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# Strengthening Data Systems and Use for a Better Malaria Response

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CHISU helps countries build resilient health information systems (HIS) that strengthen prevention and control of malaria outbreaks and epidemics. Malaria continues to be a major public health threat worldwide, with 249 million malaria cases in 2022.<sup>1</sup> Better integrating malaria data into health information systems—and using that data to help target interventions—can help countries improve malaria program management.

## How is CHISU contributing to malaria elimination efforts?

### Country activities

CHISU is supporting country-led efforts to better collect and analyze malaria data, increase data-informed decision making, strengthen malaria data governance, and more. Learn about our malaria-focused work below.



A health worker tests a blood sample for malaria in Nigeria. Photo credit: JSI

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<sup>1</sup> World Health Organization. 2023. “Malaria.” Available at <https://www.who.int/news-room/fact-sheets/detail/malaria> (accessed April 2024).

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Country Health Information Systems and Data Use (CHISU) is USAID’s flagship data and information system program to strengthen host country capacity and leadership to manage and use health information systems to improve evidence-based decision-making.

[www.chisuprogram.org](http://www.chisuprogram.org)

## **Burkina Faso**

Through the U.S. President's Malaria Initiative (PMI), we support Burkina Faso's National Malaria Control Program (NMCP) to strengthen the use of data for action at the regional and district levels by identifying barriers and possible solutions to routine malaria data quality and assisting in developing an improvement plan.

## **Burundi**

In Burundi, we provide technical support to strengthen the capacity of Burundi's NMCP and other national health programs. This includes strengthening the capacity of surveillance, monitoring, and evaluation (SME) professionals to improve data collection, quality assurance, analysis, and use of malaria and other health information to understand and address health priorities, gaps, and challenges. Additionally, we help Burundi's Ministry of Health develop a health data governance policy, along with supervision and data quality guidelines, to ensure the quality, protection, and optimal use of data while respecting national and international regulatory requirements.

## **Côte d'Ivoire**

We are working in Côte d'Ivoire to strengthen national malaria HIS governance by developing a roadmap to help increase the number of private health facilities reporting into the national health management information system (HMIS); assisting districts in systematically using the data quality control tools available in the District Health Information System 2 (DHIS2); improving the development and use of tools to monitor HIS progression; and strengthening local capacity to analyze and use data.

## **Democratic Republic of the Congo (DRC)**

In DRC, we support the country's NMCP and provincial health offices to strengthen malaria health information systems through improved use of malaria data systems and dashboards that visualize key metrics—as well as through increased availability, quality, and timeliness of malaria data. In addition, we are strengthening capacity for data analysis and validation through malaria data reviews and supportive supervision, and also are working with local partners to improve implementation of guidelines and digital tools.

## **Ghana**

We worked in Ghana to strengthen routine malaria surveillance systems by improving malaria data quality through capacity building in data validation and verification; facilitating data quality review meetings; data quality audits; and micro-teaching and coaching during supportive supervision. We assessed and established interoperability

between malaria data systems (SiCapp) and the District Health Information Management System 2 (DHIMS2). We also built capacity in data analysis, interpretation, visualization, and use, and are currently operating in eight out of 16 regions in Ghana.

## Kenya

In Kenya, we are supporting NMCP to improve the country's governance by revising the national malaria policy and malaria strategic plan to reflect changes in program planning; strengthening systems to improve availability of malaria data; improving the quality and use of routine data for decision making by implementing the Malaria Routine Data Quality Assessment (mRDQA) in eight lake-endemic counties; building malaria surveillance capacity of health workers; and increasing use of inpatient malaria data. We're also generating analytics using epidemiologic and entomologic data at national and subnational levels to strengthen vector surveillance-response initiatives.



Community members in Ghana educate others on how and why to use bednets to prevent malaria. Photo credit: USAID

## Madagascar

We support the Government of Madagascar to strengthen the design, development, and implementation of HIS related to malaria and other health programmatic areas. To do so, we support implementation of the country's malaria strategic plan (2023–2027) and development of that plan's monitoring and evaluation plan. We are also building the capacity of health workers involved in malaria management to use and generate quality data by organizing training sessions at the central and regional levels. CHISU also facilitates workshops to assess data quality, program performance, and the impact of response and control strategies; supports development of malaria bulletins; and is an active member of various technical working groups. Lastly, CHISU is rolling out a mobile application called Scorecard which displays facility-level malaria trends against targets and commodity stock.

## Malawi

We support HIS governance and coordination in Malawi through national-level technical working group meetings and providing technical input to malaria SME and national-level HIS policies. We also provided technical assistance for the DHIS2 upgrade and key user training; supported institutionalization of data quality protocols; and developed an automated bulletin to generate malaria program key performance and surveillance data at the national, district, and facility levels in order to strengthen data use for evidence-based decision making. Additionally, we supported primary health care interventions (as part of USAID's Primary Impact initiative) and implementation of the malaria integrated supportive supervision and mentorship platform.

## **Mali**

In Mali, we supported NMCP in customizing the mRDQA tool in DHIS2; training regional and district malaria focal points and HIS officers in six regions and 41 districts on the customized tool; and conducting mRDQAs in 11 reference health centers and 33 community health centers of the six regions. We also supported NMCP in revising the malaria bulletin to include key indicators and customizing it in DHIS2 so that the bulletin can be generated automatically and provide real-time data. Additionally, we worked to strengthen malaria data quality and use by conducting malaria data reviews in 13 districts of six regions.

## **Niger**

We work to strengthen malaria data quality and use in Niger with a focus on key governance processes and documents at the national level and targeted support at the regional level to operationalize these policies and procedures. We also help foster malaria data management at all levels. At the central level, we support Niger's NMCP in the production of the national quarterly epidemiological bulletin. Central and regional health managers involved in malaria management activities are trained in surveillance, monitoring, and evaluation to facilitate the decentralization of surveillance activities.

## **Sierra Leone**

Our work in Sierra Leone includes improving coordination between the NMCP and partner organizations; technical working group coordination—which includes the Directorate of Policy, Planning and Information (DPPI) and Community Health Workers Hub—for community health information systems piloting; disseminating data analysis products (such as malaria bulletins); coordinating supervision with other technical assistance providers; and organizing standardized training, data review, and analysis meetings. We also support mRDQA scale-up activities, maintain the Health Network Quality Improvement System (HNQIS) system, develop the data quality assurance plan, and conduct HMIS stakeholder mapping. Additionally, we support NMCP on data analysis and other meetings on malaria indicator reviews.

## **Thailand**

We support Thailand's Ministry of Health's Division of Vector Borne Diseases (DVBD) to process the necessary documentation for certification of malaria elimination and associated tasks; develop an action plan to link Thailand's Malaria Online system with other health information systems; and improve the availability, quality, and timeliness of malaria data.

## **Global activities**

With funding from PMI Washington, CHISU is developing and testing tools that can be employed in multiple settings. CHISU is also providing support to global bodies and supporting the rollout of international guidance.

Our work so far includes supporting convening of the RBM Partnership to End Malaria's Surveillance Monitoring and Evaluation Reference Group (SMERG), as well as its committees and task forces, and assessing community-based information system guidance in PMI priority countries.

We are also:

**Producing global tools** for malaria prevention and control by:

- Developing and piloting a data repository decision matrix tool that will guide the development of malaria data repositories
- Automating country malaria bulletins by developing a generic bulletin template and templating engine—and connecting the template with existing malaria data sources through a custom DHIS2 app
- Updating and rationalizing content of the routine health information systems (RHIS) profiles, which provide a concise summary of the health information landscape in countries—and are critical for malaria programs in all transmission settings

**Strengthening in-country capacity** to apply updated guidance and resources by:

- Developing an analytical framework that would allow for continuous assessment of intervention coverage and effectiveness using a suite of non-modeling statistical approaches
- Promoting the standardized use of the WHO DHIS2 malaria modules, including the training curriculum
- Developing malaria stratification training guidelines and adapting open-source software to strengthen countries' long-term capacity to perform malaria stratification (independent of donor support and mathematical modeling)



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