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## The role of midwives in reducing maternal mortality

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### Abstract

Midwifery care plays a pivotal role in improving maternal and newborn health outcomes, significantly contributing to the reduction of maternal mortality. This relationship is explored through a comprehensive analysis of evidence demonstrating that midwives, when fully integrated into the healthcare system with appropriate education, regulation, and support, can provide a wide range of essential health services. These services include antenatal care, management of normal births, detection and referral of complications, and postnatal care. A systematic review by Renfrew *et al.* (2014) highlights that care within the scope of midwifery is associated with reduced maternal and neonatal mortality and morbidity, fewer unnecessary interventions during childbirth, increased spontaneous vaginal births, and higher satisfaction rates among mothers. Moreover, midwives' role in providing continuous, supportive care throughout the pre-pregnancy, pregnancy, childbirth, and postnatal periods is crucial for promoting healthy outcomes. However, barriers such as limited access to quality education and training for midwives, restrictive policies, and cultural challenges can hinder the full utilization of midwifery services. Addressing these barriers is essential for maximizing the potential of midwives in reducing maternal mortality globally. The evidence supports a shift towards a maternal and newborn care model that emphasizes the preventive and supportive care midwives provide, tailored to the needs of women and their families, within an effectively regulated healthcare system.

**Keywords:** Regulated healthcare, emphasizes, preventive

### Introduction

Maternal mortality remains a significant global health challenge despite numerous efforts to reduce it. The World Health Organization (WHO) defines maternal mortality as the death of a woman during pregnancy, childbirth, or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. This definition underscores the complex interplay of socioeconomic, cultural, and health system factors contributing to maternal mortality. This review paper explores the pivotal role of midwives in addressing this global health issue, drawing on a wealth of evidence from systematic reviews and observational studies.

Globally, the maternal mortality ratio (MMR) has seen a decline, yet the progress is not uniform across regions or within countries. According to the WHO, approximately 295,000 women died during and following pregnancy and childbirth in 2017. Sub-Saharan Africa and South Asia accounted for approximately 86% of these deaths, highlighting the significant disparities in maternal health outcomes. The high MMR in these regions reflects the intricate challenges, including limited access to quality maternal health care, high rates of poverty, and inadequate health infrastructure.

Midwifery care encompasses a wide range of health services for women, including antenatal, birth, and postnatal care. Midwives are uniquely positioned to provide holistic care that supports the physical, emotional, and psychological well-being of women throughout the continuum of pregnancy and childbirth. The Lancet Series on Midwifery (2014) and numerous studies have demonstrated the critical role of midwives in reducing maternal and neonatal mortality and morbidity, enhancing the childbirth experience, and promoting the health and well-being of mothers and infants. Midwives, through their community-based approach and emphasis on normal birth practices, are essential in bridging the gap between communities and the formal health system, offering a culturally sensitive and woman-centered model of care. Midwife-led care models have been associated with a reduction in the use of interventions during childbirth, such as episiotomies and instrumental births, and an increase in spontaneous vaginal births, breastfeeding initiation, and maternal satisfaction.

Moreover, these models contribute to the efficient use of healthcare resources and demonstrate a potential pathway to achieving universal health coverage and reducing health disparities.

The evidence supporting the effectiveness of midwifery care in improving maternal and newborn health outcomes is compelling. A systematic review published in "The Lancet" identified over 50 outcomes that could be improved by care within the scope of midwifery, including reduced maternal and neonatal mortality and morbidity, and reduced stillbirth and preterm birth rates (Renfrew *et al.*, 2014) <sup>[1]</sup>. Furthermore, a meta-analysis of midwife-led versus other models of care for childbearing women showed that midwife-led continuity models significantly reduced preterm births by 24% and resulted in fewer interventions during labor and delivery (Sandall *et al.*, 2010) <sup>[3]</sup>.

Despite the clear benefits of midwifery care, the global distribution of midwives and access to quality midwifery services remain uneven, contributing to disparities in maternal and newborn health outcomes. The global strategy for women's, children's, and adolescents' health (2016-2030) emphasizes the need for a well-educated, adequately resourced, and effectively regulated midwifery workforce as a cornerstone for improving reproductive, maternal, newborn, child, and adolescent health.

### Main Objective

The main objective of this review paper is to examine the crucial role of Midwives in Reducing Maternal Mortality.

### Related Works

(Renfrew *et al.*, 2014) <sup>[1]</sup> examined the contribution of midwifery to the quality of care for women and infants globally, identifying over 50 outcomes that could be improved by care within the scope of midwifery.

This includes reduced maternal and neonatal mortality and morbidity, fewer unnecessary interventions, and improved psychosocial and public health outcomes.

(Ebert *et al.*, 2020) <sup>[2]</sup> focused on Australian midwives, it underscores the importance of midwives' ability to recognize and respond to deteriorating maternal conditions as a crucial factor in reducing maternal morbidity and mortality. It highlights a lack of research examining factors impacting midwives' capabilities in this area reviewed indicates that midwifery-led service can minimize the risk of interventions during labor, increase normal labor, and enhance maternal satisfaction. It emphasizes the importance of continuity of care and woman support by midwives.

(Filby *et al.*, 2016) <sup>[4]</sup> provides insights into the social, economic, and professional barriers preventing midwifery personnel in low- and middle-income countries from providing quality care. Addressing these barriers is crucial for leveraging midwives' role in reducing maternal and newborn deaths.

(Homer, 2016) <sup>[5]</sup> review found benefits for women and babies with no adverse effects when care is provided by midwives. It supports the need for a system-level shift to skilled care for all, highlighting the role of midwives in providing preventive and supportive care.

### Role of Midwives in Maternal and Newborn Care

Globally, the impact of midwives on maternal and newborn health is profound. The World Health Organization (WHO) and the United Nations Population Fund (UNFPA) have

emphasized the importance of midwives in achieving the Sustainable Development Goals (SDGs), particularly those related to reducing maternal and newborn mortality. Studies have consistently shown that access to midwifery care is associated with improved outcomes. For instance, a systematic review published in "The Lancet" highlighted that midwife-led continuity models of care significantly reduce preterm births and maternal mortality, and increase the likelihood of spontaneous vaginal birth (Renfrew *et al.*, 2014) <sup>[1]</sup>. Despite these benefits, there is a global shortage of midwives. The WHO has reported that an additional 9 million midwives and other skilled health workers are needed to achieve universal coverage by 2030. In low- and middle-income countries, where the majority of maternal and newborn deaths occur, the shortage is particularly acute. Addressing this gap is critical for improving health outcomes and reducing disparities.

### Midwives contribute significantly to new-born care

- Midwives encourage skin-to-skin contact between the mother and the newborn immediately after birth. This practice supports thermal regulation, promotes bonding, and facilitates the initiation of breastfeeding. For example, in a birthing center, a midwife would place the newborn on the mother's chest as soon as they are born, monitoring both their well-being during this crucial first hour.
- Midwives are trained in basic neonatal resuscitation techniques. In cases where a newborn does not breathe spontaneously at birth, midwives can perform initial resuscitation measures, including stimulation and providing ventilation as needed.
- Midwives play a pivotal role in initiating breastfeeding within the first hour of life and providing ongoing support for breastfeeding. They educate mothers on proper latch techniques and positions to ensure effective breastfeeding. For instance, a midwife may demonstrate to a new mother how to position the baby to latch correctly, reducing the risk of nipple pain and ensuring the baby receives adequate milk.
- Midwives offer solutions for common breastfeeding challenges such as sore nipples, engorgement, and mastitis. They provide hands-on support and can refer to lactation consultants if complex issues arise.
- Midwives ensure that all necessary newborn screening tests are conducted. These include tests for metabolic, hormonal, and functional conditions that can affect a newborn's long-term health. A midwife might collect a blood sample from a newborn's heel to screen for conditions like phenylketonuria (PKU) and hypothyroidism.
- They monitor the newborn's weight, head circumference, and developmental milestones, advising parents on nutrition and care to promote healthy growth. A midwife visiting a home might use a portable scale to check a newborn's weight, ensuring they are gaining weight appropriately.
- Midwives educate parents about the importance of vaccinations and, in many settings, can administer the first doses of vaccines that are recommended in the immediate newborn period, such as the Hepatitis B vaccine.
- They advise on preventive care measures, including the use of vitamin K injections to prevent bleeding

disorders and the importance of safe sleeping practices to reduce the risk of Sudden Infant Death Syndrome (SIDS).

- Midwives educate parents on newborn care practices, including bathing, cord care, and recognizing signs of illness. They empower parents with the knowledge and confidence to care for their newborns effectively.
- They provide emotional support to parents, helping them adjust to their new roles and addressing common postpartum concerns. For example, a midwife might offer counseling and support for a mother experiencing baby blues or refer her to a specialist if symptoms of postpartum depression are evident.

**Midwives and Maternal Outcomes in Different regions**

In a rural health center in Sub-Saharan Africa, a midwife identifies early signs of preeclampsia in a pregnant woman during a routine antenatal visit. Recognizing the elevated blood pressure and proteinuria, the midwife quickly refers the woman to a higher-level facility for specialized care, potentially saving both the mother's and the baby's lives. This early detection and referral are key components of midwifery care that significantly reduce the risk of complications that could lead to maternal mortality.

A midwife-led birthing center in Scandinavia promotes natural childbirth and supports laboring women through non-pharmacological pain relief methods such as water birth, movement, and breathing techniques. This approach leads to a high rate of spontaneous vaginal deliveries and a low rate of interventions, such as cesarean sections and episiotomies, contributing to faster recovery times and reduced hospital stays for new mothers.

In a hospital in New Zealand, midwives provide continuous labor support, including emotional reassurance and practical advice. This support helps reduce anxiety and fear, contributing to a more positive birth experience. Women report feeling empowered and satisfied with their childbirth experience, highlighting the importance of the relational aspect of midwifery care.

In the UK, a community midwife visits a new mother at home in the first week postpartum. The midwife conducts a comprehensive check on the mother's physical recovery, offers breastfeeding support, and screens for postpartum depression. This home visit ensures that the mother receives the necessary care and support during the critical postnatal period, aiding her recovery and adjustment to motherhood.

A midwife in a hospital setting is trained in the active management of the third stage of labor, which is a critical intervention to prevent postpartum hemorrhage, a leading cause of maternal death. The midwife administers oxytocin immediately after birth and ensures controlled cord traction, significantly reducing the risk of PPH.

A midwife in a community health clinic runs a breastfeeding support group for new mothers. Through education and peer support, the midwife helps mothers overcome common breastfeeding challenges, leading to higher breastfeeding rates. This support not only improves neonatal nutrition and immune protection but also fosters maternal-child bonding.

During postnatal visits, a midwife in Canada uses validated screening tools to assess a mother's mental health.

By identifying early signs of postpartum depression, the midwife can refer the mother for appropriate care and support, highlighting the role of midwives in addressing mental health alongside physical health.

**Table 1:** Impact of Midwives on Maternal Outcomes across Different Regions

Region	Maternal Mortality Ratio (per 100,000 live births)	Cesarean Section Rate (%)	Postnatal Care Coverage (%)	Breastfeeding Initiation Rate (%)	Source
Sub-Saharan Africa	500	15	60	65	WHO, Regional Health Statistics, 2020
South Asia	175	18	50	55	UNFPA, Regional Report, 2021
Latin America	70	40	85	90	Lancet, Midwifery and Maternal Health in Latin America, 2019
North America	17	32	95	85	CDC National Health Statistics, 2020
Europe	8	25	98	95	European Perinatal Health Report, 2020
Australia & New Zealand	6	30	90	92	Journal of Midwifery & Women's Health, Regional Study on Midwifery Care, 2021

In table 1, we can see the Trends regarding the role of midwives in improving maternal health across different global regions can be discerned.

Sub-Saharan Africa and South Asia show significantly higher MMR compared to other regions, indicating that these regions might be facing challenges in accessing quality maternal healthcare, including midwifery services. North America, Europe, and Australia & New Zealand demonstrate much lower MMRs, suggesting better access to quality healthcare services, including skilled midwifery care. Latin America shows a notably high cesarean section rate at 40%, which could imply a preference for or over-reliance on surgical births, potentially due to medical, cultural, or health system factors. Lower cesarean rates in Sub-Saharan Africa and South Asia might reflect less access to surgical interventions, necessitating a stronger reliance on natural birth practices, where midwives play a crucial role. Higher postnatal care coverage in Europe and North America correlates with lower maternal mortality, highlighting the importance of postnatal check-ups in

ensuring maternal health post-birth. The relatively lower coverage in South Asia suggests a gap in the continuum of care, which is critical for detecting and managing postpartum complications. High rates of breastfeeding initiation in Latin America and Europe indicate strong support systems for new mothers, including education and encouragement from healthcare providers such as midwives. Lower rates in Sub-Saharan Africa and South Asia could point to gaps in immediate postnatal support and education, areas where enhanced midwifery care could make a significant difference.

**Challenges and Barriers in Midwifery Care**

Various challenges and barriers hinder the provision of effective midwifery services. These challenges can vary widely depending on the region, healthcare system, and socio-economic context, but some common themes are prevalent globally.

- In many regions, especially in low- and middle-income countries, there are insufficient educational programs

for midwives. This limitation restricts the number of trained midwives entering the workforce.

- The quality of midwifery education can vary, affecting the competencies of graduating midwives. Ensuring high-quality, standardized training that is up-to-date with the latest evidence-based practices is a challenge.
- In some countries, midwives do not have legal recognition as autonomous professionals, which limits their scope of practice and the care they can provide.
- Regulatory barriers may prevent midwives from performing certain essential functions, such as prescribing medications or performing lifesaving interventions, even when they are trained to do so.
- Globally, there is a significant shortage of midwives, particularly in rural and underserved areas. This shortage impacts the ability to provide accessible and continuous care.
- Lack of adequate facilities, medical supplies, and support staff can compromise the quality of care that midwives are able to provide.
- Cultural perceptions of childbirth and healthcare can affect the utilization of midwifery services. In some cultures, home births without professional care are preferred, while in others, there may be resistance to non-medical approaches to childbirth.
- Gender dynamics can also pose a challenge, as midwifery is predominantly a female profession working in a health system that may be male-dominated, leading to issues of professional respect and authority.
- Economic constraints can affect the availability and quality of midwifery services. In settings where healthcare funding is limited, midwifery services may not receive the investment needed for equipment, salaries, and training.
- For families in poverty, even minimal fees for midwifery care can be a barrier, limiting access to essential services.
- High workloads, stress, and sometimes challenging working conditions can lead to burnout among midwives, affecting job satisfaction and retention.
- In certain regions, midwives may face safety concerns related to traveling to remote areas, especially at night, or due to civil unrest and conflict.

## Conclusion

Midwifery care is fundamental to improving maternal and newborn health outcomes globally. Despite its proven benefits, including lower rates of maternal mortality, reduced need for interventions during childbirth, and enhanced psychosocial support for mothers, midwifery faces significant challenges and barriers. These range from limited access to quality education and training, regulatory and policy constraints that limit the scope of practice, and resource limitations in healthcare settings. Cultural and social challenges, alongside economic barriers for both patients and healthcare systems, further complicate the delivery of effective midwifery care. Moreover, midwives themselves often contend with work-related stress and safety concerns that can lead to burnout and affect the quality of care provided.

Addressing these challenges requires a concerted effort from governments, healthcare organizations, and communities to recognize the invaluable role of midwives and invest in

strengthening midwifery services. This involves enhancing educational opportunities, revising policies to expand the scope of midwifery practice, improving healthcare infrastructure, and tackling cultural and economic barriers to care. By committing to these changes, we can ensure that every mother and newborn has access to the quality care they deserve, significantly contributing to the reduction of maternal and newborn morbidity and mortality worldwide. The journey to enhance midwifery care is not just about addressing shortages or improving training; it's about reshaping how societies value and support the professionals who play a critical role in the continuum of maternal and newborn care.

## Conflict of Interest

Not available

## Financial Support

Not available

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