



# Impact Of Skilled Birth Attendance On Maternal Mortality And Morbidity: A Systematic Review

Ms. Nita Patel

Assistant Professor

Parul Institute of Nursing, Parul University, Vadodara, Gujarat, India

ORCID ID: <https://orcid.org/0009-0007-0240-2731>

**Abstract:** Maternal mortality and morbidity remain significant public health challenges, especially in low- and middle-income countries. Skilled birth attendance (SBA) is recognized as a vital intervention to reduce adverse maternal outcomes. SBAs—trained health professionals such as midwives, nurses, and doctors—play a crucial role in ensuring safe childbirth practices and managing complications.

**Index Terms** - Skilled birth attendance, maternal mortality, maternal morbidity, health systems, midwifery, maternal health outcomes, safe delivery.

## I. INTRODUCTION

Maternal mortality and morbidity continue to pose pressing global health challenges, particularly in low- and middle-income countries where access to quality maternal healthcare services remains limited. According to the World Health Organization (WHO), approximately 287,000 women die each year due to complications related to pregnancy and childbirth, most of which are preventable with timely medical intervention. These deaths and injuries are often the result of hemorrhage, infection, hypertensive disorders, obstructed labor, and unsafe abortion.

One of the most effective strategies for reducing maternal deaths and improving maternal health outcomes is the presence of a skilled birth attendant (SBA) during childbirth. SBAs are trained health professionals—such as midwives, nurses, and doctors—who possess the necessary competencies to manage normal deliveries and recognize, manage, or refer complications. Their presence ensures adherence to evidence-based clinical practices, rapid response to obstetric emergencies, and improved access to essential medical interventions during labor and delivery.

Despite the global recognition of the importance of SBAs, disparities persist in their availability and utilization. Many women, especially in rural or underserved areas, still give birth without the assistance of a qualified professional due to factors such as lack of infrastructure, cultural norms, financial barriers, and workforce shortages. As a result, the potential benefits of SBA in reducing maternal morbidity and mortality remain underutilized in these settings.

## II. Methods:

A comprehensive literature search was conducted across databases including PubMed, Scopus, and Web of Science for articles published between 2000 and 2024. Studies included in the review examined the relationship between SBA and maternal health outcomes. Inclusion criteria focused on quantitative and mixed-methods studies involving SBA in various healthcare settings. Data were extracted and analysed thematically and quantitatively where applicable.

### III. SEARCH STRATEGY:

**Keyword used:** Skilled birth attendance, maternal mortality, maternal morbidity, health systems, midwifery, maternal health outcomes, safe delivery.

*Boolean operators (AND, OR) were applied to refine the search.*

1. **Inclusion criteria:** Studies published in English, addressing incidence, impact of skilled birth attendance on maternal mortality and morbidity.
2. **Exclusion criteria:** Articles with limited accessibility, non-peer-reviewed sources, and studies lacking scientific rigor.

### IV. DATA EXTRACTION AND ANALYSIS

The selected literature was critically analysed for key themes, trends, and gaps in maternal mortality and morbidity research. Findings were synthesized to highlight the causes, socioeconomic impact, healthcare disparities, and advancements in treatment options. This methodology ensures a comprehensive and evidence-based review of maternal mortality and morbidity.

### V. REVIEW OF LITERATURE

This systematic review aims to assess the impact of skilled birth attendance on maternal mortality and morbidity globally, and to identify contextual factors that influence its effectiveness.

Numerous studies across diverse geographical and socio-economic settings have explored the influence of skilled birth attendance (SBA) on maternal health outcomes. The consensus among public health researchers underscores SBA as a key determinant in reducing maternal mortality and morbidity.

**Table 1. Review of literature of impact of skilled birth attendance on maternal mortality and morbidity**

Study Title	Name of the Author	Methodology	Major Findings	Conclusion
Effect of Health-Facility Admission and skilled birth attendance Coverage on Maternal Survival in India	Singh et al. (2014)	National case-control using India's Sample Registration System (SRS) data	Maternal death risk decreased with increasing skilled birth attendance coverage. Facility admissions showed higher mortality where quality of care was low.	Quality of care is critical; skilled birth attendance coverage alone is not sufficient.
Economic Inequalities in Maternal Health Care in India (1992–2006)	Pathak, Singh & Subramanian (2010)	Analysis of National Family Health Survey (NFHS) data using regression models	Greater rise in skilled birth attendance among non-poor women. Inequities persisted by wealth, caste, and geography.	Policies must focus on reducing disparities for poor and rural women.
Utilization of Maternal Health Services in Gujarat Slums	Unnamed (2015)	Cross-sectional study with bivariate & multivariate analysis	ANC visits and education improved skilled birth attendance (SBA) use;	Community-level interventions are needed to improve skilled birth

			distance, caste, and poverty were barriers.	attendance (SBA) in slum areas.
Determinants of Skilled Institutional Delivery in Rural Andhra Pradesh	Guliani et al. (2012)	Cross-sectional cohort study (Young Lives project)	Only 36.8% skilled birth attendance (SBA) coverage. Positive predictors: education, ANC, planned pregnancy.	Need for education and equity-focused maternal health programs.
Maternal Health Care Utilization among Young Married Women (1992–2016)	Singh et al. (2021)	Pooled analysis of NFHS rounds using logistic regression	skilled birth attendance (SBA) increased from 38% to 88%, but disadvantaged groups still lag.	Focused strategies needed for SC/ST, rural and Muslim populations.
Birth Preparedness and Complication Readiness (BPCR) in India	Singh, Tripathy & Pandey (2024)	Systematic review and meta-analysis	BPCR improved skilled care use and reduced delays and risks.	BPCR should be scaled to enhance skilled birth attendance (SBA) and reduce maternal mortality.

## VI. CONCLUSION

Skilled birth attendance significantly reduces maternal mortality and morbidity by ensuring timely and appropriate care during childbirth. This review highlights that increased access to trained health professionals leads to better maternal outcomes. However, challenges such as poor infrastructure, limited access in rural areas, and socio-economic barriers must be addressed. Strengthening health systems and expanding SBA coverage are essential steps toward improving maternal health globally.

## VII. ACKNOWLEDGMENT

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## VIII. REFERENCES

1. Guliani, H., Sepehri, A., & Serieux, J. (2012). What impact does contact with the prenatal care system have on women's use of facility delivery? Evidence from rural India. *Health Economics Review*, 2(1), 1-13. <https://doi.org/10.1186/2191-1991-2-14>
2. Pathak, P. K., Singh, A., & Subramanian, S. V. (2010). Economic inequalities in maternal health care: Prenatal care and skilled birth attendance in India, 1992–2006. *PLoS ONE*, 5(10), e13593. <https://doi.org/10.1371/journal.pone.0013593>
3. Singh, A., Pallikadavath, S., Ogollah, R., & Stones, W. (2014). Maternal Tetanus Toxoid Vaccination and Neonatal Mortality in Rural Northern India. *PLoS ONE*, 9(11), e113255. <https://doi.org/10.1371/journal.pone.0113255>
4. Singh, A., Chalasani, S., Koenig, M. A., & Mahapatra, B. (2021). Maternal health care utilization among young married women in India, 1992–2016: Trends and determinants. *Studies in Family Planning*, 52(1), 67–86. <https://doi.org/10.1111/sifp.12151>
5. Singh, A., Tripathy, J. P., & Pandey, A. (2024). Birth preparedness and complication readiness interventions to reduce maternal mortality in India: A systematic review and meta-analysis. *BMC Pregnancy and Childbirth*, 24(1), 1–12. <https://doi.org/10.1186/s12884-024-06039-7>