Integrating Community Health Program

LIBERIA COUNTRY SNAPSHOT

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LAST MILE HEALTH

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PUBLISH DATE: August 2021

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Acronyms

BPHS	Basic Package of Health Services	ICH	Integrating Community Health
CBIS	Community Based Information System	IFI	Implementation Fidelity Initiative
CEBS	Community Event-Based Surveillance	IRC	International Rescue Committee
CHA	Community Health Assistant	LMH	Last Mile Health
CHAI	Clinton Health Access Initiative	M&E	Monitoring and Evaluation
CHC	Community Health Committee	MoH	Ministry of Health
CHSS	Community Health Services Supervisors	NCHAP	National Community Health Assistant Program
CHSD	CHSD Community Health Services Division	NGO	Non-Governmental Organization
CHT	County Health Team	PIH	Partners In Health
CHTWG	Community Health Technical Working Group	PPE	Personal Protective Equipment
CHW	Community Health Worker (known as Community Health Assistants in Liberia's policy)	QRM	Quarterly Review Meeting
CHWS for ALL	Community Health Worker Support for Advancing Liberian Livelihoods	RBHS	Rebuilding Basic Health Services
CHV	Community Health Volunteer	SOP	Standard Operating Procedure
DHT	District Health Team	TOR	Terms of Reference
DHIS2	District Health Information Software 2	TTM	Trained Traditional Midwife
EPHS	Essential Package of Health Services	TWG	Technical Working Group
GFF	Global Financing Facility	UHC	Universal Health Coverage
gCHV	General Community Health Volunteer (subset of CHVs)	USAID	United States Agency for International Development
HWP	Health Workforce Program	UNICEF	United National International Children's Emergency Fund
iCCM	Integrated Community Case Management	WHO	World Health Organization

Preface

Accelerating the Integration of Community Health Worker Programs through Institutional Reform

Approximately half of the world's population do not have access to essential health services. A growing emphasis on the roles of communities recognizes community engagement, including community health workers (CHWs), as a means of realizing the full potential of the primary healthcare (PHC) system.[1] High performing CHW programs at scale are an integral component of responsive, accessible, equitable, and high-quality PHC.

Recognizing the potential for community health to address gaps in coverage, improve financial protection, and support access to quality care, the Declaration of Astana in 2018 committed to strengthening the role of community health in PHC as a means to accelerate progress toward universal health coverage (UHC). Before the Declaration of Astana, the transition from the Millennium Development Goals to the Sustainable Development Goals (SDGs) also helped to reposition communities as resources for health systems strengthening and sources of resilience for individuals and families.

The United States Agency for International Development (USAID) initiated a collaboration with the United Nations Children's Fund (UNICEF) and the Bill & Melinda Gates Foundation in 2016 to advance country commitments toward communities as resources in PHC systems to accelerate progress towards the achievement of the SDGs. The Integrating Community Health (ICH) collaboration fueled a global movement with more than twenty countries to elevate national priorities and progress for institutionalizing community health in primary health care systems. USAID, in collaboration with UNICEF, invested in catalytic partnerships with governments, their trusted NGO partners, and communities across 7 countries (Bangladesh, the Democratic Republic of Congo (DRC), Haiti, Kenya, Liberia, Mali, and Uganda) to institutionalize reforms and learning, with a focus on CHWs. In alignment with these efforts, the Bill & Melinda Gates Foundation supported the development of new evidence and knowledge regarding performance measurement, advocacy and pathways to scale in the seven focal countries via the Frontline Health Project with Population Council and Last Mile Health as lead partners. Using Last Mile Health's Community Health Reform Cycle framework, the Country Snapshots highlight the ICH collaboration's catalytic partnerships to strengthen national CHW programs as an essential component of PHC and to place these programs within the context of institutional reforms and political commitment needed for national progress in health outcomes.

Re-envisioning health systems to achieve UHC requires leadership and political commitment from within countries. Countries must mobilize the whole society—both public and private sectors as well as communities—as essential resources in this effort. The community component of PHC must be designed to enable the health system to reach the most underserved, respond to pandemics, close the child survival gap, and accelerate the transformation of health systems. Without a major expansion of support for national CHW programs, the measurable acceleration urgently needed to reach the health-related targets of the SDGs by 2030 is unlikely. With a decade remaining to achieve the SDGs and faced with the challenge of the COVID-19 response, building global political momentum with countries and funders is critical to support urgent national priorities, evaluate progress, and develop and share new knowledge to inform bold political choices for a whole of society approach to health systems strengthening.

Community Health Institutionalization as a "Reform Cycle"

The Country Snapshots featured in this series highlight the seven ICH countries' reform efforts within a framework for institutional reform: the Community Health Systems Reform Cycle (often referred to here as the "reform cycle").[2] Countries experience community health systems reform as a process and pathway to institutionalizing community health. The likelihood that any particular reform is successfully institutionalized in an existing policy environment depends on political will and buy-in from key stakeholders, the technical design of the policy, the available capacity and resources to launch and govern the intervention, the ability to learn, and the willingness to adapt and improve the program over time.

The reform cycle framework has guided—and been refined through—a descriptive analysis of the ICH countries' reform journeys. Country Snapshots, reflecting the ICH investment on community health systems reform, demonstrate the practical linkages between available literature and specific country experiences. This framework provides health systems leaders with an approach to plan, assess, and strengthen the institutional reforms necessary to prioritize community health worker programs as part of national primary health care strategies to achieve universal health coverage.

The reform cycle traces several stages of institutional reform, which are summarized below. Reforms may encompass an entire community health worker program or target specific systems components, such as health information systems. While reforms may not always follow each stage in sequence and timing can vary depending on the complexity of the program or activity, deliberate and comprehensive planning can strengthen buy-in and overall effectiveness.

THE COMMUNITY HEALTH SYSTEMS **REFORM CYCLE**

PROBLEM PRIORITIZATION

Actors identify a meaningful and relevant problem. They diagnose pain points and unmet needs, and connect them to priority areas for reform, where possible. Actors acknowledge the need for reform within the community health system and commit to a joint vision for addressing gaps.

COALITION BUILDING

A group is formed around a compelling problem or vision. Members define the coalition's goals, roles, size, and composition. Diverse members fill critical roles in the reform effort (e.g., leaders, connectors, gatekeepers, donors, enablers, change champions, and liaisons to key players outside the coalition).

SOLUTION GATHERING

Potential solutions are gathered, drawing from existing local and international programs. Actors define criteria and metrics to assess solutions, and specific ideas for reform are piloted, where possible. Promising solutions are prioritized for integration into the health system.

DESIGN

Key decision makers, stakeholders, and planners map out different options for program design. Where possible, evidence about the options, expected cost, impact, and feasibility are identified. Through consultations, workshops, and other channels, stakeholders offer feedback on options, and decision makers select a design. This may include operational plans, training materials, job descriptions, management tools, data collection systems, and supply chain processes.

READINESS

Coalition members and champions prepare for launch by getting buy-in from actors instrumental to the launch, rollout, and maintenance of the program. Stakeholders also translate program design into costed operational plans that include clear strategies and tools for launch and rollout. Investment plans for sustainable financing and funding mechanisms are put in place. Stakeholders are prepared for their new roles and responsibilities, and potential areas of policy/protocol conflicts are addressed.

LAUNCH

New policies, processes, and organizational structures are implemented, and key actors execute their new roles. As these shifts progress, learning is gathered to demonstrate momentum and identify challenges to achieving scale. Particular attention is paid to issues around rollout, and timely design and implementation shifts are made as needed.

GOVERNANCE

Stakeholders establish a project governance framework, which includes key leadership and decision-making bodies, clear roles and responsibilities, and explicit decision rights. Processes for risk and issue management, stakeholder engagement, and cross-functional communication are established. Actors monitor program progress to advance clear decision-making and address critical issues or challenges.

MANAGEMENT & LEARNING

Key stakeholders regularly review program data to inform problem-solving at the national or subnational level. Stakeholders engage in continuous learning and improvement, identifying challenges and changes to program design and other systems bottlenecks.

Country Snapshots of Institutional Reform

PURPOSE AND GOALS OF COUNTRY SNAPSHOTS

- Describe the community health landscape within each country
- Present the country's vision for community health reform and situate progress to-date within the framework of the reform cycle
- Articulate the primary community health institutionalization challenges that the country is or was facing at the outset of the ICH investment
- Trace the policy and advocacy process taken by country stakeholders to move reform forward, using the ICH investment as a catalyst
- Identify lessons learned and opportunities for strengthening existing reforms arising out of the ICH investment

The Country Snapshots complement other resources generated within and beyond the ICH investment, such as the countries' Community Health Acceleration Roadmaps, ICH Country Case Studies, and Frontline Health Project Research Studies. The Country Snapshots place a unique emphasis on tracing the process of policy choice, advocacy, and implementation. Together, these complementary initiatives are catalyzing community health systems reform and advancing efforts towards a strong primary health care system and UHC.

APPROACH AND METHODS

The Country Snapshots highlight examples of a country's reform journey through the specific stages of institutionalization outlined in the framework. Country Snapshots both demonstrate the features of each stage within the country context and elevate salient examples of countries' learning and success. The Country Snapshots reflect a process of desk reviews and consultations with country stakeholders. Stakeholders include but are not limited to current and former ministry of health representatives, leaders from non-governmental and technical organizations, and members of multilateral and bilateral institutions. The Country Snapshots elevate both existing insights captured in policy and strategy documents that are often difficult for those not working within the country to access, as well as novel perspectives gained through methods such as workshops or in-depth interviews with key stakeholders. Where the Country Snapshots draw on existing materials, citations are noted. Insights and country stakeholder recommendations on the reform cycle's application serve not only to validate the framework, but also to highlight ways in which the framework can help trace powerful narratives of reform and accelerate community health systems policy and advocacy efforts.

These narratives reveal opportunities to accelerate the prioritization of community health worker programs and primary health care strategies with the goal of UHC. The Country Snapshots reflect valuable feedback from stakeholders on how the framework can help advance community health systems policy and advocacy.

Key Resources

- USAID Vision for Health Systems Strengthening 2030
- Astana Declaration
- CHW Resolution
- CHW Guidelines
- Exemplars—Community Health Workers
- Community Health Roadmap
- Institutionalizing Community Health Conference 2017
- Institutionalizing Community Health Conference 2021
- Community Health Community of Practice
- Global Health: Science and Practice Supplement 1: March 2021
- Journal of Global Health: Advancing Community Health Measurement, Policy and Practice

Synopsis

Liberia's Revised National Community Health Services Policy 2016-2021 institutionalized a reimagined community health worker program—the National Community Health Assistant Program (NCHAP). In 2015, Liberia began this ambitious journey to rebuild a resilient health system and create a fit-for purpose, productive, and motivated health workforce that could provide essential services to the country's most remote communities. The reform came on the tail of a devastating Ebola virus outbreak and after years of civil unrest in the country. While these events fueled a renewed sense of urgency for health reform in Liberia, this vision wasn't new; it was built upon decades of community health models that had operated in Liberia since the establishment of the primary healthcare program with the 1978 Alma Ata Declaration.

Using the reform cycle framework as a tool to examine Liberia's path to a revised community health program reveals several key factors critical to the success of the reform: the foundations of community health programming in Liberia, the unique window of opportunity following Ebola that created unifying momentum, a strong coalition with a vision towards institutionalization, and an influx of resources to fund large scale change.

Though the reform cycle officially began in 2015 with an opportunity to revise the existing community health policy, the first phases—prioritizing the problem for reform, building a coalition, and gathering evidence-based solutions—had been gaining momentum for years prior. Numerous policies, evidence generated from pilot programs, champions within the Ministry of Health (MoH), and external learning laid the foundation for this community health reform. Once the Revised National Community Health Policy was launched in 2016, the coalition driving the policy revision transitioned to the next phases of reform, including program design, readiness, and launch. After five years of NCHAP implementation in the governance and management and learning phases, Liberia's MoH is closing the loop on the reform cycle. A new reform cycle will start for the upcoming policy revision in 2021, which will continue to strengthen and refine the community health system's institutionalization.

Community Health Policy & Advocacy Landscape

Health Access and Outcomes

In the past two decades, Liberia has made significant progress in improving the health status of its population, particularly in terms of infant and under-five mortality. Still, under-five mortality remains a public health challenge, along with high maternal mortality, preventable communicable diseases, and malnutrition.[3] Noncommunicable diseases have also been on the rise. Maternal mortality has increased to 1,072 deaths per 100,000 live births in 2013 due to low emergency obstetrical and neonatal care coverage, high numbers of home deliveries by unskilled personnel, and a shortage of midwives.[4] The proportion of pregnant women receiving a postnatal care visit in the first two days after birth increased from 71% in 2013 to 80% in 2019-20.[5] Liberia has one of the highest maternal mortality rates globally, with the major causes of maternal deaths attributable to preventable and treatable complications like hemorrhage, hypertension, unsafe abortion, and sepsis.[4]

The total fertility rate remains higher than the global average at 4.2 children per woman. The percentage of women whose family planning needs went unmet decreased from 35.7 in 2007 to 31.1 in 2013 but then increased to 33.4 in 2019-20.[5] Infant mortality rates are generally declining, from 71 deaths per 1,000 live births in 2007 to 63 deaths per 1,000 live births in 2019-20.[5] The main causes of neonatal deaths are preterm birth complications and intrapartum-related events, such as asphyxia and sepsis.[4] However, the principal drivers of infant and neonatal mortality in Liberia are often rooted in social, economic, and service coverage inequities, such as low birth weight, poor breast-feeding practices, and low immunization coverage.[4] Fortunately, immunization coverage of all eight basic vaccinations has increased dramatically from 39% of children ages 12-23 months in 2007 to 51% in 2019-20, with only 6% of children age 12-23 months not receiving any vaccinations.[6] Under-five mortality has also decreased since 1986 from 222 deaths per 1,000 live births to 93 in 2019-20.[5] However, malaria, acute respiratory infections, diarrheal diseases, and malnutrition remain the leading causes of under-five mortality.[5] (See Table 1).

TABLE 1: Various Health Indicators for Liberia

INDICATORS	DHS 1986	DHS 2007	DHS 2013	DHS 2019-20
Total Fertility Rate 15-49	6.7	5.2	4.7	4.2
Unmet Need for Family Planning	—	35.7	31.1	33.4
Infant Mortality Rate	144	71	54	63
Under-five Mortality Rate	222	110	94	94
Received all 8 Basic Vaccinations	9.4	39	54.8	51
HIV Prevalence Among General Population	—	1.5	1.9	—

Barriers to accessing essential healthcare in Liberia include a multitude of structural, economic, social, and behavioral factors. Structural challenges of the health system include inequitable coverage of services, inadequate human resources, insufficient infrastructure and transportation, poor supply chain management, limited availability of essential medical commodities, and weak accountability and governance structures. According to the Global Financing Facility (GFF) Investment Case, cost and distance to care are considered major barriers in accessing essential health services.[4] Based on consumption income data from 2012, 56% of Liberians live below the poverty line at 1.25 USD per day, and more than 48% of the population lives in extreme poverty.[4] In addition to the inability to afford services, there are also social and behavioral challenges to accessing and utilizing essential healthcare, including delays of care-seeking behavior, gendered dynamics in healthcare utilization, religious or cultural beliefs, and fear of (or lack of trust in) the health system.[4,7]

Liberia's recent history of civil war between 1989 and 2003 put a tremendous strain on the national health system. At the end of the civil war, only 51 doctors remained in Liberia to serve a population of about 3.7 million.[8] Leading post-war Liberia with a vision of transforming the country into a model of post-conflict recovery, President Ellen Johnson Sirleaf and her administration created the Poverty Reduction Strategy to promote rapid, inclusive, and sustainable growth. The strategy had a broad focus, ranging from improved infrastructure to a revitalized health system.[9] Building on this vision, the Government of Liberia first committed to transform the health sector with the 2007 National Health Policy—during a time when there were only 400 health workers (mainly concentrated in urban areas), there were just 360 functional health facilities, and 41% of the population had access to health services.[4] In rural areas of the country, access to health services was even more limited, with 60% of rural Liberians living more than a one-hour walk (or five kilometers) from the nearest health facility.[5] A 2012 study conducted in two districts in rural southeastern Liberia showed even more staggering numbers: About half of the population had to travel 6-10 hours to reach the nearest health facility. The study posited that distance was strongly associated with reduced healthcare uptake.[10] Similarly, a 2008 study conducted in a rural county found that only 14.5% of respondents could access basic services for integrated management of a childhood illness.[11]

From 2007 to 2009, significant gains were made in rebuilding clinics and health centers damaged during the war. By 2009, each health facility served an average of 5,500 people, which was about a 30% reduction from 2006.[9]

However, there were still major health workforce shortages. Many of the community health workers who had been working prior to the war left Liberia during the fighting.

When the Ebola epidemic hit Liberia in 2014, these structural vulnerabilities were exposed, and the health system was inadequately prepared to respond. Ebola claimed the lives of 5,000 Liberians, including 192 health workers.[4] The epidemic devastated the newly re-established health system—erasing all gains, displacing health workers, and killing roughly 10% of Liberia's doctors, 8% of its nurses and midwives, and 8% of its total health workforce. These losses took a vast toll on the overall health system and Liberians' access to essential care.[8] While the WHO recommends a minimum of 23 health workers per 10,000 people, Liberia had just 11 following the epidemic in 2016, and the majority of those health workers were concentrated in cities and large towns.[12]

In response to the Ebola outbreak, the Government of Liberia exerted substantial effort to get to—and sustain—zero cases and to build back the health system once again. The MoH (then called the Ministry of Health and Social Welfare)—together with partners, such as the WHO, USAID, and United Nations Development Programme—created the Investment Plan for Building a Resilient Health System in Liberia. This plan integrated lessons learned from Ebola to identify priority health system investment areas needed to restore health services and rebuild a strong health system.[13] The priorities set out in the Investment Plan included the creation of a fit-for purpose, productive, and motivated health workforce, and ultimately led to

the creation of the Revised National Community Health Services Policy 2016-2022. Announced in early 2016, this policy reform extended the reach of Liberia's primary healthcare system through an integrated and standardized national community health model with a supported, supervised, and paid cadre of Community Health Assistants (also known as Community Health Workers or CHWs).[14]

This policy paved the way for the establishment of a robust community health worker program that as of December 2020 has recruited, trained, and fielded 3,430 CHWs and 388 active clinical supervisors.[15] These CHWs provide primary care in 14 of the country's 15 counties for an estimated 715,000 people, or about 70% of rural populations living more than five kilometers from a health facility.[8] Liberia has a goal of reaching full coverage of all CHWs trained in target communities by 2022.

Liberia's Community Health Reform Foundations

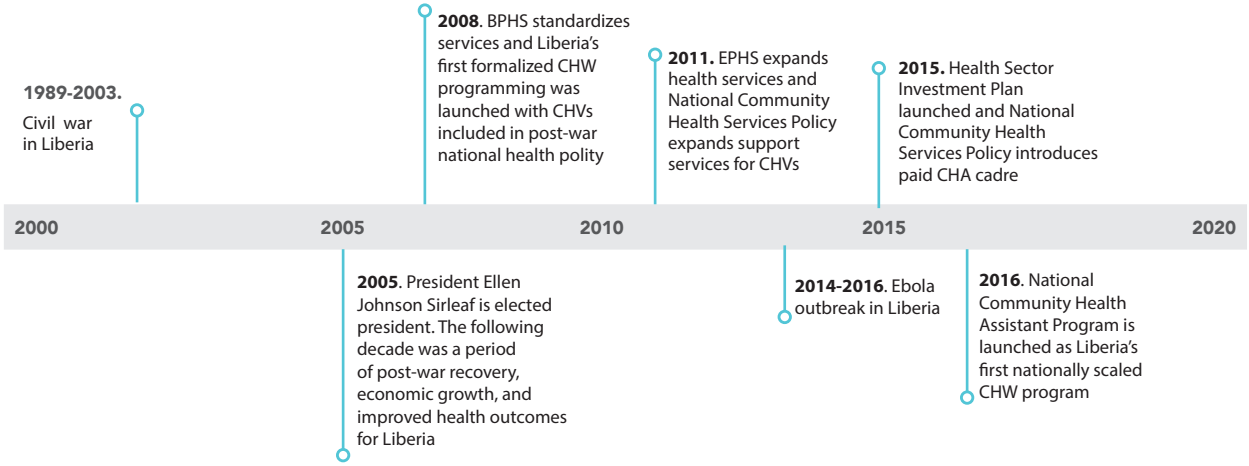
POST-WAR RECOVERY (2004-2011)

Following two civil wars and 14 years of fighting (1989-2003) that killed 250,000 people and prompted nearly one-quarter of the population to flee, Liberia faced high unemployment rates, an eroded national infrastructure, weak government services, and a largely dysfunctional health system.[8] A year after the war ended, the average income in Liberia was one-fourth of what it had been prior to the war in 1987, and one-sixth of what it had been in 1979.[9] Only 354 of Liberia's 550 health facilities were operational and those covered only 41% of the population.[8] The post-war government, led by President Sirleaf, put forward an agenda to rebuild and reconcile the country with a focus on peace and security, economic regeneration, governance strengthening, and infrastructure and basic services rebuilding.[8] While this period of economic recovery reached an annual GDP growth rate of 7.6%, progress was unequally distributed across the country and health indicators remained poor in many remote communities.[16] Recognizing the need for health infrastructure development and increased access to quality and affordable services, the Government of Liberia made improving the health status of Liberians a national priority.

NATIONAL HEALTH PLAN AND POLICY 2007 AND BASIC PACKAGE OF HEALTH SERVICES 2007

In 2006, healthcare coverage remained low at around 40%.[17] The MoH pushed forward a series of policies and reforms, including the National Health Plan and Policy of 2007 and the Basic Package of Health Services (BPHS) of 2007. The National Health Plan and Policy of 2007 mandated the suspension of patient fees at primary and secondary levels of care, promoted decentralization, and included the BPHS. The service package was at the core of the national healthcare delivery strategy. It provided a path forward for restructuring Liberia's

FIGURE 1: History of Community Health in Liberia from 1989 to 2016



health system by building on approaches that had been in place before the war, while focusing on immediate post-war needs such as restoring service delivery.[17] The approach focused on decentralization through capacity building at the county and district levels, with the goal of transferring more authority to the County Health Teams (CHTs). However, a later analysis of the MoH system, completed in 2012, showed that the county and district health systems still required significant support and capacity development in order to fully lead the coordination and management of health services.[13]

Following the blueprint laid out in the National Health Plan and Policy of 2007, health facilities and infrastructure began to be rebuilt, but the depleted health workforce remained a significant challenge. Traditional midwives trained before the war were still largely active in their communities, but many of the existing CHWs were gone. Although new CHWs were recruited by non-governmental organizations (NGOs) and other vertical programs, these efforts were not optimally coordinated or consistent on a national level and led to a wide variety of community-level cadres.[18] In an effort to streamline and prioritize community health programs, the MoH developed a National Policy and Strategy on Community Health Services in 2008, which proposed a coherent, coordinated, and integrated national community health program with a cadre of Community Health Volunteers (CHVs) that would provide a range of primary care services. Within this new cadre of CHVs, there were two categories of volunteers: general Community Health Volunteers (gCHVs) and Trained Traditional Midwives (TTMs). A Community Health Services Division (CHSD) was created within the MoH to manage the program. Despite the high aspirations and strong vision of this policy, its execution was under-financed and ultimately fell short of its goals.

The 2008 National Policy and Strategy on Community Health Services had significant gaps and inefficiencies, including non-incentivized CHVs, delays in decentralization, lack of quality supervision, and lack of referral systems.[9] Fragmented policy implementation resulted in a patchwork of parallel programs launched by the government and NGOs as funding became available and community-level cadres proliferated.[17] Without standardized service packages, uniform training, supervision structures, sustained financing, or coordination mechanisms, many communities were left unsupported or with fragmented support from the community health system.[17] The combination of these challenges resulted in CHVs not being incentivized or motivated, and therefore difficult to retain. According to a 2011 study, one county in Liberia reported a 0% retention rate among CHVs working with HIV/AIDS patients after a two-year period.[9] The programming during these years was mostly led by partners, which meant that support generally lapsed when projects ended and there was minimal engagement with the health facilities, or the district or county teams.[17] Levels of incentives for CHVs also drastically varied, which created competition between partners and made it difficult to track the amount of resources going to CHVs.

In 2008, Rebuilding Basic Health Services (RBHS)—a five-year USAID-supported program implemented by JSI Research & Training Institute, Inc. and Jhpiego—was launched with a performance-based contracting scheme. The program's goals were to increase access to basic health services and move away from post-war short-term relief towards more decentralized health systems. The service delivery was implemented by five NGOs—Africare, EQUIP, International Rescue Committee, Medical Emergency Relief Cooperation International, and Medical Teams International—which provided management support to over 100 health facilities in seven counties.[19] After the first year of implementation, early results of the RBHS program showed an 81% increase in facility-based deliveries and 110,000 children treated for malaria, thus preventing an estimated 2,167 deaths.[19] The success of this model prompted the MoH to sign an additional eight performance-based contracting schemes with implementing partners by April 2010, covering another 124 facilities.[19] This pilot project of incorporating integrated community case management (iCCM) with community health acted as a catalyst to scale up iCCM programs across Liberia.

NATIONAL HEALTH POLICY AND PLAN 2011-2021 AND THE ESSENTIAL PACKAGE OF HEALTH SERVICES 2011-2013

Building on the principles in the 2008 National Policy and Strategy on Community Health Services, the MoH developed the revised National Health Policy and Plan 2011-2021 with the objectives of increasing equitable access to and utilization of essential services and decentralization.[20] In an expansion of BPHS, the Essential Package of Health Services (EPHS) 2011-2013 was created to strengthen health systems through a prioritized and phased approach that would reintroduce health services at each level of the system to reduce inequity and improve quality.

By 2011, significant progress had been made and health services coverage had increased to about 70%.[17] In September 2011, USAID signed a four-year fixed amount reimbursement agreement (FARA) with the Government of Liberia to support the implementation of Liberia's National Health Policy and Plan 2011-2021.[21] Replacing the RBHS program, the FARA mechanism shifted the approach away from managing service delivery towards strengthening the MoH's capacity by reimbursing the government for the cost of implementing the EPHS in three counties.[21] The MoH put several structures in place to implement FARA, including a performance-based financing unit to monitor achievements and a monthly partners' forum to review results and share best practices (which would later become Quarterly Review Meetings). Overall, this mechanism impacted the primary healthcare system, especially in USAID-supported counties, and laid the foundation for increased harmonization and multilateral coordination of key stakeholders in the health sector.

The Community Health Services Policy and Strategic Plan was revised in 2011 with a stronger focus on integration, and human resources for health.[3] However, without strong political backing or coordinated buy-in from partners in Liberia, it largely failed to address the systemic challenges the country was facing in community health programming.[17] By 2013, the community health system was highly fragmented with 8,052 CHVs across several different cadres—including gCHVs, TTMs, health promoters, and community-directed distributors—and each cadre had discrete skills, training, services, and incentives.[14]

ROAD MAP FOR COMMUNITY HEALTH (2012-2014)

In December 2012, Liberia launched the Gbarnga Declaration: Vision 2030, which set a national development framework focused on nation building, peace building, and reconciliation. With President Sirleaf's leadership, Liberia signed on to global initiatives that advocated for a healthier population. The Government of Liberia became a signatory to the UN Every Woman Every Child initiative and made a commitment to spend at least 10% of the health sector allotment on reproductive, maternal, and child health.[4] With increased political buy-in, the MoH communicated to government partners that their top policy priorities included improving health access in remote communities and improving CHW performance. Over the next couple of years, they began building a coalition of champions that would join them in creating a road map to operationalize this vision.

GENERATING EVIDENCE—CHV PILOT PROGRAMS

In late 2011, Dr. Walter Gwenigale, then-Health Minister, co-authored an article that highlighted the inefficiencies in the 2007 National Health Policy and the potential role that CHWs could have in bridging the delivery gap when integrated into the primary healthcare system.[22] Dr. Gwenigale requested government partner, Last Mile Health (LMH), to co-develop a pilot project to address the limitations of the CHV program and test this solution.[8] At the time, LMH (known then as Tiyatien Health) was working in partnership with the MoH on a Global Fund-supported initiative advocating for a community-based HIV treatment model to be scaled across the country. This model, which relied on salaried, supervised, and trained CHWs to treat HIV, was proven to be effective in reducing stigma and increasing retention and treatment adherence rates during a pilot program in Grand Gedeh county. LMH, in collaboration with Grand Gedeh's County Health Team, chose Konobo district to pilot this reimagined program. Konobo was selected because it faced dramatic access challenges and limited partner support due to poor road infrastructure.

The program targeted only remote communities over five kilometers from health facilities and included 54 CHVs recruited from the communities where they lived.[23] The training program contained four modules: child health, maternal and neonatal health, adult health, and (post-Ebola) community health and surveillance. The child health module included iCCM protocols for community treatment and management of diarrhea, acute respiratory infection, and malaria, along with referral protocols for patients with clinical danger signs. The pilot tested innovations, including a salaried CHV cadre that received a monthly cash incentive of 60 USD for approximately 20 hours of work per week.[8] The findings from this pilot showed improvements in access to healthcare for children suffering from diarrhea (an increase of 60%), malaria (an increase of 31%), and acute respiratory infection (an increase of 51%).[23] The rate of pregnant women having clinic-based births with a skilled provider also increased, from 55% to 82%.[8] These results demonstrated success in a last mile health system, and the pilot provided Liberia with both a model and advocacy tool for community health programming, which would ultimately be used to inform the 2016 Revised National Community Health Services Policy. While the pilots in Grand Gedeh and Konobo provided evidence that a professionalized community health workforce could be effective, the pathway to institutionalization and national scale was not yet clear.

GAINING MOMENTUM—ROAD MAP AND COALITION FOUNDATIONS

The first major impetus for restructuring the community health program came in April 2013 with the One Million Community Health Workers Campaign Summit in Tanzania hosted by the Earth Institute. The campaign worked with ministries of health across the globe to develop country road maps to assist governments in planning for the expansion and acceleration of CHW programs. Tamba Boima, then-Director of the CHSD at the MoH, Tolbert Nyenswah, then-Assistant Minister for Preventative Services, and representatives from LMH were invited to the summit. While there, eight countries from across Sub-Saharan Africa came together to discuss their commitments to improving their CHW programs. The MoH representatives returned to Liberia with the network, guidance, and tools needed to restructure and scale the national CHV program. This summit sparked momentum for community health reform and re-opened the conversation in Liberia. Mr. Nyenswah became a key champion in this effort and the subsequent drafting of a Community Health Road Map. However, there were still many unresolved questions around the new community health system and whether there would be the political support necessary for reform.

Over the next several months, a dedicated coalition of MoH officials and community health partners committed to reform emerged, including USAID, Jhpiego, LMH, and UNICEF. By mid-2013, the Road Map was beginning to take shape. A Community Health Technical Working Group (CHTWG) was formed in 2013 to serve as the primary technical assistance body to the CHSD. The coalition divided into working groups and met frequently to debate every design decision and detail in the Road Map. The first major decision was whether the current CHV program should be revitalized or if the entire system needed to be rebuilt. Subsequent decisions involved the approach to supervision, requirements for recruitment, and categories of services delivered (i.e., preventive or curative). The largest and arguably most important decision was around the payment for CHWs; there were differing viewpoints regarding whether they should be paid, how much, and by whom. The coalition used both in-country evidence (such as case studies from the pilot programs in Konobo) as well as external global exemplar programs (such as Ethiopia's Health Extension Worker Program) to inform these decisions. Design choices were debated and often made during informal conversations and smaller group meetings, which the MoH then brought to larger multi-stakeholder meetings. By August 2013, Liberia was the first country in Sub-Saharan Africa to complete a technical road map for CHW scale-up.[24] Though the design recommendations that made into the Community Health Road Map would frame future reform efforts, there were still key design decisions left unresolved after this process. This set the agenda for decisions that would be addressed in the coming years.

In the fall of 2013, political buy-in for the community health program began to grow among key stakeholders within the Liberian government. Forbes held a summit for "30 under 30" leaders, and LMH's then Chief Executive Officer, Dr. Raj Panjabi, was invited to present on the organization's program in rural Liberia. His focus was on how to scale the model from one region of Liberia to every rural community in the country.[25] Liberia's then President, Ellen Johnson Sirleaf, acted as a summit mentor and publicly committed to help the coalition achieve national scale. In October 2013, Liberia's Deputy Health Minister and Chief Medical Officer, Dr. Bernice Dahn went to visit a community health program in another district within Grand Gedeh county, Gboe-Ploe. As one of the most remote counties, the program's success there demonstrated that this new model could bring life-saving health services to the most hard-to-reach communities.

During the National Health Conference in October 2013, Health Minister Gwenigale invited the County Health Team from Grand Gedeh and LMH to jointly present on the pilot program in Konobo. The presentation highlighted the unique challenges of service delivery in remote communities and showcased the positive results seen in the Konobo model. Dr. Gwenigale followed the presentation with an announcement that

> *"this is the model we want to see in every village in the country."*[8]

This conference showed a wider understanding across important stakeholders that reaching remote communities was a top priority and thus marked the start of the first phase in the reform cycle—problem prioritization.

Political support and high-level authorization for a new community health model slowly gained momentum and by the end of 2013, these efforts materialized into a commitment to scale the program, co-signed by both former U.S. President Bill Clinton and President Sirleaf. Moving forward, leaders from the MoH—including Minister Gwenigale, Dr. Dahn, and Assistant Minister for Preventative Services Tolbert Nyenswah—served as active champions who prioritized institutionalizing the new Road Map for a revised community health model.

In early 2014, a multi-year workplan was developed to operationalize the Road Map. However, in March 2014, before the Road Map or workplan could be published and disseminated to all counties, the first case of Ebola was reported in Liberia. All plans were put on hold, and resources and attention quickly shifted to the emergency response. The current health system was about to be tested in unimaginable ways, and the trajectory of community health services would gain unforeseen momentum.

EBOLA (2014-2015)

Liberia's first cases of the Ebola virus were identified in its northernmost county, bordering Guinea and Sierra Leone. Ebola exposed and exacerbated pre-existing structural vulnerabilities of the health system, including inadequate health workers, poor data and surveillance systems, insufficient infrastructure and equipment, and weak supply chains. The Ebola epidemic of 2014-2015 infected 10,678 people and killed 4,810, including 10% of Liberia's doctors and 8% of its nurses and midwives.[8] It slowed GDP growth by approximately 7% and resulted in a loss of an estimated 300 million USD.[27] With health facility closures, health workers' inability or fear of providing routine health services, and community distrust of the health system, there were significant disruptions in both the delivery and utilization of health services. This included drops of 43% in antenatal care, 38% in facility-based deliveries, and 45% in measles vaccinations between August and December 2014, as compared to the same period in 2013.[3] As a result of these disruptions, more Liberians also died at a heightened rate of treatable and preventable illnesses during this time. For example, maternal mortality is estimated to have doubled during the outbreak and child mortality to have increased by 20%.[17]

The Ebola outbreak demonstrated the devastating toll of a poorly functioning volunteer community health system. According to a study of four districts across Liberia, iCCM delivery had halted in 75% of the districts in Liberia prior to the Ebola outbreak, as a result of persistent stock-outs and inadequate remuneration.[28] During the outbreak, the gaps in training, management, and integration of community health volunteers were

exposed, and the already fragmented community interventions were strained further.[17] Community health volunteers were often left without necessary personal protective equipment, training on how to use the supplies they were given, and knowledge about Ebola (including symptoms and transmission).[29] This led to increased stigma, fear, and erosion of trust between communities and the health system. With 184 Ebola-related deaths among health workers confirmed by April 2015, they were approximately 30 times more likely to be infected and suffered disproportionately high rates of death.[30] Additionally, without sufficient numbers of skilled health workers, the response to Ebola was reliant on short-term health workers to manage the Ebola Treatment Units, many of whom were trained and lived outside of Liberia.[30]

In light of this, the Government of Liberia and development partners quickly mobilized, trained, and deployed 10,000 CHVs and frontline health workers to conduct case detection and contact tracing, particularly in remote communities.[30] CHVs and environmental health technicians played a key role in strengthening community engagement, acting as surveillance agents, and ultimately containing the spread of Ebola.[4] In addition, during a time when many people were scared to access care at health facilities, CHVs ensured the delivery of basic services continued in communities throughout the epidemic. One study showed that the coverage of community-based treatment of child diarrhea and pneumonia continued throughout the outbreak in parts of Liberia, with only a slight decrease in the number of cases treated at the peak of the epidemic when "no-touch" protocols were in place.[31] In a climate of distrust and fear of the health system, CHVs were a trusted source of advice and Ebola prevention education. The MoH recognized that using CHVs who were motivated, paid, and supervised led to a drop in Ebola cases and more effective community-based care.

Consequently, one of the outcomes of the epidemic was the government's appreciation of the value of communities—and community-based health workers—in health systems and emergency response. The government understood that addressing these health system vulnerabilities was critical in order to withstand future shocks. During and after the outbreak, Dr. Dahn worked with partners both internally and externally to the MoH to advocate for community-based health with President Sirleaf. In December 2014 at a U.S. Senate Foreign Relations Committee Hearing, President Sirleaf announced a commitment to making CHWs central to Ebola recovery: "We are going to make the final push to fight Ebola now, by supporting community health workers to get the job done."[8] By illuminating the gaps in the current system, Ebola only further prioritized the problem and highlighted the potential impact of several institutional reforms that were on the horizon, such as CHW compensation, training, and equipment.

Institutionalization Opportunities and Challenges in Liberia

The Ebola outbreak generated a strong sense of urgency within Liberia to invest in its health workforce. Coming out of the epidemic, the Government of Liberia recognized the critical role that CHVs had played in responding to and stopping the spread of Ebola in rural communities. This created a political window of opportunity. As the nation mobilized to invest in its health workforce, a scaled, standardized community health worker program was seen as a critical part of that investment. The Government of Liberia demonstrated unprecedented political will to address these challenges, and the expansion of primary healthcare to rural areas through CHWs became a national priority. This political will, paired with a large influx of emergency resources, created an environment conducive to policy reform.

The reform cycle provides a helpful framework to understand and analyze Liberia's institutionalization of the National Community Health Assistant Program (NCHAP) from 2015 to 2020. Examining the different phases of this reform cycle highlights key insights, challenges, and successful strategies used to institutionalize the NCHAP. Past reform cycles of health workforce policies in Liberia had built a strong foundation for community health programming. After the Ebola epidemic, the convergence of a heightened recognition of the health system's vulnerabilities, a major influx of funding, and a dedicated coalition gave this reform cycle unprecedented momentum.

Institutionalization Foundations

With the end of the epidemic, the coalition of partners that spearheaded the Community Health Road Map in 2013 was reignited. Ebola brought in new partners and substantial funding to Liberia, which expanded the coalition to include the Clinton Health Access Initiative (CHAI), Partners in Health (PIH), and International Rescue Committee (IRC). With CHAI and the World Bank leading the development of the cross-cadre health workforce investment plan and LMH providing technical assistance in the development of the community health workforce plan, a strong coalition was emerging to help translate the Community Health Road Map—which had been drafted prior to the outbreak—into policy.

In the wake of a national emergency on the scale of Ebola, efforts to reform health policy were both helped and hindered. There was broad political support and momentum for health systems strengthening, with a focus on CHW program reform and expansion. However, shifting focus from the Ebola response to policy reform was difficult. There were many new development partners in Liberia and the health system experienced a spike in funding. While this created opportunities for the MoH, it also posed challenges to ensuring the investments were leveraged based on government-led priorities and a shared agenda. Much of the funding had been initially structured as emergency response spending, which created constraints in advancing a long-term institutional reform process. However, the prospect of new funding from the World Bank generated interest from a wider group of stakeholders and created an urgency to build an investment case for a reimagined health system. As post-Ebola programs and plans were developed to rebuild the health sector, components of the Community Health Road Map were being written into policy.

The creation of the Health Workforce Program (HWP) 2015-2021 marked the first step toward institutionalizing the new CHW program. A Health Workforce Training Institutions Assessment, conducted by the MoH between May 2014 and September 2014, showed that at the existing rate of production and retention, Liberia would never reach the minimum number of skilled health workers necessary to ensure service coverage to 85% of the population.[30] To address this significant challenge, the HWP—which had initially been released as a high-level proposal in December 2014—aimed to address the urgent needs created by the Ebola outbreak and to sustainably build a national health workforce.[30] After delayed implementation due to Ebola, the HWP was officially released in April 2015 and laid out a plan to formalize the creation of a new cadre of CHWs and develop training pipelines.[30] This policy incorporated a professionalized community health cadre, which locked into policy the first piece of the new CHW program.

The HWP was subsequently used to inform the development of the Investment Plan for Building a Resilient Health System in Liberia 2015-2021. It reflected the government's top priorities: ridding Liberia of Ebola, restoring health services, and rebuilding a resilient health system to withstand future shocks.[13] The Investment Plan was complementary to and would be implemented within the context of the country's ten-year National Health Plan 2011-2021. The process to review the National Health Plan was given conditional approval from the Health Sector Coordination Committee—one of the most centralized partner coordination mechanisms within the MoH—in November 2014.[13] Once the concept note for Investment Plan received approval from the Cabinet in January 2015, preparations for a desk review and field assessments to inform health investment priorities started immediately.[13] The mapping showed gCHVs having prominent roles in the delivery of quality health services, including: integrated community case management of diarrhea, pneumonia, and malaria; health and hygiene promotion; social mobilization; and support of vertical program activities.[13] However, it also showed that the system was plagued with high fragmentation and inconsistent implementation of gCHV projects that were led by partners with minimal support from county and district health teams. These findings would be used in the solution

gathering phase of the policy reform cycle.

During a MoH technical retreat in Gbarnga, Bong County at the end of March 2015, the mapping was used to refine the critical investment areas in advance of a national stakeholder validation meeting in April 2015.[13] The priorities included in the Investment Plan were to:

1. Build a fit-for-purpose productive and motivated health workforce that equitably delivered quality services
2. Re-engineer the health infrastructure to fit the population's needs
3. Strengthen epidemic preparedness, surveillance, and response[13]

In addition, it focused on nine priority investment areas, which included investing in the health workforce and community engagement. The creation of a professionalized and fit-for-purpose national community health workforce was prioritized as a solution to provide an equitable, integrated, and standardized package of lifesaving healthcare services within communities.[32]

With this addition, the Investment Plan differed from the existing Community Health Services Policy and Plan in that it named community health workers (rather than gCHVs), targeted communities more than five kilometers from a health facility, standardized a service package, and included a monetary incentive. The Investment Plan laid the groundwork for prioritizing and investing in a stronger national community health worker program. There was a coalition of key stakeholders that ensured each of these parallel policies and sub-components of the broader health sector agenda were aligned with one another and with the vision of a professionalized workforce.

PROBLEM PRIORITIZATION AND COALITION BUILDING

PROBLEM PRIORITIZATION

The reform cycle for the Revised National Community Health Services Policy 2016 began with problem prioritization. However, defining the problem had started years earlier when the gaps of the CHV program were exposed, and Ebola further cemented the need for reform. By April 2015, there was broad agreement among stakeholders: building back a resilient health system that would improve health indicators for all Liberians would require greater investments in a community health workforce. While this was not a novel idea—a formal, integrated community health volunteer program had been around since 2008—the Ebola epidemic shed light on the inefficiencies and gaps within the existing program and highlighted the need for a paid, well-supported community health workforce.

During a HarvardX and Community Health Academy course, Dr. Dahn outlined the key problem that the Revised National Community Health Services Policy aimed to solve: "The new policy emphasis was actually trying to cover a gap. If you look at the gap in the healthcare community service of Liberia, 29% of the Liberian population do not have access to basic health services… so the new policy is targeting communities that are five or more kilometers away from the health facility… [and there is a need to] re-incentivize community health workers, community health assistants… [and] properly supervise the community health assistant."[17]

COALITION BUILDING

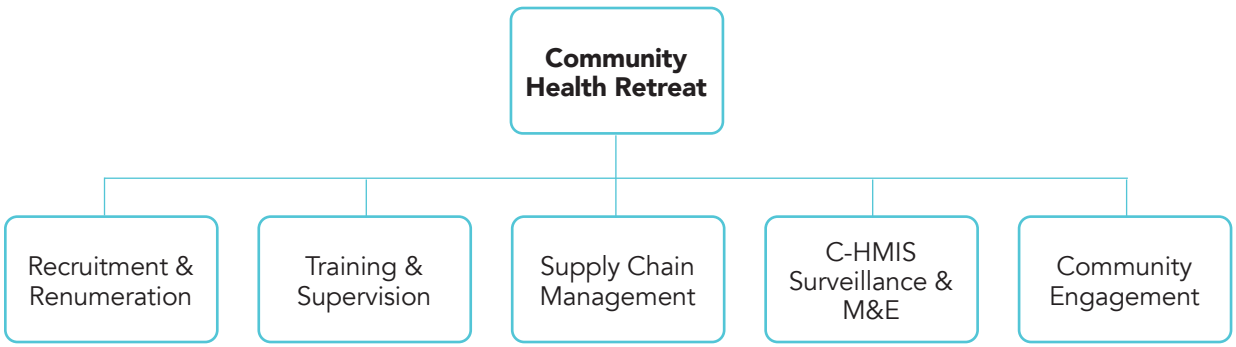
With the release of the Investment Plan in April 2015—and within it a component dedicated to a community health workforce—the CHSD called for a Community Health Retreat to begin planning for a revised National Community Health Policy. The goals of the retreat were to orient stakeholders to the Investment Plan, validate an updated Community Health Road Map, identify next steps to revise the Community Health Policy and Plan, and develop a six-month action plan leading up to the launch of a new national CHW program.[33] The CHTWG expanded and the MoH mobilized a broader and more diverse coalition of actors, with the membership open to all development partners and various MoH divisions.[33] By May 2015, there was a clear mandate for a new CHW policy with support from partners and many global champions, including former U.S. President Bill Clinton.

In preparation for the retreat, the CHTWG divided into sub-groups to revisit the Community Health Road Map that had been created in 2013. Initially, seven subgroups were formed: service delivery; recruitment and remuneration; training; supervision; community engagement; community health management information systems, surveillance, and monitoring and evaluation; and supply chain management.[33] After the service delivery package was revised and updated, that subgroup dissolved and the training and supervision subgroups combined. Five subgroups remained, and they would play a key role in designing the policy and program. (See Figure 2.) In June 2015, formal terms of reference (TOR) and coordination mechanisms were created for each subgroup to ensure the policy design was coordinated and integrated across the vertical groups.

Throughout 2015, stakeholders convened in various TWGs and policy workshops to discuss key priority areas of the policy. With many development partners and MoH vertical divisions involved in these design discussions, stakeholders often had differing agendas and interests, which sometimes resulted in informal negotiations taking place outside of meetings. One example of this involved payment of community health workers. Several development partners had existing community health projects that were aligned with the existing non-salaried gCHV policy. Changing the policy would disrupt these projects and portfolios, which already had spending and budgets attached to them. Support for reform often depended on a partner's priorities, amount of influence (typically tied to funding), and source of funding. To build a broad and diverse coalition, the MoH had to navigate these complex politics and issues to align ongoing spending, new funding, and normative policy documents. Another factor in the coalition dynamics was the expectation of funding from the World Bank for policy implementation. This potential investment persuaded stakeholders to engage in the reform process to ensure their needs were included in the World Bank budget. The investment gave the Government of Liberia substantial discretion over how the money could be spent, which emboldened government leaders, such as Dr. Dahn and Tamba Boima, to achieve alignment from institutional partners. In many ways this phase of the reform cycle was also a political process, where negotiations and conversations about design choices were taking place behind the scenes and through relationship-building.

For the policy to succeed, other Ministry vertical divisions had to be involved in its design and invested in its success. Government champions used existing governance structures within the ministry to foster compromise and bridge priorities across divisions to assemble support for community health more broadly. For example, the Ministry of Education was engaged in areas of training, the Civil Service Agency provided input on recruitment and remuneration, and the Ministry of Finance and Development Planning was involved in resource mobilization efforts.[32] Other government stakeholders, such as the President's Delivery Unit,

FIGURE 2: Community Health Retreat Subgroups[33]



were also invested in the timely implementation of the policy and program delivery. The coalition built over the course of 2015 set forth a vision for extending services to remote and rural communities and built an action plan for national coordination.

SOLUTION GATHERING

The CHSD convened its first retreat in May 2015 with representatives from 14 ministry departments, 13 of 15 county health team representatives, and over 30 partner organizations. The goal was to agree on a vision and road map for strengthening community health.[33] In the months leading up to the retreat, each subgroup gathered resources (e.g., reports, manuals, guidelines, and tools) written by MoH, partners and other relevant agencies, and they reviewed global community health best practices.[33] They summarized the findings to inform discussions during the retreat and worked to identify systems-level bottlenecks and mitigating measures to ensure the efficacy of the policy.[33] The retreat provided a forum for the subgroups to share these evidence-based plans and validate deliverables, such as an updated version of the Community Health Road Map, service delivery package, recruitment criteria, and TOR for community health workforce cadres.[34] The retreat also offered a space for cross-organizational and external learning. UNICEF presented lessons learned from CHW programs in other countries with considerations for Liberia's program design.[33] Partners also brought forward experiences from different regions within Liberia. The retreat successfully generated widespread buy-in to a national professionalized cadre of trained, supervised, and incentivized CHWs.[33] While the design of the policy would still take several months to take shape, the CHSD retreat was a key step in solution gathering and developing a set of shared priorities for the policy reform.

The coalition left the retreat with two bold targets. With a joint vision for a professional, government-led CHW program in remote rural areas, the first goal was to revise the existing Community Health Services Strategy and Plan by the end of 2015. The second was to launch the new CHW program in January 2016 (which was later pushed back to July 2016). In order to accomplish these targets, the retreat participants revised the Community Health Road Map and created a six-month action plan to facilitate the process leading up to the policy revision and guide the preparations for the program launch.[34]

The Road Map outlined six strategic objectives and relevant activities in the areas of:

- Capacity building of communities
- Standardized package of services
- Support systems for implementation
- Training for health workers
- Community-based surveillance
- Community engagement
- Monitoring, evaluation, and information systems[34]

Key actions highlighted in the six-month action plan included:

- Conducting a baseline assessment of the current community health workforce distribution and infrastructure to determine priorities and actions necessary to implement the new policy
- Hiring a specialist to support CHSD in leading curriculum development and review for all community cadres and standardizing curriculum, job aides, and supervision tools
- Ensuring TOR across all cadres are standardized and complementary, as well as developing recruitment criteria
- Revising commodity lists and standard operating procedures (SOPs) for supply chain
- Revising the monitoring and evaluation system for the Community Health Workforce Program to ensure a common set of indicators
- Revising and finalizing Community Based Information Systems (CBIS) and reporting tools, and ensuring training modules for CBIS are created and built into training
- Exploring ways to increase retention and motivation for CHWs, including monetary and non-monetary strategies and fostering continuous learning and skill development
- Integrating a national community engagement strategy[35]

The Road Map laid out the next steps for the policy revision, which included a situational assessment of the community health workforce, a baseline assessment of the national government's capacity to support the policy, assessment of current Community Health Services Supervisor (CHSS) distribution, and a review of key issues to be included in the revised policy.[34]

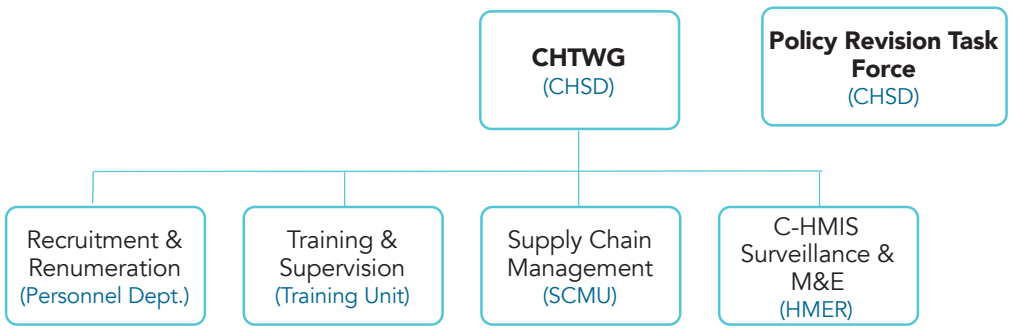
In the six months following the retreat, the community health program and policy design subgroups were responsible for leading the activities laid out in the Community Health Road Map's six-month action plan. Solutions continued to be gathered and debated in the subgroups and CHTWGs. (See Figure 3.)

Utilizing local evidence and data from pilot programs across Liberia, such as existing CHV programs in counties supported by USAID and UNICEF, was pivotal in the design of the policy. USAID and IRC had entered into a new partnership to implement the Partnership for Advancing Community-based Services (PACS) program.[36] The objectives of this project were to broaden the capacity of MoH, CHTs, NGOs, and civil society organizations in Bong, Lofa, and Nimba counties (with Margibi, Montserrado, and Grand Bassa added post-Ebola for a limited time) to manage community services, thereby increasing the availability of sustainable and quality community-based health services. Prior to the policy revision, PACS was supporting gCHVs in line with the 2011 Community Health Services Policy and had activities such as iCCM training, engaging CSOs to strengthen linkages between communities and health facilities, and technical assistance to MoH units and CHTs.[36] Evidence and solutions gathered from this project laid a foundation for a scalable model for engaging community in various program design components, such as the training package or community governance structure.

Other demonstration sites that solutions were gathered from included LMH's community health program pilot site in Konobo, which was built on the pillars of recruit, train, equip, supervise, and pay. In addition, solutions were gathered from LMH's more recent site in Rivercess that piloted embedding the program into local government systems. County Health Team staff in Rivercess attended a two-day workshop during the summer of 2015 where they learned about the proposed new community health model and designed a process to co-implement the model in Rivercess county to test the integration of the program with government systems. County Health Teams played an important role in subnational advocacy during this time period and led to Rivercess becoming a model for programs operations at scale.

The evidence was leveraged for intentional decision making around topics such as supervision or necessary ratios in catchment areas. During the MoH-led TWGs, these evidence-based solutions and best practices were brought up, debated, and weighed for feasibility and political support. In assessing these solutions, proponents for or against the policy decisions would vocalize their opinions. At times, the MoH and partners would need to deploy different engagement strategies for advocacy, including direct, one-on-one engagement and separate, informal meetings with stakeholders outside of weekly TWGs. Ultimately, the MoH had the final say on which solutions would be incorporated into the policy design.

FIGURE 3: Community Health Program and Policy Design Subgroups



POLICY DESIGN

During the CHSD retreat, a Policy Revision Task Force was created to lead the policy revision process. It was chaired by the CHSD, with partner support from LMH and UNICEF. The Task Force used the Road Map as a guide for the set of deliverables and key components of the program that needed to be built out. The past Community Health Services Policy and other recent health sector policies—such as the Health Workforce Program and Investment Plan—served as an outline for the writing of the revised policy.

The community health subgroups were meant to meet at least twice a month and provide monthly progress reports to the larger CHTWG meetings. (See Appendix 1 for more information on subgroup contributions to policy design.) However, capacity and level of buy-in to the policy both within and between these subgroups differed substantially. Some subgroups got stuck debating certain questions for months, as stakeholders' opinions on design were often conflicting and unwavering. Partners and MoH divisions advocated for particular items to be added to the policy—both within subgroups and through informal channels. Ultimately, CHSD and the Assistant Minister of Preventative Services had the final say on what would be included. Dr. Dahn, whom the President had assigned to be a spokesperson of the policy and accountable to the program's launch, also provided oversight regarding design choices.

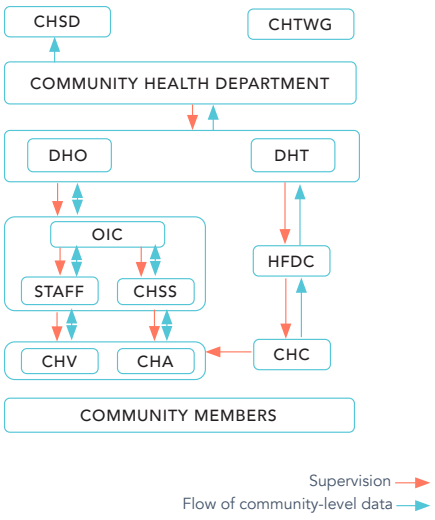
Design features incorporated into the revised Community Health Services Policy included:

- A new cadre of paid Community Health Assistants (CHAs)
- A standardized service delivery package
- Integration with formal health system (see Figure 4 for health system structure under the new policy)
- Structured supervision with established CHSS
- Government-mandated norms around skills development, remuneration, data collection and use, supply chain, and resource allocation

By September 2015, a first draft of the policy was handed to Dr. Dahn for review. The Community Health Services Strategic Plan began to be drafted in October and by the end of November 2015, both the policy and strategic plan were ready to be circulated to partners for revisions ahead of the validation. In December, a policy validation meeting was held in Ganta, Nimba County. In the weeks following, the coalition would work to incorporate feedback and edits from the meeting. The Revised National Community Health Services Policy and Plan was validated and endorsed by MoH Senior Leadership and the President's Cabinet in February 2016.

FIGURE 4: Health System Structure[75]

LEVEL	MANAGING ADMINISTRATIVE BODY	SERVICE DELIVERY POINT	KEY ACTORS AND THEIR RELATIONSHIPS
NATIONAL	CHSD CHTWG	Regional Hospital	
COUNTY	Community Health Department	County Hospital	
DISTRICT	DHO DHT	District Hospital Health Center	
HEALTH FACILITY	HFDC OIC	Clinic	
COMMUNITY	CHC	CHA CHV	



POLICY DESIGN HIGHLIGHTS

REMUNERATION

Remuneration for community health workers was a contentious topic during policy revision. Stakeholders disagreed on whether CHWs should be paid and, if so, how much. In 2014 and 2015, there were numerous strikes by healthcare workers over not being paid on time, hazard pay, and benefits.[37] A severe lack of available government resources acutely impacted healthcare workers during this time period, and this shaped the conversation around compensation. Some partners advocated for CHWs to be full-time workers on the government payroll and paid at least the minimum wage set for government workers. Other partners were proponents of CHWs remaining an unpaid volunteer position.

By 2015, there was relatively broad support from the government and partners to pay CHWs. However, it was clear early on in the discussions that they would not be on the government payroll due to concerns around funding and sustainability. Ultimately, MoH officials decided that CHWs would be part-time workers and, therefore, would not be called "Community Health Workers" as they would not be civil servants. Cabinet members, such as the Minister of Labor, felt that "worker" would connote full-time status and should then receive pension, social security, and other guaranteed benefits. Dr. Dahn and partners proposed "Community Health Assistants" (CHAs)—which was ultimately agreed upon by the Cabinet—because it was used in other countries, was recognizable, and implied a role in the health system beyond a volunteer. CHAs were to be paid 70 USD per month for a 20-hour work week, and CHSSs were to be paid between 225 and 313 USD per month—with supervisors in particularly remote counties being paid at the higher end of the scale.

SUPERVISION APPROACH

Supervision was another disputed topic, with some partners advocating for two types of supervisors—one for clinical mentorship and patient care, and one for non-clinical and operational support, community engagement, referrals, and quality improvement, which would thereby reduce the demand on the CHSSs' time. This supervision approach was piloted in the LMH-supported CHW program in Konobo. There, every CHW had both a clinical supervisor and a peer supervisor, called a CHW leader.[8]

Due to concerns about the sustainability of labor costs and challenges operationalizing the creation of two additional cadres, the MoH ultimately chose to limit supervision to the clinical CHSSs, who would also be responsible for operational support and quality improvement. The policy outlines the CHSS's role as focusing on clinical expertise and mentorship, restocking supplies, and supervising up to ten CHWs—with 80% of their time in the community.

SKILLS AND TRAINING

The service delivery package and training components were another integral decision made during the policy design phase. In the revised policy, the community-based service package includes: events-based surveillance for infectious diseases; reproductive, maternal, and neonatal healthcare; health promotion; distribution of family planning products; integrated community case management of diarrhea, malaria, and acute respiratory infection in children under five; screening for malnutrition; and special services such as support for patients living with HIV and TB.[8] Some partners wanted to include additional services (e.g., administering pregnancy tests, taking blood pressure, and providing

chlorhexidine). There was also strong opposition to having CHAs administer injections. The coalition ultimately decided to start with a core set of essential services that all CHAs would be trained to deliver and that would help reduce morbidity and mortality. They would use the first phase of the policy to assess the CHAs' ability to deliver these core services before adding additional ones.

The training for CHAs included a pre-service training with four in-classroom modules that lasted approximately two weeks each. Following each training, the CHAs would return to their communities for 4-8 weeks to practice with supportive supervision and would then need to pass a post-training test before moving on to the next module. After completing training, CHAs are meant to be clinically supervised at least once per month and in-service and refresher training would be built on as necessary based on findings from supervisory field visits.[14] Some partners wanted the training to be longer and others wanted to do one comprehensive training—rather than a modular approach—due to logistical and financial capacity. Proponents of the modular training cited practical training as an essential part of retaining information and developing skills.

The CHSSs would also receive four weeks of training on the CHA's service delivery package. Their training package also included practical training on supportive supervision, clinical mentorship, coaching, and support for the referral of patients.[8]

ICH Investment as a Catalyst for Reform

Overview of ICH Investment

The Integrated Community Health (ICH) program, funded by USAID and UNICEF, aligned resources behind national reform priorities across seven countries. The goal was to support partners working in collaboration with ministries of health to strengthen the role of community health in reducing barriers to health coverage. In Liberia, the ICH investment was granted to a technical partner, LMH, in 2016 through the Community Health Worker Support for Advancing Liberian Livelihoods (CHWS for ALL). The goal of CHWS for ALL was to strengthen the capacity of the MoH and other community health stakeholders to oversee the scale-up of a high-quality National Community Health Assistant Program (NCHAP).

The main objectives of the investment were to:

- Establish program environmental and operational readiness at the central and county levels for the introduction of the NCHAP
- Support the MoH to institutionalize the NCHAP
- Ensure continuous learning and quality improvement for NCHAP implementation and accountability

It was a holistic investment targeted both at national and subnational levels to build the integrated and foundational pieces of the program. The investment was designed to focus on developing strong processes to ensure the quality and sustainability of the NCHAP through:

- Governance and oversight capacity
- Accountability and feedback mechanisms
- Continuous learning and monitoring frameworks
- Resource mobilization strategies

It also focused on areas of health financing, advocacy, implementation and management, quality data and metrics, and performance management.

After the NCHAP was signed in April 2016, the MoH officially launched the program in July 2016. The CHWS for ALL project started just a month before, in June 2016, and ended in January 2019. Over the period of investment, the CHWS for ALL project supported the MoH and partners to roll out, implement, and scale the NCHAP. Some key achievements of the project include support given to: improve adaptive management through revamped Community Health Services Quarterly Review Meetings (QRMs); develop and maintain health financing and advocacy tools; strengthen coordination and governance structures; roll-out of Liberia's CBIS across the country; build leadership and performance management skills. (See Appendix 2 for more information on key achievements.)

Despite the CHWS for ALL project's achievements, there were important lessons learned and recommendations for future NCHAP governance. One significant challenge was sustainable financing for project activities. The NCHAP is still largely partner supported, with limited internal government funding allocated to the program and no long-term sustainable financing sources. There were also different levels of investment at the subnational level. In addition, in the rollout of the NCHAP, the MoH prioritized speed, which led to some quality challenges in operationalizing the policy. Lastly, there were significant lessons learned from the rollout of CBIS in regard to data quality and data collection. There were inconsistencies across regions, with challenges in accessing data due to poor internet services, lack of knowledge in how to use and access DHIS2, and different levels of adherence to the program.

Overall, this investment provided Liberia's MoH with the resources needed to advance its strategy for building an integrated community health program through the institutionalization of the revised National Community Health Services Policy.

Broader Reform Strategies and Milestones

As laid out in the sections above, between 2013 and 2015, the creation of the Revised Community Health Services Policy followed through the first half of the reform cycle. Themes of health financing, subnational advocacy, technical solution gathering, and high-level stakeholder authorization were woven throughout the policy design process. The dedicated coalition of MoH officials and partners sustained momentum through building relationships and trust, adapting to the phases of the policy reform, and modifying the structure of the coalition to evolve with the program over time. The coalition, with the MoH in the driver's seat, adapted as it designed systems and tools, monitored launch activities and program rollout, and created governance structures essential to the program.

While Liberia's policy reform up to this point had largely been linear in the way it moved through the reform cycle phases, the next phases of reform—including program design, mobilization, and launch—were often overlapping and happening in parallel. This trajectory exemplifies the complexity and interconnectedness of the reform process.

POLICY TO PROGRAM DESIGN

Liberia reached a major milestone in 2016 with the Revised National Community Health Policy finalized and NCHAP officially established. This marked a critical transition from policy to program design. The coalition shifted its attention from building support and generating consensus for the policy to the development of key program components—such as training packages, supervision and information systems, recruitment and human resources standards, supply chain processes, and a comprehensive costing of the program to inform resource mobilization. The CHTWG re-established a set of subgroups to help drive this detailed design process, while keeping the harmonization of historically fragmented systems a top priority. These subgroups included training and supervision, CBIS, supply chain, and human resources for health. (See Appendix 1 for more information on the subgroups.)

Between June and December 2015, there were two simultaneous work streams occurring: policy revision and program design. While the Policy Revision Taskforce led the coalition in revising the policy and developing the strategic plan, the CHTWG subgroups were leading the design of their respective program components.

During this time, the subgroups started to identify the necessary programmatic decisions that they would need to make for each policy thematic area. They also began to identify SOPs, data collection forms, curriculum, and TOR that would need to be developed for the program package. By the end of 2015, significant progress had been made on program design. The subgroups had created TOR for CHAs and CHSSs and had drafted SOPs for data flow and community supply management. In addition, many subgroups had workplans for continuing progress in 2016. However, in November 2015, due to competing priorities, several of the groups stopped meeting weekly and some partners expressed concern that the program was not on track to be launched on time.

RECONVENING THE COALITION (JANUARY–MARCH 2016)

During the first few months of 2016, progress in certain areas of the program design stalled. While the policy validation institutionalized key design choices and narrowed the decision space, there were still some areas that had been left vague within the policy. These unresolved program components often created roadblocks and highlighted political dynamics that existed within the coalition. The challenges faced in the early stages of program design, particularly around the curriculum development, prompted a reconvening and restructuring of the coalition into revision groups and a steering committee.

Partners had competing viewpoints on how to structure the process for the CHA, CHSS, and Master Trainer curriculum development. Initial steps for curriculum development had included a stakeholder meeting to outline processes for creating the training package and an agreement to have CHSD and Training Unit draft the initial content. However, given the fragmented system in Liberia, there were various existing curricula for CHVs that were already being used across the country. Some partners disagreed with the process that was starting to evolve, which created substantial new content and was isolated to a small group of stakeholders. They expected the existing curricula to be more heavily used, with any alterations documented and approved by the MoH. During a mini review session of the drafted CHA curriculum in March 2016, MoH representatives and partners realized there was a need for them to have more active engagement and representation in the intermediate stages of the Training Package development. During this meeting, it was decided that the Training and Supervision subgroup would be reactivated, topical revision groups would be created, a steering committee would be established to manage the process, and a consultant would be hired to provide additional technical guidance for the revision of the curriculum. (See Table 2.)

Newly formed **revision groups** were responsible for reviewing, revising, and internally validating subcomponents of the CHA training package in their respective technical areas. In order to design training content, these revision groups also ended up deliberating design choices and creating systems where necessary. There were also cross-cutting revision groups that served as a consulting resource for each Technical Revision group to address any concerns arising from a technical review. These revisions groups provided guidance on alignment with products and processes of other external working groups.[40] While these cross-cutting groups were not directly responsible for developing curriculum, they supported the systems design.

In addition, a **steering committee** was set up to diffuse decision making and shift the model towards a core group of decision makers. It consisted of the Curriculum Consultant, CHSD,

TABLE 2: Terms of Reference for Training Package Finalization

	MOH DIVISIONS/UNITS/PROGRAMS	PARTNERS
Module 1: CEBS/Community Surveillance	Disease Prevention and Control (DPC) Unit (plan to be absorbed within Public Health Institute)	Lead Partner(s): IOM, LMH
Module 1 & Cross-cutting: Health Promotion/ Education/ Engagement (ETL) WASH	National Health Promotion Division Division of Environmental and Occupational Health	Lead Partner(s): PACS (PSI), UNICEF
Module 2: Family Planning Maternal and Newborn Care	Family Health Division	Lead Partner(s): UNICEF, LMH
Module 1 & Module 3: Vaccinations, Well Child, Sick Child (iCCM)	NMCP; EPI; Nutrition Division	Lead Partner(s): UNICEF, PACS (IRC)
Module 4: HIV, TB, Leprosy, Mental Health, First Aid	NACP; NLTCP; NTD Unit Mental Health Unit	Lead Partner(s): PIH
Cross-cutting: CBIS	Health Monitoring Evaluation and Research (HMER) Unit	Partners: PACS (IRC), UNICEF, PIH, LMH, CHAI, Medical teams International (MTI), Plan International, Samaritans Purse, USAID, WHO
Cross-cutting: Community health supply chain	Supply Chain Unit	Partners: DELIVER, UNICEF
Cross-cutting: Graphic Design and Job Aids	Material and Message Development Committeee	Partners: LMH, PIH, IRC

iCCM Focal Person, and representatives from the Training Unit, USAID, UNICEF, PACS, WHO, PIH, and LMH. The committee was responsible for consolidating the work done by the revision groups, reviewing the corresponding curriculum and tools, and sharing relevant technical content with the appropriate revision groups for their input. The steering committee also ensured consistency and integration across the tools and content being produced in each group. The steering committee provided the necessary structure to build trust and harmonization across key stakeholders. The decision to reconvene the coalition—and set up processes to manage broader MoH and partner engagement and internal validation—drastically shifted the way that the curriculum and program at large were being designed.

In March 2016, President Sirleaf announced her intention to support the CHA program as one of her legacy projects and asked the MoH to deploy 2,000 CHAs by the end of her term. Following this announcement, the President's Delivery Unit assigned representatives to monitor the progress of the program design and launch. This furthered the pressure on the coalition to prepare for the program launch, which was scheduled to be announced in just a few months.

ONGOING PROGRAM DESIGN (APRIL-OCTOBER 2016)

With the reactivation of the subgroups in March 2016, the detailed design process continued with a renewed sense of structure and direction. The stakeholder engagement was redesigned and the curriculum process was restarted. The coalition began drafting an implementation guide and operational plan. In the months leading up to the official launch of the program in July 2016, the subgroups met; drafted curriculum, tools and SOPs; reviewed inputs; and held internal validation sessions as outputs were ready. The steering committee made key decisions and fed those decisions back into the subgroups for integration. Leveraging evidence from in-country programs, such as existing USAID CHV investments, IRC projects, and the Rivercess CHW pilot program, the coalition drew on their experiences in Liberia, as well as from other geographies to design the principles of program implementation operating at scale.

PROGRAM DESIGN HIGHLIGHTS

RECRUITMENT & REMUNERATION (PERSONNEL DEPARTMENT)

By the end of 2015, the Recruitment and Remuneration subgroup led by the Human Resources for Health of the MoH, had created draft TOR for the various positions defined in the policy, incentive scales and recruitment guidelines for CHAs and CHSSs. In January 2016, the group's priorities shifted to finalizing payment mechanisms, navigating legal issues around labor laws, and planning for a long-term transition to government payroll. The next several months were spent by stakeholders in meetings discussing payment mechanisms and exploring innovative partnerships to have money reach rural employees. CHWS for ALL investment was able to support research and coordination around innovative payment mechanisms. In addition, the subgroup was engaging with different divisions within the Ministry to discuss the role of community and health facility-based committees, contracts and performance management systems.

In an update shared by Tamba Boima, the Director of CHSD, in June 2016 during a QRM, the accomplishments highlighted were defined recruitment timeline and scale targets, revised and finalized TOR for CHAs and CHSSs, and CHSS recruitment ongoing.[41] In July 2016, the CHSS pay scale was released, indicating that they would make between 225 and 313 USD, depending on their location and remoteness. Recruitment guidelines were still being discussed within subgroups, but they had decided that a literacy test would be required.

TRAINING & SUPERVISION (TRAINING UNIT)

By the end of 2015, the Training and Supervision subgroup had finalized the service delivery package, created an outline of the curriculum, and developed criteria by which they would review existing MoH and partner curriculum against, such as content, organization, tone, and reference. In addition to reviewing existing curriculum in Liberia, the subgroup also leveraged WHO curriculum resource materials from other countries such as Ethiopia, Rwanda, and Zambia and ensured the curriculum aligned with international best practices. The subgroup drafted a curriculum development strategy and began drafting content for the first few months of 2016. Following the introduction of the new revision groups, the coalition and international curriculum consultant continued to review, revise, and internally validate the training package together. In a retreat held in June 2016, the Master Trainer curriculum was reviewed and validated pending incorporation of additional feedback. However even during the Master Trainers training in August, the CHA and CHSS curriculum was not yet finalized. After the push to complete the Master Trainers curriculum in August, there was a lull in progress on the other curriculums. However, in September 2016, the groups reconvened, refocused, and continued the design of the curriculum. The Steering Committee was ironing out details for a training schedule and establishing a standardized minimum timeline for the NCHA Program Training Cascade. A decision was made that CHSS training would last four weeks and CHA training would last two weeks per module (with four modules), with four-eight weeks in between modules for practice.

The Steering Committee continued to integrate technical feedback from partners into the curriculum throughout the program design process. In October 2016, the curriculum was presented to MoH divisions and partners for finalization and validation.

SURVEILLANCE, MONITORING & EVALUATION (HEALTH MANAGEMENT INFORMATION SYSTEMS, MONITORING & EVALUATION, AND RESEARCH UNIT)

As the policy was being developed, the Community-based Surveillance, Monitoring and Evaluation (M&E) subgroup was developing program indicators and data collection tools, referral and reporting forms, and SOPs for data management. In addition, a CBIS module for DHIS2 was being developed, as well as accompanying SOPs and tools. In September 2016, the subgroup was developing a dashboard for the NCHAP performance measurement and defining processes to verify adherence to implementation indicators for integrated supervision.

In October 2016, the MoH and implementing partners finalized the CHA CBIS forms, CHSS supervision tools and M&E framework and the MoH led modification to DHIS2 for CBIS. The sub-group convened for a five-day working session to revise the M&E Strategy and Plan in Gbarnga. The steering committee then reviewed the final CHA CBIS forms and the tools were presented during a curriculum review a couple of weeks later for final sign-off.

Originally, the goal was to begin program rollout by the announcement of the program in July 2016, but by that time there were still gaps in the program and many work-streams happening at once. Even after the official launch of the program in July, there were still several components under review and design continued within the subgroups and among the broader coalition of stakeholders. Given the process was iterative with many stakeholders providing feedback and roadblocks were inevitably hit along the way, the program design took much longer than had been planned for.

The event that marked the beginning of the program rollout was the Masters Trainers training in August 2016. However, at the time, the CHA and CHSS curriculum had not yet been validated. Over the next few months, the revision groups and Steering Committee continued to make significant progress on reviewing, revising, and iterating on the multitude of processes, forms, SOPs, curriculum, and other necessary components for program implementation.

The CHSD held a retreat in October 2016 with goals being to validate the CHA and CHSS curriculum and establish MoH and partner commitments towards NCHA Program Milestones, which mapped the steps needed to reach scale-up to 2,000 CHAs by the end of 2017. Implementing partners and 14 MoH divisions attended. During the retreat, CHA / CHSS curriculum, supervision tools, and supply chain SOPs were presented and validated. Once the feedback from the retreat was integrated into the curriculum, the training package was turned over to CHSD by November 2016, along with the necessary forms and tools, to be printed and distributed.

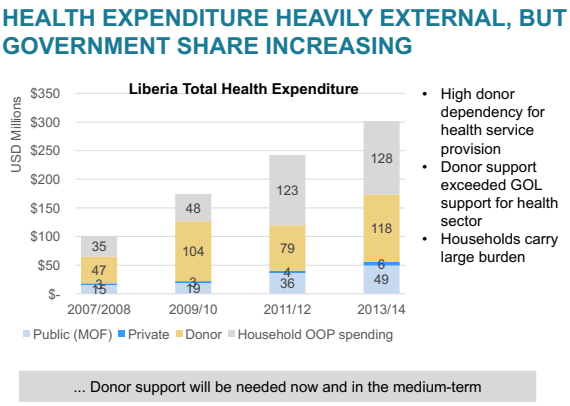
PROGRAM READINESS

From the beginning of the policy reform cycle, starting in tandem with the problem prioritization, Liberia developed detailed financial costing and sustainability modeling to help the government track potential costs, benefits, and funding opportunities for the NCHAP.[8] Mobilizing resources for this program across the government, implementing partners, and donors was an iterative process that was embedded in the political and operational context of Liberia. It required a high level of donor management and individualized investment cases for each donor's priorities and administrative processes.[8] This approach promoted harmonization across donors and efficiency in health financing, resulting in better health outcomes for the money allocated. In order to do this, the MoH developed tools, processes, and other resources, such as costing tools, operational plans, resource mapping, county specific costing and analyses, external advocacy materials such as op-eds and communication briefs, and investment cases. In addition, the MoH and partners did the legwork of using these resources in numerous meetings, negotiations, convenings, and proposals. These tools and costing projections regarded the MoH as credible in negotiations and asserted Liberia's health sector as an attractive investment opportunity.[8] Commitments from existing actors in Liberia were also targeted for funding and the scale-up of the program.

SETTING THE STAGE - GOVERNMENT AND HEALTH SECTOR FISCAL SPACE

During and immediately following the Ebola epidemic, the government fiscal space was narrow, as growth trends from GDP dropped dramatically in 2014 from 8.7% growth to 0.7% and to further drop to remain at 0% annual change in 2015.[42] In FY15/16, the Government of Liberia's total actual revenue was made up of 17.5% of external resources, consisting of grants and loans.[43] While Liberia spent more money as a share of total government budget on health compared to the average in low-income countries (11.6% in FY15/16), health expenditure was heavily supported by external sources and was donor dependent for health service provisions.[44] Households carried a large burden as well, with high out of pocket spending for services. In 2013/14, $49 million health expenditure came from the Ministry of Finance, $118 million from donor support, and $128 million from households.[44] (See Figure 5.) In addition, about 43% of donor support

FIGURE 5: Liberia Total Health Expenditure[44]

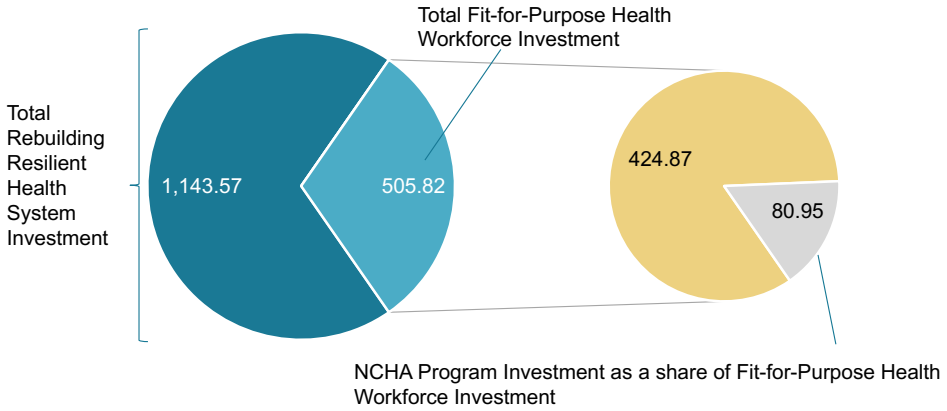


was off-budget in FY15/16 creating inefficiencies and some of the most remote counties received the lowest per capita spending.[45] In FY11/12, total health expenditure per capita in Liberia was 64 USD, but in order to move towards universal healthcare that number needed to rise to at least 86.4 USD. While total health expenditure per capita steadily increased until 2015 to peak at 73 USD per capita, it has since declined to around 45 USD per capita in 2018.[46]

The initial costing began with the development of the Health Workforce Program in 2014 and the parallel Investment Plan for Building a Resilient Health System 2015-2021. Within the Investment Plan budget, the total fit-for-purpose health workforce investment was about 506 million USD, with about 81 million USD of that for the NCHAP Investment.[13] (See Figure 6.) The Investment Plan was created with a recognition that priorities outlined within it could only be implemented through joint actions with other stakeholders. The Investment Plan was meant to align to and build on the existing National Health Sector Plan, meaning the costs were advocated for as an extension of the existing plan and proposed new investments in tandem with routine operational activities that were already taking place. During the creation of the Investment Plan, CHSD, CHAI, and Last Mile Health were developing costing tools. These tools helped the government and key partners understand at a detailed level the different costs and benefits of various elements of the program, as well as where gaps were and who was already providing support.[8]

Given the understanding that there was very little domestic fiscal space, decisions that were included in the policy were both political and fiscal. As the costing was happening alongside the design of the policy and program, key decisions were becoming clearer once stakeholders were able to see the cost implications of policy choices and implementation strategies. One example of this was in the example of the design decision to have one supervision cadre of CHSSs, rather than CHSSs and Peer Supervisors. Once the MoH and coalition understood potential costs of the two supervisory cadres using evidence from the Rivercess CHW pilot program and other countries (such as Bangladesh and Ethiopia), they realized the extent of added costs it would bring to the program.[8] In addition, after Ebola, there were health worker strikes in Liberia due to health workers either not getting their hazard pay during the epidemic or not being paid at all.[47] Given the external environment

FIGURE 6: Health Sector Investiment Plan Costs (FY15/16-21/22, in millions USD)[44]



around the backlog of workers that needed to be formally enrolled, government budget ceilings, and tensions over late payroll, the Ministry of Finance had to push back against adding an additional supervisory cadre. As these decisions were made, the costing of the program was also refined.

NCHAP FINANCING

The financing strategy for the NCHAP included defining the investment priorities, making the case, identifying the gap and existing funds that were available, and lastly showing how the health workforce program and policy could meet those investment priorities.

The case that was made for the investment in the scale-up of the NCHAP included the societal, health and economic benefits of the program. Some of these benefits were a healthier population with up to 12% reduction of child mortality, employment of 4,000 people including women and youth, health security and resilience, and increased voice for the community.[4] Economic benefits would include returns from increased productivity through lives saved, increased consumption through increased employment, and insurance against disease outbreaks.[4] In addition, the NCHAP would serve 70% of the rural population, while only adding 5% to the national health budget.[8] The estimated highest cost drivers of the program over the first seven years included training, supplies, salaries and incentives, and medical commodities.[44] (See Figure 7.)

Once the costing tool was created and the return on investment developed, a financial gap analysis was conducted. This resource gap analysis mapped what funding in Liberia was secured, earmarked, or potential for the NCHAP scale-up, and showed an estimated 52 million USD gap in funding over the next seven years (2016-2022).[44] This helped to identify sources of financing and prioritize potential funding based on feasibility, funding amount, and sustainability.[44] The goal was to use this gap analysis to then set a vision and foundation for a financing for the program, including a road map and strategy to unlock additional financing.

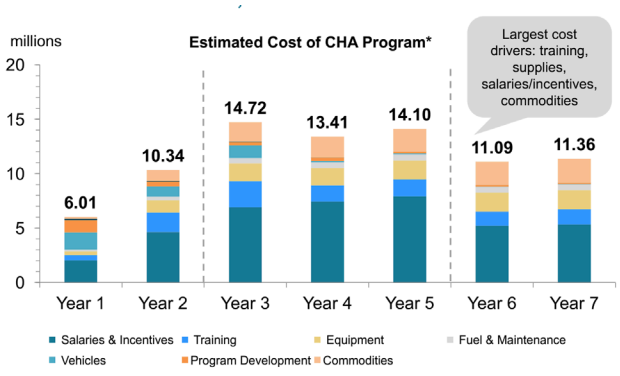
In the resource mapping conducted in 2016, the MoH was able to identify existing funds that were available. Those funds included financing from the World Bank that was left over from the Ebola response (around 65-85 million USD). Due to the size of this funding, NCHAP was in a unique position to get key stakeholders to the table and accelerated interest in the policy reform from a wider group of stakeholders. Ultimately, this funding would end up going to the Health Workforce Program and Investment Plan to rebuild institutions, pay doctors, and scale the NCHAP.

Using the costing tools and resource gap analysis, the government was able to develop specialized investment cases for each donor, which showed how an investment in the NCHAP could provide a nearly five-to-one return on investment.[8] The government was able to match the programmatic and geographical financial gaps with potential funders' interests and advocate for specific line-item resources.[8] These tools were used to harmonize donors, as the financial costing tool matched the Investment Plan, which was then copied into subsequent proposals, investment cases, and advocacy materials.

DONOR MANAGEMENT

With financial planning tools in place, the Government of Liberia was equipped to respond to funders' offers with proposals that would maximize impact and fill gaps in the program.[8] An example of this process was translating the costed NCHAP into the development of an GFF Investment Case. The MoH worked in collaboration with partners to develop the Reproductive, Maternal,

FIGURE 7: Estimated Cost of CHA Program[44]

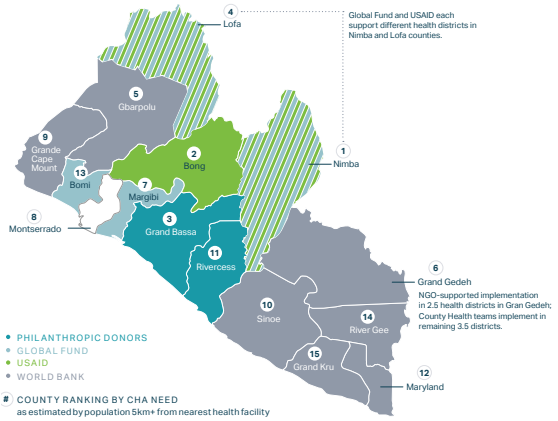


Newborn, Child, and Adolescent Health (RMNCAH) Investment Case for Liberia 2016-2020. The Investment Case was designed to guide national efforts at increasing the quality of service delivery for RMNCAH[4] and included strategic objectives around community health (e.g., the expansion of community-based maternal, newborn, child, and adolescent health services by community health workers, and increased and sustainable community engagement for health resilience).[4] Also in the Investment Case was an itemized costing per investment area, which included a line item for community health at 13.7 million USD over five years (2016-2020).[4] Influenced by other ongoing donor harmonization conversations that were happening in Liberia, the Investment Case also outlined the MoH's vision for—and strategy to reach—greater donor coordination. The GFF Investment Case resulted in 5 million USD for the program and provided a platform for donor coordination by breaking down the funding needs based on domain and county.

Similar types of costing exercises were completed with other donors. For example, at the time, USAID provided about 49 million USD for primary healthcare service delivery. They used a performance based financing approach and supported community health workers in some counties, while the World Bank financed other counties.[4] USAID had to reprogram their PACS project to align with the new policy in 2015. During USAID's annual planning in 2016, their resources were re-aligned to gaps in the program, which included 25 million USD that was made available to support the policy.[4] Similarly, UNICEF and Global Fund also harmonized with the NCHAP and issued requests for proposals to support different counties in Liberia. Plan International was awarded funding from Global Fund, which announced in March 2016 their plans to fully cover Bomi county, four districts in Nimba county, and three districts in Lofa county. The World Bank (initially via UNICEF) supported five counties in the Southeast of Liberia.[8] Other donors and implementing partners made adjustments, but many of these changes were difficult as they required reprogramming and increased costs, particularly for the remuneration of CHAs and CHSSs. In July 2016, the Chief Medical Officer asked all partners for a written commitment to support the CHA and CHSS incentives between June 2016 and December 2017. Through resource mapping, the MoH tracked and documented each donor's priorities. This pushed all donors to be more transparent and forthcoming about funding requirements and allowed the government to gain a more nuanced understanding of the funding puzzle.[8] (See Figure 8.)

The financing goal for the new NCHAP during this period was greater donor harmonization that would allow for increased efficiency, on-budget donor funding, and financing aligned with gaps

FIGURE 8: CHW Program Implementation Funding[8]



in the costed program. Since 2008 in Liberia, major international partners—including DFID, Irish Aid, and UNICEF—had pooled their resources for the health sector into a Health Sector Pool Fund, which constituted 10% of the support to the health sector's national budget from 2008 to 2013.[4] The Fund was established as a way to improve financial coordination among donors, prioritize unmet needs, increase leadership of the Ministry in financial allocation, and move towards comprehensive sector budgeting.[17] The Fund grew from an initial 8 million USD in 2008 to over 35 million in 2010.[48] Fund donors also supported performance-based financing in seven counties until the end of FY 2013-14.[4] Building on this foundation, the MoH envisioned a sector-wide approach for implementing the health sector strategy and hoped it would facilitate a dialogue with partners on aligning their funding to national

priorities.[13] This would put the ownership of financing into the government's hands and promote more government autonomy.

In May 2016, Dr. Dahn, then Minister of Health, signed the International Health Partnership (IHP+) for Universal Health Coverage 2030 on behalf of the Government of Liberia. This event showed Liberia's commitment to health financing reforms and stressed the need for mutual accountability and transparency with shared responsibility between the government and donors.[49] The IHP+ was an international partnership to improve effective development cooperation in health and promote unity around a single health strategy, plan, and monitoring framework. It was created to revitalize and realign multi-stakeholder partnerships for health that would increase coordination efforts of health systems strengthening and promote more government-led management.[50] In Liberia, the MoH held a compact signing ceremony where many partners signed on to IHP+. However, US-funded bilateral institutions were unable to sign on due to restrictions from the US government on how aid money can be spent without earmarks.

Another important milestone in the financing of the NCHAP was the investment case developed for Co-Impact in June 2018, which resulted in an investment of 20 million USD in philanthropic capital over five years. The prospectus outlined three strategic priorities: scaling up the CHA program, building readiness to transition management to the government, and ensuring long-term sustainability of the program.[51] The investment was attractive because it would narrow the funding gap and add to the 70 million USD that was already secured (or in the process of being secured) through concurrent and anticipated investments by other the government and donors. The MOH used the resource mapping to target exactly where this funding would be needed in direct services delivery and technical assistance. Receiving this investment was catalytic in propelling the scale-up of the program.

While resource mobilization for the NCHAP was successful in funding the first years of the scale-up, financing remains the most significant threat to the program's sustainability. During the program readiness phase, there was broad acknowledgment of the costs of the program (e.g., incentives and commodities) and understanding that donor support would be needed in the short and medium term, but the government was optimistic about the vision of sustainability through mixed funding over time. The financing road map outlined a country-owned path to sustainability, which assumed that current donors would sustain or increase commitments in the medium term while innovative financing mechanisms were designed.[32] Domestic resource mobilization options included legislative advocacy, earmarked sin taxes, and county development funds.[32] MoH's policy goal was to create a sustainable health financing system through mobilizing additional, sustainable resources while improving aid effectiveness and coordination in the health sector.[4] This pooling strategy would also be able to allocate resources based on needs across counties. Eventually, the goal was that the government would increase payroll absorption and financial commitments.

Due to the MoH's success in managing donors to fit the NCHAP needs, as of 2019, Liberia had almost every major health sector development donor funding a different part of the program. While this results in differing funders and partners from county to county—sometimes even from district to district—the program implementation is meant to adhere to national program guidelines and be uniform across the country.[8] Standardized implementation has remained a challenge in the management of the program, but the MoH put in place many standards, protocols, data collections, and governance mechanisms in order to enforce this.[8]

PROGRAM LAUNCH

The NCHAP was officially launched on July 24, 2016, strategically aligned with Liberia's Independence Day, per the President's request. This launch symbolized political commitment at the highest levels of government to have CHAs recruited and deployed in every community more than five kilometers from a health facility. However, the true rollout of the program occurred through a series of smaller launches in 2016 and into 2017, as policy dissemination and ongoing program design was taking place alongside the launch.

The CHSD and Steering Committee created implementation guidelines, SOPs, and national and sub-national monitoring mechanisms for the launch activities to ensure operational quality. Partners were held to a basic level of fidelity—including standardized curriculum, data reporting forms, and training oversight—and were required send reports to CHSD on their activities. However, the timing of the roll-out was staggered, with partners and counties choosing how and when they wanted to hold launch activities. This resulted in significant variance across the quality, timeline, and details of the activities. Those counties without implementing partners were largely put on hold for launch activities during this time period.

The first milestone of the launch was in February 2016, when the Revised Community Health Services Policy was endorsed by MoH Senior Leadership at the Health Sector Coordinating Committee and by the President's Cabinet. Other major milestones followed, including policy dissemination, the commencement of CHSS recruitment, Master Trainers Training, CHSS and CHA training, and finally deployment.

COMMUNITY ENGAGEMENT

In April 2016, a dissemination guide was created to help government officials and implementing partners engage with district, county, and community stakeholders on the changes to the new policy. County orientation meetings, micro-planning exercises with County Health Teams, and community dialogue sessions were held to communicate the new policy and develop plans for rolling out the program within each country. In addition, County Health Teams (CHTs) were consulted to determine the necessary scaleup figures for recruitment of CHAs, CHSS, and Community Health Committees (CHCs). Implementing partners were expected to sign a memorandum of understanding with CHTs, and the CHSD to begin implementation. The MoH also spread information about the policy through targeted radio stations.

Prior to the deployment of CHAs, community mapping took place to determine the appropriate CHA distribution and catchment population. Throughout 2016, District Health Teams and officers-in-charge were responsible for ensuring that the new policy and program were communicated down to the community level. In launching the program in communities, County Health Teams initiated community entry meetings with community leaders and CHCs that were active in the community.

RECRUITMENT

CHSSs: By June 2016, 12 out of 15 counties had already submitted CHSS recruits to the MoH's Personnel Department. However, recruitment was staggered—some counties had completed CHSS recruitment by the official program launch in July 2016, whereas, others were ongoing, and a few had not yet started. Some counties also reported challenges in finding qualified candidates, which delayed the recruitment process. CHSS recruitment was typically led by CHT representatives and followed the SOPs for identifying potential CHSSs, conducting interviews, selecting candidates, and signing contracts with the newly hired CHSSs.

CHAs: Counties were moving at different speeds for CHA recruitment as well. Factors such as resources available, size of population, and geographic area impacted timing of the recruitment. By September, CHA recruitment guidelines and literacy tests were yet to be finalized and endorsed by the Revision Groups and Steering Committee. This delay highlighted the ongoing difficulty ensuring fidelity to implementation standards from county to county. Once recruitment guidelines were completed, CHT oriented the CHCs to their role in the recruitment process. CHCs provided recommendations for potential applicants, conducted interviews with nominations, and oversaw the selection of CHAs. As of January 2017, there were 2,602 recruited CHAs (excluding the World Bank counties), surpassing the President's mandate of 2,000 CHAs recruited by the end of 2017.

In March 2017, President Sirleaf put out a "150 Days" statement of the goals her administration had before the end of her tenure. It Included this target:

> *"Have deployed 1000 Community Health Workers to work in rural communities that have limited access to health facilities."*[52]

TRAINING

Master Trainers: The first training for the NCHAP took place in August 2016, when 116 Master Trainers with representatives from 15 counties, 15 MoH programs, and implementing partners of the NCHAP were trained in Kakata, Margibi. While the training was successful, it was conducted without a finalized CHSS and CHA curriculum. The timing of this training was driven largely by resource availability. A refresher training for Master Trainers took place in some counties, including Rivercess and Grand Gedeh, in November 2016.

CHSSs: There was pressure from the coalition to hold the CHSS trainings before the holiday break in December 2016, so throughout November and December 2016, many counties held CHSS trainings. Most were between two weeks and one month in length and were held in centralized locations within the county. By mid-February 2017, there were 306 CHSSs trained across Liberia. A CHSD representative observed each training for a few days and filled out a monitoring and mentorship form to ensure compliance to the curriculum, highlight successes, and document key learnings that could be adapted for future trainings. Each county used the standardized CHSS curriculum and was expected to follow training SOPs that were created by MoH division and implementing partners, such as WHO, CHAI, the Training Unit, and the CHSD Unit.

CHAs: CHA trainings also had SOPs and a standard training cascade for rollout, but they were more variable in the timing of their launch. In Plan International-supported counties, including Bomi, Lofa, Nimba, and Bong, CHA training started in November and December 2016. Most other counties began in January, February, or even March 2017. The training was four sequential modules, with each one lasting 7-11 days. As with other phases of the program rollout, the variance was due to resource availability, but the CHA training also required time in between modules for practical application of the content, which caused training across counties to be even more staggered. Some counties had set timelines and were restricted by resources, so they compacted the training into six months. Other counties had more time between trainings to allow for a longer practical application period and would hold the next training only once the CHAs displayed mastery of the past module in their supervision visits and evaluation. Training monitoring visits were completed by CHSD Technical Coordinators across all 14 counties, and CHSD aggregated and reviewed findings alongside the Training Unit. This information was used to guide the development of refresher training materials. By May 2017, the first cohort of CHAs, supported by Plan International, had finished all four modules. CHA trainings were mentioned in President Sirleaf's State of the Nation address in January 2017: "Recalling the effectiveness of mobilized communities in defeating the virus in record time, ongoing programs are training four thousand community health workers to serve as first responders."[53] (See Table 3 training progress.)

Another key training that was taking place during this time involved the supply chain. Training sessions for county pharmacists on the Logistics Management Information System (LMIS) were held in October 2016. The LMIS rollout happened in all 15 counties from February to March 2017.

TABLE 3: Recruitment and Training Progress

RECRUITMENT AND TRAINING PROGRESS	DECEMBER 2017
Number of Clinical Supervisors Trained	350
Number of CHAs Trained in Module 1	2,903
Number of CHAs Trained in Module 2	2,896
Number of CHAs Trained in Module 3	2,890
Number of CHAs Trained in Module 4	2,455

**Implementing partners include: International Rescue Committee/PACS, Plan International, Medical Teams International, Samaritan's Purse, Conseil Santé, Partners in Health, and Last Mile Health. Funding partners include: USAID, UNICEF, the Global Fund, and the World Bank.*

PROGRAM GOVERNANCE

Similar to transitions between other policy reform stages, the shift from the program launch phase to the program governance phase varied by county, depending on the financing available. In some parts of the country, training was complete and CHAs and CHSSs were deployed within six months, whereas in other areas the transition to governance took over a year. During this phase, the Steering Committee and other key actors within the MoH established governance structures, a robust performance management system, monitoring and learning mechanisms, and pathways to government transition. These structures provided a strong framework for the NCHAP to sustain rapid growth, ensure high-quality implementation, and drive continuous adaptation and improvement in response to challenges and evolving needs. The priorities during the first years of program implementation included building governance structures for MoH management and oversight, ensuring quality and coordinated implementation across partners, and laying the foundation for program sustainability.

GOVERNANCE STRUCTURES

Governance structures were created within the MoH to manage the NCHAP, including the Community Health Steering Committee, Community Health Technical Working Group, Quarterly Review Meetings (QRMs), and the Inter-Ministerial Coordination Committee. (See Appendix 1 for more information.)[32] These working groups had defined TORs and strengthened the coordination between partners and the government. Common challenges in the implementation and scaleup of the program were discussed and deliberated in these groups.[8] CHSD was also restructured to ensure effective oversight and management of community health activities and now conducts quarterly national supervision visits to counties.[32] An annual work planning process was also established to set targets across counties and partners and align funding with scale commitments.[32] The NCHAP also sends representatives to the Health Sector Coordination Meeting, chaired by the Minister of Health and attended by many other TWGs.

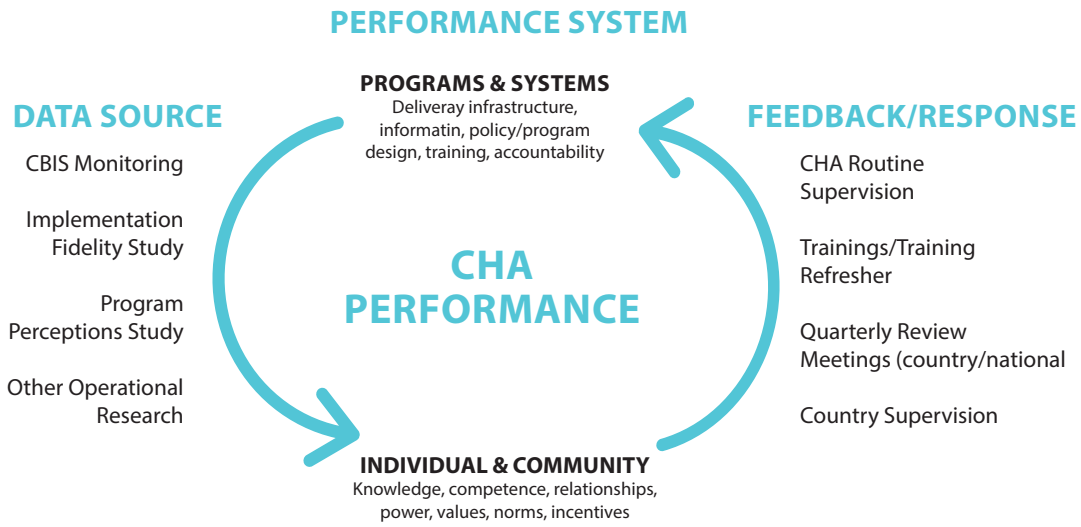
At the county level, governance structures include a Community Health Board and county-specific QRMs. Within the CHWS for ALL project, a mapping exercise was completed in some counties—including Rivercess and Grand Bassa—to identify civil society and community-based organizations working in community health. The mapping exercise also noted tools, strategies, and interventions being implemented.[32] Community-level governance structures also include Health Facility Development Committees and Community Health Committees.

PROGRAM PERFORMANCE AND QUALITY IMPROVEMENT

The NCHAP developed a scalable performance management system that ensured high-quality national implementation.[51] (See Figure 9.) This system captures and uses data to inform customized feedback loops from CHAs, CHSSs, and other users of the system.[51] A major component of the program performance management system is the QRMs. During these meetings, the MOH invites key stakeholders to review the performance of the program and leverages data to drive policy development and program adaptation. This strengthened coordination across stakeholders has promoted government ownership of the program.[38] The performance of the program is measured through data collection and research studies, such as the Implementation Fidelity Initiative (IFI) and Program Perceptions. These joint research studies have enhanced qualitative research skills at the MoH and the data is leveraged for decision making in program execution. During these meetings, performance gaps or successes are shared, long-term trends are monitored, and program design is adapted as needed. Following the meetings, counties determine action items to respond to performance gaps and track trends in a shared spreadsheet for accountability.

The first Joint National Quarterly Review Meeting, held with the National Health Promotion Division and the Division of Environmental and Occupational Health, took place in March 2017 in Zwedru, Grand Gedeh and have continued quarterly up to present day.[32] In the first QRM,

FIGURE 9: Overview of the Performance Management System [51]



implementing partners and officials from CHSD drove the agenda. However, by the fourth QRM, more clearly defined roles and processes were introduced, which led to significant improvements—County Health Teams assumed more ownership of data presentations, central MoH and senior officials provided greater strategic direction, and partners and donors attended more consistently.[32] The sharing and use of data for decision making has also increased over time. QRMs have evolved to become a forum where program barriers and facilitators are discussed across a range of key stakeholders and potential solutions and action points are generated.

County-level Quarterly Review Meetings also bring together county health teams, facility-based staff, and national MoH staff. These meetings leverage data to identify performance trends and areas of the program that need improvement. This has supported the CHTs to make data-driven solutions and adapting to the needs of the program, which was particularly critical in the early implementation phases.

Both routine and non-routine data collection activities identify gaps, monitor program outputs, and improve implementation fidelity, program impact, and CHA performance.[8] Data collection began in 2017, shortly after the launch of the program, and can be categorized into four main community-level data systems: CBIS Monitoring, Community Events Based Surveillance, Implementation Fidelity Initiative (IFI) Study, and Program Perceptions Study. (See Appendix 3 for more information on data sources.)

Another performance and quality improvement structure that was created was the County Capacity Assessment Toolkit. The first version of this toolkit was created in 2017 to measure and build the preparedness of CHTs to manage all aspects of the NCHAP specifically. This initial assessment, organized by the six WHO Building Blocks for Health Systems Strengthening, assessed the environmental and operational readiness of each county, and determined priority improvement areas. This data was then utilized to develop county-level capacity development plans.[54] In 2019, the Liberian MoH revised, expanded, and standardized this toolkit to assess both County and District Health Teams' management and systems capacity to provide quality healthcare as a whole, including services under the NCHAP. CHT Capacity Assessments were completed across all 15 counties of Liberia in 2019 to provide objective information

for performance monitoring and identification of CHT/DHT capacity building needs.[54] MoH and CHTs used these findings to develop comprehensive, county-specific capacity building action plans.

NCHAP GOVERNMENT TRANSITION

From the creation of the Revised Community Health Services Policy, the goal has been to build readiness within the Liberian government to assume leadership of the NCHAP, both from a financial and management perspective. The plan was to leverage implementing partners' positionality to lead initial program implementation and management of the program, while the government learned from the insights and slowly took over program ownership.

The model for government transition of operational management includes four steps: 1) co-design, 2) joint management, 3) government management with partners providing technical assistance, and 4) full government management.[51] (See Figure 10.) This first step was completed throughout the policy reform process described previously. However, as of 2018, only five counties in the Southeast had been transitioned to government operations, while most other counties were operating in step two or step three.

The costing and financial planning tools created in the readiness phase allowed the government to proactively manage and scale up resource mobilization efforts and allocation decisions to sustain the program. While the domestic fiscal space was limited, the coalition was generally optimistic that the program could become more sustainable if program costs reduced over time, the government continued to receive support for fiscal planning, and the government was incentivized to prioritize the CHA program in its spending. The goal was for the government to take on more of the financing for the program in the long term.[51]

However, several external factors influenced overall government sustainability in 2018-2019. First, there was a new administration in early 2018. This was the first time since 1980 that power was transferred peacefully from one democratically elected government to another. The NCHAP and policy remained, which signaled successful institutionalization and a dedicated core group of champions in the MoH, led by the new CHSD team. The newly elected President of Liberia, George Weah, and his administration developed the Pro-Poor Agenda for Prosperity and Development 2018-2023. The Agenda highlighted Liberia's five-year national development plan and cited community health programming as essential to the improvement of health services delivery and infrastructure: "The CHA program is a promising approach that can, potentially, change the narrative around healthcare delivery in Liberia."[55]

While this indicated a positive outlook for the sustainability of the program, many other changes were taking place in Liberia during this time period. In 2018 and 2019, there was a large economic decline, which made it difficult for the government to prioritize health and increased Liberia's dependency on external aid. Overall, the program was operating in a more insecure environment, which lengthened the timeline for a transitioning the program to government management.

FIGURE 10: Pathway to Government Management of the NCHAP [51]

Opportunities and Looking Forward

Program Management and Learning

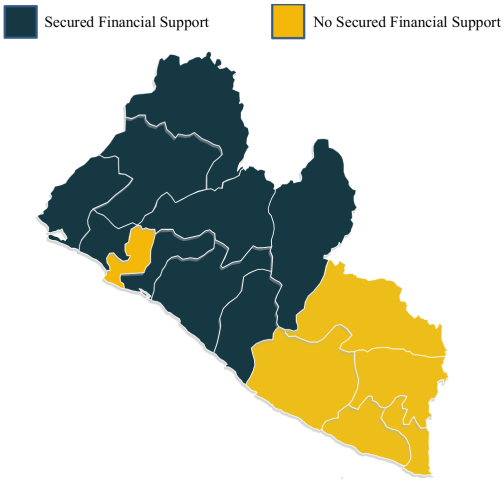
Since the launch of the NCHAP in 2016, Liberia has made enormous strides in extending essential health services to remote and rural communities. As of December 2020, 3,430 CHAs and 388 CHSS were trained and deployed in communities across Liberia, which covered 80% of all communities outside of the five-kilometer radius of a health facility in the 14 counties implementing the NCHAP.[15] From the launch of the NCHAP in July 2016 to January 2021, there have been over 630,000 treatments administered for children under five for malaria, diarrhea, and acute respiratory infections.[56] While this increase in treatments cannot be attributed to the NCHAP and policy alone, the program's components—such as a nationalized distribution of rapid diagnostic tests for malaria and an increased number of trained CHAs in remote communities—has undoubtedly been a contributing factor.[8] Evidence shows that the NCHAP has contributed substantially to the proportion of overall malaria diagnosis, with 0% of diagnoses completed by CHWs in 2016 to 48% in 2020.[57] A study measuring the quality of community-based care in remote areas through clinical vignettes showed that in three counties in rural Liberia between January and May 2019, more than 50% of the CHAs determined the primary diagnosis correctly, with the percentage of correct diagnoses of malaria vignettes significantly higher at 82%.[58] These findings indicate that more people are staying in their communities to receive care for malaria from CHAs, and that CHAs have the skills and knowledge to correctly diagnose and treat malaria within the community.

KEY ACCOMPLISHMENTS

GOVERNANCE STRUCTURES

The NCHAP successfully built an integrated health system, by moving from a fragmented CHV program to a high quality, unified CHA program. The program's major success was a standardized service delivery package supported by government-owned norms around skills development, supervision, remuneration, data collection and use, supply chain, and resource monitoring and mobilization.[32] Performance standards and data systems are consistent across the country. Also, detailed financial planning and increased transparency about resource gaps based on costed needs has resulted in efforts to harmonize donors and build towards sustainable financing. Of the estimated 95 million USD cost to reach full coverage of the NCHAP, over 52 million USD has been secured to date—with another 41 million USD expected to be available beyond fiscal year 2020-2021.[60] Across Liberia, 60% of the 15 counties have secured financial support as of December 2020.[61] Most of this funding is channeled through implementing partners, but several counties have County Health Teams leading implementation through UNICEF and World Bank funding. (See Figure 11.)

FIGURE 11: Counties with Secured Financial Support 2020



The program's success in scaling nationwide is due partly to its integration within the primary healthcare system. The National Community Health Services policy reform extended the reach of the primary healthcare system by providing essential services and health surveillance to communities more equitably. This was implemented through operational plans, SOPs, and processes to support more streamlined information management and sharing. A web-based knowledge management and communication system was developed, where the MoH and key stakeholders could access and share up-to-date versions of relevant program documents, policies, standard operating procedures, and forms. The current Director of CHSD, S. Olasford Wiah, has championed the program by conducting routine reviews, leading MoH-led governance structures for oversight, and prioritizing investment in adaptations of the NCHAP.[59]

ADVOCACY

Lessons learned in scaling up the program in Liberia have been shared and utilized at a global level for advocacy on primary healthcare and UHC, particularly for remote and rural communities. The success of the NCHAP has shown the opportunity of CHWs to realize the full potential of a primary healthcare system by extending services to the furthest communities and putting them at the center of advocacy agendas. The champions and coalitions within the Government of Liberia that advocated for the program on a national and global level established shared principles and practices to communicate about the program. This advocacy prioritized the needs for the national scale-up of the program and served as a way for the MoH to drive the agenda around community health systems strengthening.

Liberia's NCHAP has been recognized globally as an exemplar. Over the past several years, the MoH has presented at key international meetings to share learnings from the program. In October 2018, Liberia was invited to attend the Second Global Conference on Primary Health Care in Astana, Kazakhstan. Minister Jallah, Ruth Tarr (who serves as a CHA in Rivercess County), and Director Wiah spoke at several key events. At this conference, which marked the 40th anniversary of the Declaration of Alma Ata, delegates from more than 120 countries renewed their commitment to primary healthcare for all.[62] The WHO also used this platform to launch its first-ever global guidelines for health policy and system support to optimize community health worker programs.[1] Liberia's MoH was represented on the committee that developed these guidelines. During the event to launch the guidelines, both Dr. Jallah and Ms. Tarr sat on a panel of global experts to advocate for frontline and community health workers.

In April 2019, Director Wiah and LMH's then-Chief Operating Officer, Lisha McCormick, spoke at the Skoll World Forum. They discussed their collaboration in institutionalizing the NCHAP during a session called "Scaling Health Solutions Through Government Partnerships." Liberia was also represented at the November 2019 Second CHW Symposium in Dhaka, Bangladesh—a three-day conference focused on research in community health worker programs and attended by over 400 participants from ministries of health as well as donor and partner organizations. Director Wiah and LMH presented the findings from Liberia's digital IFI platform and Program Perceptions study. Liberia has been nominated to host the next Global Community Health Symposium in November 2021. This symposium provides an opportunity for Liberia to continue sharing key insights the NCHAP, as well as learn from other countries.

INNOVATIONS

In addition to national level successes, there have been program innovations piloted at the county level to help expand and increase access to essential services. In Rivercess County, the MoH began piloting Sayana Press, an injectable form of family planning, at the community level. After being trained on how to administer Sayana Press in early 2019, over 100 CHAs and CHSSs distributed the injection to women throughout all six districts in Rivercess County.[63] A qualitative evaluation of the pilot found that community members largely accepted the rollout of Sayana Press, with some reporting that they preferred it as a family planning method.[63] It also showed that CHAs learned how to administer Sayana Press and that the commodity

was effectively integrated into the supply chain. This pilot's success proved there is potential to scale this innovation across Liberia. Though there are some key learnings to consider in expansion, including the need for building community trust and user knowledge; increasing training in monitoring and reporting of Sayana Press; addressing gender dynamics that occur with male CHAs providing the injectable; and ensuring necessary commodities to support administration are provided.[63]

Another innovation that has been tested since the launch of the NCHAP is a Community Health Promoter (CHP) Program in Maryland County. The pilot program establishes a new cadre of community health workers, known as CHPs, to serve the 71% of Liberians that live in communities within five kilometers of the nearest health facility.[64] Working alongside CHAs, this new cadre would consolidate the existing, fragmented CHVs (including Trained Traditional Midwives, Community Health Promoters, and Community Directed Distributors) into a single, standardized, and professionalized cadre. The MoH granted the Maryland County Health Team and government partner, Partners in Health, approval to pilot the program in 2018.[64] An evaluation after the first year of the pilot found that a total of 3,177 people were linked to care by CHPs, including 24.4% of cases related to common illnesses among children under seven years of age and 18.5% of adult referral cases for malaria.[64] Due to this success, the pilot will expand within Maryland County. In addition, the lessons learned from the pilot will inform the creation of a national CHP strategy and its institutionalization into the National Community Health Services Policy will be an area for advocacy in the upcoming policy revision.

KEY LEARNINGS

While the NCHAP has seen incredible progress, there have also been major challenges and key learnings since its official launch in 2016. Some key areas of institutional learning involve gender, uneven implementation of the program, frequent stockouts, and long-term financing.

GENDER

As of October 2020, women made up less than a fifth (17%) of the CHA cadre.[15] While specific components of the policy are designed to give preference to female CHAs during recruitment, evidence shows that the existing recruitment guidelines are not enough to reach these goals. The result of a heavily male skewed CHA cadre has created unintended quality and service delivery consequences. One consequence is that women may be less willing to go into detail about pregnancy, family planning or reproductive health with male CHAs.[65] Qualitative data from the Sayana Press pilot in Rivercess County showed that women were more comfortable reporting side effects and danger signs to female providers than to male providers.[63] An additional dynamic that is created in the community is that while CHAs are overwhelmingly male, they often work with traditional midwives (TTMs) in the community, who are mostly women that have been working with pregnant women in their community for many years to encourage antenatal care visits and health facility deliveries. However, TTMs under the new policy do not get paid and data has shown that they can feel demotivated that they are not recognized for their continuous support to the NCHAP.[7] However, TTMs are essential in supporting CHAs to provide support to pregnant women and thereby decreasing maternal mortality and neonatal deaths.

One cause of this inequitable gender breakdown in the health workforce involves access to education as literacy requirement acts as a selection barrier for women. In addition, while there is a stipulation in the policy for 30% of the CHC members to be women, there are no accountability mechanisms to ensure this is happening. As a result of these barriers, female candidates in many communities were not given preference, despite that the majority of services being provided by CHAs are to women and children. A 2017 mid-term evaluation of the PACS implementation of the NCHA program showed a greater male bias in the gender composition of newly recruited CHAs than seen in the predecessor cadre of gCHVs. In PACS data, 32% of gCHVs enrolled in training were female, which contrasted with the 16% of CHAs in training who were female. This suggests that the implementation of the new policy reversed progress on gender equality in the health workforce.[36]

In tandem with an upcoming comprehensive

policy review, the MoH in partnership with LMH, is conducting a gender assessment. It will examine the gender responsiveness of the policy and assess the gender barriers that exist as the policy is translated to practice. Promoting the recruitment of more female CHAs and developing a more gender-responsive NCHAP offers an opportunity for institutional refinement and improved health outcomes.

UNEVEN IMPLEMENTATION

Another major challenge in the NCHAP has been uneven implementation and lack of alignment within the MoH, as well as across partners. From county to county, there are many differences in implementation practice in terms of supervision, CHA performance, supply chain management, timely payments, and overall quality of service delivery. Much of the variation between counties can be attributed to: the type of technical support that has been provided to the county health teams; how long the program has been fully launched; the county's geographical proximity to the capital; the literacy and educational rates; and the county's investment priorities and health sector resources.[8]

Uneven implementation can be seen in supervision performance and consistency. Between July 2017 and August 2019, the percentage of supervisors in each county who submitted their monthly service report for three consecutive months ranged from fewer than 50% in Grand Cape Mount County to 100% in Margibi County.[8] In addition, IFI data shows that this has not changed significantly over time: between November 2020 and January 2021, the percentage of CHAs who reported receiving a supervision visit in the preceding four weeks ranged from 36% in Sinoe County and 68% in Maryland County to 100% in Bomi County.[66] This variance indicates that in some counties, supervision is not happening regularly and in others—where it is happening—CHAs or CHSSs are not consistently providing and submitting monthly reports.

Another important issue that exemplifies the uneven implementation of the NCHAP is timely remuneration. Method of payment varies by county, with some counties using mobile money or bank transfers, and others doing direct cash transfers. According to IFI reports, in some counties, such as Grand Bassa and Margibi, every CHA reported receiving the full amount of their last monetary incentive on time (between November and January 2021), whereas none of the CHAs in Maryland County reported receiving a payment.[66] In 2019, CHAs in some counties went over six months without pay due to management and liquidation issues. Given USAID-supported counties mandated that monthly reports from CHAs and CHSSs were submitted prior to receiving payment, untimely submission of reports resulted in payment delays.[8] Other counties, such as those supported by the Global Fund, use mobile payments and don't require reporting, so payments are often more timely.[8] Delayed payments cause demotivation among CHAs and can lead to the loss of trained personnel through attrition. Other risks of demotivated CHAs include unattended posts or inconsistent services provided in the community, which could create potential gaps in service delivery. With on-time payments to CHAs consistently falling below 50% and wide variance on fidelity from county to county, this challenge poses a major risk to the efficacy of the NCHAP. Timely payments with standardized disbursement mechanisms are another opportunity for further refinement through the upcoming policy revision.

STOCKOUTS

The stockout of essential medical supplies in the communities is a national issue and a major hindrance to the operational success of the NCHAP. Between December 2019 and December 2020, only about 25% of CHAs had life-saving commodities in stock.[66] Without the necessary medicine and health commodities, CHAs are not able to use the knowledge and skills they acquire in training to adequately treat their communities. These stockouts not only obstruct a CHA's ability to perform his/her job but they undermine trust in the program as a whole. In the PACS mid-term evaluation, several CHSSs, district officials, and CHTs reported that they felt the credibility of CHAs and the national program as a whole was being undone as a consequence of these stockouts.[36] Similarly, CHAs shared that they were receiving negative feedback from households when they

had to refer patients due to inadequate supply.[36] The Program Perceptions study also found that insufficient drugs at the community level caused both a loss of trust in CHAs and an increase in referrals for patients who could have been treated by CHAs.[7] This evidence shows that CHAs need drugs and commodities in order to effectively serve and build trust with their communities.

However, the availability of drugs varies significantly across counties, and some implementing partners—such as UNICEF and LMH—procure commodities directly for the counties they support. These stockouts are part of a larger problem of Liberia's drug supply chain at all levels. Challenges include forecasting accurate demand, monitoring storage levels and inventory, managing transportation and distribution from the central warehouse to district level, and overall coordination of supply chain.[8] In 2018 and 2019, less than 50% of CHAs had stocks of zinc to stop diarrhea and amoxicillin to treat acute respiratory infection, and less than 65% had oral rehydration solution and malaria drugs.[66] Liberia has taken steps to improve the management of the supply chain system, including launching a Logistics Management Information System (LMIS) to track data, but the system is not yet fully functional.[8]

Several implementing partners have been working with the MoH to address these challenges. In 2017, UNICEF supported the refurbishment of three county depots.[67] USAID funds commodity procurement, supports supply chain strengthening activities, facilitates international sourcing of commodities, and provides technical assistance to warehouse management.[67] LMH and VillageReach have together partnered with the MoH to address some of these systems-level capacity gaps identified within the national supply chain. The partnership is working to identify options for sustainable government investment by first pinpointing national commodity needs via detailed quantification analysis, digital data collection systems, and improved central/county coordination mechanisms. Another supply chain innovation being proposed in Liberia is a kit-based distribution system that would be integrated into the national supply chain to strengthen the transportation of essential medicines and supplies from health facilities to CHAs. Leveraging evidence from other countries, champions of the model include partners like VillageReach and MoH officials like CHSD Director Wiah and Minister of Health Dr. Jallah.[68]

FINANCING

Sustainable financing remains a significant challenge to the NCHAP. Currently, the program is supported mostly by donors through funding flows that can be unpredictable, but the proposed long-term goal is financial sustainability that brings CHAs and CHSSs onto the government payroll. The aim is to have the government cover the majority of the program's expenses. However, given the Government of Liberia's resource constraints, it is unclear if and when the Government of Liberia will be able reach that goal without reliance on partners. As of 2020, the MoH has brought only about 14% of CHSSs onto the MoH payroll since the program's launch.[69] While this percentage has increased from previous years, the vast majority of CHSSs are paid by partners, and there is not yet a clear strategy for how the government will absorb CHAs incentives in the long-term.[67] In 2019, the CHSD and County Health Teams received direct support for the NCHAP implementation totaling just over 800,000 USD from the World Bank for two counties and 1.3 million USD from UNICEF for five counties. This funding went to both program implementation costs, and CHSSs and CHAs incentives.[67] While many counties have secured funding for the next five years (2020-2024), several counties are facing potential funding cliffs.

In order to anticipate, manage, and avoid these funding cliffs in the future, CHSD Director Wiah has developed a "One Partner, One County" strategy, which advocates for a greater alignment of donors and implementing partners to ensure each county's community health program is supported. As of early 2021, the World Bank, LMH, Global Fund, and USAID have all committed to support counties through this "One Partner, One County" model.[59]

In addition, due to the varied implementation and funding flows that go directly from the funding source to implementing partners, the CHSD doesn't have full visibility into program costs in all counties. This causes challenges in tracking and projecting.

The MoH and partners are exploring strategies to overcome this issue, such as encouraging program implementers at the county level to move to a common budget and expenditure framework and creating standard practices and tools for cost analysis in collaboration with the Health Financing Unit. Developing a long-term financing strategy—aligned with broader health financing reforms—in coordination with the Health Financing Unit and other government stakeholders is another area for advocacy in institutional refinement.

CORONAVIRUS (COVID-19)

In December 2019, a new coronavirus disease, known as COVID-19, was identified in Wuhan, China. Over the next several months, the disease spread to nearly every country in the world. The WHO declared COVID-19 a global health emergency in January 2020 and the world hit two million recorded COVID-19-related deaths a year later. The first case of the novel Coronavirus was confirmed in Liberia on March 16, 2020—just over four years after the country was declared Ebola-free.

Liberia had spent the years since Ebola rebuilding the health system, establishing a strong community-based surveillance system, and launching the NCHAP that hired, trained, and equipped frontline health workers in almost every county.[8] When the Coronavirus pandemic reached Liberia, the health system was more prepared to respond to a pandemic, with community health workers actively engaged in communities and ready to fight to prevent, detect, and respond to COVID-19. As early as January 2020, when the first cases of COVID-19 were spreading across the globe, the MoH started to take evidence-based measures to control the virus, including proactively reinstating an Incident Management System, enforcing risk mitigating measures, and rolling out health promotion awareness campaigns.

Once there was a confirmed case in Liberia, the response efforts were set in motion and the MoH set up community engagement and risk communication pillars to align and coordinate key stakeholders around the response. A training was held for frontline health workers specifically on COVID-19, covering: how to conduct community engagement and awareness; prevent stigma and dispel myths about COVID-19; mitigate the spread in community and healthcare settings through infection prevention and control practices; and encourage community-based risk mitigation and action.[70] In addition, CHAs and CHSSs—along with remote health facilities—were included in the MoH projections and procurement plans for personal protective equipment (PPE). LMH, in collaboration with VillageReach and the MoH, distributed over 830,000 items of PPE (including masks, respirators, gloves, gowns, and goggles) to community health workers, health facilities, and clinics across Liberia.[71] Infection prevention supplies—such as hand-washing buckets, hand sanitizer, and soap—were also distributed to facilities and communities. Equipped with PPE, CHAs have been able to continue providing essential primary care services in their communities.

Essential to prevention efforts, CHAs were also trained on signs and symptoms of the virus, home-based care and isolation protocols, new continuation of care protocols, and triggers in the community. As a part of the community events-based surveillance system, they have supported contact-tracing and reporting efforts. Community level primary healthcare data showed that routine household visits and treatments delivered for malaria, diarrhea, and acute respiratory infection stayed fairly steady throughout the pandemic, after a slight drop in March 2020.[73] Throughout the first few months of the outbreak, both health facilities and CHAs saw an increase in the number of malaria treatments delivered to children under five.[57]

Despite these efforts at the community level, facility level primary healthcare trends paint a slightly different picture, with utilization decreasing during the pandemic. Nationwide from March to June 2020, there was a 35% drop in children who were fully vaccinated—largely due to vaccination outreach being halted—and a 18% drop in antenatal care visits.[72] However, according to IFI data only 1% of community members served by CHAs reported that they failed to visit a health facility when they were sick because they were afraid of COVID-19.[66]

While the full impacts of COVID-19 on the healthcare system and health outcomes are not yet known, early findings suggest that community health workers in Liberia have been vital in responding to COVID-19 and ensuring the continuity of community-based primary healthcare services. COVID-19 has reinforced the need for continued investment in resilient health systems and the critical role that a trained community health workforce can play in emergency response.

REFORM OPPORTUNITY AND LOOKING FORWARD

The NCHAP was built with structures of learning and performance assessment embedded in the design to ensure a high-quality program with continuous improvement. When the National Community Health Services Policy was being developed in 2015, the coalition agreed on a mid-term review in 2018 and an end-line evaluation in 2021. However, due to a government transition and constraints on available resources, the mid-term review scheduled for 2018 was not done.[74] Instead, stakeholders decided to do a comprehensive review that would inform the development of a new policy and strategic plan, which will be validated in late 2021. The review will assess and revise all relevant, existing tools of the program, including the curricula, SOPs, and job aids. Based on the review, the coalition will support the development and validation of any additions that are needed to augment the existing policy and strategic plan. The goal of this review is to assess project fidelity and effectiveness of the NCHAP while learning from implementation best practices, challenges, and insights.

The MoH's concept note for the Comprehensive Performance Review (2016 - 2021) and the development of the new Community Health Program Strategic Plan and Policy (2021 - 2030) defines the policy revision's key objectives as:

- Review current documents and systems to identify gaps and successes
- Explore the process of implementation of the Community Health Assistant program
- Review the coverage of the NCHAP and align partners and funding across the counties
- Assess implementation fidelity of the NCHAP
- Implement recommendations from the review into the new policy
- Examine the following key strategic questions:
    - To what extent was the program implemented as planned?
    - To what extent were the objectives and intended immediate outcomes achieved?
    - What are some key implementation challenges, best practices or lessons learned from implementation of the program?
    - What are the unintended effects of the program implementation and which intervention was most likely associated with those impacts?
    - What are the existing CBIS and LMIS reporting and data management gaps, and how can we strengthen/address them?[74]

The comprehensive review will be completed in phases. The first phase is a desk review by thematic technical working groups and sub-technical working groups, followed by a consolidation and validation of the desk review. Subsequently, the policy, strategic plans, and all other necessary documents will be revised and validated. Finally, the new 2021-2030 National Community Health Services Policy, Strategic Plan, and relevant documents will be launched.[74]

After five years of implementation and continuous learning, this policy review provides a window of opportunity to advocate for greater investment in the community health system and deepen the NCHAP's focus on quality, scale, and long-term sustainability. The review will consider key design components of the program, including: gender mainstreaming; expanding the use of digital training tools for performance management and training at the national level; strengthening service delivery for malaria, nutrition, family planning, and immunization; and improving disease surveillance and supply chain information systems on a national level. Design decisions that were made throughout the reform cycle of the 2016 policy revision will now be reexamined with a new coalition of actors.

In Conclusion

Almost five years after the NCHAP officially launched, a new coalition of actors led by the MoH is in the initial phase of a new reform cycle. The vast experiences, learnings, and successes that have been documented throughout the program will be used to inform the new reform cycle. Gaps in the NCHAP will help to prioritize problems, implementation evidence will be used to gather solutions, and the new coalition will use the existing policy as a foundation to build an even stronger program.

The NCHAP's institutionalization can be attributed to several key factors: the foundation of community health programming in Liberia, the unique window of opportunity following Ebola that created unifying momentum, a strong coalition with a vision towards institutionalization, and an influx of resources to fund widescale change. In a commentary co-authored by CHSD and USAID about the NCHAP, the network of "policy entrepreneurs"—government officials, donors, and implementing partners—who came together to catalyze a united program were described as the program's "secret sauce."[59] Liberia's community health coalition that has been shaped and reshaped over the years—with the evolution of the program—will soon enter a new round of policy debates, advocacy efforts, and design decisions. This policy review has the opportunity to position Liberia's new National Community Health Services Policy 2021-2030 even closer to achieving universal health coverage for all.

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Appendices

Appendix 1: Life Cycle of Community Health TWG Subgroups

Community Health TWG Subgroups	Contributions to Policy & Program
Coalition Building (Pre-CHSD retreat: April - May 2015)	
Description: These subgroups were created before the CHSD retreat around the WHO health system building blocks to kick off the policy design process by compiling existing reference materials, consolidate findings to highlight best practices, identify systems bottlenecks, and inform discussions during the retreat.	
Service delivery	Minimum service delivery package *(Disbanded after service delivery package was updated)*
Recruitment and Remuneration	TOR for community health cadres
Training	Training model and curriculum for CHWs and Supervisors *(Combined with supervision subgroup)*
Supervision	Supervision structure, guidelines, and tools *(Combined with training subgroup)*
Community engagement	Community engagement and mobilization strategies
Community Health Management Information Systems, Surveillance, and Monitoring and Evaluation	Indicators and training and CHW database
Supply Chain Management	Supply chain management, procurements, integrated kits and training modules
Solution Gathering & Policy Design (Post-CHSD retreat: May 2015 - early 2016)	
Description: After the May 2015 CHSD retreat, a new task force was created to revise the policy and the other five subgroups were working to design components of the program, following the six-month action plan and road map that outlined the following contributions (Source: Retreat Consolidated Action Plan).	
Recruitment & Remuneration	Verified remuneration for CHSSs and initiated process of identifying and recruiting CHSSs; create professional development pathways; develop costed package (non-monetary) for all cadres
Training & Supervision	Collected existing training materials; hired curriculum consultant; created process and timeline for training curriculum
Community health management information systems and monitoring and evaluation	Revised and piloted test CHW ledgers and CHW reporting tool; developed SOP that determine timeline & structure for reporting; updated CBIS modules in DHIS2 and training materials; coordinated with IDSR TWG and NPHIL
Supply Chain Management	Finalized list of medical commodities to be used at community level; review, update, and design supply chain management tools and SOPs; assess community needs and create community profile for supply forecasting; create training module for supply chain

Policy Revision Taskforce	Updated Road Map/Operational Plan; revise Community Health Services Policy, conduct baseline assessments and mapping of community health workforce and government capacity to expand; develop TORs for subgroups
Program Design (March 2016-2017)	
Description: These subgroups were redefined in March 2016 and divided into "revision groups" for curriculum and systems design and a "steering committee" for a coordination and decision-making body.	
CEBS/Community Surveillance	Module 1 curriculum package
Health Promotion/ Education/Engagement (ETL), WASH	Module 1 curriculum package
Family Planning, Maternal and Newborn Care	Module 2 curriculum package
Vaccinations, Well Child, Sick Child (iCCM)	Module 1 & 3 curriculum package
HIV, TB, Leprosy, Mental Health, First Aid	Module 4 curriculum package
CBIS	CBIS SOPs Monitoring & Supervision SOPs CEBS Referral forms
Community health supply chain	Supply Chain SOPs
Graphic Design and Job Aids	Job Aids
Steering Committee	Decision-making body Training SOPs (in coordination with the Training Unit)
Program Launch & Management (Launch - Present)	
Description: These groups and forums are the current coordination mechanisms that manage and govern the NCHAP.	
Community Health Technical Working Group	Management, coordination, and governance of the NCHAP including design, development, and approval of strategy, scope, and monitoring of risks, quality, and timeliness of implementation
Community Health Steering Committee	Small technical committee at CHSD/DEOH/NHPD to move forward specific activities or to make emergency decisions, such as Community Health Promoter strategy or to address low CBIS reporting rates
National Community Health Quarterly Review Meetings	Quarterly meeting to review and analyze data relevant to the NCHAP, promote learning and adaptive management, document and address challenges in implementation, and share updates on ongoing projects
Health Sector Coordination Meeting	Strategy and coordination of overall MOH and all health sector activities, including the NCHAP
NCHAP Inter-Ministerial Coordination Committee	Coordination meetings held to update representatives across the Government of Liberia on progress and challenges of the NCHAP

Appendix 2: CHWs for ALL Project Key Achievements

KEY ACHIEVEMENTS

ADAPTIVE MANAGEMENT

After the launch of the NCHAP, the Ministry of Health revamped the Community Health Services Quarterly Review Meetings (QRMs) to strengthen the coordination across stakeholders and leverage data to drive decision making.[38] During these meetings, the MoH would invite key stakeholders to review performance and drive policy development and adaptation based on the challenges and successes of the program. The investment supported the County Health Teams and central MoH in conducting the QRMs by establishing them as a major platform to review program achievements and identify gaps and necessary changes.

The MoH and CHWS for ALL project enacted a number of changes to the structure and content of the QRMs, including creating Terms of References (TORs) to improve accountability and clarity on roles, shifting to a more decentralized approach with County Health Teams taking greater ownership, increasing data use and sharing from sources (such as the CBIS, Implementation Fidelity Initiative, and Program Perceptions Survey), and improving tracking of progress.[38] Through the QRMs, improvements and changes to the program were recorded, and data was shared and analyzed. These processes enabled the MoH to regularly monitor the progress of and anticipate challenges with the NCHAP.[39]

ADVOCACY & HEALTH FINANCING

The CHWS for ALL project provided technical support in developing and maintaining health financing tools, including costing tools for the NCHAP and resource mapping. These tools enabled the key stakeholders within the MoH to proactively manage resource mobilization and advocate for the program. The NCHAP's inclusion in the Ministry of Health's 100 days priorities list during the political transition was a key achievement.[39]

DATA COLLECTION

The CHWS for ALL project also supported the roll-out of and training on Liberia's CBIS across the country, which ensured that program implementers could review and use data being produced in the program. CBIS serves as the NCHAP's primary data collection tool and is integrated with DHIS2. This rollout was significant, as it standardized data collection tools across a previously highly fragmented program that had implementing partners managing data through their own paper forms. In addition, individualized support was provided to County Health Teams to improve the frequency and quality of reporting, which had led to increased dissemination of important program information, continuous learning and quality improvement.[39]

PROGRAM DESIGN, MANAGEMENT, AND CAPACITY BUILDING

Another key achievement of the CHWS for ALL Project included improving the coordination, management, and planning for the NCHAP. The project supported the coordination of the CHTWGs and the accountability mechanisms for oversight and management of the NCHAP. In addition, CHWS for ALL supported the creation of stronger governance structures for the program, such as improved coordination mechanisms, drafted terms of reference (TORs) for the TWGs, and developed tools, SOPs and processes. At a county level, the project supported the County Health Teams in engaging with local civil society organizations in order to strengthen community health structures and improve implementation and sustainability.[39]

Appendix 3: NCHAP Data Sources

DATA SOURCES

COMMUNITY BASED INFORMATION SYSTEM (CBIS)

The government-run CBIS serves as NCHAP's routine primary data collection toolkit and is fully integrated with DHIS2.[32] It was finalized in 2017 and even to the present, is used by CHAs to collect data on health services delivered, community health data, disease triggers, and other service indicators.[51] This system tracks CHA performance, monitors the outputs of the program, and is integrated into MoH broader health information system. CHAs fill out paper-based forms to record vital statistics from their routine and active case finding visits. CHSSs aggregate these from each CHA in their catchment area into monthly reports, which are then digitized by county-level data clerks who enter them directly into DHIS2.8 While these tools were mainly paper-based at the program launch, since then some components of CBIS have been digitized in parts of the country and all CHAs and CHSSs have been equipped with digital tools. Data entry tools, field assessments, and refresher trainings have also been digitized. However, some challenges CBIS faced was in the quality of data and inconsistencies in rollout and data collection frequency across the 15 counties.

IMPLEMENTATION FIDELITY STUDY

The Implementation Fidelity Study was designed as an operational research study and was a set of facility and community surveys that assess how closely the program implementation aligns with the policy.[8] Between November 2020 - January 2021, IFI reporting rates were between 83 - 87% with over 493 visits to CHAs conducted across 14 counties. It tracked indicators such as supervision rate, correct treatment, and stockout.[51] These surveys are conducted by MoH or County Health Team enumerators on a monthly or quarterly basis during field visits, aggregated nationally, and then split by county to be reviewed during Quarterly Review Meetings with key stakeholders.[8] In 2018, some early insights from the data showed high rates of supervision, inconsistent CHA payments, and supply chain challenges.[51]

One challenge with IFI was with the quality of data being collected. Also, with each county having a different partner and slightly different approach to implementation, there was variance on implementation practices across the counties. The MoH and partners have worked together to identify these inconsistencies in forums such as the Quarterly Review Meetings and to address them through strengthening data quality, data assurance, and accountability of IFI supervision at the subnational level.

PROGRAM PERCEPTIONS STUDY

The Program Perceptions Study was a non-routine data collection that was launched to research the acceptability and perceptions of the program's strengths and weaknesses. It was conducted through in-depth interviews with stakeholders including CHAs, CHSSs, community members, and Officers-In-Charge.[8] These analyses were also reviewed and discussed during QRMs. One key finding from the Program Perceptions Study was that communities valued the NCHAP more when CHAs and CHSSs were directly selected from the community.[7] However, it was discovered that many CHAs faced initial skepticism from community members about their credibility and a lack of drugs facilitated distrust in the program.[7]