

## Review Article

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# Waiting for a safe birth: the untapped potential of birth waiting homes in India

Kalpana Pawalia<sup>1\*</sup>, K. Madan Gopal<sup>1</sup>, Prachi Thakral<sup>2</sup>, Saloni Khurana<sup>2</sup>

<sup>1</sup>Public Health Administration Division, National Health Systems Resource Centre, New Delhi, India

<sup>2</sup>International Institute of Health Management Research, National Health Systems Resource Centre, New Delhi, India

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**\*Correspondence:**

Dr. Kalpana Pawalia,

E-mail: Kalpana.pawalia@gmail.com

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## ABSTRACT

Maternal mortality remains a major global health issue, especially in Low- and Middle-Income Countries (LMICs) like India. Each year, around 19,000 Indian women die from mostly preventable pregnancy and childbirth complications. About 90% of these deaths are preventable with timely, quality care. The “three delays” model explains many of these deaths, particularly the delay in recognising the need for care and reaching medical facilities. Women in remote, tribal, and hard-to-reach areas face the greatest risks. Birth Waiting Homes (BWHs) residential facilities near health centres help overcome these barriers. Other LMICs have shown their effectiveness, but India lacks a comprehensive review of their use and impact. We analysed secondary data from state Records of Proceedings, Common Review Mission reports, the Health Management Information System, Health Dynamics of India, and field visits. Our review identified 733 operational BWHs across 15 states and Union Territories, mostly in tribal regions. Implementation varied widely, from 2 in Bihar to 249 in Madhya Pradesh. Low Mortality States invested more in BWHs, especially in hard-to-reach areas, and showed better outcomes than High Mortality States. Use of BWHs is strongly related to women’s education ( $p<0.001$ ), proximity (average 3.8 km), and lower income. Key facilitators included quality care and supportive environments, while limited awareness and space acted as barriers. BWHs can significantly reduce maternal mortality by improving institutional deliveries. States should raise awareness and provide quality services around BWHs to ensure their full use.

**Keywords:** Birth waiting homes, Maternal mortality ratio, Infant mortality rate, Institutional deliveries, India, Rural health, Tribal health

## INTRODUCTION

Maternal mortality remains a pressing challenge despite medical advances. Globally, about 700 women die every day from preventable causes linked to pregnancy and childbirth. LMICs bear most of this burden. India accounts for nearly 19,000 maternal deaths annually—around 52 deaths each day. About 90% of these deaths are preventable with timely, quality care.<sup>1</sup> Women in remote and tribal areas face long travel distances and delays in accessing obstetric services. As a result, many still deliver at home, increasing the risk of death.<sup>2</sup> Birth

Waiting Homes (BWHs) offer a solution. They provide safe, residential facilities near health centres where women can stay before delivery and access timely care.

According to NFHS-5, 17.4% of rural women cite distance or lack of transport as the main reason for avoiding institutional deliveries.<sup>3</sup> India has over 700 tribes and nearly 64,000 hard-to-reach villages, making access even more difficult.<sup>4,5</sup> Many women, particularly in remote areas, face DELAYS in accessing basic obstetric care due to long travel distances, leading to adverse outcomes.<sup>2</sup> For these women, BWHs can be

lifesaving. These are "residential facilities, located near a qualified medical facility, where women can await delivery and be transferred to the medical facility shortly before delivery or earlier if complications arise.<sup>6</sup>

WHO recognised the value of BWHs as early as 1991.<sup>7</sup> Countries in Sub-Saharan Africa, such as Ethiopia, Ghana, Zambia, and Malawi, have successfully integrated them into maternal health strategies. These efforts increased institutional deliveries and reduced maternal and newborn deaths.<sup>8</sup> Global studies and evaluations have consistently highlighted the positive impact of birth waiting homes on maternal and newborn health indicators. A systematic review by Dadi et al, on maternity waiting homes, found a significant association with an increase in institutional delivery, with some studies reporting increases of over 50% in areas where BWHs were implemented.<sup>9</sup>

India experimented with this concept in 2007, when Tamil Nadu introduced "Birth Resorts" for expectant mothers.<sup>10</sup> Since then, several states have developed their own models. However, the absence of national guidelines has created wide variations in practice. No comprehensive review maps or evaluates these diverse efforts. This paper seeks to fill that gap. It assesses the existing status of BWHs in India, analyses patterns of use, and identifies barriers and facilitators. In the context of India's commitments to SDG-3 (Good Health and Well-being) and SDG-10 (Reducing Inequalities), a nationwide assessment of BWHs becomes even more urgent.<sup>11</sup> Such evidence can guide scale-up strategies and ensure that the most vulnerable women in tribal and remote areas are not left behind.

#### Research question

What is the current status and role of Birth Waiting Homes in improving maternal and newborn outcomes across Indian states?

#### Primary objective:

Primary objective was to assess the role of Birth Waiting homes across all the states and union territories of India.

#### Secondary objectives

Secondary objectives was to map existing BWHs in each state/UT; to study service utilisation patterns; to explore barriers and facilitators to use.

#### METHODS

This review used secondary data from multiple national sources. We studied the concept of BWHs and collected relevant documents to understand their scope. We then extracted and compiled information from these sources in a step-by-step manner. We identified states that had approved BWHs through the Records of Proceedings (RoPs) of State Programme Implementation Plans. To assess outcomes, we used the latest Maternal Mortality Ratio (MMR) data from the Sample Registration System (SRS). We also drew on National Family Health Survey-5 (NFHS-5) data to study institutional delivery rates. To capture demographic context, we used the Health Dynamics of India (HDI) report for tribal and rural population percentages. We also reviewed Common Review Mission (CRM) reports under the National Health Mission (NHM) to understand functionality, service scope, and on-ground challenges of BWHs. We compiled all data into an Excel master sheet. The sheet included the following indicators: Number of approved BWHs, Operational and infrastructure costs, Mortality indicators, Expected deliveries, Institutional and home delivery rates and Tribal and rural population percentage, etc. The data was used to prepare the tables presented in this paper.

#### RESULTS

The secondary review of state Records of Proceedings (RoPs) showed a varied but significant presence of BWHs in India. Across the country, 733 BWHs are operational. Fifteen of 36 states and Union Territories have adopted them, mostly in areas with an average tribal population of 23.1%. These facilities function at different healthcare levels, from primary to tertiary. Implementation varied widely. Bihar reported only 2 BWHs, while Madhya Pradesh approved 249. The median number across states stood at 17. States with both hilly terrain and large rural populations reported more need for such facilities (Table 1).

**Table 1: State-wise distribution of BWHs, costs, and tribal population share.**

State/UT	No. of BWHs	% tribal population	Infrastructure cost per BWH (INR Lakhs)	Operational cost per BWH (INR Lakhs)	Remarks
<b>Madhya Pradesh</b>	249	21.1%	35–40	1.5–2.0	Largest scale, tribal focus
<b>Bihar</b>	2	1.3%	47.51	5.67	Minimal coverage
<b>West Bengal</b>	13	5.8%	40–45	12.24	Highest operational cost
<b>Telangana</b>	12	9.3%	36–38	0.1	Lowest operational cost

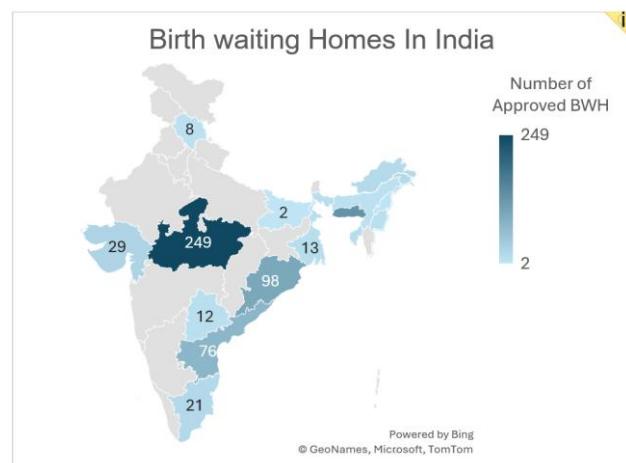
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State/UT	No. of BWHs	% tribal population	Infrastructure cost per BWH (INR Lakhs)	Operational cost per BWH (INR Lakhs)	Remarks
Tamil Nadu	21	1.1%	35–37	2.64	Pioneer (Birth Resorts, 2007)
Himachal Pradesh	8	5.7%	35–37	1.2	Mountainous terrain
Gujarat	29	14.8%	38–42	1.6	PPP models with NGOs
Maharashtra	22	10.0%	37–40	3.8	State-funded
Assam	8	12.4%	36–38	5.8	Flood & river valley areas
Odisha	98	22.8%	37–39	1.0	High tribal concentration
Others(5 states/UTs combined)	271	23–25% (avg)	35–47.51	1.0–2.0	Small-scale implementation

Budgets also differed greatly. States allocated INR 35–47.51 lakhs per BWHs for infrastructure. Operational costs ranged from INR 10,000 in Telangana to INR 12.24 lakhs in West Bengal. On average, states spent 3.76 lakhs on infrastructure and 1.25 lakhs on operations. This variation indicates the absence of a national costing framework for BWHs. States currently decide budgets based on local infrastructure norms and availability of NHM funds, resulting in wide disparities. A uniform costing template could support better resource planning and allow benchmarking across states. CRM reports highlighted how BWHs evolved within India's health system. As early as 2007, Tamil Nadu pioneered the idea with "Birth Resorts." Later, states like Andhra Pradesh, Gujarat, and Maharashtra followed with their own versions. Patterns also emerged when comparing High Mortality States (HMS) and Low Mortality States (LMS). Most LMS, especially those with tribal and remote populations, have established more BWHs.<sup>10</sup> This suggests a link between BWH presence and better maternal outcomes. In contrast, most HMS lacked such facilities, missing an important opportunity. Madhya Pradesh and Bihar were exceptions, with larger BWH numbers despite being HMS. Studies further showed that women using BWHs were typically 15–34 years old, from lower-income families, and travelled an average of 3.8 km. Education had a strong link with utilisation ( $p<0.001$ ). Religion and caste did not show significant influence.<sup>11</sup>

WHO recommends three strategies to address obstetric complications: bring services closer to women, provide emergency transport, or decentralise care.<sup>12</sup> BWHs address the third approach by offering services close to remote communities. Location proved critical. Most guidelines advise placing BWHs near facilities that can handle obstetric complications, in areas with low institutional deliveries (<10%), or in high-vulnerability zones. Some states designed BWHs to serve up to six-

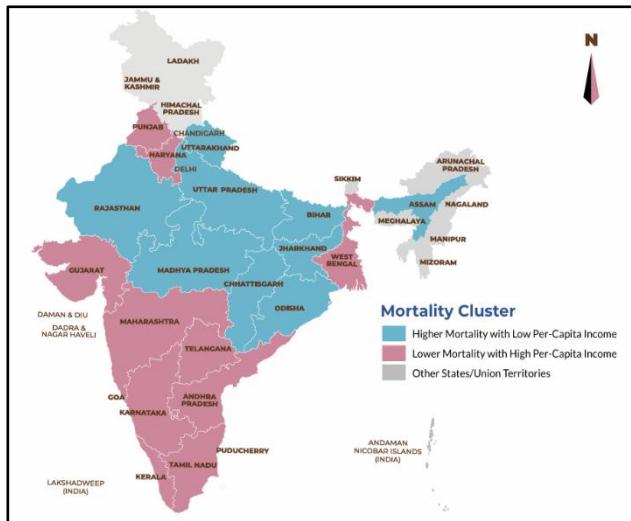
gram panchayats, often using Public-Private Partnership (PPP) models with NGOs.



**Figure 1: Distribution of birth waiting homes in India.**

The scope of services provided in Birth waiting homes differs from state to state, as each state has different guidelines for operationalisation. The main objectives are to improve the number of deliveries occurring in the presence of trained professionals, and it is a good temporary alternative to delivery points where there is a shortage of beds. Along with this, BWH is utilised for providing health services like ANC (Antenatal Care) and PNC (Postnatal Care). It has been utilised effectively for educating women and attendants on topics such as birth spacing, family planning, newborn care, early and exclusive breastfeeding, and nutrition. Apart from this, BWH provides additional space for an attendant to stay, and food facilities are also provided along with ambulance services.<sup>10</sup> Maternity waiting homes, even though located near the community, have various identified facilitators and barriers. Facilitators include the quality of services provided, positive maternal and

neonatal outcomes, provision of food and a home-like environment and being free of cost. Barriers for utilisation involve limited awareness about their existence, limited space within BWHs, uncertainty regarding expected delivery dates, and the availability of skilled human resources.<sup>13</sup>



**Figure 2: Higher and lower mortality states of India.**

Source: common review mission (CRM) reports, national health systems resource centre.

## DISCUSSION

Maternal mortality in any part of the world should be considered as a testimony to the health system status of that country. There have been many efforts from the government of India to improve accessibility and the quality of services provided to women. Yet, in the 21st century, many women still die because they cannot reach health facilities during labour. Women in rural and tribal areas remain at the highest risk.

Most maternal deaths fall under “comprehensive maternal deaths” as grouped in ICD-11. WHO identifies that 75% of maternal deaths result from haemorrhage, high blood pressure, infections, or unsafe abortions.<sup>1</sup> Complications can occur during pregnancy, labour, or the postpartum period, while some non-obstetric causes include pre-existing diseases or infections. However, accessibility to quality medical care does not fall under direct or indirect causes. To address this gap, Thaddeus and Maine (1994) introduced the Three Delays Model, which highlights how delays in accessing care contribute to maternal mortality by worsening direct or indirect causes.<sup>15</sup> The first delay occurs when pregnant women fail to recognise the need for medical care, leading to 48.6% of maternal deaths. The second delay arises when women face obstacles in reaching a health facility, contributing to about 34% of maternal deaths. The third delay takes place at the healthcare facility itself, where inadequate or delayed treatment results in 19% of adverse outcomes.<sup>16</sup>

The challenges posed by the Three Delays, along with obstetric and non-obstetric causes, continue to claim mothers' lives and hinder children's physiological growth, making maternal health a top government priority. Over the years, the Government of India has launched several schemes to address these delays and improve care. The Janani Shishu Suraksha Karyakram (JSSK) provides free deliveries, including caesarean sections, in public health institutions and ensures free transport, diagnostics, medicines, blood, consumables, and diet—directly tackling Type 2 and Type 3 delays.<sup>17</sup> The Surakshit Matritva Aashwasan (SUMAN) scheme guarantees assured services to every woman at public health facilities, aiming to end preventable maternal deaths and reduce Type 3 delays.<sup>18</sup> To reduce Type 1 delay, the government launched the Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA), which identifies high-risk pregnancies and provides counselling.<sup>19</sup> and the Janani Suraksha Yojana (JSY), which promotes institutional deliveries through conditional cash transfers.<sup>20</sup> At the community level, ASHAs (Accredited Social Health Activists) raise awareness about pregnancy danger signs and encourage families and pregnant women to act quickly, further reducing Type 1 delay.

BWHs directly address the first two delays. They give women a safe place near health facilities before delivery and prevent complications from delayed labour. CRM reports confirm that BWHs in rural and tribal areas have saved lives.<sup>10</sup> Evidence from Ethiopia and Malawi shows that when BWHs were linked with emergency obstetric care and supported by community health workers, institutional delivery rates improved by over 50% and maternal deaths declined significantly.<sup>8</sup> India could adapt these lessons by ensuring ASHAs and ANMs actively counsel and accompany women to BWHs, thereby integrating them into the continuum of care. States should assess their needs and expand BWHs where women face the greatest access barriers.

Monitoring and evaluation are equally important. A standardised reporting format for BWHs, integrated within HMIS, could capture utilisation, length of stay, referrals, and maternal outcomes. Such real-time data would allow states to track effectiveness, identify gaps, and strengthen accountability mechanisms.

To increase use, states must raise awareness among women about BWHs and the importance of institutional delivery. Strategic location is vital: BWHs should be near facilities that can handle emergencies. Facilities must also provide basic amenities—beds, mattresses, clean toilets, and food—for women and attendants. Dedicated staff are essential for consistent services. For sustainability, BWHs under Public-Private Partnerships (PPP) need quarterly monitoring by state and national teams. A national guideline should standardise operations so all women can access quality services, regardless of state.

National guidelines for BWHs, developed by MoHFW and NHRSC, can act as a blueprint for states. These should define minimum standards for infrastructure, staffing, referral linkages, and financing, while allowing contextual flexibility for tribal and remote geographies.

### **Facilitators vs barriers for birth waiting homes**

Key facilitators for enhancing maternal health services include the provision of quality care during antenatal and postnatal periods, as well as ensuring safe delivery preparedness. A supportive environment that allows for the presence of attendants, along with the availability of food and a homely atmosphere, contributes significantly to the overall experience. Additionally, offering free access to these services, strategically locating facilities near operational health centers, and establishing reliable transport linkages, such as ambulances, further facilitate effective maternal care.

However, several barriers hinder the effectiveness of these services. A lack of awareness among pregnant women and their families poses a significant challenge, compounded by space limitations within healthcare facilities. The unpredictability of delivery dates adds to the complexity, while a shortage of skilled personnel, including auxiliary nurse midwives and nurses, exacerbates the situation. Furthermore, inconsistencies in state guidelines and funding, along with inadequate monitoring and reporting mechanisms, undermine the overall quality and accessibility of maternal health services.

### **Limitations**

As a secondary review, this study is limited by the quality and completeness of state-reported data in RoPs, CRM reports, and HMIS. Variations in definitions, reporting cycles, and incomplete updates in some states may influence comparability. Despite these limitations, triangulation from multiple sources strengthens the findings.

### **CONCLUSION**

Maternal mortality continues to challenge India's health system, especially in remote and tribal areas. BWHs offer a practical solution by bringing women closer to obstetric care and reducing delays in accessing services. This review shows that BWHs improve institutional deliveries and lower risks for both mothers and newborns. They complement existing government schemes and provide essential services such as antenatal care, postnatal care, health education, and safe accommodation. To maximise their impact, states must raise awareness about BWHs, ensure quality services nearby, and provide adequate facilities for women and attendants. National guidelines can help standardise operations and improve accountability. Strengthening BWHs will move India closer to achieving Sustainable Development Goals and

universal health coverage by ensuring safer births and reducing preventable maternal and newborn deaths. Our review highlights wide variations in design, financing, and functionality of Birth Waiting Homes across states. At present, the absence of a national framework leads to inconsistent standards and uneven utilisation. A centrally guided framework—developed by MoHFW with inputs from states—can help define minimum infrastructure, human resource, service, and monitoring norms, while still allowing contextual flexibility. Such a framework would support uniform quality, ensure equity across states, and integrate BWHs more systematically with FRUs, CHCs, and Ayushman Arogya Mandirs.

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