

RHIS Profile: Liberia launched a national health management information system (HMIS) in 2009 to support timely data reporting and uniform data collection using District Health Information System (DHIS2) software. The fully integrated computerized HMIS serves all public facilities and those private clinical facilities that receive medicines and other health products support from the Ministry of Health (MOH). The community-based Information System (CBIS) links information from services provided in the community to facility level information through the DHIS2 platform. Personnel have been trained and the system is operational nationwide and to support timely data reporting through DHIS2.

Acronyms
 CHA = Community Health Assistants
 CHT = County Health Team
 CHV=Community Health Volunteer
 CHSS = Community Health Services Supervisor
 CSO = County Surveillance Officer
 DHT = District health team
 DHO= District Health Officer
 DSO = District Surveillance Officer
 ICCM = Integrated community case management
 HMER = Health Information Systems, Monitoring & Evaluation and Research
 NPHIL: National Public Health Institute of Liberia
 OIC: Officer in charge
 SFP = Surveillance Focal Point

	HMIS	IDSR
	<p>Started: 2009 Scale-up status: National</p>	<p>Started: 2015 Scale-up status: National</p>
<p>National</p> <p>↑</p>	<p>Reporting format/platform: DHIS 2 Managed by: MOH/HMER Dissemination: HMIS publication in the Annual Ministry Report. Key Tasks: NMCP and MOH receive data through DHIS2 on or before the 15th of the new month. Data analysis, production of dashboards and bulletins specific to malaria prevention and control. Training in the usage of DHIS2 and maintenance of the system.</p>	<p>Reporting format/platform: eIDSR Managed by: MOH Dissemination: National weekly and quarterly IDSR bulletin disseminated to international, national, and county stakeholders. Key Tasks: Immediate notification of diseases under active surveillance. Reports public health concerns to WHO through National Focal Point at NPHIL. Provides technical and financial support during outbreak response.</p>
<p>County</p> <ul style="list-style-type: none"> • 15 counties • On average 6 districts per county 	<p>Reporting format/platform: DHIS2 Managed by: County M&E Officers Reported to: MOH/HMER database; access by NMCP Reporting frequency: by 15th of following month Key Tasks: County M&E Teams collect, collate, and enter paper-based data into DHIS2. All routine data are checked for completeness and entered into DHIS2 by the County HMIS Unit. Also provide supervision support to District teams.</p>	<p>Reporting format/platform: SMS; email and phone calls in counties not yet implementing eIDSR Managed by: CSO at the CHT Reported to: NPHIL/MoH with approval from CHO Reporting frequency: Within 24 hours and Weekly report Key Tasks: CSO receives notification from community, facility and DSO. Verify alerts from community, facility and DSO and respond with support of National.</p>
<p>District</p> <ul style="list-style-type: none"> • 92 districts • On average 5 facilities per district <p>↑</p>	<p>Reporting format/platform: Paper-based & DHIS2 Managed by: DHT Reported to: CHT Reporting frequency: Monthly by the 5th of following month Key Tasks: Paper HMIS forms are collected and checked for completeness by the DHT at the end of the month. DHTs also provide oversight and supervision to the facility and community levels.</p>	<p>Reporting format/platform: SMS; phone calls in counties not yet implementing eIDSR Managed by: DSO at the DHT Reported to: CHT and National with approval from the DHO Reporting frequency: Within 24 hours and Weekly report Key Tasks: DSO receives notification from community, and facility. Verify alerts from community and facility and respond with support of county and National. DHT works with CHT on outbreak response within the district.</p>
<p>Facility Level</p> <ul style="list-style-type: none"> • About 861 facilities <pre> graph TD DCO[District Central Office] --- Hospital DCO --- PrivateFacility[Private Facility] DCO --- PublicFacility[Public Facility] DCO --- CHSS </pre>	<p>Reporting format/platform: Paper forms Managed by: OIC at facility; CHA and CHSS at community Reported to: OIC reports to DHO; CHSS reports to OIC Reporting frequency: Monthly by the 5th of the following month Key Tasks: At health facilities, the registrar and OIC tabulate data from the facility registries onto the facility monthly reporting forms. These forms are submitted to the CHT through the DHT. For community level data, CHAs use iCCM reporting form to aggregate monthly service delivery data, submit to CHSS for review and onward submission to the health facility.</p>	<p>Reporting format/platform: SMS Managed by: CHV, CHA in community; OIC at facility Reported to: CHV & CHA report to OIC at facility; DHT Reporting frequency: Within 24 hours and monthly report Key Tasks: At the community level, CHV, CHA report to CHSS & OIC through phone or Alert Forms. At the facility level the OIC sends SMS based on case definition. The OIC at facility verifies and analyzes data on alerts from the facility and community. The OIC or CHSS also provides feedback to the community. The OIC work with district level and assists in local outbreak response.</p>

Table 1: Key Malaria Indicators by System

Number of suspected malaria cases		HMIS	IDSR
Suspect/fever cases		Y	N
Tested (diagnostically)		Y	N
Diagnostically confirmed (positive)		Y	N
Clinical/presumed/unconfirmed		Y/N/N	N/N/N
Outpatient/inpatient		Y/Y	N/N
Uncomplicated/severe		Y/Y	N/N
Age categories (e.g., <5, 5+) / Sex disaggregation (M, F)		Y/N	N/N
Pregnant women		Y	N
Number of malaria deaths			
Age categories (e.g., <5, 5+) / Sex disaggregation (M, F)		Y/N	N/N
Pregnant women		N	N
Commodities* (Availability or stock out / Consumption)			
RDT		N/ N	N/N
ACT (AL, ASAQ)		N/ N	N/N
Severe malaria treatment		N/ N	N/N
SP		N/N	N/N
IPTp 1 / 2 / 3(+)		Y/ Y/Y	N/N/N
Completeness of reporting		Y	NA

*eLMIS is functional and currently capturing commodity consumption data

Data Quality Activities:

Routine data quality reviews/audits: Malaria data quality is the responsibility of the NMCP SM&E Unit, which is headed by a manager and supported by the Research Officer, M&E Officer, Data Officer and ICT/M&E Officer. With support from Global Fund, NMCP and MOH complete quarterly data verification, quarterly data review meetings, and training in data use for action. Training is carried out for providers at national, county, district and facility levels. Quarterly data verification exercise is carried out in a 20% random sample of facilities in each county. During this exercise, reported data are checked with facility data sources (treatment and diagnostic ledgers) and monthly reports for consistency.

Review meetings: Bimonthly surveillance, monitoring, and evaluation (SME) meetings are conducted by the NMCP SM&E Unit and the HIS, Monitoring & Evaluation, and Research (HMER) Division at the MOH. Quarterly data review meetings are held with the County Health Teams and partners to assess the program performance, identify data gaps, and resolve quality issues. Implementing partners are also supporting CHTs to conduct data review meetings on a monthly basis.

Supervision: At the community level, supportive supervision is conducted by the CHSS, who reports to the health facility. At the facility, the iCCM program provides supervisory oversight on iCCM activities. The District Health Officer supervises the HF while County level thematic supervisors provide support to District Health Teams.

Monthly or quarterly malaria bulletin: The M&E Plan states that information products will be readily available and accessible. Malaria quarterly bulletin comprising of all malaria interventions is produced quarterly to provide insight on the Program activities at all levels of the health system.

Data availability: Routine data is collected and submitted to a national repository accessible to national programs and stakeholders by the 15th of every new month. The HMIS data is shared with the public and health implementing partners through two main channels: 1) Direct DHIS2 platform access to implementing partners; 2) Through request sent either by hard copy, softcopy or email.

Data use: Reports (Annual, Quarterly) are prepared at National and County level using routine data that has been analyzed. The lowest level in the health system at which routine data is consistently analyzed is the county level.

Additional Context :

MOH has committed to decentralizing services to the county and district levels and to integrating services at both the health facility and the community level in order to improve access to health care.

Routine data collection system of the NMCP is integrated into the MOH/HMER system through DHIS2. Routine data collection for all malaria indicators is collected and collated by the County (District) Health Teams. This data are transmitted to the NMCP monthly using DHIS2.

IDSR technical guidelines were revised in 2015 and contain an exclusive community component which concentrate on community events based surveillance. IDSR forms do not capture malaria data since IDSR forms only capture immediately reportable disease. Epidemic prone diseases are placed under active surveillance while malaria and other non-communicable diseases are passively surveilled. Epidemic are reporting through he standard WHO reporting mechanism. Other diseases are reported monthly through the routine HMIS.

The Global Technical Strategy (GTS) elevated malaria surveillance to a core intervention in 2016. The Liberia NMCP is in the process of adapting to GTS technical guidelines to implement full scale surveillance activities along with sentinel sites that are being initiated.