

Maternal Health in Rural India: Effectiveness of Government Schemes versus Traditional Systems of Care

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ABSTRACT

Maternal health in rural India has undergone a radical change over the last two decades. The government's maternal health initiatives (e.g., Janani Suraksha Yojana (JSY), Janani Shishu Suraksha Karyakram (JSSK), Pradhan Mantri Matru Vandana Yojana (PMMVY) and Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA)) have transformed the institutional delivery landscape, upgraded antenatal care and reduced costs to care. At the same time, community-based systems under the leadership of Accredited Social Health Activists (ASHAs) and traditional care practices based on Ayurveda and support at home remain part of the maternal experience. This paper contrasts the impact of these government interventions with conventional systems of care based on National Family Health Survey (NFHS) data, Sample Registration System (SRS) bulletin and ethnographic evidence on maternal care in rural areas. Findings indicate that although institutional programs have achieved significant success in reducing maternal mortality and in enhancing the utilization of services, traditional practices continue to offer an essential cultural sanction and postpartum care. Blended approach needed to fill gaps in access, quality and cultural appropriateness.

Keywords: Maternal Health, Rural India, Janani Suraksha Yojana (JSY), Traditional Birth Attendants, Institutional Delivery, Maternal Mortality Ratio (MMR), National Family Health Survey (NFHS), Cultural Acceptability, Healthcare Integration.

Introduction

Maternal health remains to be one of the major public health issues in rural India where geographical isolation, socioeconomic and cultural barriers pose major obstacles in accessing quality health services. Despite the significant reduction of India's Maternal Mortality Ratio (MMR) from 130 per 100,000 live births (2014-16) to 97 per 100,000 live births (2018-20), the country continues to shoulder an inordinate proportion of the global maternal deaths. This grim reality is especially stark in rural areas where healthcare infrastructure continues to lag and where traditional beliefs are prominent and influence health-seeking behaviour. The complex interactions between modern government health care programs and traditional care systems produces a rich terrain of maternal health care provision that deserves serious study.

The history of maternity care in India shows that there has been a decades-long battle to balance modern medical methods with traditional care. Since Independence, India has launched a number of programmes for better maternal health from the Family Welfare Programme to more comprehensive ones under the National Health Mission (NHM). Nevertheless, despite these efforts, important gaps still exist between urban and rural areas and between different socioeconomic groups. According to the most recent round of the National Family Health Survey (NFHS-5), although the rates of institutional births have improved dramatically to 88.6% at the country level, the progress in rural areas remains at about 87% as opposed to 94% for urban areas. This gap highlights the continued difficulty of getting quality maternal healthcare services to remote populations.

This research paper compares the efficacy and integration of government sponsored maternal health schemes as compared to traditional systems of care in rural India. It discusses strengths and weaknesses of both approaches, discusses their relative contributions to maternal health outcomes, and makes suggestions for a more synergistic approach that builds on the strengths of both systems. By bringing together the evidence across studies and government reports, this paper attempts to contribute to the ongoing debate on the optimal delivery of maternal health care in India's most deprived areas towards achieving the Sustainable Development Goal (SDG) target of bringing MMR down to below 70 per 100,000 live births by 2030.

Literature Review

The existing literature on maternal healthcare in rural India shows the existence of a complex ecosystem composed of overlapping and often non-integrated modern healthcare initiatives and traditional practices. Much of the literature has concentrated on evaluations of government programmes or recording of traditional practices - few studies have focused on the interface between these two regimes. This review draws together the major findings within the two domains in order to identify gaps in knowledge and areas of research opportunity.

The effectiveness of government health programmes has largely focused on impact analysis of flagship schemes such as Janani Suraksha Yojana (JSY) and Janani Shishu Suraksha Karyakram (JSSK). Singh et al. (2019) also found that while JSY achieved important gains in institutional deliveries, such gains were moderated by the quality-of-care problems in healthcare facilities that influence maternal mortality. Assessments of the Pradhan Mantri Surakshit Matritva Abhijan (PMSMA), for example, have noted progress in antenatal care usage but indicated continuing difficulties in accessing vulnerable groups in remote locations. These studies all find regional variation in program implementation, with states such as Kerala and Tamil Nadu significantly performing better than Bihar and Uttar Pradesh in both use and outcomes.

The literature on the traditional healthcare system shows that they are still relevant systems in rural India. Tribal areas like the Bastar district have also shown through ethnographic studies that traditional birth attendants (TBAs), called dais, are continued to be the first point of contact for many pregnant women, even after the government emphasized institutional deliveries. Biswas (2003) had documented that culturally appropriate rituals around pregnancy and childbirth that determine health-seeking behavior are common in traditional practices. These studies identify cultural belief systems and lack of trust in the formal health system as the drivers of maintenance of traditional care practices.

An emerging literature has focused on integration models that try to connect the modern and traditional systems. The systematic review by Dash et al. (2024) on training TBAs reported that the intervention can prevent perinatal mortality by 31% and neonatal mortality by 35%, which implies the potential utility of the integration of TBAs into the formal healthcare system. However, this research also reveals methodological gaps in available research and urges a more rigorous assessment of integration approaches.

Table 1: Summary of Key Literature Review Findings

Area of Focus	Key Findings	Knowledge Gaps
Government Schemes	Increased institutional deliveries but quality concerns; Regional disparities in implementation	Long-term impact on maternal mortality; Effectiveness in tribal areas
Traditional Systems	Cultural acceptance but variable safety; Continued use despite government programs	Documentation of traditional practices; Safety and efficacy of herbal remedies
Integration Models	Training TBAs shows promise; Community engagement critical.	Optimal training content; Sustainable integration models; Cost-effectiveness

This review highlights the lack of research to date on how government schemes and traditional systems might be successfully integrated for better maternal health outcomes. Most studies approach the topic from either a top-down (government programs) or bottom-up (traditional practices) perspective and do not look at possible synergies. Moreover, there is limited evidence of cost-effectiveness of different approaches or their acceptability in different cultures in rural populations. This paper attempts to fill these gaps through a systematic analysis of both systems and the evidence-based integration strategies suggested.

Methodology

This study uses a mixed-methods design to holistically study the effectiveness of government interventions as compared to the traditional mechanisms of maternal care across rural India. The approach combines quantitative data from national surveys and government reports with qualitative information from community-based research, in order to deliver a complete understanding of the complex maternal health environment.

Data Sources

The study uses various secondary data sources as a way of ensuring that the topic of the research is covered comprehensively. These include:

- **National Health Management Information System (HMIS)** data from 2019-20 for indicators related to maternal health service utilization
- **National Family Health Survey data** (NFHS-3, NFHS-4, and NFHS-5) covering the periods 2005-06, 2015-16, and 2019-21 respectively
- **Sample Registration System (SRS)** data from 2001-2018 for maternal mortality trends
- **Peer-reviewed studies** from databases like PubMed, Scopus, and Cochrane Central Register of Controlled Trials
- **Government reports** and policy documents from the Ministry of Health and Family Welfare

Analytical Framework

The analysis uses a comparative effectiveness matrix that looks at both systems along a variety of dimensions:

- **Accessibility:** Geographic availability, financial affordability, and cultural accessibility
- **Quality:** Technical competence, safety standards, and interpersonal aspects of care
- **Utilization:** Coverage rates among different socioeconomic groups
- **Outcomes:** Impact on maternal mortality, morbidity, and patient satisfaction

For the evaluation of government schemes we examine performance indicators: institutional delivery rates, coverage of antenatal care, out-of-pocket expenses. We review traditional systems for their cultural relevancy, community trust, and available health outcomes.

Statistical Analysis

Quantitative analysis is conducted in the form of composite index construction and inequality measurement, which can estimate the regional differences of utilization of maternal health services. Following the methodology from government programme evaluation, we compute a composite index as an unweighted average standardized value of seven potentially important indicators: 1st trimester ANC, ANC 4+ visits, TT2+ vaccination, postnatal care within 2 days, institutional delivery, skilled birth assistance, IFA tablets for 100+ days.

Inequality measures including range, ratio, and Gini coefficient are computed to examine inter-state variations in maternal health service utilization. The Gini coefficient is calculated using the formula:

$$G = \frac{\sum_{i=1}^n \sum_{j=1}^n |x_i - x_j|}{2n^2 \bar{x}}$$

Where x_i and x_j are values for different states, n is the number of states, and $\bar{x}$ is the mean value.

Pearson's correlation coefficient is used to estimate the correlation between various aspect of maternal health services and the maternal mortality rate.

Limitations

The study has a number of methodological weaknesses. Firstly, it is based entirely on secondary data, which can be of quality concern, particularly for traditional care systems, which are often undocumented. Second, there is a lack of information on traditional practices, especially health outcome data. Third, national-level data may not reflect the difference in implementation of government schemes at the regional level. Finally, some cultural factors may be important in determining preferences for traditional care but may not be well captured by current data sources.

Government Maternal Health Schemes: Objectives, Implementation, and Outcomes

There are several ambitious initiatives undertaken by the Government of India to enhance maternal health outcomes, especially in the rural areas where access to health is the lowest. These schemes form a multi-pronged intervention to target the different barriers to maternal healthcare using financial incentives, building and strengthening of infrastructure and quality improvement.

Key Schemes and Their Objectives

The Janani Suraksha Yojana (JSY), which was started in 2005, is a conditional cash transfer program to incentivize institutional deliveries among pregnant women, particularly those from disadvantaged backgrounds. The scheme offers financial support to women for birth in health facilities and increases the support for those in states with lower institutional delivery rates (classified as Low Performing States). The Janani Shishu Suraksha Karyakram (JSSK), launched in 2011, entitles all pregnant women delivering in public health institutions to free delivery, including caesarean sections, free drugs, diagnostics, blood, diet and transport to and from the facility.

The Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA), launched in 2016, provides fixed-day, free, comprehensive antenatal care on the 9th of every month. Its extension, e-PMSMA, focuses on tracking high-risk pregnancies through additional visits and financial incentives for accompanying ASHA workers. The Labour Room Quality Improvement Initiative (LaQshya), started in 2017, aims to improve the quality of care in labor rooms and maternity operation theatres to ensure respectful and quality care during delivery.

Implementation and Reach

The introduction of these programs has led to great improvements in major maternal health outcomes. As of March 2025, the PMSMA program had screened more than 5.9 crore pregnant women. Institutional deliveries increased substantially from 78.9% in NFHS-4 (2015-16) to 88.6% in NFHS-5 (2019-21) at national level and nearly 87% of rural births are now institutional.

The JSY scheme has been specially helpful in advancing institutional deliveries. Through financial incentives and reduced out-of-pocket costs, the scheme has overcome one of the main barriers to facility-based care. However, assessments have shown that there are high regional differences in

implementation. States like Kerala, Tamil Nadu and Andhra Pradesh have performed better whereas states like Bihar, Jharkhand, Uttar Pradesh and Assam still lag behind. The composite index score of 0.65 for maternal health service utilization shows that India still has a long way to go in terms of achieving optimal coverage.

Impact on Maternal Health Outcomes

The cumulative impact of these government initiatives is evident in the steady decline of India's MMR from 130 per 100,000 live births in 2014-16 to 97 in 2018-20, representing a reduction of 33 points. This translates to an estimated 8,580 additional mothers saved annually in 2020 compared to 2016. Eight states—Kerala (18), Maharashtra (36), Tamil Nadu (38), Andhra Pradesh (47), Telangana (50), Jharkhand (50), Gujarat (55), and Karnataka (58)—have already achieved the SDG target of MMR below 70 per 100,000 live births

Table 2: Progress in Maternal Health Indicators under Government Schemes

<i>Indicator</i>	<i>NFHS-4 (2015-16)</i>	<i>NFHS-5 (2019-21)</i>	<i>Absolute Improvement</i>
Mothers with ANC in first trimester	58.6%	70.0%	11.4%
Mothers with at least 4 ANC visits	51.2%	58.1%	6.9%
Institutional births	78.9%	88.6%	9.7%
Mothers receiving postnatal care within 2 days	62.4%	78.0%	15.6%
Births by caesarean section	17.2%	21.5%	4.3%

Notwithstanding these improvements, there remain daunting challenges in implementation of government schemes. The Third Common Review Mission under NRHM identified that basic amenities like toilets and running water in health facilities was still suboptimal and created conditions insecure for women to stay post-delivery. In addition, significant rural-urban disparity in postnatal care coverage also exists, with only 34% of rural women receiving postnatal check-ups as against 66% of urban women, as per NFHS-3 data. These gaps in implementation reinforce the importance of sustained attention to quality issues in addition to coverage.

Traditional Systems of Care: Cultural Relevance, Practices, and Limitations

Traditional maternal health care practices still hold an important place in the scenario of rural India, especially in remote and tribal regions where modern health facilities are not widely available. These systems cover a variety of practices, providers, and beliefs which are well rooted in local cultures and traditions, and represent a parallel or additional route to government healthcare programs.

Cultural Practices and Beliefs

Traditional maternal care practices are often guided by cultural beliefs and societal norms that have been passed down through generations. In tribal communities like that of Bastar district, Chhattisgarh, pregnancy and parturition are shrouded in a lot of rituals and customs. Normally, women go to their mother's place for childbirth and the room will be cleaned and plastered with a newly made paste of cow dung and mud. Neem leaves have anti-infective properties so they are burned to heat up the room to repel mosquitoes. This is a cultural practice emerging from indigenous knowledge systems, which have been developed over centuries to meet maternal health needs in particular ecological and cultural environments.

Prenatal and Postnatal Diets are culturally specific, as well. In the area of Bastar, for example, foods like native citrus and rabbit meat are eaten during pregnancy and water boiled with rice or lentils is consumed during labour and for two days after delivery instead of plain water. Immediately after birth the new mother is wiped with clean soft old used clothes and put to breast as soon as possible, while hot tea with jaggery (a sweet palm sugar) is given to the mother. These practices are considered a holistic approach to maternal care that caters not only to physical well-being but also cultural and spiritual aspects.

Role of Traditional Birth Attendants

Traditional Birth Attendants (TBAs) called dais are important providers of maternal health care in rural communities. These experienced women have worked for generations to provide care and support to other women through pregnancy and birth. TBAs tend to rely on knowledge and experience to support

the comfort measures of massage, positioning, and breathing techniques during labour. They also help maintain the birth canal as clean and safe as possible with traditional practices and remedies to encourage a smooth birth.

Not only are TBAs technically qualified, they are also considered to have great cultural authority within their communities. As respected members of the community, they bring the wisdom and traditions of their ancestors, and their presence at childbirth is considered to be linking with the community's past and ensuring that cultural practices are continued. This cultural status results in a kind of power for TBAs that goes beyond childbirth alone and includes postpartum care and newborn care and even family planning in some communities.

Effectiveness and Limitations

Evidence on health outcomes related to conventional systems of maternal care is inconsistent. A systematic review and meta-analysis concluded that TBA training lowered the risk of perinatal mortality by 31% (RR 0.69, 95% CI 0.61-0.78) and 7-day neonatal mortality by 35% (RR 0.65, 95% CI 0.53-0.80), but was not effective in reducing stillbirth rates (RR 0.70, 95% CI 0.39-1.26). These findings indicate that traditional systems can have a role in better maternal and newborn health if well supported.

In addition, traditional practices have major limitations. Some practices are not harmless, for example for the incorrect treatment of obstetric complications or the use of unhygienic methods during childbirth. Moreover, the traditional systems usually do not have the capability to treat emergencies such as postpartum hemorrhage, eclampsia, and obstructed labor, which demand biomedical interventions. Traditional practices as a sole factor can add to the "three delays" model of maternal mortality: delay in making the decision to seek care, delay in the actual access to care, and delay in receiving effective care.

Persistence Despite Government Initiatives

The traditional systems are still flourishing in many rural areas despite decades of government promotion of institutional delivery. This is due to a variety of factors including poor geographical accessibility, lack of money, cultural preferences and mistrust of formal health systems. In many rural communities, governmental health facilities are situated far away with no proper means of transport, hence traditional home births with TBAs are more convenient.

The traditional systems also have cultural compatibility, which also explains why they continue. Many women in rural areas are more comfortable with the traditional practices that are in line with their beliefs and values than with biomedical approaches that can be considered unfamiliar or may be considered confrontational with cultural norms. This is especially the case for childbirth practices, which is not only a biological event but also a cultural and social one and is embedded in particular meaning systems.

Comparative Effectiveness Analysis

A comparative examination of government schemes and traditional systems of maternal care identifies the relative strengths and weaknesses of each type of system. This analysis compares both systems along multiple dimensions such as accessibility, cultural acceptability, clinical effectiveness and effect on health outcomes to give an overall picture of their relative effectiveness in rural India.

Accessibility and Coverage

Physical proximity to maternal health services has improved greatly due to government initiatives to develop the infrastructure and provide transport assistance. In particular, the JSY scheme has raised institutional delivery rates from 78.9% in NFHS-4 to 88.6% in NFHS-5. However, there are still large differences between and within states. India's composite index score of 0.65 for the maternal health service utilization shows that the country is still far from an optimal coverage level. Based on inequality measures, we find significant differences across states with Gini coefficient varying from 0.03 for skilled birth assistance (low inequality) to 0.19 for IFA tablets received for 100 days (high inequality).

Traditional systems provide better access in remote areas where government facilities are low or absent. In tribal areas like Bastar, services are offered directly at the community level without transportation barriers by traditional birth attendants. However, this availability comes at the potential expense of quality with TBAs having limited skills and equipment to handle complications appropriately.

Table 3: Comparative Analysis of Government Schemes vs. Traditional Systems

Dimension	Government Schemes	Traditional Systems
Geographic Accessibility	Limited in remote areas; requires travel	Highly accessible; services at home
Financial Accessibility	Free or subsidized through JSY/JSSK	Variable costs; often barter system
Cultural Acceptability	Sometimes low due to cultural mismatch	High; aligned with local beliefs
Clinical Effectiveness	High for complications; variable for routine care	Limited for complications; variable for routine care
Coverage	High for institutional delivery; lower for ANC/PNC	Declining but significant in remote areas

Quality and Cultural Acceptability

Programmes such as LaQshya have aimed to improve the infrastructure, equipment, and processes at labour rooms and maternity operation theatres to ensure that care delivered in government facilities is of the required quality. However, quality is not consistent across facilities, with problems such as overcrowding, staff shortages and poor maintenance still endemic in many rural health centres. Assessment of health facilities in India shows "a suboptimal level of imports, maintenance and use of generic medical equipment and an absence of support facilities such as round-the-clock water and electricity supply".

Conventional systems also tend to rank higher on cultural acceptability and interpersonal dimensions of care, on average. Traditional birth attendants are typically members of the same culture as their clients, and offer care in local languages and in accordance with cultural norms surrounding childbirth. This cultural alignment provides many rural women with comfort and trust, as they may be alienated by formal health facilities where providers may not understand or respect their traditions.

Health Outcomes and Impact

Government initiatives have helped India's Maternal Mortality Rate (MMR) to fall from 130 (2014-16) to 97 per 100,000 live births (2018-20). This decline equates to around 8,580 extra mothers saved per year in 2020 compared with their current number in 2016. Attention to institutional deliveries has been especially effective in reducing complications that necessitate emergency obstetric care, which is poorly provided by traditional systems.

However, the government's "myopic focus on improving institutional deliveries and skilled health assisted deliveries has taken away from other critical interventions related to maternal health." This has led to persistent high levels of inequality in things such as the receipt of IFA tablets for 100 days (Gini coefficient 0.19) and four ANC visits (Gini coefficient 0.13).

Used as part of a training and support process, traditional systems can yield better results. The systematic review of Dash et al estimated that training of TBAs saved 31% of perinatal mortality and 35% of neonatal mortality. However, biomedical interventions alone are not sufficient to deal with serious complications necessitating interventions in the facility whereby such women with complications die needlessly when they wait over time to be admitted to the facility for delivery.

Cost-Effectiveness and Sustainability

Government schemes consist of significant investments into infrastructure, human capital and financial incentives. While these investments have been producing positive returns in terms of improved health outcomes, the issue of sustainability over the longer term remains. The JSY scheme, for example, involves ongoing financing of cash transfers, which may not prove sustainable unless increasing effectiveness over time is demonstrated.

Conventional systems tend to be less resource intensive and are based largely on local knowledge and minimally equipped settings. However, the opportunity costs of failure to deal effectively with complications can be great in terms of preventable mortality and morbidity. Integrated models of current systems combined with modern training and referral systems can be a more cost-effective solution for the remote region where full health-care infrastructure is not an option.

Opportunities for Integration and Collaboration

The analysis shows both government schemes and conventional systems have complementary strengths that could, through well-thought integration, be harnessed. Rather than seeing these systems

as mutually exclusive, a synergistic approach to viewing the clinical efficacy of modern medicine with the cultural accessibility of traditional medicine might produce better results than either model alone.

Successful Integration Models

In different parts of rural India, several models of attempts to introduce a blend of modern and traditional maternal health care have been reported. Bastar district, Chhattisgarh, adopted a community-based program that combined a tri-part approach: maintain and support positive cultural practices, mobilize communities to embrace evidence-based medicine, offer basic maternity care based on social marketing principles (product, price, place, promotion). In this way, trained institutional deliveries increased from 20% to 58% and anaemia of pregnancy decreased (with haemoglobin above 9 g/dl in the last trimester rising from 29% to 50% of pregnant women).

One other successful integration strategy has been the training of Traditional Birth Attendants (TBAs). In a systematic review, training TBAs lowered perinatal mortality by 31% (RR 0.69, 95% CI 0.61-0.78) and neonatal mortality by 35% (RR 0.65, 95% CI 0.53-0.80). These training programs usually address topics like hygiene, preventing infections, identifying complications, and referring to more skilled health care providers in a timely fashion. By providing TBAs with non-technical knowledge and skills, while preserving the cultural role of the TBA, these programs form a bridge between traditional practices and modern medicine.

Technological Innovations for Integration

Digital health technologies can be very promising tools that facilitate the integration of traditional and modern healthcare systems. In Bastar, community-based programs "used cell phone-based projectors, smart phones and laptop-based applications to distribute maternal health and nutrition educational videos developed for the community." These technologies facilitated the crossing of geographical boundaries by embracing cultural contexts, using local languages and traditions.

In order to make modern healthcare more culturally-relevant, mHealth applications have been developed that can calculate early pregnancy gestation based on the local calendar and practices. These technologies can aid frontline health workers, including trained TBAs, by offering decision assistance, referral capabilities and communication with medical personnel when complications arise.

Policy Framework for Integration

The Indian government has initiated integration by creating the Ministry of AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy) and the National AYUSH Mission, which seeks to promote traditional medicine services in the rural communities. Some states have given ASHA workers training to include traditional medicine in their service package, to offer rural women culturally acceptable and readily available healthcare.

However, a more detailed policy framework is required to inform systematic integration, This framework should contain:

- Standardization of training for traditional birth attendants including provision of evidence-based practice, recognition of danger signs, and referral pathways
- Formal nursing referral pathways from traditional providers to formal healthcare facilities
- Documentation systems for traditional practices and their outcomes to build an evidence base
- Quality control mechanisms to make sure traditional practices are at least as safe
- Cross-training programs that make healthcare providers of today understand and respect positive traditional practices

Community Engagement Strategies

Integration needs to be done in a way that genuinely involves the community with respect to local knowledge and practices, and at the same time introduce evidence-based innovations. The case as it is presented in Bastar underscores the importance of involving local community leaders in the decision-making, joint social audits and verbal autopsies of adverse events, and the use of technology to show immediate benefit in terms of lives saved and diseases averted.

Participatory methods, such as participatory rural appraisal, village transect walks and brainstorming have been more effective in increasing trust and enabling sustainable change to occur than top-down interventions. These approaches recognise the agency of communities, as active, rather than passive, participants in healthcare, and promote a sense of ownership and responsibility for maternal health outcomes.

Conclusion and Recommendations

This in-depth study of maternal health in rural India provides a multifaceted portrait of a health care delivery system in which government programs and traditional systems interact and complement each other in complex ways. Government programs have been effective in increasing availability of institutional deliveries and led to a dramatic decline in maternal mortality, from 130 to 97 per 100,000 live births between 2014-16 and 2018-20. However, these schemes struggle with quality of care, regional inequalities and cultural acceptability issues, especially in remote and tribal regions. Traditional systems also support cultural relevance and accessibility, but often don't have the capacity to effectively manage obstetric emergencies, which leads to preventable maternal deaths.

The continuing disparities in maternal health outcomes underscore the need for more subtler, context-focused approaches that build on the complementary strengths of both systems. The comparative study indicates that use of each system alone is not adequate to deal with the complex problems of maternal health care services in rural India. Rather, a synthesis combining the clinical efficacy of modern healthcare with the cultural accessibility of traditional practices is the most promising way forward.

Recommendations for Policy and Practice

Based on the findings of this analysis, we propose the following recommendations:

- **Develop Integrated Care Models** In addition, state governments should test out integrated models of maternal care that formally integrate trained traditional birth attendants into the health care system. These models need to have clear guidelines for collaboration, referral and supervision between traditional providers and formal health facilities.
- **Strengthen Quality of Care in Government Facilities:** While increasing coverage is important, equal priority should be put on quality of care in public health facilities. This entails providing basic necessities such as safe water, working toilets and electricity, as well as increasing interpersonal care and cultural respect.
- **Expand Community-Based Services:** Community-based services including trained TBAs and mobile health teams should be enhanced for remote areas where facility based care is not possible. These services should be provided with basic medications, equipment and communication technologies which can assist referrals if necessary.
- **Enhance Cultural Competence Training:** Medical education and training for healthcare providers should include elements related to cultural competence, traditional practices and respectful maternity care. This would help build the cultural bridge between providers and rural communities.
- **Invest in Digital Health Technologies:** Digital technologies need to be deployed to aid integrated care using decision support tools for front-line workers, teleconsultation services and digital tracking of pregnant women across care settings.
- **Strengthen Data Systems:** An evidence base of traditional practices and their results must be constructed to support integration. This involves creating systems for documentation of traditional provision of care and complications in such a manner that is complementing existing systems of health management information.

Future Research Directions

This analysis highlights a number of important research gaps that should be filled in order to inform future policies and programs:

- **Cost-Effectiveness Studies:** Studies with a cost-effectiveness analysis of various integration models would be useful for guiding policymakers to allocate resources in an efficient way.

- **Long-Term Impact Evaluations:** In addition, longitudinal studies with a view to impact of integration models on long-term maternal and neonatal outcomes would serve as evidence for scaling up of successful models.
- **Cultural Safety Research:** Studies exploring how to make modern healthcare more culturally safe for diverse rural communities would help address acceptability barriers.
- **Implementation Science Research:** Additionally, research on implementation processes and contextual factors that affect the success of integration models would inform more effective scaling of approaches that are proven to work.

Concluding Remarks

Maternal health in rural India is at an inflection point. While there have been headway through government schemes, persistent inequalities and quality issues highlight the limitations of a one-size-fits-all approach. Despite its shortcomings, traditional systems remain relevant in most rural communities because they are culturally appropriate and accessible. Rather than seeing these systems as competing options, policymakers and health care leaders should instead seize the opportunity to develop a synergistic integrated approach that has the best of both worlds.

By creating carefully designed models of integration that are culturally sensitive and add evidence-based practices, India can hasten progress toward achieving its maternal health objectives. Such an approach would not only enhance clinical outcomes, but ensure that maternal healthcare is respectful, culturally appropriate and patient-centred. As India strives to meet the target of the SDG of MMR to below 70 per 100,000 live births by 2030, integrated strategies that use both modern and traditional systems will be needed to ensure that the most vulnerable and marginalized populations are reached.

It is time to shift beyond the false dichotomy of government programs and traditional systems to a more holistic and inclusive vision of maternal healthcare that can better respond to the needs of all women living in rural India, irrespective of their geographical location, socio-economic status or cultural background.

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