

Institution: University of Dundee		
Unit of Assessment: UoA 3 Allied Health Professions, Dentistry, Nursing and Pharmacy		
Title of case study: The Lancet Series on Midwifery		
Period when the underpinning research was undertaken: 2012 -2014		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Mary Renfrew	Professor of Mother and Infant Health	2012 - date
Alison McFadden	Professor of Mother and Infant Public Health	2013 - date
Period when the claimed impact occurred: 2014 - 2020		
Is this case study continued from a case study submitted in 2014? N		

1. Summary of the impact

Global maternal and newborn mortality remains unacceptably high despite substantial efforts, with 50% of maternal deaths and over 60% of neonatal deaths linked to poor quality care. This research showed for the first time that midwifery is an essential intervention that can substantively improve survival, health, and well-being in low-, middle-, and high-income countries. The innovative methods brought clarity and evidence to the contentious policy debate about the contribution of midwifery to quality care. The findings transformed professional, academic, and public understanding of midwifery, changing global and national policy and standards for service provision, regulation, education, and workforce. The research enabled non-governmental organisations to advocate for midwifery and resulted in governments mandating implementation of international-standard midwifery.

2. Underpinning research

The aim of this research programme was to inform global policy by investigating the impact of midwifery. The impetus was concern about high rates of maternal and newborn mortality and stillbirth and concern about the quality of maternal and newborn care globally. Midwifery was often represented as contentious with a weak evidence base, limiting the information available to decision-makers.

The first stage of this programme (2011-2016) produced three research papers and a call to action published as The Lancet Series on Midwifery (2014), with a fifth paper on global research priorities published in Lancet Global Health (2016). Renfrew was Principal Investigator and Steering Group Chair for the programme, McFadden was collaborator. Collaborators included forty-five interdisciplinary researchers from five continents with backgrounds including midwifery, obstetrics, paediatrics, epidemiology, health economics, social and political science; and organisations including WHO and the International Confederation of Midwives (ICM). Ten leading multidisciplinary researchers and professionals acted as critical readers for all outputs.

This submission describes impact of the first output **[R1]** of this research programme; designed and led by Renfrew, co-authored by McFadden, with eleven other co-authors from low-, middle- and high-income countries, **R1** provided the formative evidence base and conceptual foundation for subsequent programme outputs. The methodological challenge addressed was the scarcity of evidence on midwifery, resulting from longstanding under-investment and its inconsistent implementation. The innovative design was a multi-stage mixed-methods critical synthesis of existing and new evidence and expert consensus. It enabled three key questions to be answered for the first time:

1. *What are the components of midwifery that matter to women and babies?* Analyses of 13 meta-syntheses of 229 studies of the views and experiences of women and midwives, and three national case studies of countries without midwives, were conducted. An iterative process-built consensus was reached on the analysis and interpretation of this evidence among co-authors, and the other 32 researchers, global agencies, and ten critical readers involved in the programme. This formed the evidence base for a new definition of midwifery and an innovative framework for quality maternal and newborn care, the Quality Maternal and Newborn Care (QMNC) Framework. It resulted in a rigorous, transparent, consistent conceptual basis for further work and enabled the systematic identification of all components within the scope of midwifery.
2. *What is the impact of midwifery on outcomes?* The impact of each individual component in the scope of midwifery was identified by re-examining 461 systematic reviews incorporating thousands of studies. This process identified 56 outcomes improved by the 72 effective practices identified as within the scope of midwifery, including: reductions in maternal and newborn mortality, stillbirth, pre-term birth, interventions in childbirth, maternal morbidity, pain, anxiety, depression; increases in breastfeeding, immunisation, contraceptive use; improvements in mother-baby interaction and women's experiences; and reduced use of health service resource.
3. *Who should best provide midwifery care?* Analysis of 10 reviews (reporting 124 studies), showed that midwives who are educated and trained to ICM international standards and integrated into the health system optimise all 56 of the outcomes identified, evidencing the key contribution of midwives for the first time.

3. References to the research

[R1] Renfrew, MJ, McFadden, A, Bastos, MH, Campbell, J, Channon, AA, Cheung, NF, Delage Silva, DRA, Downe, S, Kennedy, HP, Malata, A, McCormick, F, Wick, L & Declercq, E (2014), Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care, *Lancet*, vol. 384, no. 9948, pp. 1129-1145. DOI: [10.1016/S0140-6736\(14\)60789-3](https://doi.org/10.1016/S0140-6736(14)60789-3)

4. Details of the impact

Over 60% of neonatal deaths and 50% of maternal deaths arise from poor quality care [E3]. This research was the first to evidence midwifery as an essential intervention to improve survival, health and well-being for women and newborn infants, bringing clarity to the policy debate about the contribution of midwifery to quality care. The conceptual and theoretical developments and evidence have influenced global and national decision-makers, forming the rationale for transformative structural change to such an extent that the language and concepts have seeped into common use in low-, middle, and high-income countries as confirmed by the Technical Advisor, Midwifery in the WHO [E1]: '*Globally it [R1] has changed the language that we use in talking about midwifery... it has become embedded into major global structures and right down to country level*'.

The reaction was swift across all regions and all fields necessary for large-scale, sustainable change: policy, guidance, education, regulation, advocacy and funding, with consequent direct impacts on quality of care.

Policy and guidance

Governments and health services in every continent have acted on the findings to strengthen midwifery, with direct impact on quality of care delivered to women and newborn infants in multiple countries [E1, E7]. The findings informed WHO and ICM guidance and standards on quality of care and strengthening midwifery [E2], becoming '*embedded into WHO global documents*' [E1] and providing the core evidence for the transformative global WHO-UNFPA-ICM-UNICEF 'Framework for Action for strengthening quality midwifery education for Universal

Health Coverage' [E3], used by governments and health services to strengthen midwifery education worldwide.

Citing R1 evidence as key, the Indian Government launched a programme of work in 2018 for education and regulation of professional midwives enabling all women in India (population 1.3 billion) to access midwives. This marked the first ever national strategy for midwifery and midwives in India, acknowledged by health ministers to be *'a historic moment for Midwifery in the Country'* and *'a landmark policy decision'* [E4]. The WHO Technical Advisor describes the policy shift as a radical change in the model of care and notes similar impacts *'spilling out'* into multiple African countries, across the 11 WHO South-East Asia Region (SEARO) nations, and beyond [E1].

Education and regulation

The research evidence and QMNC Framework formed the foundation for the UK Nursing and Midwifery Council's transformative regulatory standards for midwives [E5]. Mandatory until their revision in 2030, these standards are the basis for the education of all UK midwifery students (around 10,000 per year), with ongoing impact on the care they will continue to provide throughout their careers for around 600,000 women, babies and families annually, directly improving the care of millions of women and babies. These standards form the benchmark for the quality of all midwifery care in the UK.

Globally, the research is being used by regulators and educators to inform standards, and to improve quality both of care and of midwifery training. The research has influenced the *'revision of the Required Competences for Registered Midwives in Sweden'* [E6] and has *'informed establishment of an Interim Nursing and Midwifery Council to regulate the professions in South Sudan'* [E7]. In Malawi, education policy for midwifery has changed, leading to direct entry for midwifery at bachelor's level [E12].

Across Latin American and Caribbean countries, the QMNC Framework *'has been a fundamental base to... the development of Competency Based Education... through the region'* benefitting 20 instructors, 177 lecturers and 4080 trained in maternal health [E8]. In Bangladesh, where the midwifery profession is new, targeted initiatives with UNFPA partners are extending the quality and reach of midwifery education for *'38 educational institutions and 150 midwifery faculty and... around 400 students per year'* [E6]. This impact continues to grow; the new WHO interprofessional Midwifery Education Toolkit for maternal, newborn, sexual, reproductive and mental health integrates R1 throughout, and will be distributed to all member states in five languages: *'the new WHO Academy has accepted this as one of its first 10 educational courses... to be launched... in May 2021'* [E1].

Global advocacy and funding

The research has informed and prompted advocacy and action within and beyond individual countries. According to a senior health adviser at the UK Foreign, Commonwealth and Development Office, the research *'enabled the UK to support WHO with work on midwifery training and an action plan for countries'* [E10].

According to one Director of a WHO Collaborating Centre working across Eastern Europe, the research has *'influenced conceptual understanding of midwifery in countries where midwifery has been under-valued (or even non-existent) and where childbirth has become over-medicalised to the detriment of maternal and newborn experiences and outcomes'*. They describe how policy makers and professionals across the region frequently reference R1 *'when formulating arguments to promote the development... of midwifery'*, how nurses and midwives use the evidence to *'enhance their contribution to national maternity care strategies'* and how the thinking of senior policy makers has been *'profoundly affected'* in respect of maternal and newborn care [E11].

The White Ribbon Alliance highlights changes at global and local level by donors as well as by countries, confirming that *'As a result of advocacy efforts which utilized evidence from the*

paper, the Government of Malawi increased the midwifery workforce with more than 50% and... established the position of Chief Midwifery Officer in Malawi's central hospitals' [E9]; and in Bangladesh, the research 'has been an important tool for advocacy of midwifery care to politicians, health care leaders, managers, nurses, midwives, doctors' [E6].

The work has directly influenced funding commitments including: USD16,000,000 from the MacArthur Foundation to "support a revival of midwifery" in Mexico [E9] and CAD6,000,000 from the Canadian Government for Indigenous midwifery plus funding to "support midwifery association strengthening and continuing education in Benin, DRC, Ethiopia, Haiti, Mali, South Sudan, and Tanzania" [E7]. Additionally, the Canadian and Swedish governments provided CAD50,000,000 to support midwifery in South Sudan, resulting in the 'graduation of 45 nurses and 174 midwives; provision of antenatal care to 235,500 women and neonatal care to 58,817 babies, attendance of a skilled health professional at 59,444 births' [E7].

5. Sources to corroborate the impact

[E1] Transcript of interview with Technical Advisor Midwifery, World Health Organization, Geneva: who leads on midwifery in the WHO (Audio file available on request)

[E2] World Health Organisation. (2016) Standards for improving quality of maternal and newborn care in health facilities [Internet]. Geneva: World Health Organisation [cited 2020 Jun 8]. **Lancet Series in Midwifery used in setting standard 7 (p57 – refs 1; 5); and Executive Summary**, Available from: <https://apps.who.int/iris/bitstream/handle/10665/249155/9789241511216-eng.pdf;jsessionid=CB33F9B1E04C05C54873464B2C30C966?sequence=1> [Accessed 26 February 2021]

[E3] World Health Organisation, UNFPA, International Confederation of Midwives, UNICEF. (2019) Framework for Action: Strengthening quality midwifery education for Universal Health Coverage 2030. Geneva: World Health Organisation [cited 2020 Jun 17]. Available from: <https://apps.who.int/iris/bitstream/handle/10665/324738/9789241515849-eng.pdf?ua=1> [Accessed 26 February 2021]

[E4] Ministry of Health and Family Welfare Government of India. (2018) Guidelines on Midwifery Services in India. New Delhi: Ministry of Health and Family Welfare Government of India https://nhm.gov.in/New_Updates_2018/NHM_Components/RMNCHA/MH/Guidelines/Guidelines_on_Midwifery_Services_in_India.pdf [Accessed 26 February 2021]

[E5] Nursing and Midwifery Council. (2019) Standards of proficiency for midwives. Nursing and Midwifery Council [cited 2020 Apr 30]. **Evidence and QMNC Framework detailed on pages 6 and 7, content used throughout the six Domains**. Available from: <https://www.nmc.org.uk/globalassets/sitedocuments/standards/standards-of-proficiency-for-midwives.pdf> [Accessed 26 February 2021]

[E6] Corroborating statement from Professor and Associate Professor, Dalarna University, Sweden: senior researchers funded by UNFPA working in Bangladesh, Somaliland and Sweden

[E7] Corroborating statement from the President, Canadian Midwives Association

[E8] Corroborating statement from the Head of WHO Collaborating Centre for Midwifery Development (Latin American Countries)

[E9] Corroborating statement from the Advocacy Manager, White Ribbon Alliance

[E10] Corroborating statement from the Senior Health Adviser for the Sexual Reproductive Health and Rights team in the UK Foreign, Commonwealth and Development Office

Impact case study (REF3)

[E11] Corroborating statement: Director of WHO Collaborating Centre for Midwifery Development (working across Eastern Europe)

[E12] Transcript of interview with Vice Chancellor of Malawi University of Science and Technology (Audio file available on request)