

Role of Digital Tools in Fighting Malaria at the Community Level

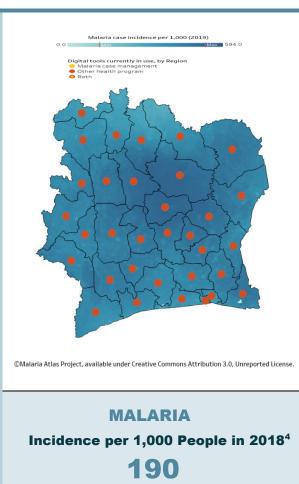
CÔTE D'IVOIRE

Executive Summary

Reported malaria incidence has increased significantly in Côte d'Ivoire, growing from 155 cases per 1,000 people in 2016 to 190 in 2018.¹ Community health workers (CHWs) are engaged throughout the country to provide a common package of services that includes diagnosing and treating malaria through integrated community case management (iCCM).

The Ministry of Health (MOH) has established a dedicated coordinating body for health data and digital health, and community health data were recently integrated into the District Health Information Software 2 (DHIS2). Côte d'Ivoire also has a relatively well-developed electricity and communications infrastructure compared to other countries in the region. Despite these strengths, digital health initiatives remain limited and uncoordinated. No national digital health strategy exists to guide digital tool development or implementation, and no digital tool has yet been introduced for malaria case management at the community level.23

In order to support malaria and iCCM case management in Côte d'Ivoire, stakeholders suggest providing enhanced CHW trainings, improving supervision of CHWs, developing a national Digital Health strategy and roadmap, and identifying a pilot data collection tool. These recommendations are further elucidated in the recommended actions section.



PEOPLE

Community Health Worker (CHW)



12,000 CHWs 4 per 10,000 people

GOVERNANCE	ſ
National Digital	Ĭ
Health Strategy	

NO





Recommended Actions

PEOPLE



Community health workers and other decision-makers

Develop an enhanced training curriculum for CHWs that includes digital health for community-based malaria service delivery

Support the Direction de la Santé Communautaire (DSC), or "Directorate of Community Health," in developing a longer and more in-depth training program and curriculum for CHWs, including specific modules on digital health for malaria. This enhanced training program and standardized refresher trainings will help CHWs better understand indicators and collect higher-quality data. As part of this process, the DSC will evaluate the feasibility of providing a certificate or diploma upon the successful completion of training, which stakeholders believe will improve CHW retention.

Increase the number of CHW

coaches to improve supervision and malaria case management

Support the DSC to draft a costed implementation plan for scaling up the CHW coach pilot project at the national level. CHW coaches, who act as dedicated supervisors for CHWs, are being introduced this year to improve CHW supervision, but only in select districts.

GOVERNANCE

Strategies and policies

Develop a national digital health strategy, incorporating interoperability and digital tools for community health

Support the Direction de l'Informatique et de l'Information Sanitaire (DIIS), or "Directorate of Informatics and Health Information." in drafting a national strategic plan for digital health in coordination with key stakeholders. The lack of a strategic plan limits coordination on digital health and alignment of digital health tools with national priorities. This plan will develop a national enterprise architecture for digital technologies and establish guidelines for interoperability. To ensure alignment of the national strategy with community health goals, support the DSC in incorporating digital health into the next community health strategic plan and advocate for community health digital tools in the broader national digital health strategy.

Assess the introduction of digital tools for CHWs in peer countries

Support the DSC in conducting a benchmark assessment on best practices in peer countries to inform the development of a realistic plan to introduce digital tools for CHWs in Côte d'Ivoire. This assessment will help identify how countries have integrated digital tools into community health programs for data collection, training, and supervision and how they have financed these tools.

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SYSTEMS



Processes and digital tools

Identify and pilot a data collection tool for CHWs to improve malaria data collection

Support the DIIS, DSC, and the Programme National de Lutte Contre le Paludisme (PNLP), or "National Malaria Control Program," in identifying an appropriate digital health tool for CHW data collection and supervision and in piloting the tool in select districts. The implementation of such a tool will improve data completeness and quality and increase the timely digitalization of community-level malaria data.

Design a roadmap to formalize the

status of CHWs

Support the DSC in developing a roadmap to formalize the status of CHWs to minimize turnover and create a sustainable system that is managed by the Ivorian government. The roadmap would include research on the impact of CHWs on health outcomes, a costbenefit analysis, and an analysis of the compensation, workload, and status of CHWs in peer countries. To disseminate the roadmap, support the DSC in conducting advocacy meetings and a workshop targeting a broad spectrum of ministries.

Methodology

The country profile for Côte d'Ivoire was developed through the following process: conducting a desk study, deploying an online survey focused on the digital landscape, conducting key informant interviews, and holding a workshop to validate the results and prioritize recommended actions. Due to COVID-19, to protect stakeholders the interviews were conducted in-person with social distancing or remotely, and the workshop was conducted in a hybrid format. See Appendix C for a list of key informant interviewees and workshop participants. See Appendix D for detailed information on the results of the online digital tools survey.

DESK REVIEW	SURVEY	INTERVIEWS	views were A workshop was Follow	
In SEPTEMBER 2020 , 12 documents were reviewed to establish a foundation of knowledge on the malaria strategy, community health program(s), governance, data systems and architecture, role of data in decision-making, and infrastructure. See Appendix A.	In FEBRUARY 2021 , a survey was sent to 11 stakeholders at all levels of the health system: global policymakers, funders, and private- sector partners. The survey was open for 4 weeks and received 10 responses.	Interviews were conducted with 12 individuals from organizations such as the PNLP, DSC, US Agency for International Development (USAID), and Save the Children between FEBRUARY 2021 and APRIL 2021.	A workshop was conducted with 19 participants in APRIL 2021. The workshop aimed to validate results from previous steps and identify opportunities for digital tools to increase malaria program impact.	Following the workshop, the team reviewed output from each step and developed a country profile highlighting recommendations developed in consultation with USAID , the PNLP , and the DSC . Data were last collated on APRIL 15 , 2021 .

Information collected through the methods described above was categorized according to key components within three domains: people, governance, and systems. These domains and their underlying components were informed by an <u>existing maturity model</u> and adapted to incorporate malaria-specific content. The components include personnel, training, and technical support ("People"); policies, strategies and governance structures, and their implementation ("Governance"); and data flow, digital tool structures, functionalities, and use ("Systems"). Together, these components describe the *desired state* for CHW use of digital tools for malaria case management, a state in which community health programs can leverage digital tools to generate and use data that improve malaria programming with the ultimate aim of decreasing the local malaria burden.

PEOPLE

People highlights the community health workers, supervisors, information technology support staff, and other decision-makers that contribute to effective use of digital tools and data in malaria community health programs.

GOVERNANCE

Governance describes the national strategies and policies that provide the framework for community health programs' use of digital tools for malaria, and their implementation.

SYSTEMS

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Systems describes the processes and digital tools that enable community health platforms to effectively use digital technology and data to strengthen malaria and other health programs.

People



In Côte d'Ivoire, CHWs are trained and coordinated by the DSC. Several types of CHWs support community health: basic CHWs; peer educator CHWs, who provide HIV services; and CHW coaches, who will supervise basic CHWs (coaches are not currently active but will be introduced this year in pilot districts). Basic CHWs provide a standardized package of services in villages that are more than 5 km from a health center as part of iCCM, including administration of rapid diagnostic tests (RDTs) and treatment with artemisinin-based combination therapy for children under 5 years of age. Some CHWs also provide rectal artesunate before referral of serious cases and distribute bed nets during periodic mass campaigns.¹ CHWs in villages less than 5 km from a health center provide educational and promotional services but not case management. The country's regions have been divided among PMI, the Global Fund, and UNICEF to better streamline funding and implementation for malaria case management.⁵

The lack of motivation and resulting low retention of CHWs is the most important challenge for the community health program. Per government policy, CHWs are volunteers who receive a monthly stipend (payment varied by cadre) of 20,000 CFA (approximately US\$37.00), but the status of CHWs has never been formalized by the state. Currently, about 80 percent of villages are covered by CHWs, but the DSC's goal is to achieve 90 to 95 percent coverage. Due to this

12,000
Community health
workers in countryCompensation Policy:
VOLUNTEER10,500
DrovidingCompensation Policy:

Providing malaria community case management Compensation Policy: VOLUNTEER

shortage, some CHWs are responsible for more households than intended by national policy, and as a result they have a very high workload. The DSC plans to recruit and train an additional 5,000 CHWs in 2021 with funding from the Global Fund. CHWs are supervised by the nurse who manages the community health center. Nurses are supposed to meet with CHWs monthly, but supervision does not always occur on schedule due in part to nurses' extensive clinical responsibilities. In 2021 the DSC will train 140 CHW coaches to supervise CHWs, and the DSC also has introduced community health focal points in district health offices to help manage and train CHWs.

Community health worker digital readiness

The use of digital tools is currently very limited in community health programs. CHWs receive 12 days of standardized preservice training (6 on theory and 6 on practice). Currently, no training on digital tools is provided as part of the standardized training package, but CHWs in certain districts have participated in pilot programs and therefore received training for the specific tool in question. For example, CHWs in three Global Fund districts received training on the use of Frontline SMS for disease surveillance. Despite the limited reach of digital tools for CHWs, most stakeholders believe they have the needed capacities to use such tools as long as the tools and training are adapted to their level. All CHWs can read and write in French, and in general, they have completed at least primary education.

Data-driven decisions at each level of health system

In principle, data are used for decision-making at all levels, but in practice use is low, especially at the community level. A major constraint to the use of data for decision-making is that health professionals are overburdened. Clinicians have little time outside of patient care to review data, and health officials, particularly at the district level, often do not have the time to analyze data to inform their work. In general, data are used more for planning than for improving program implementation. Since 2020, district officials have been entering community health program data into DHIS2; however, not all data collected by CHWs are currently entered. Since community data integration into DHIS2 was only launched last year, it remains to be seen whether these data will be used for decision-making at each level of the health system.

NATIONAL LEVEL	At the national level, officials analyze data and compare data to targets for each health region. The DIIS centralizes all health data in DHIS2 and produces a report on health data each year, titled the <i>Rapport Annuel Sur la Situation Sanitaire</i> . Partners do not have direct access to DHIS2, but they can approach the DIIS to receive data from the system, which is generally shared via Excel. The PNLP and officials from other MOH offices have direct access to DHIS2 and can also provide partners, such as PMI, with data pulled from DHIS2.
REGIONAL / DISTRICT LEVEL	District and regional officials use data to provide feedback on performance and address problems. Quarterly coordination meetings are held in the districts and regions to review DHIS2 data and determine which indicators need to be emphasized, as well as to find solutions to problems identified. In the health districts, officials use data to place commodity orders with the New Public Health Pharmacy (Nouvelle Pharmacie de la Santé Publique). They also produce performance indicators for each health center and hold regular meetings with the centers to provide feedback.
HEALTH FACILITY LEVEL	Nurses, who manage community health centers, are supposed to use data for decision-making for iCCM management and the supervision of CHWs, but they do not always do so due to both their workload and a lack of training. At the end of each month, nurses should review CHW data to identify health challenges and create an action plan. For example, if they notice an increase in malaria in an area, they should investigate the issue and assist CHWs to intervene. Nurses do not have access to DHIS2, but they access data through their paper reports or through reports that they receive from the districts.
COMMUNITY LEVEL	CHWs cannot analyze data or use data for decision-making. Normally, nurses are supposed to give them feedback, but this feedback is typically to correct their data rather than to train them in data analysis. Coordination meetings at the health centers, which should take place monthly, are opportunities for the nurses to show the CHWs the data and to get their feedback.



	DIGITAL	COMMUNITY HEALTH	MALARIA
Name	N/A	Plan Stratégique de la Santé Communautaire	Plan Stratégique National de Lutte Contre le Paludisme
Current strategy dates	N/A	2017-2021	2021-2025
Coordinating body	Direction de l'Informatique et de l'Information Sanitaire (DIIS)	Direction de la Santé Communautaire (DSC)	Programme National de Lutte Contre le Paludisme (PNLP)
Funding strategy	No	No	Yes

Currently, there is no formal national strategy to guide digital health initiatives in Côte d'Ivoire. While no strategy exists, the DIIS manages and coordinates all activities related to health data and digital health tools and would be the coordinating body for a potential future digital health strategy.

The DSC is responsible for managing community health programs and CHWs, but it does not have a clear strategy for introducing digital tools beyond a general desire to digitize data. No information on digital health is included in the most recent community health strategic plan, but the integration of community health data was a key priority and was achieved in 2020.

The most recent national strategic plan for malaria outlines several goals aligned with community health, most notably the improvement of case management and the expansion of social and behavior change communication at the community level. The only digital health effort included in the malaria strategic plan is CommCare, a tool used by midwives to track pregnant women for prenatal appointments. According to the plan, this tool will be scaled up to the national level following an evaluation.

GOVERNANCE Policies define digital health and health data governance roles, responsibilities, and structures.	Created in 2016, the DIIS, attached to the central directorate at the MOH, is the structure that manages everything related to health data and digital health in Côte d'Ivoire. The DIIS is responsible for the coordination of digital tools, with the help of the specific directorate or program involved. Although the DIIS has a strategic plan to facilitate the implementation of projects, and specific MOH and programs have their own strategic plans, no document or policy on digital health exists at the ministry level, and no specific strategy guides digital health prioritization.
DATA MANAGEMENT Policies provide specifications for data access, privacy, security, and confidentiality and outline stipulations for data sharing.	In Côte d'Ivoire, there is no document or policy specific to health data security. A law dating from 2013 has been adopted for the protection of personal data. Additional actions are needed to support enforcement of the data protection law, and further policies, standards, and procedural guidance are needed to reinforce data security procedures and standards.
STANDARDS AND INTEROPERABILITY Policies describe an enterprise architecture, normative standards—such as health information standards—and digital identity.	In Côte d'Ivoire, there is no enterprise architecture for digital health. Although DHIS2 is the main health information management tool, there is no formal policy on interoperability or the integration of digital tools.
INFRASTRUCTURE Policies define data hosting and storage (e.g., local or cloud), mobile device management, and telecommunications access.	Currently, there is no policy on infrastructure. Data hosting and device management are handled on a case-by-case basis.
WORKFORCE Policies describe workforce job structures and descriptions, plans for training, digital literacy expectations, and incentives for digital adoption.	Currently, there are no workforce policies specific to digital health, nor do any documented plans exist to build the digital capacity of the current workforce. However, a pool of trainers exists at the national level to provide training on DHIS2.





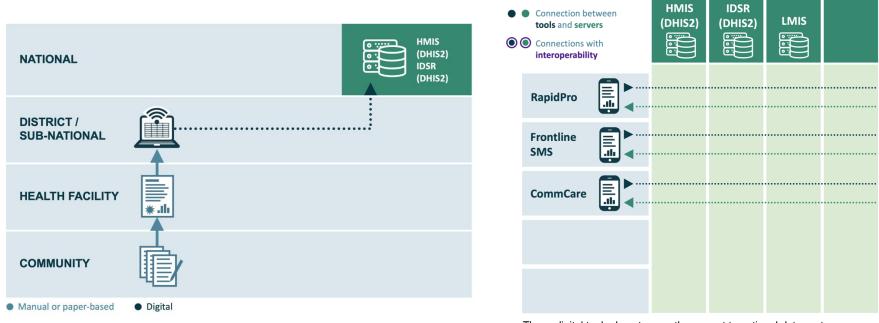
Data flow

Data are collected by CHWs on paper and are not digitalized until the health district level. CHWs first collect data in two registries: an activity book where they record all interactions related to promotional and prevention activities and a register where they record information on case management services. Data from these registries are then aggregated in a monthly report that the CHWs send to their supervisors. Each supervisor compiles the reports from all CHWs in his or her health zone into an aggregated monthly report that is then sent to the health district by the fifth of the month. In principle, districts check for inconsistencies before entering the data into DHIS2. In practice, however, the number of reports makes verification difficult. These data are available to decision-makers at the health district, health region, and national MOH levels through DHIS2. Data validation exercises also take place at the district, regional, and national levels, during which DHIS2-trained data managers review and clean the data to improve quality and reliability.

Currently, not all data collected by CHWs in their reports are entered into DHIS2. Only select indicators are recorded, such as suspected malaria cases, severe suspected cases, positive cases treated, positive cases treated who received antimalarial treatment according to the guidelines, number of RDTs performed, number of positive RDTs, people to whom CHWs administer artemisinin-based combination therapies, pregnant women who received sulfadoxine-pyrimethamine, and those lost to follow-up. Other data are available in the paper reports that districts are expected to keep on file. In 2020, CHWs' paper tools were digitized, but the digitized version has not yet been put into use.

Numerous challenges, including accuracy and timeliness, impact CHW data flow. Errors are introduced both when data are originally recorded and when CHWs collate data for their monthly reports, and CHWs do not always have a good understanding of what the indicators that they collect data for mean. Although CHWs often receive help from supervisors in collating data, their supervisors do not always have sufficient time to support them, and refresher training to improve data collection is not consistently provided. CHW and health center reports are often submitted late, and data are not always entered into DHIS2 at the health district level in a timely manner.

The only digital system that includes malaria data as well as data collected by CHWs is DHIS2. The integrated disease surveillance system (*surveillance intégrée des maladies et de la riposte*) includes both routine malaria data and sentinel surveillance data. Surveillance data are sent to districts from health center supervisors at the same time as CHW and center reports. Routine data are entered into DHIS2 by district managers, and sentinel surveillance data are shared with the PNLP monthly via Excel. Other data systems used in Côte d'Ivoire are the HIV Information and Management System, Electronic Patient Record (Système d'Information et de Gestion, Dossier Electronique du Patient, or SIGDEP-2), the electronic Information and Logistics Management System (Système électronique d'Information et de Gestion Logistique), and an open-source electronic laboratory information system (OpenELIS). There is no interoperability between these systems and DHIS2, and there is no formal document or process to guide efforts on interoperability, even though this is desired. In practice, interoperability is addressed on a case-by-case basis. For example, the DIIS is working on interoperability between SIGDEP2 and OpenELIS but without well-developed procedures.



These digital tools do not currently connect to national data systems

Abbreviations: DHIS2, District Health Information Software 2; IDSR, Integrated Disease Surveillance and Response; iHRIS, integrated human resources information system; LMIS, logistics management information system; SMS, short message service.

Digitally enabling infrastructure

Côte d'Ivoire has strong access to electricity compared to most other countries in the region, with 67 percent of the total population having access to electricity as of 2018. This number has continued to grow as the government makes major investments to connect villages to the power grid, with the National Rural Electrification Program (*Programme National d'Electrification Rurale*) having set a goal of connecting all villages with more than 500 people to the grid by the end of 2020.⁹ Despite this progress, some villages where CHWs live still lack electricity; however, the large majority of health facilities are connected to the power grid.



Mobile penetration is high, with cell phone ownership at 91 percent for men and 77 percent for women.¹⁰ Of those who own a cell phone, 44 percent have access to the Internet via their phones,¹¹ and 75 percent of the population live in areas with 3G coverage.¹² While three mobile networks (Orange, MTN, and MOOV) operate throughout the country, not all of them work in any given area, including in urban areas; however, in most villages at least one network works. When the DIIS undertakes a digital project, it asks individual health centers which operator works best in their area, and so the choice of operator is a function of the locality.

Digital health tools in use and functionality

No digital tools are currently used by CHWs to support malaria case management in Côte d'Ivoire. CommCare, funded by the Global Fund and implemented by Save the Children, is the most widely used tool relevant to malaria services at the community level. This tool is used by midwives to register and track pregnant women who come for prenatal consultations and sulfadoxine-pyrimethamine treatment. Midwives use data from the tool to identify women who miss appointments and then work with CHWs to track them down and encourage them to visit the health center. Frontline SMS, used by CHWs, was piloted in three districts to report suspected cases of potentially epidemic diseases, but this pilot did not include malaria, and the tool is no longer in use. RapidPro has been introduced by UNICEF to provide and gather information on health by phone and text but is not used by CHWs or for malaria case management. Several digital tools are currently in the planning phase, largely in Global Fund districts, including a CHW management tool (implemented by Save the Children) and a CHW data collection and management tool (implemented by Muso).

USE CASE(S)	RAPIDPRO	FRONTLINE SMS ¹³	COMMCARE
Providing malaria community case management			
Tracking malaria proactive and reactive case detection			
Tracking malaria screening with referral			
Transmitting messages to community on malaria			
Training health workers			

USE CASE(S)	RAPIDPRO	FRONTLINE SMS ¹³	COMMCARE
Tracking routine LLIN distribution during ANC or EPI visits			
= Current use = Possible, but not currently in use = Does not meet us	e case		
CASE MANAGEMENT FUNCTIONALITIES	RAPIDPRO	FRONTLINE SMS	COMMCARE
Aggregate case reporting and analytics Tool collects aggregate case data and has data analytic functions in tool or online			1.1
Individual case entry and analytics (<i>important in low-burden or</i> <i>elimination settings</i>) Tool collects individual case data and has data analytic functions in tool or online			
Case geolocation (<i>important in low-burden or elimination settings</i>) Tool allows collection or use of geospatial data for individual cases			
Interoperability with HMIS Tool sends information to the official national health information system			
Offline capability Tool functions, at least partially, offline			
MANAGEMENT & SUPERVISION FUNCTIONALITIES	RAPIDPR	FRONTLINE O SMS	COMMCARE
CHW identification Tool uniquely identifies CHWs			
CHW catchment location Tool identifies CHW associated position in org unit hierarchy/link to healt facility/system	th 🗆		
CHW performance analytics Tool has analytic functions (data validation, graphs, charts) that support data quality, quality of care, or other performance issues			

		FRONTLINE	
MANAGEMENT & SUPERVISION FUNCTIONALITIES	RAPIDPRO	SMS	COMMCARE
Communication			
Tool allows two-way communication between peer groups, associated health facilities, or supervisors			

Current functionality
Possible, but functionality not currently in use
Des not have functionality

Abbreviations: ANC, antenatal care; CHWs, community health workers; EPI, Expanded Program on Immunization; HMIS, Health Management Information System; LLIN, long-lasting insecticidal net; SMS, short message service.

Appendices

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 Next-generation tool functionalities for malaria case management



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APPENDIX A

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APPENDIX B

Abbreviations

ANC	antenatal care
CFA	Communauté Financière Africaine (African Financial Community)
CHW	community health worker
DHIS2	District Health Information Software 2
DIIS	Direction de l'Informatique et de l'Information Sanitaire (Directorate of Informatics and Health Information)
DSC	Direction de la Santé Communautaire (Directorate of Community Health)
EPI	Expanded Program on Immunization
iCCM	integrated community case management
IDSR	Integrated Disease Surveillance and Response
iHRIS	integrated human resources information system
LLIN	long-lasting insecticidal net
LMIS	logistics management information system
MOH	Ministry of Health
OpenELI	IS open-source electronic laboratory information system
PMI	U.S. President's Malaria Initiative
PNLP	Programme National de Lutte Contre le Paludisme (National Malaria Control Program)
PSI-CI	Population Services International – Côte d'Ivoire
RDT	rapid diagnostic test
SIGDEP	Système d'Information et de Gestion, Dossier Electronique du Patient (Information and Management System, Electronic Patient Record)
SMS	short message service
UNICEF	United Nations Children's Fund

USAID United States Agency for International Development

APPENDIX C

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Organization

Ministère de la Santé, Direction de la Santé Communautaire (DSC) Programme National de Lutte Contre le Paludisme (PNLP) Nouvelle Pharmacie de la Santé Publique Programme National de Santé Mère Enfant DSC District Sanitaire de Alépé Ministère de la Santé DSC ONG Muso PNLP US Agency for International Development / PMI Direction de l'Informatique et de l'Information Sanitaire (DIIS) District Sanitaire de Bouaflé PNLP Alliance des Religieux contre le Sida et les autres Pandemies International Rescue Committee Population Services International - Côte d'Ivoire (PSI-CI) ONG Muso Save the Children PSI-CI PSI-CI International Rescue Committee Ministère de la Santé, PNLP District Sanitaire de Bouaflé DIIS **ONG Muso PSI** Consultant UNICEF

APPENDIX D

Community digital health tools*

Name of Tool	Type of Digital Health Intervention [†]	Implementer (Funder)	Scale	Malaria Use Case
RAPIDPRO	 1.1 Targeted client communication 1.2 Untargeted client communication 1.3 Client to client communication 1.4 Personal health tracking 1.5 Citizen based reporting 1.6 On demand information services to clients 1.7 Client financial transactions 3.4 Civil Registration and Vital Statistics (CRVS) 4.3 Location mapping 	UNICEF (UNICEF, Gavi, the Vaccine Alliance)	National Utilized by 3 million people worldwide	Routine LLIN distribution during antenatal care (ANC) or Expanded Programme on Immunization (EPI) visits
FRONTLINE SMS	1.2 Untargeted client communication4.1 Data collection, management, and use4.2 Data coding	International Rescue Committee (International Rescue Committee, Centers for Disease Control and Prevention)	3 districts Kabadougou, Bafing, Folon 99 CHW users	Tool not used for malaria
COMMCARE	Not available	Save the Children (Global Fund)	Global Fund-supported districts (53 districts)	Tracking pregnant women for prenatal appointments and sulfadoxine- pyrimethamine treatment.

Abbreviations: CHW, community health worker; EPI, Expanded Program on Immunization; UNICEF, United Nations Children's Fund.

*Data that come from the survey have not been independently validated aside from tools featured within the profile.

[†]See <u>Classification of digital health interventions v1.0</u>, World Health Organization, 2018.

APPENDIX E

Next-generation digital health tool functionalities for malaria case management

CASE MANAGEMENT FUNCTIONALITIES	RAPIDPRO	FRONTLINE SMS
Notifications		
Tool sends and receives notifications		
Stock reporting & analytics		
Tool collects stock data and has analytic functions to support stock and		
logistics data analysis and decision-making		
Interoperability with other national health systems	_	_
Tool sends information to other national systems (iHRIS, LMIS, etc.)		
Referral coordination		
Tool allows CHW to notify local health facility of referrals and track them		
Scheduling & work planning		
Scheduling & work planning Tool allows CHW to plan and schedule key activities in the community		
	RAPIDPRO	FRONTLINE SMS
Tool allows CHW to plan and schedule key activities in the community	RAPIDPRO	FRONTLINE SMS
Tool allows CHW to plan and schedule key activities in the community MANAGEMENT & SUPERVISION FUNCTIONALITIES Decision support	C RAPIDPRO	FRONTLINE SMS
Tool allows CHW to plan and schedule key activities in the community MANAGEMENT & SUPERVISION FUNCTIONALITIES Decision support Tool provides algorithms or checklists to guide CHW service provision	RAPIDPRO	FRONTLINE SMS
Tool allows CHW to plan and schedule key activities in the community MANAGEMENT & SUPERVISION FUNCTIONALITIES Decision support	C RAPIDPRO	FRONTLINE SMS
Tool allows CHW to plan and schedule key activities in the community MANAGEMENT & SUPERVISION FUNCTIONALITIES Decision support Tool provides algorithms or checklists to guide CHW service provision Training materials & resources	C RAPIDPRO	
Tool allows CHW to plan and schedule key activities in the community MANAGEMENT & SUPERVISION FUNCTIONALITIES Decision support Tool provides algorithms or checklists to guide CHW service provision Training materials & resources Tool provides access to training materials, policies, or other useful	C RAPIDPRO	
Tool allows CHW to plan and schedule key activities in the community MANAGEMENT & SUPERVISION FUNCTIONALITIES Decision support Tool provides algorithms or checklists to guide CHW service provision Training materials & resources Tool provides access to training materials, policies, or other useful reference documents	C C C C C C C C C C C C C C C C C C C	
Tool allows CHW to plan and schedule key activities in the community MANAGEMENT & SUPERVISION FUNCTIONALITIES Decision support Tool provides algorithms or checklists to guide CHW service provision Training materials & resources Tool provides access to training materials, policies, or other useful reference documents CHW geolocation	C RAPIDPRO	
Tool allows CHW to plan and schedule key activities in the community MANAGEMENT & SUPERVISION FUNCTIONALITIES Decision support Tool provides algorithms or checklists to guide CHW service provision Training materials & resources Tool provides access to training materials, policies, or other useful reference documents CHW geolocation Tool allows collection or use of CHW geolocation data for monitoring and	CAPIDPRO	

 \blacksquare = Current functionality \blacksquare = Possible, but functionality currently not in use \square = Does not have functionality

Abbreviations: CHW, community health worker; iHRIS, integrated human resources information system; LMIS, Logistics Management Information System; SMS, short message service