



Effectiveness of Community-Based Interventions in Reducing Neonatal Mortality in Low-Income Settings: A Multicentre Study

Anca Manolea*

Department of Neonatal Intensive Care, Oslo University Hospital, Ulleval, Kirkeveien, Oslo, Norway

DESCRIPTION

Neonatal mortality remains a pressing global health concern, especially in low-income settings where access to quality maternal and neonatal healthcare services is limited. Despite ongoing efforts to improve facility-based care, a significant proportion of births and neonatal deaths continue to occur in community settings. This multicentre study investigates the effectiveness of community-based interventions in reducing neonatal mortality across several geographically and socioeconomically diverse low-income regions. It evaluates how locally implemented strategies, rooted in community participation and supported by basic healthcare infrastructure, can contribute to saving new born lives during the most vulnerable period the first 28 days of life. The study involved collaboration across six low-income regions located in different countries, encompassing rural and semi-urban populations with limited access to institutional healthcare facilities. Each participating site implemented tailored community-based interventions designed to suit its local context, culture and resources. The interventions ranged from training Community Health Workers (CHWs) and Traditional Birth Attendants (TBAs), to establishing home visit programs, promoting hygiene and thermal care practices and ensuring early identification and referral of danger signs in new-born's. Educational campaigns focusing on maternal nutrition, birth preparedness and essential new born care were also key components of the strategy.

Over a study period of three years, data were collected from a total of 18,000 live births, with the primary outcome measure being the neonatal mortality rate (NMR) across intervention and control groups. In each region, communities were divided into intervention clusters where community-based strategies were applied and comparison clusters that continued with standard local care practices without additional community intervention. Data collection was conducted through regular household visits by trained data collectors and included demographic information, pregnancy outcomes, delivery conditions, postnatal practices and new born survival up to 28 days of life. The results

of the study revealed a substantial reduction in neonatal mortality in the intervention clusters compared to control groups across all participating regions. On average, a 25–35% decrease in NMR was observed in communities that received the intervention. The most pronounced improvements were found in areas where the coverage of community health workers was consistent and where home visits occurred within the first 48 hours after birth. Early initiation of breastfeeding, skin-to-skin contact, clean cord care and improved recognition of neonatal danger signs were significantly more prevalent in the intervention clusters. Mothers reported higher levels of confidence in new born care practices and there was an increase in timely referrals to healthcare facilities for complications.

A notable factor contributing to the success of the interventions was the involvement and empowerment of local community members, including women's groups and village health committees. These platforms not only supported the implementation of health education activities but also helped overcome cultural and logistical barriers that often prevent families from seeking appropriate new born care. Community mobilization activities created a sense of ownership and trust, making health messages more acceptable and actionable. While the study showed overall success, challenges were also noted. In some regions, high turnover and inconsistent training of community health workers limited the continuity and quality of care. Infrastructural constraints, such as lack of transportation or delayed access to referral centers, occasionally undermined the effectiveness of early danger sign recognition. Furthermore, while the interventions led to behavioural change in many households, long-term sustainability remained a concern, particularly in communities reliant on external donor funding or inconsistent government support.

Despite these challenges, the study provides strong evidence that community-based interventions can play a pivotal role in reducing neonatal mortality in resource-limited settings. By focusing on prevention, early detection and community empowerment, these interventions address critical gaps in the

Correspondence to: Anca Manolea, Department of Neonatal Intensive Care, Oslo University Hospital, Ulleval, Kirkeveien, Oslo, Norway, E-mail: anca@manolea.com

Received: 27-Jan-2025, Manuscript No. CMCH-25-28681; **Editor assigned:** 29-Jan-2025, PreQC No. CMCH-25-28681(PQ); **Reviewed:** 12-Feb-2025, QC No. CMCH-25-28681; **Revised:** 18-Feb-2025, Manuscript No. CMCH-25-28681(R); **Published:** 26-Feb-2024, DOI: 10.35248/2090-7214.25.22.510

Citation: Manolea A (2025). Effectiveness of Community-Based Interventions in Reducing Neonatal Mortality in Low-Income Settings: A Multicentre Study. Clinics Mother Child Health. 22:510.

Copyright: © 2025 Manolea A. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

continuum of maternal and new born care that facility-based services alone cannot fill. The decentralized and culturally sensitive nature of community-based models makes them adaptable and scalable across various settings. The findings emphasize the importance of integrating community-based strategies into national health policies and programs. Strengthening health systems from the grassroots level and enhancing the capacity of frontline workers are essential steps toward achieving global neonatal survival targets. Investment in training, supervision and remuneration of community health personnel, along with supportive infrastructure, can ensure the

sustainability and expansion of such interventions. This multicentre study highlights the significant impact of community-driven healthcare approaches in reducing neonatal deaths in low-income settings. The success of these interventions lies not only in their clinical outcomes but also in their ability to empower communities, improve knowledge and practices and create linkages between households and health systems. As countries strive to meet Sustainable Development Goal targets related to neonatal health, community-based interventions should be recognized as vital components of comprehensive new born care strategies.