Country Strategy Executive Summaries

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Ethiopia

Equipping community health workers and their supervisors to improve quality of care for millions of people at the last mile

The challenge—and the opportunity

Since 1990, Ethiopia has recorded a 67% drop in under-five mortality and a 69% decrease in maternal mortality. Ethiopia’s Health Extension Program, which employs professionalized community health workers (known nationally as health extension workers), has played a critical role in this success. But despite significant progress, maternal and child mortality remain high, indicating that the health extension program is not yet reaching its full potential.

A 2019 Ministry of Health assessment of the Health Extension Program identified critical challenges in implementing training and supervision for health extension workers:

- In-service training for health extension workers is costly and inconsistently delivered
- Gaps in health extension workers’ knowledge and skills are primarily linked to suboptimal pre- and in-service training due to the medium of instruction (only in person, not engaging, lacking multimedia, and not in local languages), training capacity of institutions, and limited compliance with training curricula
- Health extension workers do not consistently receive supervision visits

In response to these challenges, the Ministry is committed to developing more cost-effective ways to provide engaging, consistent training and ongoing, high-quality supervision.

At the same time, evidence is growing for blended training approaches (e.g., using a combination of in-person and digital elements) and supervision models that leverage digital tools. In the Roadmap for Optimizing the Ethiopian Health Extension Program (2020-2035), the Ministry commits to leveraging digital tools to improve knowledge and evidence-based decision making in training and supervision activities. This commitment presents a unique opportunity for Last Mile Health to assist the Ministry to design and implement blended training and supervision interventions that improve health workers’ knowledge and skills retention—and ultimately improve the quality of service delivery and patient care.

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1 The latest demographic surveys conducted in Ethiopia indicated a maternal mortality ratio of 412 deaths per 100,000 live births in 2016 (Source: Ethiopian Demographic and Health Survey 2016). The 2019 under-five, infant, and neonatal mortality rates in Ethiopia were 59, 47, and 33 deaths per 1,000 live births respectively (Source: Mini Ethiopian Demographic and Health Survey 2019).

2 For example, skills assessment scores among blended RMNCH refresher training learners improved significantly for all key competencies. The average composite skills assessment score increased from 60% to 90% (Source: Proof of Impact Report for Blended In-Service Blended RMNCH In-Service Training for Health Extension Workers in Ethiopia: Last Mile Health and Fondation Botnar, 2022).
Our approach

Our program theory posits that an effective community health workforce must be skilled, supervised, salaried, and supplied by a well-functioning community health system operating at national scale and integrated into broader public systems via data and financing. We call these the Six Ss. In Ethiopia, between 2022 and 2027, Last Mile Health will design and implement training and supervision interventions (two of the Six Ss) to strengthen the Health Extension Program in alignment with the Ministry’s ambitions and toward the long-term aim of continuing to lower maternal and under-five mortality. These focus areas address critical challenges identified by the Ministry of Health, such as the quality, cost effectiveness and consistency of training and supervision, and are aligned with the Ministry’s Health Sector Transformation Plan and Roadmap for Optimizing the Health Extension Program. The table below provides an assessment of the current status of the Six S characteristics and how Last Mile Health will contribute to addressing these gaps.

<table>
<thead>
<tr>
<th>Six Ss</th>
<th>Status</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Scale</td>
<td>☀️</td>
<td>Program scaled across the country - 40K HEWs serve their communities at full coverage. Formally recognized as part of national health system and program policies and strategies aligned with national health sector planning. However, leadership and governance challenges result in inefficient implementation.</td>
</tr>
<tr>
<td>Systems: Data</td>
<td>☒️</td>
<td>HEWs document and report some data into a National Health Management Information System. However, the system captures a limited portion of routine activities, data suffers from quality challenges and is rarely used for decision-making. An electronic Community Health Information System (eCHIS) is currently being rolled out to address data issues (as of 2022, ½ of districts have established this system).</td>
</tr>
<tr>
<td>Systems: Financing</td>
<td>☒️</td>
<td>The national health budget includes provisions for various aspects of the health extension program. However, the program is still heavily donor dependent and not all service packages receive equal funding.</td>
</tr>
<tr>
<td>Skilled</td>
<td>☁️</td>
<td>New HEWs receive 12-months of formal training that combines theoretical and practical components, and are provided with refresher trainings on the latest evidence and emerging diseases. Curriculum is aligned with global guidelines and includes minimum standards. However, training is costly and inconsistent training quality has resulted in significant gaps in knowledge and skills. Improved training quality and cost effectiveness are primary aims of the Ministry that we will support to improve quality of care delivered.</td>
</tr>
<tr>
<td>Supervised</td>
<td>☁️</td>
<td>HEWs receive dedicated supervision from individuals with clinical background. However, supervision is inconsistent, infrequent and low quality. In response, Last Mile Health will develop tools and systems to improve the management and accountability of supervisors.</td>
</tr>
<tr>
<td>Supplied</td>
<td>☒️</td>
<td>Each month, health posts order and receive drugs and supplies for HEWs from health centers that help manage supply and ensure consistent inventory at the health posts. However, poor logistic supply management and coordination challenges lead to frequent stockouts of some tracer drugs and medical supplies. Many health posts also do not meet minimum facility quality standards.</td>
</tr>
<tr>
<td>Salaried</td>
<td>☀️</td>
<td>HEWs are formal, government-salaried employees, whose salary is determined by level of education and experience. However, they do not receive a comprehensive benefits package and opportunities for career advancement are limited.</td>
</tr>
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</table>

Information in blue indicates work Last Mile Health is undertaking as of September 2022. Status parameters are based on the Community Health Worker Assessment and Improvement Matrix (CHW AIM).
Our work builds on our existing partnership and demonstrated success in developing the COVID-19 Ethiopia learning app, an application for health workers to access the latest information on COVID-19 protocols. Based on the app’s success, Last Mile Health and the Ministry partnered to develop a cost-effective blended training for health extension workers on reproductive, neonatal, maternal, and child health. In 2022, the program was piloted in 20 districts, reaching 1,000 health workers and approximately three million patients. After the training, skills assessment scores improved dramatically, rising from 60% to 90%, and health extension workers reported that the content was more engaging and accessible. Furthermore, the costs for the blended training, even when including one-time app development costs, were 39% lower than for conventional training.

Over the next five years, Last Mile Health plans to partner with the Ministry to scale the training nationwide. We will also design and implement blended training for additional topics. As the training scales, we will identify opportunities to strengthen data-driven decision support tools for health extension workers and improve management and accountability of their supervisors. We will regularly engage health workers in the design and implementation of these efforts to ensure their needs are met.

Measuring success

Our hypothesis is that high-quality blended training and supervision approaches will result in similar or better learning and practice outcomes at a fraction of the cost of fully in-person approaches. Equipping health extension workers and their supervisors with the knowledge, tools, and management practices they need will result in a more responsive health extension program and improve quality of care for millions in remote and rural communities.

In the next five years, we will conduct an independent evaluation of our work in Ethiopia. The evaluation will identify the links between our interventions and the improved performance of health extension workers and quality of care for patients. As we continue to scale the blended training, we will apply ongoing and rigorous monitoring, evaluation, research, and learning approaches to manage and adapt our work in order to improve implementation.
Liberia
Scaling and sustaining the national community health worker program to make primary care universal at the last mile

The challenge—and the opportunity

Liberia is one of the world’s poorest countries, and nearly 30% of its population of five million live in remote communities that are more than five kilometers from the nearest health facility. For many of these isolated communities, the nearest clinic is several hours away and can be reached only by foot, canoe, or motorbike on narrow paths carved through the rainforest.

Liberia’s National Community Health Assistant Program was launched in 2016 to close the distance between patients and formal healthcare by deploying one paid, professionalized community health worker for every rural and remote community. Selected from the communities they serve, community health workers are trained to deliver an integrated package of primary health services and to function as an early warning system against future infectious disease outbreaks. They are supervised by frontline clinicians (e.g., nurses), are paid a monthly salary, and are supplied with essential commodities.

Founded in Liberia in 2007, Last Mile Health is committed to partnering with the Ministry of Health to improve the quality of the national program and make primary healthcare universal. Our partnership with the Ministry is the cornerstone of our work: together, we piloted the first community health worker program in Konobo District in 2012, and we provided key support throughout the development and implementation of the national program. Over the last five years, we have assisted the Ministry to scale the program nationwide, increasing health worker coverage to all 15 of Liberia’s counties. Throughout this period, we have worked in close collaboration with the Ministry to strengthen their capacity to manage and improve the performance of the program. Despite strong gains in primary care access, the program continues to face cost and structural challenges—from inadequate human resources, insufficient infrastructure and transportation, and poor supply chain management, to limited availability of essential medical commodities. These gaps negatively impact the quality of primary care delivery and health outcomes, especially for mothers and their children: even today, Liberia still has one of the highest maternal mortality rates globally, at 661 deaths per 100,000.

Over the next three years, Last Mile Health will continue to implement interventions to address critical program quality challenges in health worker training, supervision, and data collection.

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3 As of 2022, the program has trained and deployed over 4,000 community health workers, supported by over 300 community health supervisors and working at a ratio of one community health worker for every 250 people across 14 of Liberia’s 15 counties. Community health workers have conducted over 8 million home visits and delivered nearly 2 million treatments and screenings to children under five.

and program management, and will partner with the Ministry to identify and shape financing sources that will ultimately enable the government to pay all community health workers and their supervisors through the program.

Our approach

Our program theory posits that an effective community health workforce must be skilled, supervised, salaried, and supplied by a well-functioning community health system operating at national scale and integrated into broader public systems via data and financing. We call these the Six Ss. In Liberia, we will focus on all six S’s. The table below provides an assessment of the current status of the Six S characteristics and how Last Mile Health will contribute to addressing these gaps.

<table>
<thead>
<tr>
<th>Six Ss</th>
<th>Status</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Scale</td>
<td>Non-functional</td>
<td>Liberia is currently on a path to reaching full scale* by 2023. However, differences in implementation practices across counties and a weak national health system continues to impact the performance of the program. *Full Scale of the National CHA Program is defined as all communities that are further than 5Km from a health facility having a CHA that is actively providing services to a population of 500.</td>
</tr>
<tr>
<td>Systems: Data</td>
<td>Non-functional</td>
<td>Data is regularly collected by Community Health Assistants (CHAs) and shared with their supervisors and the national health management information system. However, the vast majority of data is still collected using paper based forms which leads to challenges with timely and quality data collection. Limited data on what supplies are actually needed by health workers means that commodity forecasts are often inaccurate, making procurement planning challenging.</td>
</tr>
<tr>
<td>Systems: Financing</td>
<td>Non-functional</td>
<td>The program has developed a robust budgeting and resource mobilization process that is integrated into national health sector planning. Financing is guided by “One Country, One Partner” in which one partner and/or donor finances all aspects of implementation in each county, streamlining financing. However, the program is heavily dependent on donors and unpredictable funding cycles can make long-term financial planning difficult. Moreover, while the government intends to include CHAs and their supervisors on government payroll, there is no clear strategy to achieve this goal.</td>
</tr>
<tr>
<td>Skilled</td>
<td>Partially Functional</td>
<td>All CHAs receive initial and on-the-job refresher training that uses a competency based curriculum aligned with global standards. Some opportunity for advancement exists. However, no routine assessments exist to understand gaps in performance, which could help better tailor training for the needs of community health workers.</td>
</tr>
<tr>
<td>Supervised</td>
<td>Partially Functional</td>
<td>Nearly all CHAs receive at least some regular visits from a dedicated trained supervisor with clinical expertise that uses data to support problem solving and performance improvements. However, variability across supervisors in terms of frequency and quality of visits (in part due to inconsistent payment of the supervisors) continues to limit the potential of the current supervision model.</td>
</tr>
<tr>
<td>Supplied</td>
<td>Partially Functional</td>
<td>Liberia has a National Supply Chain Management System. However, CHAs are not integrated into the national system and limited visibility into demand results in inconsistent procurement planning and regular stock outs.</td>
</tr>
<tr>
<td>Salaried</td>
<td>Partially Functional</td>
<td>CHAs receive a regular salary that is commensurate with the hours they work and the labor market. However, CHAs are often not paid on time and their salaries are reliant on donors—creating challenges to sustainability.</td>
</tr>
</tbody>
</table>

Last Mile Health works at both the county and national level to facilitate and measure these improvements to the national program. We serve as the direct implementing partner to the Ministry of Health in three counties, managing all activities to recruit, train, and supervise
community health workers. In particular, over the next three years, each county where Last Mile Health directly manages the program will serve as a national model for specific priorities related to measurement, transition, and innovation.

- **Evaluation:** In Grand Bassa County, we will evaluate health outcomes and costs of the national program when it is executed with fidelity to the National Community Health Services Policy.
- **Increasing government management capacity:** In Grand Gedeh County, we will transition ownership and implementation of core components of program management to the County Health Team, including leadership and governance, the health management information system, and human resources.
- **Service delivery innovation:** In Rivercess County, we will design, test, and monitor innovations that improve the quality of service delivery (such as innovations in vaccine tracking and nutrition) that can inform national scale.

At the national level, Last Mile Health will partner with the Ministry to co-develop health financing policies and strategies; assist in the implementation of the electronic Community Based Information System; improve supply chain management for essential medicines and commodities; and digitize and deliver content for health worker training. We are also working with the Ministry to improve gender parity, with a key aim of increasing the number of female community health workers.

**Key measures of success**

As Last Mile Health’s flagship program, our work in Liberia has demonstrated the effectiveness and cost-effectiveness of community health workers in delivering high-quality primary care. In the next three years, our team will complete an analysis of programming in Grand Bassa County that will assess the impact of the program on under-five mortality. We will also implement internal monitoring and evaluation activities toward the following measures of success, aligned with our organizational **Theory of Change**.

- **Deliver:**
  - Community health workers provide effective and high-quality care
- **Strengthen:**
  - The Government of Liberia, funders, and partners prioritize investments and plans to implement the national program at scale and quality, investing in supervision, salaries, supplies, systems, and skills
  - The Government of Liberia manages and sustains responsive and resilient community health systems
- **Upskill:**
○ The knowledge and skills of community health workers and health system leaders improve
○ Community health workers improve their performance in the provision of quality community-based care
○ The community health workforce manages and sustains high-quality community-based primary care
The challenge—and the opportunity

Of Malawi’s population of 17.6 million, 84% live in rural areas—and 10% of this rural population lives more than eight kilometers from the nearest health facility. In remote communities, primary care remains out of reach, resulting in maternal mortality and neonatal mortality rates among the highest in Africa. Treatable illnesses such as HIV/AIDS, malaria, respiratory infections, and diarrheal diseases are among the leading causes of death.

Although Malawi has had a community health program since the 1970s and the program now employs over 7,000 community health workers (known nationally as health surveillance assistants), one in five Malawians still does not have access to high-quality essential health services. The Ministry of Health’s five-year National Community Health Strategy (2017-2022) aims to transform access to care by expanding the national community health program and implementing critical improvements to address the following challenges:

- A $240-million funding gap, which creates barriers to recruiting, training, and supplying community health workers
- Data collection challenges at the community level, leading to difficulties in decision-making for allocating resources and improving access to care
- Inconsistent supervision and a lack of in-service training: only a fraction of community health workers receive refresher training, and supervision is fragmented and unsystematic

Our approach

Our program theory posits that an effective community health workforce must be skilled, supervised, salaried, and supplied by a well-functioning community health system operating at national scale and integrated into broader public systems via data and financing. We call these the Six Ss. In Malawi, we will focus on systems of data and financing, skills, and supervision.

Informed by our flagship 15-year country program in Liberia, Last Mile Health is bringing unique expertise and experience in digital data collection and supervision systems to our partnership with the Malawi Ministry of Health. We are currently working together to design and pilot the integrated Community Health Information System (iCHIS), a digital system that provides decision support tools to community health workers at the point of care and aims to make community-based data collection and reporting much easier. Over the next four years,
we will partner with the Ministry to implement iCHIS effectively at the district level, scale it nationally, and align it with other digital data collection systems so health leaders are able to improve their ability to manage community-based primary care delivery. Alongside the iCHIS rollout, we will implement in-service training and supervision interventions to increase health worker knowledge and skills. We will also provide assistance to the Ministry to identify, coordinate, and advocate for resources for the national community health program, resulting in increased financing and human resources for community health (see table below).

These strategies will support the development of a stronger health system, driven by data—and will help ensure that community health workers are reliably salaried and supplied, supported with consistent and integrated supervision, and provided with timely and effective training in order to facilitate their delivery of high-quality primary care. Critically, the development, alignment, and coordination of funding partners will ensure a sustainable health system able to meet the objectives set in Malawi’s national strategy—and move closer to a future in which healthcare is within reach for all Malawians.
Measuring success

By June 2024, we aim to support the deployment and strengthening of digital information systems, supervision, and upskill programming that equips community health workers and their supervisors with the data and information they need to provide quality primary care in at least five districts across Malawi. Alongside, we will partner with the Ministry of Health to coordinate, convene, and advocate for the resources needed for Malawi’s community health worker program. We will strengthen iCHIS; support key strategies, plans, and policies at national level; and collaborate with the Ministry of Health to design and implement more effective supervision and upskill programming. Through our partnership with the Ministry and aligned, committed funders, these objectives will make significant progress possible toward a stronger and more sustainable national health system in Malawi.
Sierra Leone

Building a national community health workforce to bring primary care to the last mile

The challenge—and the opportunity

Sierra Leone, a country of 7.5 million people, experiences neonatal, under-five, and maternal mortality rates that are among the highest in the world. Communicable diseases are the leading cause of preventable death, and malaria is the single biggest killer; pneumonia and diarrheal diseases also contribute significantly to the high rates of under-five mortality. Geography and income levels drive health inequities, with rural communities less likely to have access to formal healthcare—and in these remote communities, a lack of access to care is a significant contributor to illness and preventable death.

Recognizing that community health workers are a trusted, effective, and cost-effective workforce that can address major drivers of maternal and under-five mortality, Sierra Leone’s Ministry of Health and Sanitation developed a new community health worker policy in 2020. The policy seeks to enhance the country’s community health worker program and leverages the CHW Hub, a coordinating body within the Ministry established to integrate the community health worker program into the formal health system and ensure strong partnership with other departments, ministries, donors, and nongovernmental organizations.

Despite long standing attention to improving the national community health worker program, considerable challenges remain, including gaps in supervision and an absence of standardized supervision and reporting tools; irregular and nonstandardized in-service and refresher training; limited data collection tools and a paper-based system; and inadequate funding, with opportunities for improved funding management and advocacy efforts.

The new policy seeks to address these challenges and envisions a comprehensive program employing 8,000 community health workers with a revised training package; updated recruitment guidelines that emphasize gender balance and higher education levels; stronger management and governance at national level; and leadership and support from councils, chiefs, and community structures at the local level. It also pushes for more digitally enabled activities, including for training and data collection.

To realize this vision, the Ministry and Last Mile Health aim to partner to strengthen implementation and technical assistance for the program. Last Mile Health is uniquely

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6 The revised 2021 policy requires that all CHWs have at least junior secondary school education and are 20-45 years of age. It also stipulates that 60% of CHWs should be female; 40% should be male (addressing concerns around an overly male workforce given the needs of female clients).
positioned to partner with the Ministry to capitalize on the significant momentum and commitment to improve this program, with a specific focus on training, supervision, and program coordination and management.

Our approach

Our program theory posits that an effective community health workforce must be skilled, supervised, salaried, and supplied by a well-functioning community health system operating at national scale and integrated into broader public systems via data and financing. We call these the Six Ss. In Sierra Leone, we will focus on scale, systems of data, skills, and supervision. Our work over the next three years will build on our existing partnership with the Ministry of Health and Sanitation to monitor and evaluate the implementation and performance of the community health worker program, using data for decision-making and adaptive management. This work serves as the foundation for our approach to co-develop high-priority interventions that will address performance and implementation gaps. We expect to focus our efforts on:

- Exploring approaches to digitizing supervision, monitoring, and evaluation tools and improving the ability of national and sub-national program managers (e.g., staff of the CHW Hub) to pilot and scale the use of these tools
- Adapting, designing, and delivering blended training (i.e., a mix of in-person and digital) for leaders and managers on financing, advocacy, and data use for program improvement
- Adapting, designing, and delivering blended training for community health workers on core topics in their training package

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**Sierra Leone Six S Status**

<table>
<thead>
<tr>
<th>Six Ss</th>
<th>Status</th>
<th>Description</th>
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<tbody>
<tr>
<td>Scale</td>
<td>Partially</td>
<td>Sierra Leone has recently launched a new strategy. However significant management capacity gaps exist and the program has not achieved full coverage. In response Last Mile Health will provide technical assistance to the Ministry of Health to improve management and coordination of the program as it scales.</td>
</tr>
<tr>
<td>Systems: Data</td>
<td>Non-functional</td>
<td>There is a national health management information system and some standardized data tools and systems for specific services that the CHW program delivers, such as Integrated Community Case Management. However, significant gaps remain in timeliness, accuracy and use of data for decision making. In response, LMH will help develop an overall M&amp;E plan and tools and systems to generate high quality data and research to inform improvements in the CHW program.</td>
</tr>
<tr>
<td>Systems: Financing</td>
<td>Partially Functional</td>
<td>The Ministry of Health and Sanitation has committed to finance the program, and it is a priority of major donors like the Global Fund. However, the CHW program is dependent on donor funding, there is no legitimate costing of the program and the program is not integrated into national health budgeting.</td>
</tr>
<tr>
<td>Skilled</td>
<td>Partially</td>
<td>A national CHW training program exists and is currently being rolled out to all CHWs. However, there are significant inconsistencies in the quality of training and on-the-job refresher training is highly irregular. There are also gaps in overall management of the program. In response, LMH will develop training for CHWs and health leaders to address gaps in community health management and service delivery.</td>
</tr>
<tr>
<td>Supervised</td>
<td>Non-functional</td>
<td>CHWs are supervised by both the Peer Supervisor and the Peripheral Health Unit (health facility where the CHW is attached) team. However, supervision visits are inconsistent and there are no standardized supervision tools that would enable the supervisor to provide feedback and support performance improvements. As a result, LMH will ensure that supervisors are provided with the information they need to identify and address gaps in CHW service delivery.</td>
</tr>
<tr>
<td>Supplied</td>
<td>Non-functional</td>
<td>CHWs order and receive a range of supplies but stockouts are common and policies do not prescribe an exact process for restocking leading to inconsistencies across partners, inability to forecast supply chain needs</td>
</tr>
<tr>
<td>Salaried</td>
<td>Non-functional</td>
<td>CHWs receive a combination of financial and non-financial incentives but these are often not paid on time and vary significantly across districts.</td>
</tr>
</tbody>
</table>

Information in blue indicates work Last Mile Health is undertaking as of September 2022. Status parameters are based on the Community Health Worker Assessment and Improvement Matrix (CHW AIM).
The table above provides an assessment of the current status of the Six S characteristics and how Last Mile Health will contribute to addressing these gaps. These activities will result in a more highly skilled workforce and a greater capacity of program leaders and supervisors to collect and analyze program data, oversee program improvement efforts, and train and coach community health workers to address service delivery gaps and improve patient care.

Measuring Success

Long-term success of this country strategy will include the scaling of recruitment, training, and deployment of community health workers across Sierra Leone; robust reporting, monitoring, and evaluation of data across districts; and appropriate adjustments to training and implementation based on these data. Ultimately, our partnership with the Ministry of Health and Sanitation will bolster a sustainable national health system based in community-level care to remote and rural areas.