Current as of JUNE 2023

Mali

Routine Health Information System (RHIS) Malaria Reporting Structures

RHIS Profile: This document outlines the reporting structures of the routine health information systems (RHIS) that include malaria data. In Mali, the RHIS was established in 1998. It encompasses three sub-systems: the *Système Local d'Information Sanitaire* (SLIS, local health information system), the *Système d'Information Hospitalier* (SIH; hospital information system), and the *Système d'Alerte Épidémiologique* (SAE, integrated disease surveillance and response system). As of August 2016, these sub-systems have been integrated into the DHIS2 platform. Prior to DHIS2, SLIS data were collected quarterly at the district level, in an Access-supported-platform called *Développement Sanitaire du Mali* (DESAM). Data were collected for four malaria indicators. To better address the need for data on malaria, the National Malaria Control Program (NMCP) launched in 2008 a complementary paper-based data collection system in the *Centre de Santé Communautaire* (CSCom). In 2010, MEASURE Evaluation initiated the electronic collection and transmission of malaria data by phone, which subsequently covered the regions of Ségou and Mopti, and the District of Bamako. With the introduction of DHIS2 in 2016, the RHIS data compilation and entry starts at the CSCom level, after data extraction from the consultation records in the SLIS monthly activity report. Data captured in DHIS2 are directly accessible to the districts and the *Directions Régionales de la Santé* (DRS, Regional Health Directorates). Second and third referral hospitals (regional and central levels) are part of the SIH and submit data in DHIS 2 using a different monthly reporting form.

	SLIS	SAE
	When started: 2016 on DHIS2 (1993 on paper). **Scale-up status:** National; deployment in all the CSComs completed.	**When started:** 2016 national level and all CSComs for DHIS2 (1987 on paper). **Scale-up status:** National deployment
National • 5 third referral hospitals	**Reporting format/platform:** DHIS2 **Managed by:** DGSHP, Division of Health Information and Planning. **Dissemination:** Annual health statistics **Key tasks:** Coordination, data analysis and decision making, annual data review and validation, reporting, commodity forecasting and distribution, evaluation, and planning; quarterly feedback to the lower levels.	**Reporting format/platform:** DHIS2 **Managed by:** DGSHP, Disease Surveillance Unit in Division of Disease Prevention and Control. **Dissemination:** Annual statistics, weekly report to MOH senior staff/posted to MOH website. **Key tasks:** Coordination, data analysis, epidemic detection, preparedness and response, decision making; quarterly feedback to lower levels.

Acronyms:

CHW: community health worker
CSRef: centre de santé de référence (reference health center)
DNS: Direction Nationale de la Santé (National Health Directorate)
M&E: monitoring and evaluation
MOH: Ministry of Health
RMA: Rapport Mensuel d'Activités (Monthly Activity Report)

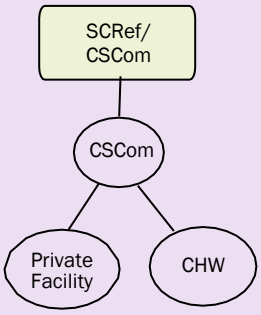
Regional • 11 regions (+9 nonfunctional new regions created in 2020) • Average of 7 districts per region • 8 Regional hospitals (2nd referral level)	**Reporting format/platform:** DHIS2 **Managed by:** Regional health data manager **Reported to:** DGSHP. Regional hospitals report to Cellule de Planification et de Statistique (CPS). **Reporting frequency:** Monthly (data validation 3 weeks after the end of the month) **Key tasks:** Supervision, training, semiannual data review meetings, decision making.	**Reporting format/platform:** DHIS2 **Managed by:** Regional health disease surveillance point person **Reported to:** DGSHP (and NMCP for Malaria data) but also directly accessible via DHIS2 after data entry. **Reporting frequency:** Weekly (each Friday) **Key tasks:** Monitoring of epidemic-prone diseases and epidemic detection, M&E and data quality control, epidemic investigation.
District • 75 districts • Average of 20 CSComs per district • 64 CSRef (1st referral level)	**Reporting format/platform:** DHIS2 **Managed by:** District data manager **Reported to:** Regional health office **Reporting frequency:** Monthly (deadline, data validation 2 weeks after the end of the month). **Key tasks**: Supervision, quarterly data review meetings for data validation, data entry for reports, data analysis.	**Reporting format/platform:** DHIS2 **Managed by:** District health disease surveillance focal person **Reported to:** Regional health office Reporting frequency: Weekly (each Friday). **Key tasks:** Monitoring of epidemic-prone diseases and epidemic detection, data entry of paper-based reports, data analysis and verification, epidemic investigation.
Facility Level • 1,525 CSComs  	**Reporting format/platform:** Data are compiled in the 28-page paper RMA before entry into DHIS2. All the CSRef and nearly all CSComs have the capability to enter data into DHIS2. A few private health facilities are also reporting in DHIS2 using a specific RMA. **Managed by:** CSCom Technical Director and CSRef Director respectively. **Reported to:** District health office. **Reporting frequency:** Monthly (1 week after the end of the month) **Other:** CHWs and most private health facilities use a paper based system to report data to the CSCom. **Key tasks:** Data collection and verification; analysis data used for planning and management.	**Reporting format/platform:** Most CSComs use DHIS2 to report surveillance data for priority diseases (northern regions started using DHIS2 for weekly reporting of surveillance data in 2018). **Managed by:** CSCom Technical Director and CSRef Director respectively. **Reported to:** District health office **Reporting frequency:** Weekly (each Friday), priority diseases cases notified daily. **Key tasks:** Data collection, verification, analysis, and transmission; suspected disease outbreaks notified to the district and the region, and to DNS by phone.

Table 1: Key Malaria Indicators by System

Indicate Y or N for each reporting element captured by the system.

	SLIS	SAE
Number of malaria cases		
Suspect or fever cases	Y	Y
Suspected cases tested (diagnostically)	Y	N
Diagnostically confirmed (positive)	Y	Y
Clinical or presumed or unconfirmed	Y	N
Outpatient/inpatient	Y/Y	N/N
Uncomplicated/severe	Y/Y	Y/Y
Age categories (e.g., <5, 5+) / Sex disaggregation (M, F)	Y/Y	Y/Y
Pregnant women	Y	N
Number of malaria deaths		
Age categories (e.g., <5, 5+) / Sex disaggregation (M, F)	Y/Y	Y/Y
Pregnant women	Y	N
Commodities* (Availability or stockout/consumption)		
RDT	Y/Y	Y/Y
ACT	Y/Y	Y/Y
Severe malaria treatment	Y/Y	Y/Y
SP	Y/Y	Y/Y
IPTp 1/2/3(+)	Y	N
Completeness of reporting	Y	Y

Data Quality Activities:

Routine data quality reviews/audits:

- Data reviews are conducted monthly by CSComs, quarterly by districts, semiannually by regions, and annually by the central level. The health facility-level data review process is conducted by the CSCom staff and the district staff with oversight from the health regions' teams. They are tasked to review, identify, and correct inconsistencies and to validate data. District and NMCP representatives participate in the regional reviews. NMCP also conducts data reviews during supportive supervision visits in selected health facilities (all regions are targeted), depending on the availability of resources. Over the last three years, data quality review meetings are mainly funded by the Global Fund, through Population Services International (PSI) Mali, and USAID/PMI through MEASURE Evaluation. Malaria Care-supported routine data quality assessments (DQAs) took place in Mopti, Segou, Sikasso, Kayes, and Koulikoro regions as well as Bamako district from 2015 to 2019. Supportive supervision and DQA activities were supported by various partners, including MEASURE Evaluation, the Global Fund through PSI, and Malaria Care. From 2020 to 2021, PMI Measure Malaria supported malaria-specific DQAs using the malaria routine data quality assessment (MRDQA) tool in four regions (Sikasso, Koulikoro, Kayes, and Bamako). Palladium supported implementation of the generic DQA (RDQA) in Segou, Mopti and Sikasso in 2021.

Monthly or quarterly malaria bulletin:

- NMCP is producing monthly bulletins, and five regions are producing quarterly malaria bulletins with support from Measure Malaria. Malaria data are also published in NMCP malaria annual reports. The bulletins are electronically disseminated to the regions, districts, and partners. The most recent malaria monthly bulletin was produced in December 2021 to report on October 2021 data. The most recent malaria annual report (for 2020) was published in 2021. The most recent quarterly bulletins were developed in 2021 to report on data collected in July–September 2021.

Data availability:

- A code is required to access DHIS 2. NCMP (senior staff and M&E team), regional and district data managers, and malaria point persons have direct access to malaria data in DHIS 2. Key partners can have access to malaria data. Data are available as soon as data entry and consistency control have been completed by the CSCom.

Data use:

- Malaria data are used by the NMCP, regions, districts, health facilities, and other partners for management, reporting, commodity forecasting and distribution, program performance evaluation, strategic decision making, and writing grant proposals. Other partners use malaria data for reporting and proposal writing. The CSCom is the lowest level where data are routinely analyzed.

Additional Context:

SLIS data reporting frequency changed from quarterly to monthly in 2016, when DHIS2 was introduced to replace the DESAM and the complementary paper and electronic versions of the malaria reporting system. Before the introduction of DHIS2 in Mali, a mobile phone reporting system was established for routine malaria data (2011) in 20 districts and surveillance data (2013) in 2 districts with USAID/MEASURE Evaluation support.

Key challenges:

- Weak SME/HIS governance, internet connectivity, access to a power source, data quality, institutionalization of regular data analysis, use and dissemination of results, equipment maintenance, human resources, data reporting by the private sector, and security.

Key partners and stakeholders:

- USAID/PMI and Global Health Security Agenda, the Global Fund, PSI, World Health Organization, UNICEF, DGSHP, Cellule de Planification et de Statistique (CPS), Pharmacie Populaire du Mali (PPM), Catholics Relief Services (CRS), IMPACT Malaria, Procurement and Supply Management (PSM), VectorLink, Malaria Research and training center (MRTC), Palladium.

Priorities:

- Integration of private health facility data and expanding the reporting system to the community level.
- Malaria surveillance is part of the national integrated disease surveillance and response (IDSR) strategy, and IDSR/epidemic surveillance includes all regions regardless of the malaria epidemiology.

Recent updates:

Please use this space to note any changes to routine reporting in response to gaps identified from the previous versions of the RHIS profile. This may include initiatives to address data quality, reporting structures and timeliness of reporting, or supervision.

Examples:

- Expansion of DHIS2 geographic coverage
- Adoption or discontinued use of malaria bulletin
- Updates to supervision efforts and priorities

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