It's Time to Prioritize CHWs: A Decade of Economic Evaluation Evidence Suggests CHWs are More Cost-Effective Than Alternatives

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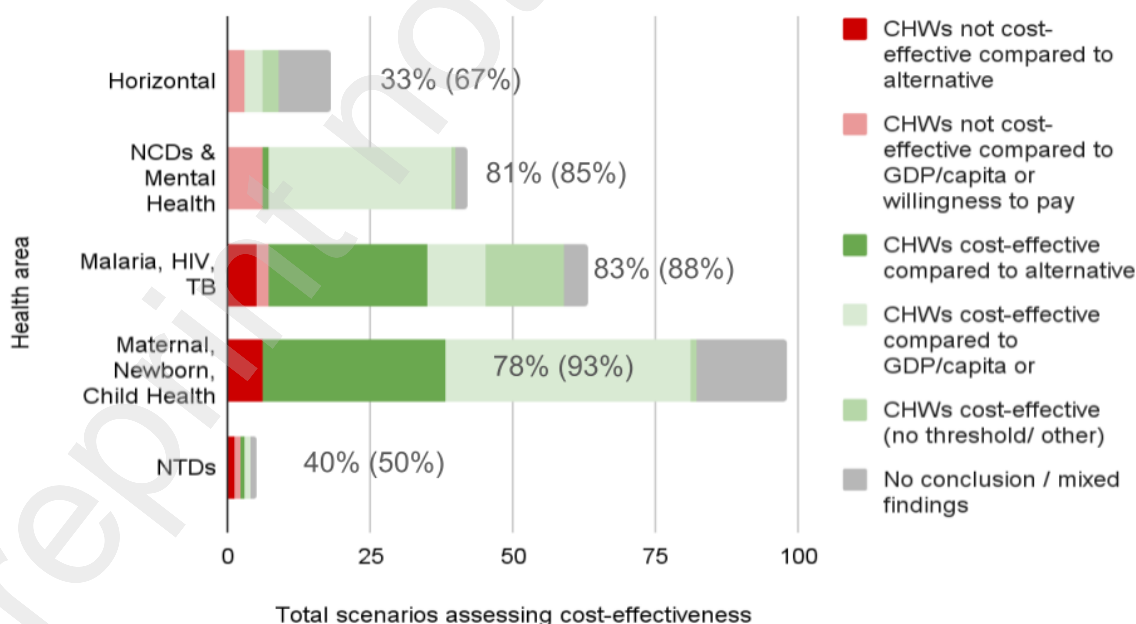
Governments in low- and middle-income countries face a stark challenge: delivering quality healthcare within shrinking fiscal space. Many default to facility-based, curative investments, yet this model alone cannot deliver universal health coverage. Hospitals often struggle to reach remote communities, deliver preventive care, or address social and behavioral drivers of disease—areas where community health workers (CHWs) excel. Rigorous research shows that adequately trained, supervised, supported, and compensated, CHWs improve outcomes, lower costs, reduce inequities, and strengthen health systems (1).

The return on investment (ROI) for CHW programs is compelling: every dollar invested can yield returns up to tenfold in health outcomes and averted health care costs (2). Economic evaluations offer policymakers granular, context-specific insights—including the cost of inaction—critical for resource allocation and maximizing health gains (3). Importantly, "cost-effective" does not mean cheap; it denotes greatest impact per dollar compared with alternatives (e.g., facility-based care, alternative service modalities) or relative to thresholds such as gross domestic product (GDP) per capita.

Community Health Impact Coalition's series of five scoping reviews, spanning 130 studies and 380 scenarios, provide evidence that CHWs represent a cost-effective strategy to expand essential services and reinforce health systems. They summarize economic evidence from the past decade, spanning five major service areas: horizontal (addressing more than one disease) programs; noncommunicable diseases (NCDs, including hypertension, diabetes, and HPV/cervical cancer) and mental health; reproductive, maternal, newborn and child health (RMNCH); HIV, tuberculosis (TB), and malaria; and neglected tropical diseases (NTDs). Methods are detailed in each article, with a summary of cost-effectiveness findings presented in Figure 1.



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- Scenarios represent unique combinations of parameters such as country, intervention model or study perspective. One study may contribute multiple scenarios.
- **Colors**: Green = cost-effective, Red = not cost-effective, Grey = unclear/mixed conclusions.
- **Shading**: Light shades = judgments using GDP per capita thresholds; Medium shades= judgements based on no/ unclear thresholds; Dark shades = judgments based on comparison with alternative intervention.
- **Percentages**: Labels show the share of scenarios deemed cost-effective. Figures in parentheses exclude scenarios with unclear conclusions.
- Cost-effectiveness judgments were made by authors in comparison to alternative models of care or other thresholds. GDP per capita thresholds face criticism for ignoring local opportunity costs and affordability.
- Excludes comparisons between CHW programs to assess overall cost-effectiveness of CHW programs.

Key takeaways

1. CHWs are cost-effective

Most CHW programs are cost-effective—both against alternative delivery models and standard thresholds such as GDP per capita. The review covered 380 scenarios, including 255 cost-effectiveness analyses. CHW programs were found to be cost-effective in 78–93% of scenarios for RMNCH; 81–85% for NCDs and mental health; and 83–88% for malaria, HIV, and TB. Unit costs varied widely: per capita costs ranged from $0.29 to $67.95 for horizontal interventions and $0.23 to $1.33 for NCDs. Cost per beneficiary ranged from $1.20 to $26,556 for malaria, TB, and HIV services, and from $0.02 to $1,547 for RMNCH. Despite this variation, CHW programs consistently deliver strong health outcomes more cost-effectively than facility-based care or other modalities, making them a sound investment, especially in resource-limited settings

2. CHWs reach the most vulnerable

CHW-led interventions for HIV, malaria, and TB often outperform facility-based models in both cost-effectiveness and health outcomes, particularly for the most vulnerable. For example, in Kenya and Tanzania, CHWs providing HIV services to pregnant women and individuals with no co-infections achieved better outcomes at lower costs compared to models involving more highly trained health workers (5). This underscores CHWs' ability to deliver effective, equitable care to remote populations.

3. Affordability must be assessed in context

Cost-effectiveness does not guarantee affordability, yet few studies assess this. Of the 380 scenarios reviewed, only 89 examined affordability; 38% deemed the intervention affordable, 9% unaffordable, and 53% inconclusive. This evidence gap matters. Unit costs for CHW programs vary widely. For instance, in Liberia, where CHWs handle over half of malaria cases, dedicating 25% of the health budget to community health may be justified. Elsewhere, even a 6.7% share (6) could merit scrutiny under different epidemiological or fiscal conditions.

4. Integrated models deliver more value

Not all CHW programs are equally cost-effective. Comparative studies show that program design matters (7). Our review found that integrated approaches, such as linking CHWs to facilities, using digital tools, formalizing employment, or running multi-disease campaigns, tend to be more cost-effective than standalone models. For example, integrated CHWs in Liberia cut diagnostic and

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treatment costs for neglected tropical diseases by up to ten times compared to single-disease approaches (8).

With a decade of strong evidence now available, policymakers and funders should prioritize CHWs, as a proven, cost-effective foundation of primary health care and a cornerstone for achieving universal health coverage.

We declare no competing interests.

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