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Nepal's Maternal Mortality Target Challenges: Policy gaps, implementation challenges, and the potential of Digital Health Solutions

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ABSTRACT

Although timely intervention from skilled health professionals prevents most maternal fatalities according to WHO, Nepal's rural regions face insufficient healthcare facilities, inadequate transportation systems, and socio-cultural barriers that restrict women's access to vital maternal services. The Safe Motherhood Programme and the Skilled Birth Attendant (SBA) Policy, have issues like trained healthcare workers shortage and infrastructural limitations. This viewpoint argues that innovative digital health solutions, such as mobile health programs, could improve maternal health outcomes by facilitating better access to information and services. By referencing successful examples from around the world, it suggests that incorporating digital health platforms into Nepal's public healthcare system could significantly decrease maternal mortality rates.

Keywords: *Digital Health Solutions; Healthcare Access; Maternal Mortality; Nepal; Policy Gaps.*

INTRODUCTION

Although WHO states skilled health professionals' timely care prevents most maternal deaths Nepal's rural womens' scenario remains the contrary, as Bajhang's 21-year-old woman died en route to a health center in 2025 due to delayed medical attention.[1,2] Similar cases occurred in Mugu in 2023 and Acham in 2021.[3,4] Due to having limited health facilities, women have to give birth at home without care. Nepal's MMR remains 151 per 100,000 in 2025, despite a 99 target.[5] This viewpoint scrutinizes Nepal's maternal mortality achievement target challenges and proposes a digital platform solution to address them.

Barriers to Accessible Maternal Healthcare

In rural Nepal, 45.6% of households are within 30 minutes of a health post, 35.2% can access a basic health center, and 26.6% can reach a primary health center (Nepal Living Standard Survey 2022/2023).[6] It is clear that the lack of accessible health facilities is a significant barrier preventing women from accessing maternal services. Where accessible, poor infrastructure, high transport costs, and limited resources hinder access to health care.

Social, economic, and cultural barriers hinder access to maternal healthcare in Nepal. Low literacy, lack of awareness, male-dominated decision-making, and cultural beliefs discourage hospital visits. Economic constraints, high transportation costs, and poor infrastructure further restrict access. Indigenous practices and traditional norms, such as home confinement and home delivery, also limit healthcare utilization, especially in rural areas.[7] This underscores the problematic socioeconomic conditions, substandard infrastructure, and the limited effectiveness of government efforts and stakeholder initiatives.

Policy Gaps and Implementation Challenges

With a focus on rural areas of Nepal, policy gaps and

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implementation challenges are insufficient skilled health workers, especially in remote areas, and limited progress in implementing long-term strategies outlined in the Skilled Birth Attendant (SBA) Policy. Infrastructure deficiencies, such as poorly maintained facilities and a lack of essential equipment, exacerbate the problem, particularly in inaccessible mountainous regions. Although the Safe Motherhood Policy, SBA Policy, and Safe Abortion Policy exist, they often lack local adaptation under Nepal's federal system. Additionally, the quality of care in rural health centers is substandard, driving women to bypass them for urban facilities. [7]

The Path Forward: Innovative Solution

Digital health tools enhance access to information, enable personalized care, and bridge gaps through remote monitoring and timely interventions for women's health. Initiatives such as MAMA use mobile technology to enhance maternal, although not available in Nepal due to issues like ICT regulations and the need for localization, notable successes include Bangladesh's Aponjon, which reached 1.9 million women over six years, and South Africa's MomConnect, which served 1.7 million mothers in 95% of public clinics within three years, showcasing their scalability and effectiveness.[8] Other initiatives, like the mHealth for Safer Deliveries initiative in Zanzibar, improved emergency referrals via SMS, increased facility-based deliveries by 36% and reduced maternal mortality.[9] Leap, Amref Health Africa's mHealth platform, trains community health workers via mobile phones, improving grassroots healthcare delivery and maternal outcomes in Kenya, Uganda, and Tanzania.[10] These initiatives showcase mobile health technology's power to improve maternal health through flexible solutions.

In the context of Nepal, the Digital Health Platform by the Ministry of Health and Population aims to integrate public healthcare facilities nationwide through a mobile and web app.[11] This can help reduce maternal mortality by linking health facilities via a unified system with HMIS and EHR integration, ensuring a robust tracking of maternal health records. There have been instances of utilizing telemedicine technologies, like remote consultations and mobile health applications, in districts like Jhapa, Morang, and Ilam, which significantly improved maternal care in remote areas by reducing travel and cost.[12] The strengthening of the Safe Delivery App remains crucial as it helps healthcare professionals for safer births, especially in low-resource areas, through clinical guidelines, instructional videos, and offline access for use in remote regions. [13]

Way Forward

In Nepal, strengthening projects like the Safe Delivery App, Digital Health Platform provisions of telemedicine technologies, and remote consultations may enhance the quality of care and accessibility, especially in marginalized regions, which could lower the rate of maternal mortality. While community-based interventions are paramount to tackling the hurdles, the digital health initiative possesses the capacity to alter the scenario cost-effectively and efficiently.

Conflict of Interest

None

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