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ACKNOWLEDGEMENTS

This publication was produced for review by the United States Agency for International Development. It was prepared by members of the HRH2030 Capacity Building for Malaria team.

All photos from HRH2030. Cover photo: Standing in the back, Mr. Mahamat Idriss Djaskano, Head of M&E section of NMCP Chad; right front, Mr. Olivier Nagardoum, Head of Laboratory Section of NMCP Chad; center, unidentified woman works at the sentinel site of Agome Yoh in Togo. Photo above: NMCP case management officer conducting a malaria test.

DISCLAIMER

This material is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of cooperative agreement no. AID-OAA-A-I5-00046 (2015-2022). The contents are the responsibility of Chemonics International and do not necessarily reflect the views of USAID or the United States Government.

Acronyms

ASTMH American Society of Tropical Medicine and Hygiene

CAR Central African Republic

CBM Capacity Building for Malaria

CCM Country Coordinating Mechanism

CMM Capability Maturity Model

C19RM COVID-19 Response Mechanism

COP Community of Practice

HRH Human Resources for Health

HRH2030 Human Resources for Health in 2030 program

IRS Indoor Residual Spraying

LCAP Leader-as-Coach Accelerator Program

LLIN Long-Lasting Insecticidal Net

LTTA Long-Term Technical Advisor (advisor)

LDP+ Leadership Development Program Plus

LMIS Logistic and Management Information System

MCS Malaria Control Service

M&E Monitoring and Evaluation

MEL Monitoring, Evaluation, and Learning

MOH Ministry of Health

MOPH Ministry of Public Health (CAR, Chad)

NFM3 New Funding Model 3

NMCP National Malaria Control Program

PMU Program Management Unit

PPE Personal protective equipment

PR Principal Recipient

PSM Procurement and Supply Management

RBM RBM Partnership to End Malaria

RDT Rapid Diagnostic Test

SMC Seasonal Malaria Chemoprevention

SP Sulfadoxine-Pyrimethamine

SR Sub Recipient

UNDP United Nations Development Program

UNFPA United Nations Fund for Population Activities

USAID United States Agency for International Development

USG United States Government



Executive Summary

Capacity Building for Malaria (CBM) is an activity under the USAID HRH2030 (Human Resources for Health in 2030) program. HRH2030 is USAID's six-year flagship program on human resources for health (HRH), which strives to build the accessible, available, acceptable, and high-quality health workforce needed to improve health outcomes and advance universal health coverage The CBM Activity strengthens the institutional and managerial capacities of National Malaria Control Programs (NMCP) by seconding long-term technical advisors (LTTAs) in select countries around the world.

From 2016 to 2021, CBM supported advisors in ten countries: Burundi, Cameroon, Central African Republic, Chad, Côte d'Ivoire, The Gambia, Guinea, Niger, Sierra Leone, and Togo. The scope and technical areas of support are different for each country, based on country needs. Illustrative intended outcomes for the CBM activity working with and through NMCPs include: (I) implementation of national malaria strategic plans to guide a long-term vision for malaria control; (2) development of human resources management systems and processes to address health workforce needs; (3) review and refinement of standard operating procedures for the procurement and supply management of malaria commodities; (4) fostering a global knowledge-sharing platform and community of practice among NMCPs and advisors; and (5) alignment of M&E plans and practices to assess progress towards set indicators and outcomes.

CBM advisors worked within and with the NMCPs by providing technical support to ensure collaboration with other partners to optimize malaria interventions supported by Global Fund resources, build the capacity of the NMCP, and to improve the management and overall effectiveness of the NMCP. Advisors also supported NMCP leadership to overcome obstacles related to leadership and management, using evidence-based approaches and tools that improved management and overall effectiveness of their programs. To ensure sustainability of this work, CBM laid the groundwork

for learning exchanges and sharing of best practices through the creation of an online platform and engagement of NMCP leaders in a community of practice.

CBM was originally a five-year agreement slated to end August 2021, but ultimately extended through December of 2021. This report summarizes the achievements and lessons learned from the CBM Activity, describes progress toward the three objectives, and captures the perspective of participants and partners.

Key achievements of the CBM Activity were:

- Improved NMCP ability to conduct data quality monitoring for malaria through data quality validation exercises and/or harmonizing data migration into systems such as DHIS2.
- Improved national supply chain management system in Cote d'Ivoire and Togo through comprehensive procurement plans to improve efficiency and accountability among supply chain partners.
- Improved Funding Request submissions and grant negotiations for the Global Fund 2020-2022 Funding Cycle.
- Measured improved NMCP institutional capacity to manage country malaria programming.
- 38% increase in internal and external confidence of NMCPs to deliver high quality malaria services.

Capacity Building for Malaria (CBM) purpose and objectives

The purpose of CBM was to improve country Global Fund grant performance through changes in policies or guidelines, improvement in monitoring and evaluation (M&E) systems, or reduced stock outs. The activity worked within the NMCPs to support strategic planning and implementation by embedding a long-term technical advisor (LTTA) tasked with strengthening the capacity of national institutions, host-country systems, and professionals. The objectives of CBM were to strengthen:

- NMCPs' institutional capacity to ensure effective implementation of high-quality malaria control services at all levels of the health system.
- NMCPs' leadership, health workforce, and procurement and supply management (PSM) to support successful
- implementation of Global Fund's new funding model and PMI funding.
- LTTAs' and NMCPs' technical knowledge and experience, and M&E management in malaria control.

The Long-Term Technical Advisor Model

The advisors' ultimate goal was to help NMCPs become high functioning, strengthened institutions with increased capacity to lead nationwide malaria programs, including the management and implementation of Global Fund grants and coordination of other donors' resources. Depending on the need, advisors built the capacity of the NMCP and other national staff engaged in grant implementation, leadership, and management.

At the individual level, the advisors helped build NMCP staff knowledge and skills through coaching, mentoring, and skills transfer. (See box) At the organizational level, the advisors supported the development of strategy and management documents such as national malaria policies, human resources management policies, financial management guidance, standard operating procedures, and more. Advisors also fostered and strengthened enabling environments by supporting effective coordination among donors and key national actors and through thought leadership and knowledge sharing across countries.

The process of embedding advisors frequently started with the NMCP or ministry of health expressing interest to USAID (or the U.S. Embassy in countries that do not have a USAID Mission) in receiving technical assistance to improve the implementation of malaria control programs. CBM worked with the NMCP to further define the profile of the advisors to best complement and support their own staff. CBM hired and supported the advisors as they developed a close relationship with the NMCP team, interacted with stakeholders, conducted performance assessments of the

advisors, and supported reporting, knowledge sharing, and implementation. See the table below for the advisors assigned to each country under CBM.

What worked: feedback from NMCP staff on how advisors supported the organizations

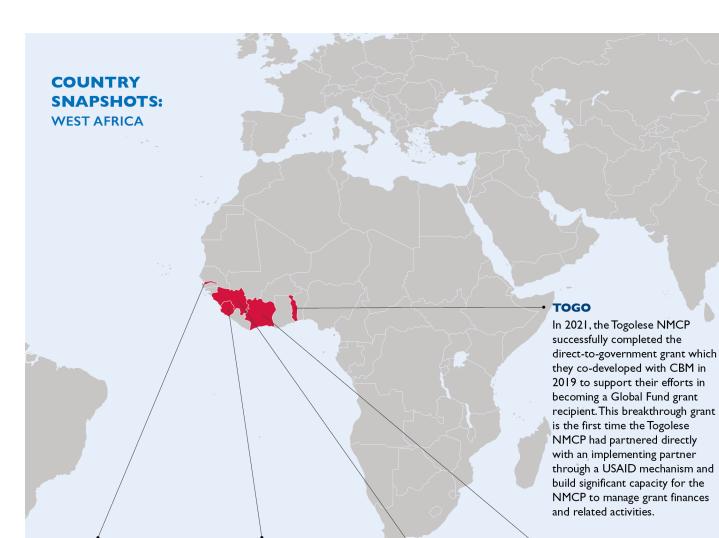
- Drafting activity reports, terms of reference for missions and activities, formulation of objectives and smart indicators, quality work plan, etc.
- Improved NMCP performance at Global Fund performance review
- Increased visibility of the NMCP in the country
- Initiated discussions with private sector
- Effective supply chain management, conducting surveys and field evaluation of malaria commodity management
- Secured resources for LLIN campaigns
- Enhanced NMCP staff motivation and organizational capacity.

TABLE I. CBM COUNTRIES AND FUNDING SOURCE

Countries	Years active	Funding Source
Burundi	2018-2019	MOP
Cameroon	2017-2018	MOP
Central African Republic	2020-2021	CORE GF TA
Chad	2019-2021	CORE GF TA
Côte d'Ivoire	2017-2021	MOP
The Gambia	2018-2020	CORE GF TA
Guinea	2017-2021	MOP
Niger	2016-2019	MOP
Sierra Leone	2017-2019	CORE GF TA
Togo	2018-2021	CORE GF TA



Photo: Malaria rapid diagnostic test kit



THE GAMBIA

In The Gambia's journey towards malaria pre-elimination, CBM supported the Gambian NMCP on a study tour to Nepal, a malaria pre-elimination country, to exchange knowledge on malaria interventions. CBM also supported a Guinean NMCP study tour in The Gambia, where the delegation toured Gambian sentinel sites. research centers, and attended a cross-border mass LLIN distribution campaign in The Gambia and Senegal.

SIERRA LEONE

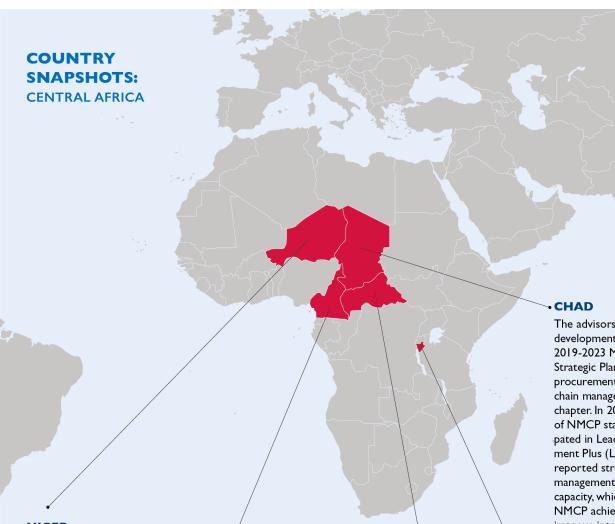
In 2018, CBM supported the NMCP to design a study protocol on the level of adherence to malaria treatment by health workers and patients in four health facilities across the western region of Sierra Leone, including Freetown. In addition, CBM's technical advisor mentored NMCP staff and local partners to develop a training plan for both public and private health workers in all 14 districts of the country. CBM also developed coaching plans to improve the capacity of the NMCP to pilot malaria testing in private pharmacies in five major cities.

GUINEA

In 2018, CBM supported the development of a technical advocacy document to help inform Guinea's 2019 LLIN mass distribution campaign. Forecasts showed the need for the NMCP to find nearly 3.5 million additional nets for effective prevention of malaria in the coming year. CBM helped organize a stakeholder outreach meeting, resulting in a partnership with the Against Malaria Foundation for the free supply of three million LLINs to Guinea. In 2021, the advisor developed and implemented a capacity building plan for the NMCP to ensure a smooth transition at the end of the project and the sustainability of program achievements.

CÔTE D'IVOIRE

CBM advisors introduced innovative tools to improve antimalarial commodity availability in health facilities such as the ABC analysis, which helps storage facilities strategically classify their commodities based on consumption, and End Use Verification (EUV) surveys which help measure how facilities effectively manage antimalarial commodities-both of which have improved the country's antimalarial commodity management. CBM advisors specifically evaluated how health structures identified as "big" consumers of malaria drugs managed their commodities which allowed for allowed for more control of commodity flow, the correction of identified stock deficiencies. redeployment of stocks where necessary, and on-site coaching of those managing the drugs.



NIGER

In 2017, CBM advanced the malaria commodities supply chain in Niger by improving reliability of logistics data and enhancing staff capacity to use of available data for decision making. The advisor worked with NMCP colleagues to develop new tools and upgrade existing ones for commodities management at the central level; provided data analysis support, including how to flag discrepancies; and developed supply chain indicators for malaria commodities for improved monitoring and evaluation.

CAMEROON

In 2018, the advisor contributed to a review of progress made on Cameroon's 2014-2018 Malaria Strategic Plan. The culmination of this review resulted in a renewed strategy developed with the country's NMCP for a National Malaria Strategic Plan to cover the period 2019-2023.

CENTRAL AFRICAN REPUBLIC (CAR)

The advisor supported and contributed to the development of CAR's operational action plan for the LLIN distribution campaign in regions 4, 5 and 7; the development of a contingency plan to continue malaria control services to affected populations during the post-election crisis period; and the improvement of LLIN coverage with: 894,050 LLINs distributed in 2020 in Health Region (HR) I and 1,514,525 LLINs distributed in 2021 in HR 4, 5 and 7.

The advisors supported the development of the 2019-2023 Malaria National Strategic Plan, particularly the procurement and supply chain management (PSM) chapter. In 2021, two-thirds of NMCP staff who participated in Leadership Development Plus (LDP +) training reported strengthened management and leadership capacity, which helped the NMCP achieve its objectives, improve internal communication and collaboration among staff, and improve implementation of the national malaria strategic plan.

BURUNDI

In 2018, the advisor was selected by the Country Coordinating Mechanism (CCM) to sit on the Strategic Monitoring Committee and monitor all Global Fund grants in Burundi.

Highlights by Objective

The sections below highlight methodologies and achievements for each objective.

OBJECTIVE 1: Strengthen NMCP's institutional capacity to ensure effective implementation of high-quality malaria control services at all levels of the health system

KEY RESULTS

- Increased organizational and institutional capacity of NMCPs to implement high quality long-lasting insecticidal net (LLIN)
 distributions through improved data monitoring and analysis.
- Improved the Central African Republic (CAR) NMCP's ability to mobilize, negotiate and sign three new grants for the implementation of National Strategic Plan activities: the Global Fund's New Funding Model 3 (NFM3) malaria grant (2021-2023); the malaria component of the COVID-19 Response Mechanism (C19RM) funding request to the Global Fund to mitigate the impact of COVID-19 pandemic on malaria control activities; RBM Partnership funding for the "Zero Malaria Starts with Me!" Campaign.
- Strengthened functional and organizational capacity of all 10 NMCPs to implement annual national malaria control work plans.

The Global Fund grant performance rating, which measures and monitors the overall performance and progress of grants or grant recipients, is calculated by metrics that are a combination of programmatic performance and a principal recipient (PR) grant management factor. Through the CBM Activity, our advisors sought to influence the Global Fund grant performance rating through institutional capacity strengthening of the NMCP.

The Global Fund conducts regular reviews of the implementation of the grant, with the goal to reach an "A1" rating of "Exceeding Expectations," to help NMCPs continually improve performance and quality and achieve better results. The advisor, the NMCP, and the principal recipient use the results to identify program priorities and inform program implementation in general. For example, if a country receives a poor rating due to low burn rate, the advisor may explore a "ramp-up" activity plan with NMCP leadership to increase spending over the course of the next quarter. Although none of the CBM supported countries became a PR, Burundi and Togo improved their score from B1 to A2 by the end of CBM's support.

Assessments and planning for organizational strengthening

Applied Capability Maturity Model. To set a baseline of NMCP organizational capacity and provide a methodology to measure progress, the CBM monitoring, evaluation, and learning (MEL) team designed and implemented the Capability Maturity Model (CMM) assessment tool for advisors to measure the NMCP's maturity level. Conducted annually, the CMM assessed the NMCPs' institutional and organizational

capacity to implement its functions. This provided concrete, quantified, and actionable information on the organization, and what change was necessary to increase the Global Fund grant performance rating. (See Figure 1.)

FIGURE 1. CAPABILITY MATURITY MODEL AS APPLIED TO NMCP ORGANIZATIONS BY CBM ADVISORS

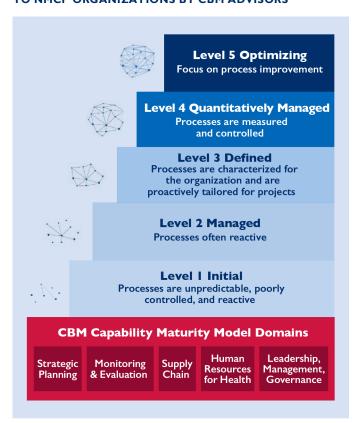
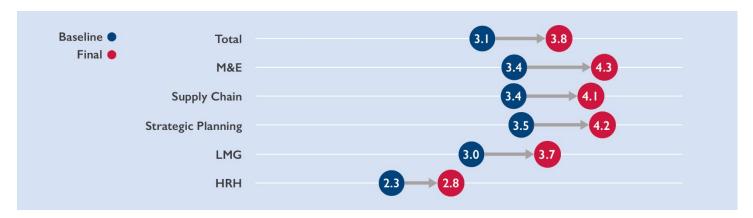


FIGURE 2. MATURITY MODEL RESULTS FOR ALL COUNTRIES BY DOMAIN



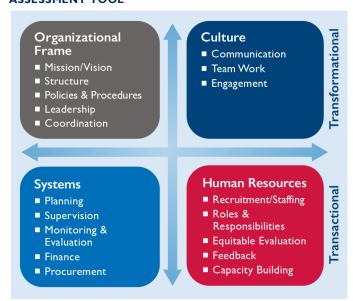
The CBM advisors applied the CMM to guide activities for strengthening the capacity of the NMCPs. With support from the advisors, NMCP staff assessed NMCP organizational maturity in the domains of strategic planning, M&E, human resources for health (HRH), supply chain, and leadership, management, and governance. These were ranked on a scale from I (unpredictable, poorly controlled processes) to 5 (an optimal system with continuous process improvement and high achievement). (See Figure 1.) Advisors used the findings to identify strengths and weaknesses, pinpoint areas in need of support, and track efforts to improve NMCP processes. In collaboration with the NMCPs, the advisors implemented this assessment annually to track progress and inform workplan activities. Mentoring and supporting NMCP staff to conduct the assessment ensured a common understanding of the results as well as buy-in on next steps. They conducted training sessions, hosted knowledge-sharing meetings, and supported NMCP staff to develop and implement their work plan of malaria control activities.

On average across the CBM countries, NMCPs showed improvements across the maturity model domains from baseline to the final maturity model assessments (see Figure 2). Several of the domains —M&E, supply chain, and strategic planning—increased on average from the "Defined" maturity level 3 to "Quantitatively Managed" maturity level 4, indicating notable increases in processes and structures that promote data use for decision making in the NMCPs' work. While the HRH dimension is still in the "Managed" maturity level on average, this still indicates growth from the baseline HRH results, which indicated a major need for organizational strengthening at baseline. The country-level results are presented in Figure 3 below. The results reflect countries at different stages of organizational maturity and should not be compared to each other. See Annex B for detailed data from the CMM.

FIGURE 3. AVERAGE CAPABILITY MATURITY MODEL SCORE FOR ALL COUNTRIES OVER TIME

Country	Baseline	2018	2019	2020	2021	Final Result
Burundi	3.1	3.1	3.7	Closed	Closed	3.7
Cameroon	2.9	2.9	4.0	Closed	Closed	4.0
CAR	2.8	N/A	N/A	2.8	3.2	3.2
Chad	3.0	N/A	3.0	-	3.2	3.2
Côte d'Ivoire	3.6	3.6	4.0	4.0	4.2	4.2
Gambia	3.9	3.9	4.1	Closed	Closed	4.1
Guinea	3.6	3.6	3.6	4.0	4.5	4.5
Niger	2.6	2.6	Closed	Closed	Closed	2.6
Sierra Leone	2.9	2.9	4.0	Closed	Closed	4.0
Togo	2.5	2.5	2.7	3.2	3.9	3.9

FIGURE 4. ORGANIZATIONAL DEVELOPMENT ASSESSMENT TOOL



Organizational Development Assessment. CMM is the appropriate tool if the advisor and NMCP agreed the topic or information gap was related to programmatic areas and time and resources are limited. However, if the obstacles identified were structural and related to internal administration issues at the institutional level, the Organizational Development Assessment (ODA) was applied. (See Figure 4.) The ODA tool draws on the McKinsey 7S model, which focuses on the human element of organizational development and change; and on Burke and Lewin's theory of change (W. Burke, G. Lewin, 1992), which recognizes the transformative and transactional elements of an organization. The ODA tool reformulates the 12 categories of Burke and Lewin into four quadrants for more practical application. The assessment uses a mixed-methods approach across four phases documentation review, in-country consultations, reflection workshop, and capacity building plan.

The outcome of the ODA was a comprehensive capacity building plan with a five-step process. Each step had suggested milestones to guide the NMCP through the process. Milestones were assigned a priority level, a schedule to start and finish the activity, a party responsible for leading the improvement activity, an opportunity to identify whether assistance external to the NMCP is required, the possible funding sources, and the expected results. Using the results and recommendations of the ODA, CBM provided the NMCPs with a roadmap to improve its organizational mandate—to coordinate malaria strategies nationally—and to become a stronger candidate for Principal Recipient when applying for Global Funds grants. In Niger, the results of the assessment also strongly suggested a realignment and possible restructuring of the organization to focus on improved leadership, coordination, communication, and management. In 2020, USAID/Niger requested CBM to hire a consultant to support the NMCP to implement targeted technical assistance activities recommended by the ODA, such as strengthening the HRH management, organizational capacity, and daily management of activities using on-the-job training and coaching.

Support to NMCPs to develop and implement work plans for malaria control

The CMMs revealed weaknesses in strategic planning, vision and mission, work planning, communications planning, and implementation. In some cases, the NMCP did not have a national operational plan, but followed the work plan of the Global Fund. Frequently, the NMCP did not coordinate planning and implementation of malaria control activities across other donors and implementers, so was unable to maximize other sources of malaria funding. Advisors in all 10 CBM countries supported NMCP staff to develop an annual work plan that integrated malaria control stakeholder activities, reflected budget constraint realities and a clear designation of roles and responsibilities, and considered



"HRH2030-CBM supported an NMCP organizational capacity assessment, which identified organizational and managerial bottlenecks within the organization. The results helped the NMCP respond to identified challenges and implement more efficient organizational management measures. As a result of this collaboration, the NMCP has demonstrated improved agility when implementing Global Fund grant-financed activities and improved use of antimalarial services and LLINs. It also helped us increase our grant performance rating from B2 in 2018 to A2 in 2019."

– Dr. Tinah Atcha-Oubou, Coordinator, NMCP in Togo



Photo: CAR NMCP study tour to Guinea. On-site presentation at Mafoudia Health Center in Dubreka, Guinea

equity (identifying opportunities for trainings for male and female health workers), efficiency, accessibility, and reliability of services. Frequently, an area of emphasis was improving the package of malaria control services for populations living in remote areas. Targeted activities varied from country to country, and included:

Seasonal malaria chemoprevention (SMC)

campaigns. NMCP leadership is crucial for coordinating national and international resources to conduct effective malaria control activities. CBM advisors in collaboration with the NMCP coordinated successful implementation of SMC campaigns in selected countries to protect children aged 3-59 months, facilitating improved collaboration and planning between the NMCP and stakeholders including UNICEF, Global Fund, and PMI.

Long-lasting insecticide-treated net (LLIN)

distribution. CBM assisted NMCPs in Burundi, Central African Republic, Chad, Côte d'Ivoire, Guinea, The Gambia, Niger, Togo, and Sierra Leone to plan and implement LLIN mass distribution campaigns. Advisors supported NMCPs to secure funding and commodities and conducted macro- and micro-planning for these campaigns. In Chad, CBM supported the NMCP to distribute 8,636,550 bed-nets in 17 out of 19 provinces eligible during the 2020 mass campaign through a door-to-door strategy to minimize contact during COVID-19 pandemic.

Data monitoring and analysis. In four countries (Sierra Leone, Guinea, Cote d'Ivoire, Cameroon), CBM advisors worked with NMCP colleagues on improving quality of monitoring data for malaria through data quality validation exercises and/or harmonizing data migration into systems such as DHIS2. To address weaknesses in data reporting, Chad NMCP advisor Dr. Ignace Bimenyimana helped to

organize a malaria management training workshop for supervisors in N'Djamena's provincial hospitals and private clinics. These supervisors are integral in managing malaria data but had never received this kind of training. Dr. Bimenyimana helped to develop the terms of reference and facilitated the workshop, which was financed by CBM and held in Darda December 5-8, 2019. The workshop focused training staff to distinguish between simple and severe malaria cases to improve the data that the NMCP was receiving. They also focused on issues such as determining malaria indicators using the hospital monthly malaria report, listing malaria data collection tools, correctly filling out malaria data collection tools, and monitoring malaria management in their respective health facilities. Attendees were expected to disseminate the workshop's results to all staff, especially medical consultants, to strengthen malaria hospitalization and morbidity data collection, and ensure proper completion of records. In CAR, the Technical Advisor was in place to support the NMCP to mobilize, negotiate and sign three new grants for the implementation of National Strategic Plan activities: the Global Fund's NFM3 malaria grant for 2021 to 2023; the malaria component of the CI9RM funding request to the Global Fund to mitigate the impact of COVID-19 pandemic on malaria control activities; and RBM Partnership funding for the organization of the "Zero Malaria Starts with Me!" Campaign in CAR.

OBJECTIVE 2: Strengthened NMCP's leadership, health workforce, and procurement and supply management to support successful implementation of the Global Fund's new funding model and PMI funding.

KEY RESULTS

- Improved management of NMCP human resources to meet NMCP staffing needs.
- Strengthened the management and supply of antimalarial drugs and commodities to impact the fight against malaria in Cote d'Ivoire, Togo, CAR, Chad, and Guinea.
- Successfully implemented a first time USAID-funded \$150,000 grant directly to the Togo NMCP.

Under this objective, CBM engaged NMCP leadership and staff in continuous learning and collaborative problem-solving to build skills in universally important areas key to the sustainability of malaria control programs.

Improved management of NMCP human resources

In Guinea, the CBM advisor facilitated the development of a staff competency framework that describes the roles and responsibilities of staff and the functioning of the NMCP; he used this framework in negotiations with the Global Fund to better justify the recruitment of additional staff for the NMCP and the health districts. After approval of the Global Fund application, the advisor facilitated the recruitment and training of 15 NMCP contract staff and 38 district focal points; through these staff the NMCP was able to operate the technical units and effectively coordinate the implementation of malaria control interventions. The Ministry of Health adopted the "malaria focal point" approach by recruiting individuals from the Guinean civil service as district technical assistants (DTAs) in charge of the fight against malaria, HIV, tuberculosis, and the expanded program on immunization (EPI). In Togo, the advisor provided on-the-job coaching to support the NMCP coordinator to develop an operational road map that lays out the plan to engage with additional private sector actors. Throughout all CBM-supported countries, advisors prioritized strengthening the capacity of all staff to improve their technical skills and strengthen program management.

To achieve program Objective 2, CBM awarded the Togo NMCP a US\$150,000 grant to further the development of NMCP activities, to provide the technical advisor additional activities in which to train the NMCP, and to prepare the NMCP for implementation of a future Global Fund grant for malaria. The fixed amount award grant was successfully completed in 2021.

Improved procurement and supply chain management

Most countries shared similar challenges in logistics and supply chain capacity at national and sub-national levels. CBM advisors worked with the NMCP to strengthen supply chain data input and management to ensure more accurate information sharing at the central level. The advisors helped to strengthen logistics and supply chain capacity at the central medical stores to prevent delays. See Figure 5 on the next page and Figure 1.3 in the Annex for more details. The CBM advisors:

- Supported countries with LLIN campaigns by assessing existing LLIN stock, negotiating with procurement offices to import LLINs, supporting quantification exercises to reduce stockouts at the district level, managing logistics for campaigns, and more.
- Supported NMCP pharmacists to quantify malaria commodity needs, including to avoid stockouts and supply personal protective equipment (PPE) during the COVID-19 response

"We developed a direct-to-government grant with support and guidance from CBM. This process not only strengthened our skills in developing and implementing grant activities and managing finances, but also improved our ability to adhere to grant requirements and provide back-up documents and justify the receipt of deliverable-based funds.

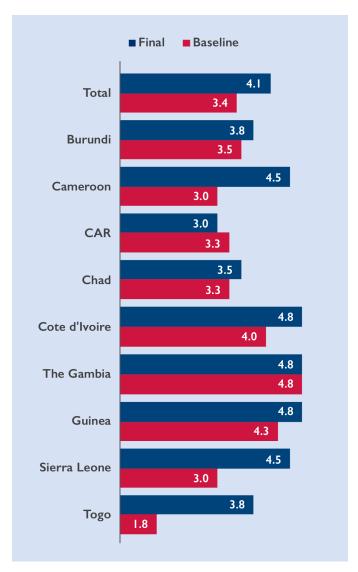
Dr. Tinah Atcha-Oubou, Coordinating Director, NMCP Togo

- Supported drug management units in their planning and identifying actions to strengthen drug management.
 Quantified antimalarial drugs for seasonal chemoprevention of malaria
- Supported the development and application of tools such as survey tools, data analysis tools, quality assurance plans, quantification tools, SOPs and manuals, and end use verification terms of reference.

In Sierra Leone, the advisor supported a country-wide assessment of existing LLINs and ensured that the NMCP had the necessary stock for the 2020 campaign. In Côte d'Ivoire, one of our two advisors negotiated with the national pharmaceutical procurement office to ensure that 1,750,000 LLINs could be properly imported and made available to pregnant women and children under 5 years of age around the country. Advisor Ghislaine Diidioho introduced a method of quantifying and arranging medical stocks in order of consumption and the Pareto Principle, nicknamed the "ABC process," to greatly reduce stockouts at the district level. In Guinea, the NMCP forecasted a gap of 3.5 million LLINs for its 2019 mass campaign, so in addition to managing logistics and planning for the net distribution campaign, Guinea advisor Youssoufa Lo facilitated a stakeholder outreach meeting, resulting in a partnership with the Against Malaria Foundation for a free supply of 3.5 million nets.

Togo and Burundi's 2020 campaign preparations involved working with the Against Malaria Foundation to establish commodity monitoring protocols and finalizing a macro plan for the distribution of the nets, respectively. In FY20 Q3, CBM successfully supported LLIN campaign launches in Guinea and The Gambia. Following Guinea's World Malaria Day activities and LLIN campaign kick-off, a delegation from the NMCP including the CBM advisor traveled to The Gambia to witness the country's cross-border LLIN campaign kick-off held in coordination with Senegal.

FIGURE 5. MATURITY MODEL RESULTS: SUPPLY CHAIN



OBJECTIVE 3: Strengthened LTTA and NMCP technical knowledge, experience, and monitoring and evaluation (M&E) management in malaria control.

KEY RESULTS

- Published the "How to Advise" guide that captured the role of embedded NMCP advisors and what they should know to navigate their role.
- Supported knowledge sharing practices through the Communities of Practice platform for NMCPs and advisors, with an average of more than 30 users each quarter.
- Increased capacity of NMCP staff to monitor and evaluate progress through country M&E plans, including reviewing data quality, supporting data validation missions, and conducting supportive supervision visits to districts to improve data quality.

Based on the findings of the CMM, the advisors worked with NMCP staff to apply robust M&E, address weaknesses, and develop knowledge-sharing processes and platforms. Most NMCPs did not consistently or effectively use data for decision-making, so the development of the M&E budget, capacity, and systems contributed to better quality data, effective use of DHIS2 (in most countries), and a feedback loop for continuous improvement.

Improved management and capacity of NMCPs to effectively monitor and evaluate progress through country M&E plans

To strengthen NMCPs' capacity to monitor and more effectively evaluate the impact of malaria control interventions and services, advisors helped NMCPs develop M&E plans with a budget. Annual work plan review meetings brought the NMCP staff together to discuss what they accomplished and how they can improve. The advisor also supported NMCP staff to gather high-quality data for strategic decision-making and operational action and supported the M&E teams to better gather, analyze, and present data. Depending on country context, this consisted of supporting the NMCP to advocate for additional human resources to support monitoring and evaluation, advising NMCP actors on DHIS2 integration and assisting the NMCP to organize data quality verification field visits and data validation workshops. In all CBM supported countries, the advisors mentored the NMCP coordinator to use their reports to inform course changes or other adjustments. The advisors also supported NMCPs to submit data to the WHO World Malaria Report and the African Leaders Malaria Alliance (ALMA) score card.

Leadership development

As part of the strategy to strengthen NMCP human resources, many advisors integrated leadership training. USAID's leadership approach includes the Leadership Development Program Plus (LDP+), developed under the CBM predecessor project, the USAID Leadership,

Management and Governance Activity (LMG). LMG implemented LDP+ with NMCPs in most countries through workshops, experiential learning, and coaching sessions. In 2021, following recommendations made in Chad's NMCP Organizational Development Assessment, 23 NMCP Staff were participated in a series (three sessions) of LDP+ training. These trainings resulted in improved management and leadership capacity and internal communication, which has helped the NMCP achieve objectives such staff organization, strong communication, and collaboration among staff to improve implementation of the national malaria strategic plan.

Knowledge-sharing practices expanded to increase NMCP capacity

To promote learning, the CBM PMU director and advisors played active roles in activities to foster a collaborative environment for adaptive management and learning. Twice a year, CBM hosted a meeting to convene advisors from CBM and other USAID-funded activities.

Learnings were integrated into routine quarterly and annual reporting cycles, in-person semi-annual meetings, and semi-annual conference calls among advisors to ensure that opportunities for learning and adaptation are identified and shared early and often. Each advisor was given the opportunity to share updates regarding data collected or other learning opportunities during the previous quarter for their focus country.

Community of practice. The community of practice (COP) was integral to the activity's learning approach. The dedicated PMU Communications Associate provided advisors with COP guidance and tools and worked with the advisors to increase the involvement of NMCPs and other stakeholders to ensure that the platform was fully utilized as a space for continuous learning and knowledge sharing. By incorporating a routine system for sharing and checking on

activity data, the activity provided opportunities for learning from activity results and using data for decision-making.

Study tours. In The Gambia's journey towards malaria preelimination, CBM supported the Gambian NMCP on a study tour to Nepal, a malaria pre-elimination country, to exchange knowledge on key malaria interventions. CBM also supported a Guinean NMCP study tour in The Gambia, where the delegation toured Gambian sentinel sites, research centers, and attended a cross-border mass LLIN distribution campaign between The Gambia and Senegal. These tours allowed for NMCP representatives to observe their counterparts' malaria programming and take back lessons learned to their own countries. In 2021, CBM supported study tours between Chad and Togo, this exchange visit allowed the Chadian NMCP to learn from the Togolese NMCP's experience, and to better understand how to set up and operate sentinel sites in Chad. Finally, delegation from CAR travelled to Guinea to learn best practices, how to collaborate with partners and coordinate activities more effectively in a challenging environment.

Semi-annual meetings. CBM advisors and their NMCP counterparts gathered every six months to (I) enable the sharing of lessons learned and cross-country experiences, (2) clarify the role of USAID's investment in supporting Global Fund grant performance for malaria, and (3) further develop leadership and coordination skills of advisors and NMCP representatives. For example, in 2019, the project hosted meetings in Washington, D.C. and in Lomé, Togo, in July 2019, aligned to the theme "Optimizing NMCP Global Fund Performance: The Journey to Self-Reliance." Participants shared technical presentations on topics such as partnership and strategic advocacy, supply chain, M&E, and data use, and

on best practices related to malaria campaign management. Each meeting also included a leadership workshop highlighting how using leadership and change management techniques can improve the advisors' technical assistance effectiveness. In response to the COVID-19 pandemic, CBM transitioned its semi-annual meetings to virtual Zoom sessions in FY20 and FY21. These meetings continued to enable technical advisors and their NMCP counterparts to discuss Global Fund grant and CBM activity progress, as well as share knowledge and best practices.

These semi-annual meetings facilitated robust technical discussions between advisors and NMCP members, sharing knowledge and best practices, enabling exchanges on approaches such as CMM, the leadership program, the provision of technical support to regions, and conducting stratification exercises. These meetings also allowed NMCP representatives to share their techniques and lessons learned regarding LLINs, SMC, and indoor residual spraying (IRS) campaigns, as each country is on a different planning cycle.

Conference participation. CBM supported advisors and select NMCP members to participate in the American Society of Tropical Medicine and Hygiene (ASTMH) annual meetings, as well as relevant RBM Partnership meetings. Advisors guided NMCP members through preparation for these activities, with appropriate follow-up and debriefing for those members of the NMCP not able to attend. Other meetings included:

- RBM CRSPC Western and Central Africa Sub-Regional Network, National Malaria Control Program Managers and Partners Meeting
- **ASTMH Virtual Meeting**

FIGURE 6. STAKEHOLDER PERSPECTIVES ON NMCP IMPROVEMENTS



Respondents included 15 external NMCP stakeholders who responded to the survey. Each stakeholder evaluated multiple criteria, resulting in 305 total responses on capacity changes and 254 responses on advisor influence. These calculations exclude blank responses. The influence question was not asked if the respondent reported no change in NMCP performance.

AMP Meeting and RBM Vector Control Working Group
 & Alliance for Malaria Prevention Partners Meeting.

Knowledge transfer through coaching. To achieve the ambitious capacity transfer objectives of the CBM Activity in its final year, CBM awarded a fixed amount award to Bean Group Global (BGG) to develop and implement a comprehensive coaching/training program for building the capacity of and supporting the transfer of skills from Senior Technical Advisors embedded within NMCPs. BGG implemented a comprehensive coaching/training Leader-as-Coach Accelerator Program (LCAP) in early 2021 to improve the ability of senior technical advisors to coach and mentor NMCP staff. BGG worked with the advisors through a structured mix of learning modules, coaching, on-the-job action learning and peer group knowledge sharing to identify new and creative ways to continue to transfer knowledge and capacity to partner NMCP staff. At the end of the LCAP, as a result of their improved coaching skills, advisors observed the following behaviors changes in the NMCP staff.

- Conducting workshops independently: The NMCP teams demonstrated a greater ability to work independently, take initiative, and manage the different aspects of program management.
- Leading technical group meetings: advisors improved their own leadership skills by learning to motivate teams better and to take initiative to problem solve and lead during meetings.
- Reviewing monitoring and evaluation plans without help from a consultant: advisors reported an improved NMCP staff's professional posture due to a better foundational understanding of effective tools.

Effect of LTTA model on NMCP staff capacity

At the close of each CBM country-level activity, CBM supported NMCP staff to perform a self-assessment to explore the degree of influence advisors had on the confidence of NMCP staff to do essential tasks This "confidence assessment" was incorporated in the CBM indicators and contributed to CBM's global learning.

Since the confidence assessment and CMM are primarily self-assessments, advisors also conducted a stakeholder survey to get some external perspective on how other stakeholders have perceived the effects of CBM support on the NMCP. (See summary of assessment results in Annex B.) Stakeholders surveyed included individuals from host country governments, donors, international organizations, and NGOs who work regularly with the NMCP and were somewhat familiar with CBM assistance. The stakeholders rated the quality of work they experienced with the NMCPs in the past few years, and how much of that change may have been influenced by the

advisor. Stakeholders reported that the NMCPs' work had either greatly improved or somewhat improved more than 80% of the time and that the advisor had some or significant influence nearly all (98%) of the time. (See Figure 6 above.)

The Stakeholder Survey yielded rich qualitative feedback on the value of the advisors, with the highest scores indicating improvements in the ability of the NMCP to communicate national malaria drug policies and protocols, to effectively communicate quality standards for malaria diagnostic tests, and to effectively present plans and results to malaria stakeholders. Stakeholders also highly ranked advisors' impact on NMCP's coordination with stakeholders, work planning, and monitoring and evaluation. In addition to using these findings to understand the results of CBM, these approaches are also detailed in the How to Advise Guide so that others implementing similar LTTA models in the future can incorporate similar approaches to tracking capacity development.

Assessment results summary and key takeaways

Assessments demonstrated improvements in:

- NMCP organizational capacity (maturity model)
- NMCP staff individual capacity (confidence assessments)
- NMCP reputation/stakeholder perspectives on capacity (stakeholder survey)

Positive results were identified across countries and technical areas supported by advisors. These results indicate that the LTTA model was seen by NMCP staff and stakeholders as effective for improving capacity among supported NMCPs.

NMCP staff also connected improved organizational and individual capacity to effects like improved NMCP collaboration, higher quality work plans, better visibility of the NMCP in the country, ability to achieve sufficient resources for LLIN campaigns, improved engagement with the private sector, and more effective supply chain management. NMCP staff also noted that the work environment in their NMCPs had changed, including higher staff motivation.

To continue implementing the LTTA model in the future in other contexts, tools and guidance are available in the CBM How to Advise Guide. In addition, CBM recommends that those implementing the LTTA model adopt a monitoring and evaluation approach to inform technical assistance and track the model's effectiveness. It is important to ensure that NMCP baseline capacity is measured so that areas for growth can be identified early and tracked over time. Evaluation tools like the Capability Maturity Model can be used as collaborative opportunities to engage in-country stakeholders, reflect on progress, and identify ways to incorporate findings into workplans and inform activities.

Adapting to Program Challenges

Difficulties in achieving programmatic objectives are to be expected over the life of any development program, and each CBM country faced their own challenges, such as insecurity in CAR and Chad; however, the onset of COVID-19 caused the biggest constraints.

CAR and Chad insecurity issues. On December 27, 2020, presidential elections were held in CAR. Due to the rejection of former President Bozizé's candidacy, the pre- and post- election period was marked by violence and significant internal displacement within the population. The forced displacement in CAR makes the populations of regions I and 3 more vulnerable to malaria, as many left their homes without their protective LLINs received during the recent mass campaigns. This context of socio-political unrest, coupled with the COVID-19 pandemic, led NMCP offices and other health facilities to temporarily close. The CAR advisors adapted to remote work and communicated via phone and WhatsApp messaging with NMCP and partners.

In 2021, Chad also experienced security concerns and uncertainty in the country, such as intense protest movements of anti- or pro-government activists, which greatly impacted malaria programmatic activities in the country. To ensure activity planning continued during this period, advisors and NMCP staff adapted to remote work arrangements.

COVID-19's impact on planned programming. When the COVID-19 pandemic began to affect CBM programming, the PMU in conjunction with Chemonics's security team adapted their safety plans to capture COVID-19 related

indicators that would continually assess the environment to conduct office operations and technical field activities in a safe manner. CBM prioritized staff safety and understanding of risk, empowering staff to feel they have reasonable control and choice around returning to the office and conducting field work. The CBM PMU informed advisors and other activity participants of any major updates in a continuously iterative context and maintained a transparent approach regarding inperson meetings and conducting field work. Early on, activities that required gathering participants for training and working meetings such as LLIN mass campaign, SMC campaigns, and supportive supervision activities were postponed until later in the year or the following year.

As the pandemic wore on, some activities resumed following national guidance and protocols and adapted their implementation strategies to the COVID-19 context. For example, Chad was one of the first countries to experiment with coupling door-to-door enumeration (counting household) with LLIN distribution for the 2020 LLIN campaign; during the COVID-19 pandemic—they have distributed more than 9,000,000 LLINs to date. This practice was shared in several meetings in the region with other malaria actors as a best practice.

Lessons Learned

The advisors encountered a variety of situations and challenges within the NMCPs and in their interactions with other international and national counterparts. While each country had its own challenges, there were some consistencies across the various countries in terms of what worked, what didn't, and the lesson learned. Improving the capacity of malaria control programs to plan, implement, and monitor malaria control activities requires tact, patience, and a high degree of competence in all malaria control-related subject areas. The lessons learned from the CBM and NMCP partnership reinforced the need for advisors to gain the confidence and trust of their NMCP counterparts before engaging in any capacity building. Having an open mind, sharing experience, and guiding the NMCPs to arrive at a solution takes more time but is also more sustainable.

Advisors found that working with national counterparts requires perseverance, flexibility and other "soft skills" and being adept in most technical related subject areas. Before bringing technical support to the government counterparts, it was most effective to start from baseline by using appropriate tools to identify the technical support gaps.

Creating an enabling environment by gaining the trust and confidence of NMCP staff helped the advisors achieve the objective of capacity building. This was successfully done thanks to the daily mentorship of the CBM PMU Director and through the Leader-as-Coach Accelerator Program.

Requiring measurable results in a context where the value of an advisor is best measured qualitatively can be challenging. While advisor support can be linked to NMCP's achievement of targets and results, the advisors cannot and should not claim to be the sole reason for these successes.

Another important lesson learned is that capacity strengthening should go beyond the NMCPs, down to



Photo: Visit to the Makalondi Health Center, Niger. The nurses perform malaria tests.

the sub-national level. District-level health management teams are the implementers of health services, including malaria response, and it is crucial that they are supported to deliver their mandate. NMCP ownership is also paramount in the success of their program at all levels, and therefore they must decide how funds are spent, and which interventions are their top priority.

NMCP Coordinators also identified essential factors for capacity transfer:

- "Transparent, frank collaboration, taking into account the real needs of the staff and especially working to enhance each other's capacities in a climate of understanding, and above all, humility."
 - Dr. Issakha Diar, NMCP Coordinator, Chad
- "Availability of good, quality human resources; commitment of managers; sharing the [NMCP's] vision.
 - Dr. Eugene Lama, NMCP Coordinator, Guinea
- "The motivation of the staff (financial or not) intended to receive the skills; improving working conditions (calming and motivating work environment, available IT equipment, internet, etc.); clearly defined roles and responsibilities of each actor in the transfer of skills; periodic evaluation of transferred skills."
 - Dr. Christophe Ndoua, NMCP Coordinator, CAR

Finally, it was important to work with partners for a broader and deeper impact of CBM's work. Technical consultations through working groups, coordination mechanisms and donor meetings were crucial to ensure decisions are data-driven, owned by all, and funded in the most effective and sustainable manner.

Annex A. Indicator Results

Activity Purpose: Improve country Global Fund grant performance through change in policy or guidelines, improvement in monitoring and evaluation systems, or reduced stockouts

Indicator 01. Global Fund Grant Performance Rating

Displayed separately from other indicators to correspond with Global Fund's biannual calendar year reporting schedule. CBM indicators continue on the next page. Data is sourced from the Global Fund Data Explorer, which at the time of reporting had data available through December 2020.

Calendar Year	20	017	20	18	20	119	2020	
Semester (I = Jan-June 2 = Jul-Dec)	- 1	1 2		2	I	2	1	2
Burundi BDI-M-UNDP. CBM active 2018 - 2019	Activity not open		ВІ	A2	A2	A2	Closed	
Cameroon CMR-M-MOH. CBM active 2017 - 2018	Data no	t available	B2	B2	Clo	osed	Clo	osed
CAR CAF-M-WVI. CBM active 2020 - present	Activity	not open	Activity n	ot open	Activity	not open	A2	A2
Chad TCD-M-UNDP. CBM active 2019 - present	Activity	not open	Activity not open		A2	A2	ВІ	ВІ
Côte d'Ivoire CIV-M-MOH. CBM active 2017 - present	Data no	t available	A2	ВІ	Data not available	ВІ	ВІ	ВІ
The Gambia GMB-M-MOH. CBM active 2018 - present	Activity	not open	Data not available	A2	A2	ВІ	Data not available	Data not available
Guinea GIN-M-CRS. CBM active 2017 - present	Data no	t available	AI	A2	A2	A2	Data not available	AI
Niger NER-M-CRS. CBM active 2016 - 2019, STTA 2020-2021	A2	A2	AI	A2	ВІ	ВІ	ВІ	ВІ
Sierra Leone SLE-M-CRS. CBM active 2017 - 2019	Data not available		Data not available	A2	AI	Closed	Clo	osed
Togo TGO-M-PMT, CBM active 2018 - present	Activity	not open	ВІ	ВІ	A2	A2	A2	A2

Indicator	Country	Baseline	2018	2019	2020	2021	Life of Activity Result	Details and Highlights
Objective I: NMCP's in	nstitutional capa	city to ensure effo	ective implemen	tation of high-q	uality malaria coi	ntrol services at	all levels of the	health system strengthened
	Burundi	3.1	3.1	3.7	Closed	Closed	3.7	CBM implemented three
	Cameroon	2.9	2.9	4.0	Closed	Closed	4.0	impact of the LTTA model in CBM
	CAR	2.8	N/A	N/A	2.8	3.2	3.2	countries: the maturity model to assess organizational capacity on a
02. NMCP Maturity	Chad	3.0	N/A	3.0	-	3.2	3.2	scale from initial, underdeveloped processes to controlled processes
Level (average of each	Côte d'Ivoire	3.6	3.6	4.0	4.0	4.2	4.2	using data to proactively manage; a
naturity model limension; maximum	The Gambia	3.9	3.9	4.1	TBD	Closed	4.1	confidence assessment to determine whether NMCP staff
maturity level is 5)	Guinea	3.6	3.6	3.6	4.0	4.5	4.5	feel more confident to perform their work tasks following advisor
	Niger	2.6	2.6	N/A	N/A	N/A	2.6	support; and a stakeholder
	Sierra Leone	2.9	2.9	4.0	Closed	Closed	4.0	assessment to determine if external stakeholders of the
	Togo	2.5	2.5	2.7	3.2	3.9	3.9	NMCP perceive any changes in the capacity of the NMCP from an
03. NMCP staff confidence score	Average scores from closed CBM countries	4.2	-		-	5.8	5.8	outside perspective. Generally, the findings indicate that
04. LTTA influence score (as a percentage of responses noted that the advisor had either some or significant influence on confidence)	Average scores from closed CBM countries	N/A	-		-	87%	87%	NMCPs supported by CBM had increased organizational capacity and improved capacity of individua NMCP staff to plan and implement malaria control efforts and manage GF grants. Both NMCP staff and external stakeholders attributed much of this growth to the support of the advisors.
Outcome I.I. Impleme	entation of count	try NMCP work p	olans outlining N	MCP structure	and function area	s for capacity bu	ilding strengthe	ened and sustained
	Total	0	8	7	5	5	10	CBM advisors supported NMCP
05. Number of countries where	Burundi	0	ı	I	Closed	Closed	1	work plans including (but not limited to):
advisors were actively	Cameroon	0	ı	-	Closed	Closed	1	 Annual and quarterly NMCP work plans
involved in reviewing, developing, or	CAR	0	-	-	I	I	1	Global Fund activities work
implementing NMCP work plans	Chad	0	-	I	I	ı	1	plans SMC and LLIN distribution
	Côte d'Ivoire	0	I	I	I	I	- 1	campaign workplans

Indicator	Country	Baseline	2018	2019	2020	2021	Life of Activity Result	Details and Highlights
	The Gambia	0	I	I	-	Closed	1	The Fixed Amount Award Contain Toward
	Guinea	0	I	I	I	I	1	Grant in Togo workplan COVID-19/Malaria
	Niger	0	I	I	-	-	1	mitigation plan in Guinea Incorporating capability
	Sierra Leone	0	I	-	Closed	Closed	1	maturity model findings into
	Togo	0	I	I	I	I	I	action plans

Outcome 1.2. Capacity of NMCPs to implement strategic plans to effectively guide its long-term vision for malaria control strengthened

06. Number of countries where advisors were actively involved in reviewing, developing, or implementing NMCP strategic plans to guide long-term vision for malaria control

Total	0	7	6	5	4	9
Burundi	0	I	I	Closed	Closed	I
Cameroon	0	I	-	Closed	Closed	I
CAR	0	-	-	I	I	I
Chad	0	-	I	Ι	I	I
Côte d'Ivoire	0	I	I	I	-	I
The Gambia	0	I	I	-	Closed	I
Guinea	0	I	I	I	I	I
Sierra Leone	0	I	-	Closed	Closed	I
Togo	0	I	I	I	I	I

CBM advisors supported NMCP strategic plans including (but not limited to):

- National NMCP Strategic Plans
- Global Fund concept notes
- Malaria National Research Plans
- Malaria Strategic
 Communication Plans
- LLIN Campaign Distribution Macroplans

Objective 2: NMCP's leadership, health workforce, and procurement and supply management to support successful implementation of the Global Fund's new funding model strengthened

Outcome 2.1 NMCP's human resources management systems and processes improved to address its health workforce needs

07. Number of countries where advisors were actively involved in improving HRH management of health workers delivering or supporting malaria services

	Total	0	8	7	4	5	10
	Burundi	0	I	I	Closed	Closed	I
	Cameroon	0	I	-	Closed	Closed	I
	CAR	0	-	-	-	I	I
	Chad	0	-	I	I	I	I
g	Côte d'Ivoire	0	I	I	I	I	I
	The Gambia	0	I	I	-	Closed	I

CBM advisors supported HR management including (but not limited to):

- Building NMCP staff capacity in leadership practices and problem-solving strategies through coaching and mentoring
- Reviewing NMCP org charts and advising on staff

Indicator	Country	Baseline	2018	2019	2020	2021	Life of Activity Result	Details and Highlights					
	Guinea	0	I	I	I	I	I	organization, job					
	Niger	0	I	-	-	-	1	descriptions, recruiting, and management					
	Sierra Leone	0	I	I	Closed	Closed	1	 Providing trainings and coaching to NMCP staff, 					
	Togo	0	I	I	I	I	1	health care providers,					
Outcome 2.2 NMCP's PSM pillars for malaria strengthened to improve malaria control													
	Total	0	7	7	5	5	10	CBM advisors took a multifaceted					
	Burundi	0	I	I	Closed	Closed	1	approach to supply chain support, including but not limited to:					
	Cameroon	0	I	-	Closed	Closed	I I	 Supporting countries with LLIN campaigns by assessing 					
	CAR	0	-	-	I	I	T I	existing LLIN stock,					
08. Number of countries where	Chad	0	-	I	I	I	I I	negotiating with procurement offices to import LLINs,					
advisors were actively	Côte d'Ivoire	0	I	1	I	I	1	supporting quantification					
involved in improving PSM pillars for malaria	The Gambia	0	-	I	-	Closed	1	exercises to reduce stockouts at the district level, managing					
'	Guinea	0	I	I	I	I	1	logistics for campaigns, and					
	Niger	0	I	-	-	-	1	more. Supporting NMCP					
	Sierra Leone	0	I	I	Closed	Closed	I	pharmacists to quantify					
	Togo	0	I	1	I	I	1	malaria commodity needs, including to avoid stockouts					
09. Number of NMCP	Total	0	20	145	105	3	273	and supply PPE during the					
and regulatory body staff trained on PSM	Côte d'Ivoire	0	20	-	50	-	70	COVID-19 response Support drug management					
pillars for malaria	Togo	0	0	145	55	3	203	units in their planning and					
	Total	0	7	15	18	8	48	identifying actions to strengthen drug management					
	Burundi	0	I	I	Closed	Closed	2	Quantification of antimalarial					
10. Number of tools	Chad	0	-	2	3	I	6	drugs for seasonal chemoprophylaxis of malaria					
reviewed, developed, or	Côte d'Ivoire	0	I	3	I	2	7	Some of the PSM tools developed with the support of the advisors					
implemented to strengthen PSM pillars	Guinea	0	-	I	2	-	3	include survey tools, data analysis					
G - F	Niger	0	2	-	-	-	2	tools, quality assurance plans, quantification tools, SOPs and					
	Togo	0	3	8	12	5	28	manuals, and end use verification terms of reference.					

Indicator	Country	Baseline	2018	2019	2020	2021	Life of Activity Result	Details and Highlights
Objective 3: Advisor an	nd NMCP techni	cal knowledge an	d experience, an	d M&E manage	ment in malaria o	control strengthe	ened	
II. NMCP staff confidence score for technical knowledge and M&E	Average scores from closed CBM countries	4.2	-	-	-	5.8	5.8	Similar to the results presented for indicators 03-04, these indicators indicate increased
12. Advisor influence and competency score for technical knowledge and M&E (as a percentage of responses that noted that the advisor had either some or significant influence on confidence)	Average scores from closed CBM countries	N/A	-	-	-	82%	82%	capacity of individual NMCP staff in the area of M&E. Most of the NMCP staff attribute this increase in confidence to some or significant influence from the advisor. This also reflects activities that advisors pursued in support of Outcome 3.2 and indicator 15 to build capacity of NMCPs to develop and enact high quality monitoring and evaluation plans.
Outcome 3.1 COP plat	Ī		support knowle	1	tices developed	and sustained	285	The COP had an average of more
	Total Burundi	0	3	64	Closed	Closed	4	than 30 users each quarter. CBM
	Cameroon	0	0	0	10	3	13	advisors, NMCP members, and other stakeholders shared posts
	CAR	0	0	0	3	12	15	on the capability maturity model, M&E, strategic planning, supply
	Chad	0	-	7	7	-	14	chain, leadership management and governance, and news and
13. Number of	Côte d'Ivoire	0	3	2	24	6	35	innovations. Unfortunately, data
documents and/or posts shared through the	The Gambia	0	-	2	I	-	3	could not be pulled for the number of documents or posts
COP platform	Guinea	0	2	I	8	-	11	shared on the platform in FY21 Q3, so the number of posts may
	Nepal	0	-	I	-	-	I	be slightly higher than reported here.
	Niger	0	4	4	10	14	32	nere.
	Sierra Leone	0	I	0	Closed	Closed	1	
	Togo	0	14	31	42	6	93	
	United States	0	18	15	26	4	63	

Indicator	Country	Baseline	2018	2019	2020	2021	Life of Activity Result	Details and Highlights
14. Number of users on the COP platform	Total	0	33 (avg)	20 (avg)	49 (avg)	32 (avg)	33 (avg)	
Outcome 3.2 Capacity	of NMCPs to eff	fectively monitor	and evaluate pro	ogress through c	ountry M&E plan	ns improved		
	Total	0	6	6	4	4	9	CBM advisors supported NMCP M&E plans through activities like:
	Burundi	0	I	I	Closed	Closed	I	Supporting the development
	Cameroon	0	I	-	Closed	Closed	I	of M&E plans and related data collection plans, like
I5. Number of countries where	CAR	0	-	-	I	I	I	LLIN mass distribution
advisors were actively	Chad	0	-	I	I	I	I	campaign M&E plans Reviewing M&E plan data
involved in reviewing, developing, or	Côte d'Ivoire	0	I	I	-	I	I	quality, supporting data validation missions, and
implementing NMCP M&E plans	The Gambia	0	-	I	-	Closed	I I	conducting supportive
,	Guinea	0	I	I	I	I	I	supervision visits to districts to improve data quality
	Sierra Leone	0	I	-	Closed	Closed	I	 Advising on appropriate M&E budgeting and planning
	Togo	0	ı	I	I	I	I	1 102 000800118 and planning

^{*}The approved CBM MEL plan also includes a sub-indicator for Global Fund grant performance on the disbursement rate of Global Fund grants. As noted in the FY2020 MEL plan submission, CBM has not been able to identify a data source for this data; as a result, the indicator has not been reported in this table.

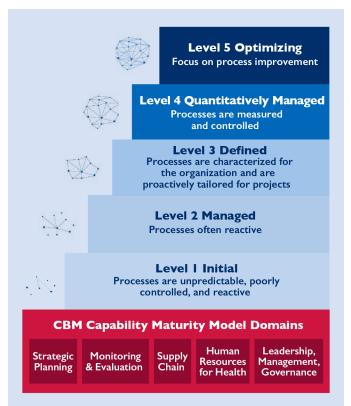
Annex B. Assessment Summary

To measure NMCP institutional capacity; leadership, health workforce, and procurement and supply management; and NMCP technical knowledge and experience, CBM implemented three assessment methodologies:

- NMCP Capability Maturity Model
- NMCP Staff Confidence Assessments
- External Stakeholder Survey

The NMCP Capability Maturity Model measures NMCP organizational capability maturity across various dimensions and domains as displayed in Figure 1.1. The maturity model approach was tailored to the NMCP context, resulting in a model applied across CBM countries that included domains relevant to NMCPs (like strategic planning, M&E, and supply chain). Each domain contained multiple elements (like data quality, warehousing, transparency, etc.) with defined and specific criteria for each level. Advisors collaborated with NMCPs annually to review the maturity model elements and determine the NMCP's level for each element, which allowed CBM to track the NMCP's progress in organizational maturity, identify strengths and areas for growth, and inform work planning.

FIGURE 1.1 MATURITY MODEL LEVELS AND DOMAINS



The NMCP Staff Confidence Assessment measured progress and advisor influence on the technical knowledge of NMCP staff. The assessment was conducted as a retroactive self-assessment, which surveyed NMCP staff on their confidence to perform key tasks before and after advisor support, as well as the extent to which the advisors influenced any change in confidence. The survey asked about a variety of tasks tailored to specific NMCP positions, including management, M&E, communications, finance, and more.

Finally, the NMCP External Stakeholder Survey provided data on how CBM capacity building affected NMCP capacity from the perspective of external stakeholders. These stakeholders include representatives from host country governments, donors, international organizations, and NGOs that work regularly with the NMCP and are familiar with CBM advisor assistance. As in the confidence assessment, stakeholders were asked to evaluate NMCP performance before and after CBM support and share their perspective on the advisors' influence on NMCP capacity.

This annex briefly summarizes the key results from these three assessment methodologies, providing multiple perspectives on how NMCP organizational and individual staff capacity changed as a result of CBM support.

Context: CBM Output Indicator Results

Before reviewing the assessment results, it is important to understand the support that was provided by advisors to increase NMCP organizational and individual staff capacity. As described in the CBM activity final report, advisors provided technical assistance, capacity building, and coaching to NMCPs to strengthen institutional capacity as well as the skills of NMCP staff to implement strategies and achieve results. While they tailored their support to their NMCP's goals and needs, advisors consistently provided support in broad areas like NMCP work plans, strategic plans, HRH management, PSM, and M&E as displayed in *Table 1.1*.

TABLE I.I. CBM OUTPUT INDICATOR RESULTS

,	Γotal	Burundi	Cameroon	CAR	Chad	Cote d'Ivoire	Gambia	Guinea	Niger	Sierra Leone	Togo
Number of countries where advisors were actively involved in supporting NMCP work plans	10	✓	✓	✓	✓	✓	✓	✓	✓	√	✓
Number of countries where advisors were actively involved in supporting NMCP strategic plans to guide long-term vision for malaria control	9	✓	✓	✓	√	✓	√	✓		✓	✓
Number of countries where advisors were actively involved in improving HRH management of HRH delivering or supporting malaria services	10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Number of countries where advisors were actively involved in improving PSM pillars for malaria	10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Number of countries where advisors were actively involved in supporting NMCP M&E plans	9	✓	✓	✓	✓	✓	✓	✓		✓	✓

Advisors developed tools for NMCP to adopt and use in their work, including 48 tools across CBM countries designed to strengthen NMCP supply chain work. CBM also contributed to knowledge sharing between NMCPs, including collaborative advisor and NMCP meetings as well as the COP platform, which included 285 posts shared by CBM and NMCP stakeholders throughout the program. These posts and meetings offered opportunities for information exchange and shared learning between NMCPs. These efforts were expected to contribute to increased NMCP organizational and staff capacity, which were measured and tracked using the assessment methodologies described in this annex.

Capability Maturity Model Results

The average maturity model score increased over time across the nine CBM countries that reported both baseline and final results, indicating increased organizational capacity of NMCPs. *Figure 1.2* compares the baseline and final maturity model results by domain. The scores for several domains moved from the third maturity level, "Defined", to the fourth maturity level, "Quantitatively Managed". This indicates that data is being used more consistently to drive NMCP decision making across dimensions to monitor progress and achieve results.

FIGURE 1.2 MATURITY MODEL RESULTS BY DOMAIN



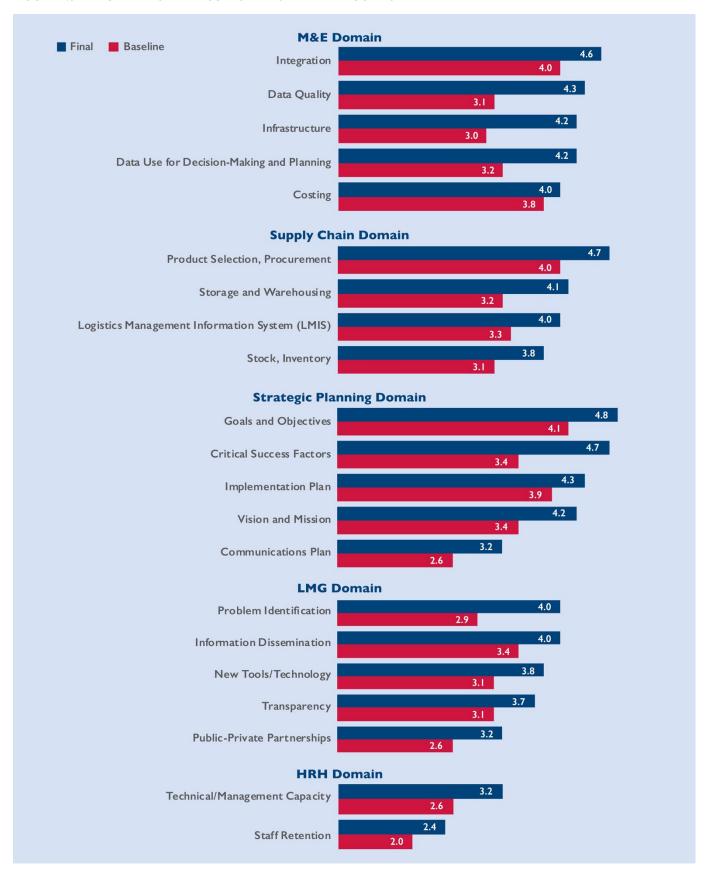
These types of organizational capacity improvements were identified across NMCP countries, despite country-specific contexts at varying stages of malaria control. These results indicate that the LTTA model was flexible enough to allow targeted capacity building contributions to strengthen NMCP capacity. *Table 1.2* displays the increased organizational capacity results by country.

TABLE 1.2 MATURITY MODEL RESULTS BY COUNTRY

Country	Baseline	2018	2019	2020	2021	Final Result
Burundi	3.1	3.1	3.7	Closed	Closed	3.7
Cameroon	2.9	2.9	4.0	Closed	Closed	4.0
CAR	2.8	N/A	N/A	2.8	3.2	3.2
Chad	3.0	N/A	3.0	-	3.2	3.2
Côte d'Ivoire	3.6	3.6	4.0	4.0	4.2	4.2
Gambia	3.9	3.9	4.1	Closed	Closed	4.1
Guinea	3.6	3.6	3.6	4.0	4.5	4.5
Niger	2.6	2.6	Closed	Closed	Closed	2.6
Sierra Leone	2.9	2.9	4.0	Closed	Closed	4.0
Togo	2.5	2.5	2.7	3.2	3.9	3.9

As previously described, the maturity model breaks each domain down into specific components, which are assessed individually to track progress and identify priority areas for capacity building. The results by domain and component are displayed in *Figure 1.3* on the following page.

FIGURE 1.3 MATURITY MODEL RESULTS BY DOMAIN AND COMPONENT



NMCP Staff Confidence Assessment Results

60 NMCP staff from CBM-supported countries responded to the confidence assessment. On a scale from I (not confident at all) to 7 (very confident), NMCP staff on average reported a 38% increase in confidence to perform key NMCP tasks, as displayed in *Figure 1.4*. This indicates that NMCP staff have more confidence in their technical skills to perform their NMCP work. Further, they attribute much of these improvements to advisor support; *Figure 1.5* demonstrates that NMCP staff noted that the advisor had either significant or some influence on their increased confidence 87% of the time. Increased confidence was identified across the NMCP position-types surveyed, as displayed in *Table 1.3*.

FIGURE 1.4 IMPROVED NMCP STAFF CONFIDENCE



FIGURE 1.5 ADVISOR INFLUENCE ON CONFIDENCE

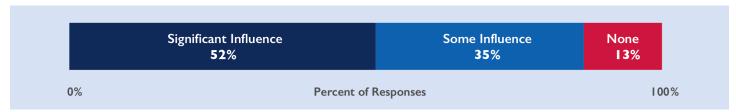


TABLE 1.3 NMCP STAFF CONFIDENCE BY NMCP POSITION TYPE

NMCP Position	n	Confidence pre-CBM	Confidence Now	Difference
Program Officer	16	4.25	5.97	1 40%
Communication	10	3.86	5.36	↑ 39%
M&E	14	4.16	5.76	↑ 39%
Finance and Admin	2	4.63	6.32	↑ 36%
Program Manager	8	4.50	6.12	↑ 36%
Supply Chain	10	4.12	5.56	↑ 35%

The survey asked about confidence related to specific tasks that are crucial for NMCP work. Some of the individual tasks with the highest confidence increases were:

- Invite participation from all parties affected by financial management (finance & admin staff)
- Train other NMCP staff on the use of monthly data reports (M&E staff)
- Meet with your group to develop a team or organizational plan that defines activities, timeline, and responsibilities (all)
- Identify solutions to challenges (all)
- Discuss and analyze challenges with your coworkers (all)
- Bring stakeholders together to coordinate the National Malaria Communications Strategy (communications staff)
- Describe a common vision for your desired results (all)
- Advocate for adequate resources (all)

NMCP External Stakeholder Survey Results

Fifteen external stakeholders responded to the external stakeholder survey (See Figure 1.6). These stakeholders represent a handful of CBM-supported countries and a variety of organization types. They generally reported regular interactions with the NMCP and familiarity with a breadth of NMCP technical areas and the long-term technical assistance provided by CBM.

FIGURE 1.6 STAKEHOLDER SURVEY PARTICIPANTS

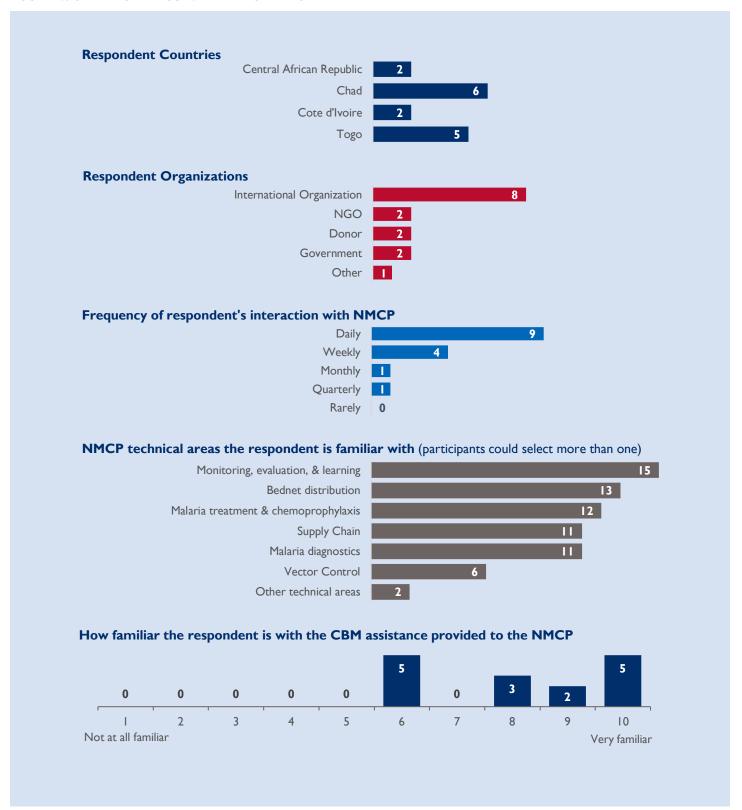
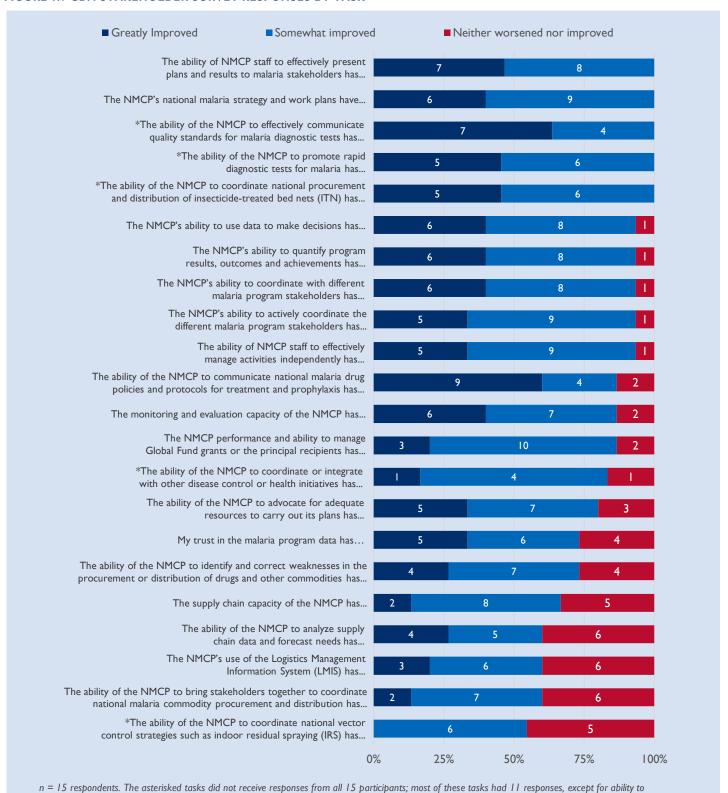


Figure 1.7 displays the number of stakeholders who reported that the NMCP's capacity had greatly improved, somewhat improved, or had not changed for each area surveyed. While "Worsened" and "Greatly Worsened" were response options, they were never chosen by survey participants.

FIGURE 1.7 CBM STAKEHOLDER SURVEY RESPONSES BY TASK



"coordinate or integrate with other disease control or health initiatives," which had 6. It is assumed that this lower response rate is due to these questions being on the final page, meaning that participants may have exited the survey before completing the final questions.

About HRH2030

HRH2030 strives to build the accessible, available, acceptable, and high-quality health workforce needed to improve health outcomes.

Global Program Objectives

- Improve performance and productivity of the health workforce. Improve service delivery models, strengthen in-service training capacity and continuing professional development programs, and increase the capacity of managers to manage HRH resources more efficiently.
- II. Increase the number, skill mix, and competency of the health workforce. Ensure that educational institutions meet students' needs and use curriculum relevant to students' future patients. This objective also addresses management capability of pre-service institutions.
- III. Strengthen HRH/HSS leadership and governance capacity. Promote transparency in HRH decisions, strengthen the regulatory environment, improve management capacity, reduce gender disparities, and improve multi-sectoral collaboration for advancing the HRH agenda.
- IV. Increase sustainability of investment in HRH. Increase the utilization of HRH data for accurate decision-making with the aim of increasing investment in educating, training, and managing a fit-for-purpose and fit-forpractice health workforce.

Program Partners

- Chemonics International
- American International Health Alliance (AIHA)
- Amref Health Africa
- Open Development
- Palladium
- ThinkWell
- University Research Company (URC)



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This material is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of cooperative agreement no. AID-OAA-A-I5-00046 (2015-2021). The contents are the responsibility of Chemonics International and do not necessarily reflect the views of USAID or the United States Government.

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