Current as of JULY 2023

Tanzania (Mainland)

Routine Health Information System (RHIS) Malaria Reporting Structures

RHIS Profile: This document outlines the reporting structures of routine health information systems (RHISs) that include malaria data. In Tanzania (Mainland), this includes the national RHIS and electronic Integrated Disease Surveillance and Response (e-IDSR). The RHIS transitioned to an electronic platform, the District Health Information System (DHIS2) platform, in 2012. The e-IDSR began reporting into the DHIS2 in 2013. DHIS2 falls under the jurisdiction of the Health Management Information System (HMIS) Unit of the Ministry of Health (MOH). Data flow from health facilities (HFs) through councils and regions to the national level. Because the RHIS and IDSR are linked via DHIS2, often the same personnel managing and reporting to the RHIS are also involved in IDSR responsibilities. Malaria cases are reported weekly and monthly within the IDSR, which uses Tanzania's USSD (unstructured supplementary service data) mobile network. This document outlines the reporting structures involved with malaria-specific reporting and the relationships between the various health system levels involved.

	RHIS	e-IDSR
	When started: DHIS2 rollout in August 2013 **Scale-up status:** Countrywide	**When started:** IDSR began reporting to DHIS2 in 2013 **Scale-up status:** Countrywide
National	**Reporting format/platform:** DHIS2 **Managed by:** HMIS Unit of MOH **Key tasks:** Monthly review of DHIS2 data, ensuring full functioning of the DHIS2, promotion of quality data collection and effective use for informed decision making, and development and dissemination of SOPs, guidelines, and strategies for improvement of services. Ensure Regional Health Management Teams (RHMTs) and Council Health Management Teams (CHMTs) are knowledgeable in HMIS. HMIS tools are in place at the regional and council levels. Verification of what is done by CHMT and RHMT with regards to data. Data analysis for decision making. Supportive supervision. Resource mobilization for both HMIS and e-IDSR.	**Reporting format/platform:** DHIS2 **Managed by:** HMIS Unit of MOH; MOH ICT focal person and epidemiology section under the Disease Surveillance Unit. **Key tasks:** Ensure all regions have reported quality data in a timely manner. USSD system development and support. Established and implemented SOPs, standards, and guidelines. Capacity building. Supportive supervision. Resource mobilization for both HMIS and IDSR.

Region • # of regions: 26 • Range of 4–11 councils per region	**Reporting format/platform:** DHIS2 **Managed by:** RHMT **Reported to:** MOH HMIS Unit **Reporting frequency:** Monthly **Key tasks:** Monthly data review for quality. Ensure data is used to spark action and decision making. Serves as a link between national and council levels. Supportive supervision to CHMTs and facility. Ensure that CHMTs are knowledgeable in HMIS data utilization.	**Reporting format/platform:** DHIS2 **Managed by:** RHMT; IDSR focal person **Reported to:** MOHC-IDSR focal person **Reporting frequency:** Monthly, weekly, and immediate **Key tasks:** IDSR focal person to ensure all councils are reporting immediately and weekly IDSR reports in a timely manner. In case notifiable diseases threshold is met, support CHMT and inform MOH for prompt action if necessary. Serve as the bridge between national and council communication.
Council • # of councils: 184 • Range of 10–180 facilities per council	**Reporting format/platform:** DHIS2 **Managed by:** HMIS focal person at CHMT **Reported to:** Region focal person for HMIS (regional medical officer [RMO]) **Reporting frequency:** Monthly; uploaded to DHIS2 by the 15th of the following month **Key tasks:** For summary forms not uploaded at the facility, data are reviewed at the council level before being uploaded to DHIS2. Data validation is then done to remove/investigate outliers regardless of where data are uploaded. Focal person ensures timeliness and completeness of reporting from all reporting facilities. Through the malaria dashboard and malaria scorecard, data are used by the CHMT for decision making. Ensuring constant availability of HMIS tools (registers, tally sheets, and summary forms) and all healthcare workers are knowledgeable in HMIS reporting responsibilities. Ensure data are utilized by CHMT for planning and decision making. Receive data-related instruction from high level and oversee its implementation at the facility. Data-related supportive supervision to HFs.	**Reporting format/platform:** DHIS2 **Managed by:** IDSR focal person at CHMT. For some councils, HMIS/IDSR focal person is the same. **Reported to:** Region focal person for IDSR (RMO) **Reporting frequency:** Monthly, weekly, and immediate **Key tasks:** IDSR focal person to ensure all HFs are reporting weekly IDSR reports in a timely manner. In case notifiable diseases threshold is met, inform CHMT for prompt action and higher level if necessary. Serve as the bridge between regional and HFs communication.
Facility Level • Approximately 8,537 facilities in mainland Tanzania • Types of HF: hospitals, health centers, dispensaries, and clinics	**Reporting format/platform:** Paper to DHIS2 **Managed by:** Facility member in-charge is responsible or designates specific staff **Reported to:** CHMT or council level **Reporting frequency:** Monthly; uploaded to DHIS2 by the 15th of the following month. If sending to council for upload, must send paper summary forms by the 7th of the following month. **Key tasks:** Facility workers fill out tally sheets and registers, which are used to complete summary forms. Summary form data are then either uploaded directly to DHIS2 by facility or submitted in paper form to the council level. When uploaded to DHIS2 from the HF level, data are reviewed and validated for quality. Facility is responsible for reviewing the quality of the forms that are sent to the council level prior to sending. Data use and ownership is promoted for planning and decision making.	**Reporting format/platform:** Mobile-based reporting **Managed by:** All facility staff have capacity, depending on HF in-charge Reported to: CHMT or council level **Reporting frequency:** Immediate, weekly, and monthly. Weekly and immediate reporting is done through mobile phones via health workers. Mobile reports use USSD, connected to DHIS2. All HFs are capable of reporting through mobile phones. **Key tasks:** Weekly and immediate reporting of priority diseases. Filling out IDSR register, the primary source used for weekly IDSR reports. Notification is done via the USSD mobile network. Responding to action thresholds as well as informing higher level for more support.

Table 1: Key Malaria Indicators by System

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

	HMIS	e-IDSR
Number of malaria cases		
Suspect/fever cases	N	N
Tested (diagnostically)	Y	Y
Diagnostically confirmed (positive)	Y	Y
Clinical/presumed/unconfirmed	Y/Y/Y	Y/Y/Y
Outpatient	Y	N/A
Inpatient	Y	N/A
Uncomplicated/severe	Y/Y	Y/NA
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	N	N
Commodities (Availability or stockout/consumption)		
RDT	Y	N/A
ACT	Y	N/A
Severe malaria treatment	N	N/A
SP	Y	N/A
IPTp 1/2/3+	N/Y/Y	N/A
Completeness of reporting	Y	N/A

Data Quality Activities:

Routine data quality reviews/audits:

- HFs and councils review their data for quality on a monthly basis. Through the malaria dashboard and Malaria Service and Data Quality Improvement (MSDQI) assessment found within DHIS2, CHMTs and RHMTs identify and address issues in data quality. The malaria dashboard allows CHMT and RHMT staff to view which HFs are over or under performing. If the malaria dashboard identifies quality issues at specific facilities, these facilities will undergo a MSDQI assessment. The MSDQI serves a similar function to a routine data quality assessment of malaria services and establishes actions to resolve quality issues through the development of an action plan. Use of the MSDQI began in 2018.

Review meetings:

- At the national level, the NMCP conducts monthly data quality reviews. Regions, councils, and HFs are expected to also conduct monthly data reviews of their data.
- Additionally, the NMCP has annual regional review meetings where they meet with RHMTs and CMHTs at regional headquarters to discuss data quality and use-related issues. These annual review meetings also serve as a capacity-building exercise to ensure that CHMTs and RHMTs are not only capable of managing their data but also equipping and supervising HFs on data.

Supervision:

- NMCP conducts supportive supervision. As a program, they look at the malaria dashboard and identify specific issues in data quality. Each region should be visited at least once a year with the MSDQI checklist. Chronic issues in specific regions may influence more supervision visits.

Monthly or quarterly malaria bulletin:

- Quarterly bulletins are produced by the NMCP and available electronically. Annual bulletins are printed and distributed to stakeholders. The last annual bulletin printed and distributed is of 2021.

Data availability:

- Council-, regional-, and national-level teams have access to DHIS2. All implementing partners have access to DHIS2 and the malaria dashboard. All health program HMIS data are also publicly available online at: https://hmisportal.moh.go.tz/hmisportal/#/home.

Data use:

- The data generated from DHIS2 through the malaria dashboard and malaria scorecard are used to inform decision making for strategic goal setting, targeting of interventions, budgeting, and resource allocation. Data analysis begins at the HF level.

Additional Context:

- The Tanzania Health Data Collaborative (THDC), launched in 2017, works to harmonize and streamline a common monitoring and evaluation (M&E) framework and approach across sectors that support the National Health Sector Strategic Plan (HSSP) 2015–2020.
- The principle NMCP partners in Tanzania are PMI, Global Fund, RBM, WHO, CDC, ALMA (Comic Relief), and Deloitte.
- Tanzania does not currently have a community health information system. However, malaria case-based surveillance (CBS) has been established, and efforts to implement integrated community case management (iCCM) is underway.
- MOH has trained health workers at all HFs to have the capacity to upload RHIS summary data to DHIS2. This has been done to encourage data ownership, quality, and use from the point of generation.
- To increase data use at the subnational level, the NMCP has created the malaria dashboard. Malaria data in Tanzania are collated from several summary forms into the malaria dashboard via DHIS2. The dashboard is used by CHMTs and RHMTs to view which HFs are over or under performing. Displays and charts from the dashboard are often included in the quarterly and annual bulletins. The dashboard has increased data use at the subnational level and serves as a platform to monitor performance.
- NMCP has also developed the MSDQI tool. The MSDQI is an android-based mobile phone application linked to DHIS2. It is a package of checklists structured for quantifying data quality and malaria services at the facility level. It serves a similar function to a routine data quality assessment of malaria services and data quality. Checklists focus on the various elements of malaria service delivery points including outpatient, reproductive and child health, malaria microscopy, malaria RDT, commodities, and malaria data quality assessment.
- Both the malaria dashboard and MSDQI are functional components within DHIS2. Together they identify issues in malaria services and malaria indicators and address these issues. The malaria dashboard specifically identifies these through output indicators while the MSDQI provides process-level indicators enabling a plan of action to address these issues. Staff at RHMTs and CHMTs are trained to use the dashboard and MSDQI.
- To increase data use at the policy and decision-making level, Tanzania has begun to use the malaria scorecard. The malaria scorecard is a separate tool used to convey key malaria health

information to decision makers. The malaria scorecard is an online color-coded management system designed to help countries track performance of priority malaria indicators from their strategic plan. It uses existing quarterly data from DHIS2 to inform actions that address issues. The scorecard facilitates action, accountability, and advocacy at national, regional, and council levels through the action tracker and workplan function. The online scorecard management tool (web platform) includes various data visualization and management functionalities. The scorecard is available on mobile phones and tablets through applications (country scorecard). The tool was first developed in October 2016 with the aim of making malaria data for priority indicators available to leaders and decision makers for action. The RHMT began using the malaria scorecard in November 2019.

Recent updates:

- *Tanzania has introduced immediate reporting of the malaria cases in the areas targeted for elimination, i.e., in the very low malaria epidemiological strata. Currently, this initiative is being implemented in three regions namely: Arusha, Manyara, and Kilimanjaro.*

- *In addition to this, 2020 malaria stratification revealed that Njombe and Iringa regions are areas of very low malaria transmission risk. Therefore, malaria will be an immediately reportable disease for Njombe by the end of 2022 and for Iringa by December 2023.*

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