# Malawi

## Routine Health Information System
## MALARIA REPORTING STRUCTURES
**Current as of: July 2021**

**RHIS Profile:** This document outlines the reporting structures of routine health information systems (RHIS) that include malaria data. In Malawi, this includes the national RHIS and electronic Integrated Disease Surveillance and Response (IDSR). Malawi's national RHIS is the District Health Information System (DHIS), which was first implemented in 2002 and upgraded to a web-based open-source DHIS2 in 2012. IDSR was integrated into the system in DHIS2 in 2014 but is not used extensively. Data collection is done at the peripheral level by health facilities and communities; it is then conveyed in hard copy to the District Health Office where it is entered into the DHIS2/DHIS2 data entry cluster sites. All Health Management Information System (HMIS) activities, including those related to HMIS data collection, consolidation, dissemination, and analysis, fall within the Central, Monitoring & Evaluation Division (CMED) of Malawi's Ministry of Health (MOH).

| | RHIS | IDSR[1] |
|---|---|---|
| | **Started:** 2002<br>**Scale-up status:** National | **Started:** 2014<br>**Scale-up status:** National |
| **National** | **Reporting format/platform:** DHIS2<br>**Managed by:** CMED<br>**Dissemination:** At the national level, an information dissemination plan has been developed and implemented. An HMIS bulletin is published quarterly, semiannually, and annual.<br>**Key tasks:** Strategic data use by the MOH and partners; National Malaria Control Program (NMCP) access the data for further analysis | **Reporting format/platform:** DHIS2<br>**Managed by:** The epidemiology department is the custodian; CMED manages the reporting process<br>**Dissemination:** Programs access data for further analyses and generate report<br>**Key tasks:** Strategic data use by the MOH and partners |
| **Zonal**<br>• 5 zones; each comprised of 7-10 districts | **Reporting format/platform:** DHIS2<br>**Managed by:** Zonal malaria health officer<br>**Reported to:** CMED<br>**Reporting frequency:** None<br>**Key tasks:** Supportive and supervisory roles, including providing feedback and ensuring data flows up from districts and health facilities. | **Reporting format/platform:** DHIS2<br>**Managed by:** MOH<br>**Reported to:** N/A this level does not collect data<br>**Reporting frequency:** None<br>**Key tasks:** Supportive and supervisory roles, including providing feedback and ensuring data flows up from districts and health facilities. |
| **District**<br>• 29 districts<br>• Range of 13-53 facilities per districts | **Reporting format/platform:** DHIS2<br>**Managed by:** District Health Management Team (DHMT): HMIS Officer, DHIS Clerk, or Malaria Coordinator<br>**Reported to:** Zonal health officer; sometimes directly to CMED.<br>**Reporting frequency:** Monthly, by the 15th of each month<br>**Key tasks:** Provide supervision to health facilities. Data entry in DHIS2. HMIS Officers coordinate collection, entry, management, and use of data and perform basic data quality checks. | **Reporting format/platform:** DHIS2<br>**Managed by:** District Environmental Health Officer (DEHO)<br>**Reported to:** MOH<br>**Reporting frequency:** Weekly, monthly, and quarterly<br>**Key tasks:** The DEHO provides supervision to the district's IDSR focal person. The IDSR focal person is involved in supervising IDSR activity implementation, and coordination. They are also involved in managing and coordinating IDSR data use at the district level. |
| **Facility Level**<br>• Total of 711 facilities | **Reporting format/platform:** Paper; except some high-volume facilities that report directly into DHIS2<br>**Managed by:** Facility in-charge<br>**Reported to:** District Health Officer (DHO)<br>**Reporting frequency:** Monthly by the 5th of each month<br>**Key tasks:** Collect routine surveillance data and provide supervision to Health Surveillance Assistants (HSAs). Consolidate HSA data (form 1As) into form 1B.<br><br>**Community Level**<br>**Managed by:** Senior HSAs<br>**Reported to:** Facility in-charge<br>**Reporting frequency:** Monthly by the 5th of each month<br>**Key tasks:** Manage village clinics and record cases monthly on reporting form 1A (village clinic form). | **Reporting format/platform:** Paper; except some high-volume facilities that report directly into DHIS2<br>**Managed by:** Facility in-charge<br>**Reported to:** District Health Officer (DHO)<br>**Reporting frequency:** Weekly, monthly, and quarterly<br>**Key tasks:** Collects surveillance reports from facilities for submission and notification.<br><br>**Community Level**<br>**Managed by:** Senior community health workers stationed at health facilities<br>**Reported to:** Facility-in-charge<br>**Reporting frequency:** N/A<br>**Key tasks:** Community health workers complete surveillance forms and submit forms to senior community health workers stationed at facilities. Senior community health workers aggregates all reports and then submits to facility-in-charge who reports to DHO. |

[1] While malaria information is collected by the IDSR, it is not used for NMCP decision making due to low levels of reporting completeness.

**Table 1: Key Malaria Indicators by System**

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

| Indicators | System | |
|---|---|---|
| | RHIS | IDSR |
| **Number of suspected malaria cases** | | |
| Suspect/fever cases | Y | N |
| Tested (diagnostically) | Y | Y |
| Diagnostically confirmed (positive) | Y | Y |
| Clinical/presumed/unconfirmed | Y | N |
| Outpatient/inpatient | Y/Y | Y/Y |
| Uncomplicated/severe | Y/Y | Y/Y |
| Age categories (e.g., <5, 5+)/Sex disaggregation (M, F) | Y/N | Y/N |
| Pregnant women | N | Y |
| **Number of malaria deaths** | | |
| Age categories (e.g., <5, 5+)/Sex disaggregation (M, F) | Y/N | N/N |
| Pregnant women* | N | Y |
| **Commodities** (Availability or stockout/Consumption) | | |
| RDT | Y/Y | N/N |
| ACT (AL, ASAQ) | 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 | Y |

*Number of malaria pregnant women cases tested (positive and negative) will begin being reported on the Malaria Health Facility Reporting Form in January 2021

**Data Quality Activities**

**Routine data quality reviews and audits:** HMIS Officers and Malaria Coordinators perform various data quality check activities and provide feedback at the health facility, district, and central levels on a monthly basis. These include data consistency checks using the WHO DHIS2 tool, data validation meetings, Routine Data Quality Assurance meetings, and monthly bulletin reviews.

**Review meetings:** Malaria data review meetings are conducted quarterly for DHIS2. District level staff organize meeting with health centre level staff. Participants of the meeting are as follows: At district level; DHSS, DNO, DEHO, DMO, District malaria coordinator and his deputy, IMCI, Safe Motherhood coordinators, HMIS Officer, Pharmacy and Lab managers. At health centre level; facility in-charge and data clerks. The meetings focus on data analysis, interpretation and use. Action plans are developed to address identified challenges.

**Supervision:** Integrated mentorship efforts focus on DHIS2 data quality and other malaria thematic areas. An integrated mentorship tool is in the process of being developed. Previously, malaria mentorships were conducted through parallel individual programmatic thematic areas such as case management, Monitoring and Evaluation, Malaria in Pregnancy and Supply Chain Management. This has led to technical and financial inefficiencies. In 2020, the program planned to integrate all these thematic area mentorships, while developing an integrated mentorship tool.

**Monthly or quarterly malaria bulletin:** Currently, CMED produces bi-annual and annual bulletins by compiling data from DHIS2. CMED intends to produce quarterly bulletins in the near future. NMCP intends to start producing quarterly bulletin with Global Fund resources.

**Data availability:** NMCP, district-level focal points and partners have access upon acquiring a DHIS2 log in details or via e-mail if requesting from any official user.

**Data use:** The health facility is the lowest level at which routine data is analyzed and routine malaria data from DHIS2 are used for data review meeting at zonal and district levels, developing district implementation plans, bulletins and reports, monitoring program implementation, and commodity quantification. At all levels, there are efforts to institutionalize systematic use of data at regular data review meetings.

**Additional Context**

- Malaria case data is submitted into the DHIS2 on three different forms: The HMIS-15 form includes malaria cases (clinical and confirmed) and inpatient malaria deaths; both disaggregated by under / over 5 years. The malaria facility reporting form includes suspected cases tested, facility-level confirmed cases, and inpatient malaria deaths; disaggregated by under / over 5 years. The village clinic reporting form includes under five malaria cases confirmed and unconfirmed.
- Not all healthcare providers are reporting in DHIS2 for example private institutions and Malawi's four central hospitals (peripheral), however efforts are being made to have central hospitals start reporting into the system.
- Partners involved include United States Agency for International Development (USAID), World Health Organization (WHO), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Health Information Systems Programme (HISP) Malawi, Global fund and Gates

Foundation among many others. USAID provides support by providing financial and technical support on national level data systems, data use and systems strengthening. WHO provides capacity building and provision of reporting tools. GIZ provides support to digital health and electronic medical records through the Kuunika project. HISP provides technical support to DHIS2. Global Fund provides financial support on data quality and reporting tools; Gates Foundation provides financial support to Kuunika project.

- Key challenge or bottlenecks: Although achieving interoperability between LMIS and malaria data in DHIS2, not getting LMIS data on time as it must go through a lot of cleaning before transferring into the interoperability layer has been a challenge. Lack of internet connectivity is another challenge and can impact data completeness and timeliness.
- NMCP's M&E priorities include activities that promotes the strengthening of Monitoring and Evaluation systems that will enable accurate data reporting, improve prioritization of malaria interventions and accountability for proper commodity use at the facility and community levels.