. Summary scores for each criterion and an overall score were then computed as the sum of the scores divided by the number of actual scorers.

Responses were received from all WHO regions, with a total response rate of 23% (n=271). Most (83%) responses were submitted in English, 13% in French, and 4% in Spanish. The highest proportion (24%) of those who provided demographic information came from the Western Pacific Region and the lowest (2.6%) from southeast Asia. Over a quarter (26%) came from the academic, research, or training institution sector of the PMNCH constituents. Of the 199 respondents who identified themselves as health professionals, 168 (84%) were in roles associated with maternal and child health.

Our goal was to identify the top 10 priorities; however, two scored equally, and so the top 11 are presented in the table. The stakeholders prioritised research that would increase knowledge about ways to prevent complications and reduce unnecessary interventions, strengthen women's own capabilities, and optimise biological, social, and cultural processes. They also identified the importance of examining the role of midwifery in providing quality care for all women and infants. Stakeholders also identified research to improve skilled, knowledgeable, and compassionate care provided by an appropriate workforce that ensures timely referral when complications arise. The top two priorities indicate the fundamental importance of effective family planning services and of quality care

to reduce rates of preterm birth, low birthweight, stillbirth, and perinatal mortality. Evidence indicates that midwifery care can be a key intervention to improve these outcomes, but more research is urgently needed to determine clinically and cost-effective models of care in diverse settings, especially in low-resource areas.<sup>11</sup> A focus on new measures and indicators of care components that have not traditionally been well examined will enable new benchmarks to be set for developing systems of care that meet the needs of all women and newborns.

The priorities identified reveal broad knowledge domains rather than individual research questions. Research funding in the past has often targeted management of critical situations that contribute to high mortality, such as haemorrhage, hypertensive disorders, obstructed labour, preterm birth, and sepsis.<sup>12</sup> The priorities identified in this study do not eschew the importance of complication management, but potentially restore balance by moving towards a focus on prevention. Studying ways of providing such care has the potential to improve the provision of quality care for all, enhance women's and infants' own capabilities, and maximise the health promotion potential of midwives. The Global Strategy for Women's, Children's and Adolescents' Health 2016–2030 is designed to help women, children, and adolescents survive, thrive, and transform.<sup>13</sup> The concepts of thriving and transforming particularly resonate with the research priorities identified in this exercise. Importantly, this new knowledge could contribute to achieving Sustainable Development Goal 3, for healthy lives and wellbeing for all people. Investment in these innovative priorities has the potential to enable the rights of women and children to life and to health, and help women, infants, and families to survive and thrive. It would be transformative for families, communities, and science.

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