

Critical roles of community health workers in combating stunting in low- and middle-income countries

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Editorial

Stunting continues to pose a considerable and persistent public health issue in low- and middle-income countries, especially in Sub-Saharan Africa and South Asia. Stunting, which reflects hindered growth and development in children under five years old, is an important marker of ongoing undernutrition and negative health outcomes during vital periods of growth and development.¹ According to estimates from the World Health Organization (WHO), approximately 149 million children globally experience stunting, predominantly found in low- and middle-income countries (LMICs).² The outcomes of stunting reach well beyond mere limitations in physical growth; they contribute to lasting cognitive challenges, lower levels of educational achievement, and a decrease in economic productivity later in life. The primary factors contributing to this issue encompass low birth weight, inadequate sanitation and hygiene practices, less-than-ideal infant and young child feeding (IYCF) practices, food insecurity, and a lack of maternal nutrition knowledge shaped by cultural beliefs. In nations such as Indonesia with the prevalence of stunting at 24.4%³ and in high-burden countries like Afghanistan and Ethiopia with rates at 30–40%, there exists a pressing necessity for thorough, culturally adjusted, and sustainable strategies to tackle this ongoing challenge.^{4, 5}

Community Health Workers (CHWs) play a crucial role as frontline agents in addressing the issue of stunting, especially in settings with limited resources. Their distinctive roles within communities enable them to connect formal healthcare systems with underserved populations by employing culturally sensitive and trust-building methods.⁶ CHWs, equipped with specialized training, engage in essential activities such as monitoring growth, providing nutritional guidance, educating on maternal and child health, and advocating for disease prevention. Their responsibilities include clinical duties and initiatives to engage the community to promote behavioural changes. For example, Indonesia has engaged more than 1.5 million CHWs in its national strategy to reduce stunting. These workers provide services through *Posyandu* (integrated health posts) focused on monitoring growth, supplementing micronutrition, and promoting hygiene practices.³ In societies characterized by conservative values, such as Afghanistan, female community health workers assume a vital role in addressing gender-related obstacles. They achieve this by performing home visits, educating mothers about proper nutrition, and assisting with referrals to healthcare facilities.⁴

Some research highlights significant roles of CHWs in implementing interventions that tackle not only immediate nutritional deficiencies but also wider factors contributing to malnutrition. Research through systematic reviews and meta-analyses indicates that well-trained community health workers can be crucial in enhancing feeding practices for infants and young children. This includes promoting exclusive breastfeeding and appropriate complementary



feeding, both of which are closely linked to lower rates of stunting.⁷ Their direct involvement with households allows them to address immediate dietary deficiencies while confronting deeper factors contributing to malnutrition, including inadequate sanitation, low levels of maternal education, and restricted access to family planning services.⁸ This comprehensive approach is supported by research indicating that nutrition interventions rooted in the community, when paired with effective engagement and adherence strategies, can result in significant enhancements in child growth outcomes.

Although CHWs possess significant potential, they encounter systemic challenges that impede their effectiveness. A significant number of them receive inadequate compensation or engage in voluntary work, frequently lacking formal acknowledgment and essential employment benefits like health insurance or retirement plans.³ The absence of financial and professional stability contributes to elevated attrition rates, risking the sustainability of their programs. Moreover, training programs for them often lack duration and consistency, resulting in a workforce that is insufficiently equipped to handle intricate health situations, especially in remote or underserved regions with limited healthcare infrastructure. Supervision program frequently falls short, and vital resources—such as weighing scales, nutritional supplements, and educational materials—are often lacking.⁹ The efforts of them are further complicated by sociocultural barriers, particularly in conservative communities. In these settings, discussions surrounding sensitive topics such as family planning or vaccinations often face resistance, which is frequently driven by misinformation.¹⁰ Furthermore, the proactive approach of numerous interventions led by community health workers may not be entirely recognized by communities that emphasize curative healthcare services. This can result in diminished engagement and a less significant long-term impact.

Tackling these challenges is essential for enhancing the impact of their interventions to reduce stunting. A variety of essential strategies can significantly improve their contributions. The formal acknowledgment of them through their incorporation into national health systems, equitable remuneration, and well-defined career advancement opportunities can enhance their motivation and retention.⁸ Furthermore, enhancing training programs by implementing standardized curricula emphasizing nutrition, maternal and child health, interpersonal communication, counselling, continuous mentorship and digital supervision tools can significantly improve the quality and consistency of their services provided.¹¹ Innovations in digital health, especially mobile health (mHealth) solutions, present significant opportunities to enhance their performance.¹² For example, mobile applications are designed for real-time growth monitoring, Short Message Service (SMS) reminders facilitate adherence to immunization schedules, and data analytics dashboards support effective resource allocation and progress tracking. Moreover, promoting significant community involvement through partnerships with local leaders, religious representatives, and peer support groups can enhance trust, elevate health literacy, and boost compliance with nutrition initiatives.³

In addition to improve structural and systemic frameworks, increasing investment in multi-sectoral strategies that tackle the underlying factors contributing to stunting is essential. The CHWs can connect nutrition programs with initiatives focused on water, sanitation, and hygiene (WASH), agricultural assistance, and social protection strategies. Integrating nutrition education with WASH programs is an effective strategy to mitigate diarrheal diseases, significantly contributing to malnutrition. In a similar vein, collaborations with agricultural extension workers can encourage households to cultivate and consume a variety of nutrient-dense foods.¹³ Strategies for social behaviour change communication (SBCC) implemented by them can increase positive health practices by utilizing culturally relevant messaging and community-oriented platforms.¹⁴

The sustained effectiveness of community health worker-led initiatives aimed at reducing stunting is closely tied to implement comprehensive monitoring and evaluation frameworks. Consistent gathering of data on essential indicators—like measurements of child growth, rates of breastfeeding, and diversity in diet—plays a crucial role in evaluating program effectiveness and pinpointing opportunities for enhancement.¹⁵ It is essential to establish community feedback

mechanisms within institutions to guarantee that interventions are attuned to the needs and preferences of local populations. Policymakers must focus on establishing sustainable financing mechanisms that allow community health worker programs to thrive independently of short-term donor funding, instead integrating them into national health budgets.

The CHWs are indispensable in the global effort to combat stunting in LMICs. Their deep-rooted community connections, combined with their ability to deliver targeted health interventions and holistic behavioural support, uniquely position them to improve child nutrition and developmental outcomes. However, unlocking their full potential requires sustained investment in their training, fair compensation, effective supervision, adequate resources, and stronger integration into national health and social protection systems. Some evidence consistently demonstrates that strengthening CHW programs through these measures can significantly reduce stunting rates and drive sustainable child health and well-being progress. To maximize their impact, it is also essential to galvanize political commitment, mobilize community engagement, and foster multisectoral collaboration—ensuring CHWs are fully empowered as catalysts for changes in the fight against child stunting.

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