Sierra Leone

Routine Health Information System
MALARIA REPORTING STRUCTURES
Current as of: May 2019

RHIS Profile: This document outlines the reporting structures of routine health information systems (RHIS) that include malaria data. In Sierra Leone, this includes an integrated health management information system (HMIS) and integrated disease surveillance and response (IDSR), both of which are housed on the DHIS 2 platform from the district level up. The former parallel malaria information system was fully integrated into the HMIS in May 2016. The National Malaria Control Program (NMCP) worked with several technical teams at the Ministry of Health and Sanitation (MOHS) to revise both sets of monthly summary forms (for hospital and peripheral health unit [PHU]) and to capture new malaria data elements (e.g., IPTp3, IPTi) in the integrated forms. New tools were printed in May 2019.

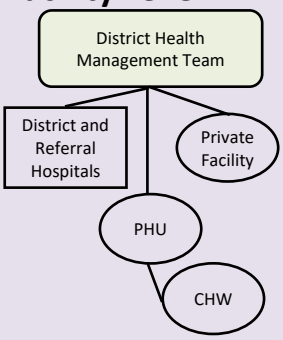
	HMIS	IDSR
	When started: DHIS 2 was piloted by Health Metrics Network in 2007 and fully launched in 2008. **Scale-up status:** National	**When started:** Surveillance pilot began in 1999; IDSR was adopted in 2004. In 2015, IDSR was revitalized and rolled out. DHIS 2 integration occurred in 2016. **Scale-up status:** National
National	**Reporting format/platform:** DHIS 2 **Managed by:** Directorate of Policy Planning and Information (DPPI) at MOHS. NMCP has instant access. **Dissemination:** Quarterly and semester reports for MOHS and Global Fund **Key tasks:** NMCP, divided into four geographic teams, conducts data quality audits for completeness and accuracy and liaises with District Health Management Teams (DHMT); trains DHMT staff on recording and reporting; conducts quarterly integrated supportive supervision to DHMTs and sample of PHUs; and analyzes key indicators for reports.	**Reporting format/platform:** DHIS 2 **Managed by:** DPPI at MOHS. Directorate of Health Security and Emergency (DHSE) Surveillance team has instant access. **Dissemination:** Weekly bulletin shared with partners each Thursday **Key tasks:** DHSE reviews data for timeliness and completeness, and then shares with the Bulletin team, who adds text and disseminates; reports on notifiable diseases weekly to Chief Medical Officer and World Health Organization; conducts training and supportive supervision to DHMTs; and provides on-the-job training.
Regional • Sierra Leone does not have regional-level divisions.	**Reporting format/platform:** n/a **Managed by:** n/a **Reported to:** n/a **Reporting frequency:** n/a **Key tasks:** n/a	**Reporting format/platform:** n/a **Managed by:** n/a **Reported to:** n/a **Reporting frequency:** n/a **Key tasks:** n/a
District • 14 health districts • 21 district and referral hospitals • 58–124 PHUs per district	**Reporting format/platform:** DHIS 2 **Managed by:** DHMT [Monitoring and evaluation (M&E) and Malaria Units] **Reported to:** DPPI and NMCP **Reporting frequency:** Monthly by 15th **Key tasks:** Enter data into DHIS 2 (Data Entry Clerk). Cross-check errors, follow up with PHUs as needed, and submit data on time (District M&E Officer and Malaria Focal Person). Provide supportive supervision to hospitals and PHUs for case management and data quality, focused on five key trace indicators each semester.	**Reporting format/platform:** DHIS 2 **Managed by:** DHMT (District Surveillance Officer) **Reported to:** DPPI HMIS team, who gives access to DPPI Surveillance team for analysis **Reporting frequency:** Weekly on Mondays **Key tasks:** Transfer paper forms (and Excel-based data emailed from pilot e-IDSR tablets) to DHIS 2 and submit. Complete rollout of weekly electronic reporting. Centers for Disease Control and Prevention Field Epidemiology Training Program training has enabled almost all DHMTs to produce weekly district bulletins. Attend quarterly Disease Surveillance Officer review meetings.
Facility Level 	**Reporting format/platform:** Paper **Managed by:** Hospital M&E Officer, PHU In-Charge **Reported to:** DHMT **Reporting frequency:** Monthly by 5th **Key tasks:** Complete and submit health facility summary form. Collect data from community health workers (CHW) at regular monthly meetings. In-Charge will supervise staff, ensure data quality and timeliness, and display data charts in PHUs. First week of month, In-Charge will take reports to DHMT for data quality review focused on completeness (of full set of forms, all data fields). **Private facilities:** About half of the private not-for-profit facilities in country have a memorandum of understanding with MOHS to receive commodities and are expected to report. Ultimately, the goal is to have all private facilities reporting.	**Reporting format/platform:** Paper (PHUs also have phones to facilitate reporting). e-IDSR pilot project uses tablets with weekly electronic reporting being rolled out in all districts (13 of 14 districts). Simplified community paper form. **Managed by:** PHU In-Charge (with a substitute also trained so there are two personnel at each PHU). Hospital IDSR focal person. Community form by CHW. **Reported to:** DHMT **Reporting frequency:** Weekly on Mondays before 12 noon to DHMT. CHW reports to PHU at the end of each day. **Key tasks:** Compile, cross-check, and submit reports. For notifiable diseases, report directly to national level.

Table 1: Key Malaria Indicators by System

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

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

*Data on commodities are currently tracked by Districts Medical Stores with the Channel program. Integration of the logistics management information system into the DHIS2 is in process, beginning with a March 2019 pilot in four districts.

Data Quality Activities:

Routine data quality reviews/audits: Sierra Leone has focused on timeliness and completeness of data with remarkable success, and it is now shifting its focus to accuracy. Up to 50 health partners meet on the first Friday of each month for an integrated monitoring and evaluation (M&E) technical working group meeting; participation has waned since the Ebola virus outbreak.

Monthly or quarterly malaria bulletin: Quarterly malaria data automatically populate the last three months of key indicators from the HMIS malaria dashboard, but this information is not saved or printed. NMCP looks for red flags and analyzes results each quarter, and will use these efforts to launch an official malaria bulletin soon.

Data availability: NMCP and District Health Management Teams (DHMTs) (plus all MOHS departments) have direct access to DHIS 2, along with the World Health Organization (WHO), UNICEF, and Catholic Relief Services, who only have viewer rights. There are data sharing standard operating procedures that allow partners to request specific malaria data from the Program Manager, who will seek permission from the Chief Medical Officer. DHMTs have access only to their district-level data, not the national database. Data review is currently not done in a systematic way.

Data use: The NMCP M&E team comprises a Senior M&E Officer, three M&E Officers, and three Data Entry Clerks now trained as M&E Officers who regularly review and analyze malaria data. UNICEF supported integrated district-level data use for planning meetings each quarter, with community organizers, chiefs, nongovernmental organizations (NGOs), and DHMTs in attendance. PHU In-Charges meetings and supportive supervision encourage facility-level understanding and use of data but occur irregularly.

Additional Context :

- Sierra Leone's NMCP is committed to improving data quality. Its key challenges include the following:
  - Substantial reporting burden for PHU In-Charges due to the quantity of registers in use. NMCP is looking into streamlining reporting by utilizing the integrated management of childhood illness (IMCI) register.
  - Hospital reporting has lagged behind PHU reporting.
  - Steady stock of registers and summary forms, which are the responsibility of DPPI but are critical for NMCP data needs.
  - Insufficient storage capacity on existing servers supported by NGOs.
  - Technical assistance required from the University of Oslo to make changes to DHIS 2 malaria indicators despite having a University of Oslo-supported staff at the Directorate of Policy Planning and Information.
- There is a significant community-based surveillance program that was launched during the Ebola virus outbreak and also several logistics management information systems that will soon integrate both supply and demand data into DHIS 2.
- Data entry clerks are not technically trained, and technical Malaria Focal Points do not have DHIS 2 knowledge, so there is a disconnect of skills at the district level. NMCP plans to train the full DHMT together (M&E Officer, Surveillance Officer, MFP, Data Entry Clerk).
- UNICEF, WHO, the Clinton Health Access Initiative, Management Sciences for Health, eHealth Africa, and Focus 1000 support strengthening health information collection, analysis, and use.

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