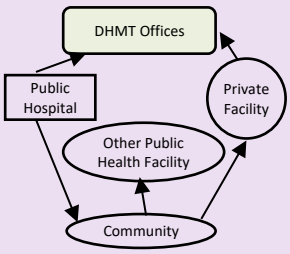
Current as of JUNE 2023

Zambia

Routine Health Information System (RHIS) Malaria Reporting Structures

RHIS Profile: This document outlines the reporting structures of the routine health information systems (RHISs) that include malaria data. In Zambia, RHISs and integrated disease surveillance and response (IDSR) are used by the Ministry of Health (MoH) to report on diseases. In 2014, the RHIS was upgraded to the DHIS 2 platform nationwide. All public and mission health facilities (representing 88% of all facilities), and some private facilities, report malaria data monthly to the Health Management Information Systems (HMISs) Group within the MoH. Zambia's National Malaria Elimination Program (NMEP) accesses malaria data from the Malaria Rapid Reporting System (MRRS) DHIS 2 platform that it has been rolling out to include community-level data. At the community level, Zambia has deployed a cadre of community health assistants (CHAs) and community health workers (CHWs) to help track cases of malaria via a mobile reporting system.

	RHIS	IDSR	Malaria Rapid Reporting System (MRR)
	When started: Developed 1992; 2009 DHIS 1.4; 2013 DHIS 2 **Scale-up status:** Nationwide	**When started:** 2008 **Scale-up status:** Nationwide	**When started:** 2010 **Scale-up status:** 74 percent (86 districts)
National	**Reporting format/platform:** DHIS 2 **Managed by:** MoH M&E Directorate **Dissemination:** Annual statistical reports, annual and monthly reports **Key tasks:** Report analysis and aggregation; MoH M&E and program officers provide feedback on the data in DHIS 2.	**Reporting format/platform:** DHIS 2 **Managed by:** Zambia National Public Health Institute **Dissemination:** Annual reports, annual statistical bulletin, policy briefs (submitted quarterly) **Key tasks:** M&E officer manages and reviews all monthly health indicators that are submitted through DHIS 2 sent by all DHMTs and the PHO. Weekly disease surveillance counts are compiled at the MoH through disease surveillance officers.	**Reporting format/platform:** DHIS 2 **Managed by:** National Malaria Elimination Centre (NMEC) Directorate **Dissemination:** Weekly and monthly reports **Key tasks:** Report analysis and aggregation; partners and program officers provide feedback on the data in DHIS 2.
Regional • 10 provinces • Average of 10 districts per province	**Reporting format/platform:** DHIS 2 **Managed by:** Senior health information officer **Reported to:** DHIS 2 (web based) **Reporting frequency:** Monthly	**Reporting format/platform:** Excel database for weekly; DHIS 2 for monthly **Managed by:** Disease Surveillance Unit at PHO **Reported to:** MoH **Reporting frequency:** Weekly and monthly **Key tasks:** Weekly IDSR reports are further analyzed and disseminated to the	**Reporting format/platform**: DHIS 2 **Managed by:** Senior health information officer and the malaria elimination officer **Key tasks**: Review and validate data reported in DHIS 2 by districts.

	Key tasks: Review and validate data reported in DHIS 2 by districts by the 21st of the month. Provincial senior health information officers and program officers provide feedback on the data to the DHO and do final aggregation and analysis and take action related to sector interventions.	national level. Provide supervisory and technical support to DHMTs for case investigation and response to weekly reports.	
District • 164 districts • Average of 21 health facilities per district	**Reporting format/platform:** DHIS 2 **Managed by:** DHIO **Reported to:** DHIS 2 (web based) **Reporting frequency:** Monthly by the 21st of the month **Key tasks:** DHIO validates data and enters them into DHIS 2, reviews and validates the data in DHIS 2, and provides feedback to the health facilities.	**Reporting format/platform:** Excel database for weekly; DHIS 2 for monthly **Managed by:** DHIO and DSO at the DHMT **Reported to:** Disease Surveillance Unit at PHO **Reporting frequency:** Weekly; monthly by the 21st of the month **Key tasks:** DHMTs clean, tally, and transfer weekly reports into an aggregated IDSR report in Excel, which is then sent through email. Monthly IDSR reports are input into DHIS 2 by the DHIO by the 21st of the month. Weekly and monthly reports are sent to PHO.	**Reporting format/platform:** DHIS 2 **Managed by:** District health information officer and the malaria elimination officer **Key tasks:** Review and validate data reported in DHIS 2 by health facilities.
Facility Level • 2,935 health facilities 	**Reporting format/platform:** Paper- based health information aggregation forms **Managed by:** Health facility staff, CHWs, and CHAs **Reported to:** DHIO **Reporting frequency:** Monthly by the 7th of the month	**Reporting format/platform:** Paper-based for monthly and weekly **Managed by:** LOC, M/NOC, clinicians, and data clerks **Reported to:** DSO at the DHO **Reporting frequency:** Weekly and monthly by the 7th of the month **Key tasks:** LOC transfers laboratory register information for weekly and monthly reports to M/NOC, who then compiles and submits reports on suspected, confirmed, and mortality cases. Data clerks assist clinicians in tallying cases and entering them into reporting forms. Weekly meetings held at facilities to review performance, including data checks.	**Reporting format/platform:** DHIS 2, reported through mobile phones **Managed by:** Health facility staff, CHAs, and CHWs **Reported to:** DHIS 2 **Reporting frequency:** Weekly every Monday **Key tasks:** Health personnel collect data at point of service delivery at health facilities. Data are collated, validated, and reported every Monday of the following week for facility data.

Community Level • About 16,500 community health workers			**Reporting format/platform:** DHIS 2- reported through mobile phones **Managed by:** Data CHWs **Reported to:** DHIS 2 MRRS **Reporting frequency:** Monthly by the 7th of the month **Key tasks:** Aggregate and report data monthly by the 7th of the month.

Acronyms:

MRRS = Malaria Rapid Reporting System
DHIO = district health information officer
DHO = District Health Office
DHMT = District Health Management Team
DSO = district surveillance officer
LOC = laboratory officer-in-charge
M&E = monitoring and evaluation
M/NOC = medical/nursing officer-in-charge
PHO = Provincial Health Office

Table 1: Key Malaria Indicators by System

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

	HMIS/MRRS	IDSR (DHIS 2/Excel)*
Number of malaria cases		
Suspect/fever cases	Y (calculated as sum of tested and clinical)	N/Y
Tested (diagnostically)	Y	N/N
Diagnostically confirmed (positive)	Y	N/Y
Clinical/presumed/unconfirmed	Y	N/Y
Outpatient	Y	N
Inpatient	Y	N
Uncomplicated/severe	Y/N	N/N
Age categories (e.g., <5, 5+) / Sex disaggregation (M, F)	Y (<1, 1-4, 5+)/N	N/N
Pregnant women	Y	N/N
Number of malaria deaths		
Age categories (e.g., <5, 5+) / Sex disaggregation (M, F)	Y (<1, 1-4, 5+)/N	N/N
Pregnant women	Y	N/N
Commodities (Availability or stockout/consumption)		
Availability of RDT/ACT/Quinine or Inj Art/SP	Y to all except in the eLMIS	N/N
Consumption of RDT/ACT/Quinine or Inj Art/SP	Y to all except in the eLMIS	N/N
IPTp 1/2/3+	Y	N
Completeness of reporting	Y	Y

*The IDSR in the DHIS 2 does not capture malaria data. The Excel template captures suspected and confirmed malaria cases and malaria deaths with no disaggregation.
†Sex disaggregation in event capture for hospitals only.

Data Quality Activities

Routine data quality reviews/audits:

- NMEP supports the following: monthly district malaria data review meetings; quarterly malaria supervisory visits to provinces and their respective districts; routine data quality audits, monitoring, and mentoring focused on improving planning and decision making. NMEP conducts and follows up on data quality audits in selected districts, facilities, and communities. Supervisory visits for IDSR are only done during disease outbreaks to make the best use of limited resources. Weekly and monthly IDSR reports are mostly from public facilities, despite efforts to integrate private facilities.

Monthly report:

- Monthly reports and dashboards (DHIS 2) and quarterly web-based malaria scorecards (since 2016) are produced. From 2017 onwards, monthly dashboards (from Tableau) are sent to stakeholders. This covers all of the country's 10 provinces but not all 116 districts and is expanding as the community case management expands. There is no current monthly malaria bulletin or newsletter. In 2010, Zambia had an ongoing quarterly M&E newsletter, which provided substantial data on malaria program progress and the current epidemiological situation. The last issue available from the Zambian National Malaria Elimination Centre (NMEC) website is Issue 6 from July 2011.

Availability of data:

- DHIS 2 database and monthly surveillance reports are available from communities and levels above.

Availability of data:

- NMEC uses HMIS data to stratify and review strategies, plan activities, and manage health inputs.

Additional Context:

- **HMIS:** To support community surveillance, additional malaria surveillance systems have been developed. The MRRS (mobile reporting system), which uses the DHIS 2 platform, was rapidly scaled up from 2017 to 2019 countrywide, enabling quick access and response to surveillance data by decision makers. Confirmed cases and commodity data are reported to the NMEC through DHIS 2. PATH's Malaria Control and Elimination Program in Africa (MACEPA), the Global Fund/Churches Health Association of Zambia (CHAZ), Isdell Flowers, and the President's Malaria Initiative (PMI) have supported training and deployment of CHWs, which are providing integrated community case management nationally and reactive case detection at scale in low burden areas.
- **IDSR:** Zambia's National Health Strategic Plan 2017–2021 proposes developing an electronic IDSR component in DHIS 2 to ensure timely and accurate generation of health information for surveillance systems.
- **Challenges:** While NMEC staff are committed to malaria elimination activities, their role is primarily to provide technical support. Provinces supervise districts, which supervise health facilities, which, in turn, supervise community health workers. Additional support to supervising staff will improve provincial, district, and community-level activities and effectively coordinate partners.
- **Partners:** PMI supports national-level HMIS strengthening through capacity building for central-level M&E staff for DHIS 2, national-level coordination with partners such as MACEPA and Clinton Health Access Initiative CHAI on their M&E activities, M&E technical working group meetings, and technical assistance to enhance standardization and reporting of data in HMIS, including standardization of platforms for collection of community-level and active case detection data across provinces and other partner projects.

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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