



Globally, non-communicable diseases (NCDs) are the leading cause of death and disability. This broad category of non-transmissible illness—ranging from cardiovascular diseases to cancer to diabetes—is a threat for those across continents and contexts, but low- and middle-income countries are disproportionately impacted, representing 85% of NCD deaths. In sub-Saharan Africa alone, NCDs are set to overtake communicable, maternal, neonatal, and nutritional diseases combined as the leading cause of mortality by 2030.

Patients living in Africa’s rural and remote communities face even greater risk: their conditions may go undiagnosed for months or years. When living outside the reach of the health system, many people are unaware of their conditions or unable to seek treatment until their symptoms become dire. All too often, this leads to worsening disease and preventable deaths.

Addressing NCDs means ensuring access to screening, early detection, treatment, and education on risk factors and prevention. To close the care gap and reduce preventable deaths, governments have the opportunity to leverage a proven and cost-effective model for expanding access to primary health services: community health worker programs. At this critical moment, Ethiopia’s community health workforce is demonstrating that **community health workers can deliver NCD screening and care**—and providing important input into the evidence base on how to integrate NCDs into national programs.



A visit to the health post saved Dembobe Sidemu's life. “We realized her symptoms resembled a diabetic patient,” says community health worker Abinet Tadesse, who used skills from her training in NCDs. Today, Dembobe manages her diabetes with Abinet's help. “If not for this health post, I would have faced many problems,” Dembobe says. [Read her story.](#)

Case study: Training community health workers to address NCDs in Ethiopia

Ethiopia’s Health Extension Program has been recognized as a global exemplar. With more than 40,000 community health workers (known nationally as health extension workers) across the country, the program connects rural and remote communities to quality primary care, and has played a vital role in improving maternal and child health outcomes.

In 2023, the Ministry of Health recognized an urgent need to address NCDs: now **the leading cause of death in Ethiopia**, responsible for an estimated 554 deaths per 100,000 people each year. This large and growing disease burden could not afford to be neglected, and the Ministry identified a promising opportunity to leverage the community health workforce to help respond to NCDs.



Community health worker Zinash Bogale tests a patient's blood glucose level at Hida Kality Health Post in Sidama, Ethiopia.

The Ministry invited Last Mile Health to co-design the country's first-ever NCD training for community health workers, developed using a blended learning format that leverages a combination of digital and in-person elements. The digital components—which are self-paced and can be completed and revisited at any time—include videos, character stories, and illustrations that are culturally rich and gender-sensitive. The in-person elements include role plays, demonstrations, and group discussions. These are complemented with rigorous pre- and post-knowledge questions, as well as skills assessments to track performance and provide targeted support to ensure high pass rates. The new module would build on Last Mile Health and the Ministry's proven track record of designing and launching **blended learning modules that improve skills and lower costs** compared to traditional in-person training, and would be incorporated into community health workers' in-service training, which provides regular knowledge and skill refreshment.

The NCD training module **equips community health workers with the skills to screen for and diagnose non-communicable diseases** and their warning signs (such as high blood pressure or high blood glucose levels), **and prepares them to provide treatment and referral**. Prevention, too, is crucial: community health workers serve as health educators and advocates in their communities, promoting healthy behaviors that help prevent or manage non-communicable diseases. The module covers NCD education and risk factors; major NCDs (hypertension, diabetes, rheumatic heart disease, and chronic breathing issues like COPD and asthma); cancer; eye health; and mental, neurological, and substance use disorders.

Since the pilot launched in early 2024, **11,120 community health workers in Ethiopia have completed training in NCDs**. Community health workers are actively providing NCD services, and Last Mile Health is gathering data on effectiveness, including knowledge retention, patient impact, and uptake of additional services (such as communicable diseases or reproductive, maternal, newborn, and child health). Ultimately, we aim to contribute to the evidence base to demonstrate what's possible in Ethiopia and throughout Africa in providing sustained NCD care, as well as how to integrate new services into the community health workforce's delivery package in response to community interest, need, and potential for impact.

For community health workers like Zinash Bogale, NCD training represents new hope for patients. One such patient is Tilahun Dudura, who received screenings from Zinash at the Hida Kality Health Post. "I had a check-up, and I was told I was at risk of being hypertensive," says Tilahun, reporting the leading risk factor for non-communicable disease. "I got counseling services on how to control it. I'm happy to have this service near my home without any financial burden. This health post is like our home."

Impact highlight: Screening for and treating presbyopia in rural Ethiopia

Eye health is a vital component of NCD care in Ethiopia, and community health workers play a central role in screening and treating patients for presbyopia. In sub-Saharan Africa, 86% of people who require near-vision glasses lack access, affecting health and livelihoods. In 2024, Last Mile Health and the Ministry of Health launched a pilot program to integrate presbyopia screening and eyeglass distribution into the Health Extension Program. This pilot successfully trained 1,237 community health workers using the blended learning approach. 720 participated in screening 53,000+ individuals, distributing **26,554 pairs of near-vision glasses**. The initiative demonstrated community health workers' effectiveness in delivering basic eye care, improving access to health services, facilitating early NCD detection, and fostering community trust. Recipients of this service include community health workers themselves.

Looking forward, **all 40,000 community health workers in the country will be trained in NCDs.** With support from Last Mile Health, the Ministry of Health has begun conducting blended learning trainings independently: they will be the driver in scaling the training nationally. This is an important step toward sustainability and government ownership. The cost-effectiveness of the blended learning approach (which **reduces costs by nearly 40%** compared to traditional in-person learning) is an additional factor in the feasibility of national scaling and a noteworthy consideration for countries seeking to replicate Ethiopia's success. Learning gains have also demonstrated its efficacy: for the NCD module, **91% of all learners received a passing score** in their post-training assessment, indicating a high degree of competency. These skills have also been demonstrated in practice: among 586 eyeglass recipients sampled for a follow-up validation, there was 94% congruence between community health workers' and validators' assessments.



"When I put on my glasses, I started reading without straining or squinting my eyes. As a health extension worker, I need to be an example by taking care of my health before teaching others. Prior to the campaign, I was ashamed because I couldn't do that."

-Tezeru Articha, community health worker

Lessons learned

After one year of implementation, Last Mile Health has identified key lessons that will guide this work:

- **Systems readiness is key for integrating NCD services at the community level.**
 - Integrating NCD services into community health worker platforms requires system readiness: clear clinical protocols, reliable referral pathways, more consistent availability of diagnostics and medications, and a supportive policy environment. Without these, community health workers can risk identifying conditions for which treatment is inaccessible, which undermines trust and diverts resources from proven, lifesaving interventions like immunization and maternal health.
 - Evidence from low- and middle-income countries suggests that while community health workers can increase knowledge, awareness, and early diagnosis, impacts on outcomes such as blood pressure control, glycemic control, or cancer treatment are limited unless the health system is prepared to support ongoing care. Strategic NCD entry points should prioritize interventions that are actionable at the community level, desired by communities, and lower in infrastructure demands.
 - For countries with limited infrastructure, vision care or hypertension are recommended as potential entry points for NCD integration. For example, screening for presbyopia and provision of near-vision glasses can be conducted at the community level, and other factors contribute to making this service an ideal candidate for integration: vision care generally carries low stigma and is often highly desired by community members, and the result is instant.
 - For systems with an intermediate level of readiness, services for conditions such as diabetes could also be integrated. Managing diabetes (via metformin) may be unfeasible for a community health system at a very early level of maturity or a country context with limited infrastructure and connectivity, but is feasible in a community health system with greater functionality and maturity.
 - Complex conditions such as cancer would be inadvisable for integration into community health programs in contexts where the health system is at a low or intermediate level of readiness. Although community health workers with appropriate training can screen for and identify most cancers, treatment is not feasible at community level and is unlikely to be accessible. Funding could be directed more strategically by investing in care that can be carried out at the community level as well as strengthening the health system until it achieves a level of maturity at which the continuum of care for more complex conditions becomes realistic.

- **NCD screenings and treatments with high community desirability and lower perception of stigma have the potential to drive higher participation in community health workers' services at large—including those that traditionally carry stigma that discourages patients from seeking care.**
 - Services seen as desirable or even prestigious—such as provision of eyeglasses—can offer a gateway into the formal health system, increasing patients' likelihood to engage with community health workers for additional services (such as sexual and reproductive healthcare, screening for communicable diseases, and treatment for stigmatized diseases like HIV/AIDS). Provision of highly desired services also has the potential to improve community members' perceptions of formal healthcare, potentially offering further destigmatization of care as a whole.
 - Integrated primary care delivery via community health workers trained across a full package of primary health topics facilitates service-seeking: patients who connect with community health workers for services with a lower stigma can access the same community health worker for additional services, reducing the barriers to seeking care for these services. Overall household participation may also increase if one member of the household engages with an initial service.
- **Integrating NCDs into community health workers' existing training and service delivery package can offer opportunities to secure new funding and maximize its impact.**
 - A robust and growing body of evidence demonstrates that integrated care delivered by community health workers trained across a full package of primary care topics (as opposed to siloed, disease-specific training and care) is efficient, cost-effective, and reduces gaps in service coverage.
 - Integration may also provide opportunities for unlocking funding to support training on NCDs. Last Mile Health's NCD training module in Ethiopia leverages funding from partners including the Global Fund to fight AIDS, Tuberculosis and Malaria. In this case, the Ministry of Health identified an urgent need to address NCDs, while the Global Fund's priority areas include major communicable diseases (MCDs). When we developed the new blended training, we successfully integrated NCD content and MCD content into one module, meaning that when the Global Fund or other partners fund MCD training, they are also indirectly funding NCD training, as the sessions are budgeted together.
 - More broadly, the NCD/MCD training targets Ethiopia's entire national community health workforce, which also delivers care across all primary healthcare topics—so the same community health workers who provide services ranging from antenatal care and screenings for childhood malnutrition to education on environmental health and hygiene also provide screening, referrals, and treatment for NCDs and MCDs, making use of existing financial and human resources to minimize redundant spending.
 - The COVID-19 pandemic offers a compelling example of how an integrated approach to health is essential for both impact and efficiency. Evidence from the pandemic demonstrated that individuals with comorbidities such as diabetes, hypertension, and respiratory conditions were far more vulnerable to severe illness and death. This highlighted how disease-specific approaches fall short in protecting communities, as vulnerabilities are rarely confined to one condition. At the community level, where people live with overlapping health risks, integrated health services are critical to ensuring resilience in the face of pandemics and other health shocks—as well as ensuring financing is invested for maximum impact in reducing all-cause morbidity and premature mortality.
- **Ethiopia's community health workers are laying an important path to learn from.**
 - Ethiopia's Health Extension Program has reached a level of maturity and functionality necessary for effectively integrating more advanced NCD interventions at the community level. Community health workers already screen and manage conditions including diabetes, hypertension, sore throat (for rheumatic heart disease prevention), human papillomavirus, and asthma.
 - With a digitized blended curriculum that combines NCD and MCD training, and a robust evaluation plan, Ethiopia is well-positioned to generate evidence on outcomes such as blood pressure control, glycemic monitoring, and behavior change supported by community health workers.

Our work is just beginning, and we have identified several questions we hope to interrogate with partners and peers to contribute to the evidence base.

- In order for community health workers to take on NCD screening, referral, and treatment effectively, what systems and level of functionality must a community health system have in place?
- To ensure a continuum of care, what other systems and structures are necessary beyond the primary care level in order to ensure NCD interventions aren't limited to screening and diagnosis?
- What country-specific factors—such as infrastructure, community health program maturity, and other related realities—should be considered when determining whether or not a community health workforce is ready to add NCD interventions, and/or which elements of NCD screenings should be added?
- To what extent do NCD interventions highly desired by communities (such as eyeglasses screening and provision) impact community perception of community health workers as a whole, and to what extent does this increase patient likelihood to seek additional care from community health workers?

Non-communicable diseases are a growing threat. Community health workers offer demonstrated potential to address them affordably, reaching those most in need of care.

New research from the Community Health Impact Coalition has found that **81-85% of studies evaluating the cost-effectiveness of community health worker programs for NCDs are cost-effective** and that community health workers played multiple roles across the care continuum. The opportunity is immense—and Ethiopia's Health Extension Program provides a case study and potential model for delivering NCD screening and care via community health workers. Over 10,000 community health workers have been trained on NCDs and are now actively providing education in their communities about common diseases, warning signs, and staying healthy. They are also actively screening, testing, diagnosing, treating, and referring patients for NCDs.

As this work continues, we have an opportunity to gather data on their effectiveness and impact on outcomes, offering recommendations for the long-term integration of services and shaping the Health Extension Program and regional community health worker programs to better meet this growing disease burden. Ultimately, we see promising potential to meet the increased burden of NCDs with increased integration of community health worker programs, providing real impact on health outcomes for patients in rural and remote communities.

