

**MIDWIFE-LED CARE
IN LOW- AND MIDDLE-INCOME COUNTRIES WITH A
FOCUS ON IMPLEMENTATION IN BANGLADESH**

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the degree of Doctor of Philosophy**

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CERTIFICATE OF ORIGINAL AUTHORSHIP

I, Michaela Michel-Schuldt declare that this thesis, is submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the Faculty of Health at the University of Technology Sydney.

This thesis is wholly my own work unless otherwise referenced or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of the requirements for a degree at any other academic institution except as fully acknowledged within the text. This research is supported by the Australian Government Research Training Program. This thesis is the result of a Collaborative Doctoral Research Degree program with the School of Health Sciences at the University of Dundee

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ABBREVIATIONS

ADP	Annual Development Programme
AMTSL	Active management of third stage of labour
AMU	Alongside midwifery unit
ANC	Antenatal care
BDHS	Bangladesh Demographic Health Survey
BEmONC	Basic Emergency Obstetric and Newborn Care
BMI	Body Mass Index
BMS	Bangladesh Midwifery Society
BNMC	Bangladesh Nursing and Midwifery Council
BRAC	Bangladesh Rehabilitation Assistance Committee, then Bangladesh Rural Advancement Committee, and later Building Resources Across Communities
CAS	Complex adaptive systems
CEmONC	Comprehensive Emergency Obstetric and Newborn Care
CHE	Current Health Expenditure
CSBA	Community Skilled Birth Attendant
DGFP	Directorate General of Family Planning
DGHS	Directorate General of Health Services
DHS	Demographic & Health Survey
DGNM	Directorate General Nursing and Midwifery
EmONC	Emergency Obstetric and Newborn Care
EWEC	Every Woman Every Child
FWV	Family Welfare Visitor
GDI	Gender Development Index
GDP	Gross Domestic Product
GO	Government order
HDI	Human Development Index
HNPSDP	Health Population and Nutrition Sector Development Programme
HP	Health professional

ICM	International Confederation of Midwives
ILO	International Labour Organization
IMPAC	Integrated Management of Pregnancy and Childbirth
ISCO	International Standard Classification of Occupations
LDC	Least developed countries
LMICs	Low- and middle-income countries
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Surveys
MLC	Midwife-led care
MMR	Maternal Mortality Rate
MoHFW	Ministry of Health and Family Welfare
MR	Menstrual regulation
MSS	Midwives Service Scheme
NGO	Non-governmental organisation
NMR	Newborn Mortality Ratio
NVD	Normal vaginal delivery
ODA	Official Development Assistance
OOP	Out-of-pocket
OT	Operation theatre
PHC	Primary Healthcare
PNC	Postnatal care
PPP	Purchasing power parity
QMNC	Quality Maternal and Newborn Care
PRISMA-P	Preferred Reporting Items for Systematic review and Meta-Analysis Protocols
RCT	Randomised Controlled Trial
RMNCAH	Reproductive, maternal, newborn, child and adolescent health
SBA	Skilled Birth Attendant
SDG	Sustainable Development Goal
SPDs	Standard Delivery Posts
TBA	Traditional Birth Attendant

UN	United Nations
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UP	Union Parishads
VIA	Visual Inspection with Acetic Acid
WHO	World Health Organization

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ABSTRACT

Background: Rigorous research on midwife-led models of care in high-income countries show that they are effective and should be offered to most women, as they provide benefits for childbearing women and their newborns. There are few studies on midwife-led models of care in low- and middle-income countries (LMIC). A better understanding of midwife-led care (MLC) in LMICs is needed.

Aim: The overall aim was to explore how MLC is being implemented in LMICs. The three objectives were to systematically review the current evidence on midwife-led care in low- and middle-income countries, to assess the policies and health system efforts related to midwife-led care in a LMIC (Phase 1) and then to explore how midwife-led care was implemented in this country (Phase 2).

Method: First, two reviews were conducted. In Phase 1, a policy and health systems analysis in Bangladesh, was undertaken. Finally, Phase 2 was a case study in Bangladesh using an explanatory mixed methods design. In this primary study, a multistage purposeful sampling technique was used and face to face interviews and focus groups were conducted. Data analysis used a framework approach. A synthesis of all phases identified the essential elements of MLC in these contexts.

Findings: The reviews showed that midwife-led care may be cost-effective, is likely to improve maternal mortality and morbidity, reduce interventions and improves quality of care, although more research is needed. MLC is provided in a variety of settings: urban and rural; in primary, secondary or tertiary facilities; in the private and public sector; in free-standing or alongside midwife-led units; and midwives work alone or in teams. Workforce shortages exist and negatively impact on the provision of MLC. Standards of education, regulation and training influence the quality of care and supportive environments are important. The policy and health systems analysis highlighted the need for leadership and resource mobilisation. The case study identified four themes in relation to the implementation of MLC in Bangladesh. These were addressing the heart and soul

of MLC, empowering midwives to become leaders, structuring midwife-led care and providing care across the continuum.

Conclusion: Midwife-led care in low- and middle-income countries has potential to improve outcomes in maternal and newborn health and might be cost-effective. The implementation of midwife-led care varies and supportive systems and workforce planning are key to its success. The essential elements of MLC that were identified could be applied to similar contexts.