Current as of MAY 2023

Zanzibar

Routine Health Information System (RHIS) Malaria Reporting Structures

RHIS Profile: Zanzibar is a semi-autonomous archipelago within the United Republic of Tanzania; it maintains its own government, including a Ministry of Health (MOH). Zanzibar's malaria program is the Zanzibar Malaria Elimination Programme (ZAMEP). In Zanzibar, malaria and other health data are transferred from the health facility to the national level through the council level. Routine malaria data are collected from health facilities through four parallel channels: the national routine health information system (RHIS), which captures all health facility and community data; the program-specific malaria epidemic early detection system (MEEDS); the malaria case notification (MCN) or case-based surveillance (CBS) system, which is focused on case follow-up and investigation; and the integrated disease surveillance and response (IDSR). Both RHIS and IDSR data are reported into the electronic District Health Information Software 2, version 2 (DHIS 2). Currently, all 300 health facilities in Zanzibar are registered to report to DHIS 2, MEEDS, and MCN/CBS and do so with varying degrees of completeness and timeliness. Malaria efforts currently rely heavily on MEEDS and MCN/CBS; MEEDS serves as the main passive surveillance system, and MCN/CBS serves as malaria case follow-up.

	RHIS	MCN/CBS	e-IDSR
	When started: 2006 **Scale-up status:** National	**When started:** 2008 **Scale-up status:** National	**Started:** 2004 **Scale-up status:** National
National	**Reporting format/platform:** DHIS2 **Managed by:** MOH Health Management Information System (HMIS) Unit; 14 staff in Unguja (statisticians; data clerks; information, communication, and technology staff; health officers) and 4 staff in Pemba **Dissemination:** Annual HMIS health bulletin **Key tasks:** Data quality reviews. Decision making. Policy development. Data collection tools development, training on data collection and management, and dissemination through dashboards, scorecards, and annual bulletin.	**Reporting format/platform:** "Coconut" surveillance platform via Shokishoki **Managed by:** MOH ZAMEP SME Unit **Dissemination:** Combined quarterly/bi-annual Malaria bulletin, findings summarized in ZAMEP annual report; production of weekly summary report **Key tasks:** Ensure that all health facilities have reported in a timely manner. Will use IDSR to help identify which health facilities are not reporting, if necessary.	**Reporting format/platform:** DHIS2 **Managed by:** MOH Epidemiology Unit **Dissemination:** No bulletins **Key tasks:** Coordinate with HMIS Unit to ensure that all data are reported from facilities. Ensure that facilities are reporting IDSR weekly data in a timely manner. Analyze and interpret data from DHIS 2.

District • 11 councils in Zanzibar • On average, 22 facilities per council	**Reporting format/platform:** DHIS2 **Managed by:** District health management team (DHMT), district data manager. **Reported to:** MOH HMIS Unit **Reporting frequency:** Some forms in the DHIS 2 are weekly, some are monthly, some are quarterly; malaria is weekly for outpatient departments (OPDs) and monthly for inpatient departments. **Key tasks:** Data validation and analysis. Ensure that all health facilities are reporting completely and in a timely manner. If health facility data are not being reported through computers or tablets, a visit is required to the health facility to collect summary form data. Capacity to provide training on filling out summary forms or uploading data via laptops.	**Reporting format/platform:** Mobile phone **Managed by:** Led by district of health; malaria data managed by 2–4 DMSOs, depending on malaria burden in the district. **Reported to:** MOH ZAMEP SME Unit Reporting frequency: Malaria case reporting within 24 hours of diagnosis **Key tasks:** If a malaria case is diagnosed, DMSOs will check over mobile phone. DMSOs must conduct an investigation and report the results of the investigation within 48 hours of notification. Investigation results are reported over mobile phone or tablets to the Coconut surveillance platform.	**Reporting format/platform:** DHIS2 **Managed by:** District IDSR response team **Reported to:** N/A Reporting frequency: Weekly **Key tasks:** Review IDSR form data in DHIS 2. Ensure that health facility staff know when and how to report priority diseases and conditions. Work with district response team if necessary
Facility • 275 (175 public, • 100 private) facilities reporting; expected to report into DHIS2	**Reporting format/platform:** Paper and electronic for recording, then reported into DHIS 2 **Managed by:** Health facility member in charge **Reported to:** DHMT—specifically the district data manager **Reporting frequency:** Monthly, by end of the first week of the following month; weekly for malaria **Key tasks:** Health facility staff capture facility data using the registers. Each month, cases are summarized into paper-based disease-specific monthly summary forms. Malaria data are collected in weekly forms. Health facility staff directly upload data from summary forms into DHIS 2. If unable to upload due to issues, district data managers must go to health facility to collect summary forms.	**Reporting format/platform:** cell phones/tablets for reporting **Managed by:** Health facility member in charge or staff designated with reporting **Reported to:** DMSO; ZAMEP **Reporting frequency**: Within 24 hours of case diagnosis **Key tasks:** Individual patient data are first captured in the OPD register. If a malaria case is suspected, the patient is tested, and patient data are entered into the national malaria case register. If the tested case is positive, notification is sent through mobile phone, which triggers MCN/CBS case follow-up at the district level. DMSO and the national level receive notification of malaria cases.	**Reporting format/platform:** SMS/phone for immediate, DHIS 2 for weekly report **Managed by:** Health facility staff **Reported to:** District IDSR response team **Reporting frequency:** Weekly or immediate **Key tasks:** Health facility staff capture standard case definitions to detect and record priority diseases or conditions in the IDSR form in DHIS 2. Report case-based information for immediate notifiable disease over SMS or phone; report summary data to district level weekly using DHIS 2. Malaria is a weekly—and expect to be in an immediate—notifiable disease.

Table 1: Key Malaria Indicators by System

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

	RHIS	MEEDS	MCN/CBS	e-IDSR
Number of suspected malaria cases				
Suspect or fever cases	N		N	N
Tested (diagnostically)	Y		Y	Y
Diagnostically confirmed (positive)	Y		Y	Y
Clinically confirmed or suspected or unconfirmed	N		N	N
Outpatient/inpatient	Y/Y		N/N	Y/Y
Uncomplicated/severe	Y/Y		N/N	Y/Y
Age categories (e.g., <5, 5+)/Disaggregation by sex (M, F)	Y/Y		Y/Y	Y/Y
Pregnant women	Y		N	Y
Age categories (e.g., <5, 5+)/Disaggregation by sex (M, F)	Y/Y		N/N	Y/Y

	RHIS	MEEDS	MCN/CBS	e-IDSR
Pregnant women	Y		N	Y
RDT	N/Y		N	N/Y
ACT (AL, ASAQ)	N/Y		N	N/Y
Severe malaria treatment	N/N		N	N/N
SP	N/N		N	N/N
IPTp 1/2/3 (+)	N/A*		N/A*	N/A*
Completeness of reporting	Y		N	Y

* IPTp is not a treatment policy used in Zanzibar.

Data Quality Activities

Routine data quality reviews and audits

- ZAMEP conducts biannual routine data quality assessments (RDQAs) in health facilities. The MOH HMIS Unit also conducts biannual HMIS national reviews with council teams. At specific facilities identified with data quality and performance issues, a Malaria Service and Data Quality Improvement (MSDQI) assessment is done. The MSDQI assessment is similar to a RDQA of malaria services and data quality, and it resolves issues through the development of an action plan.

Review meetings

- Each week, ZAMEP staff meet to internally review MCN data. District teams meet weekly to discuss MCN & eIDSR malaria data and cases. ZAMEP and council teams have quarterly data review meetings together that are focused on both MCN and weekly IDSR data.
- In addition, the President's Malaria Initiative is supporting quarterly data feedback meetings between ZAMEP and health facility staff to review their performance data. This has resulted in improved timeliness and completeness of reporting. The Global Fund also grades health facilities and DMSOs based on their reporting timeliness, completeness, and data accuracy across eIDSR and MCN/CBS as part of its funding mechanism.

Supervision

- As part of its supportive supervision efforts, ZAMEP conducts biannual RDQAs of 30 facilities—both private and public. ZAMEP staff visit the health facilities and cross-check the data from DHIS2 via eIDSR, and MCN/CBS databases with data captured in register forms at the health facility.

Monthly or quarterly malaria bulletin

- The HMIS Unit releases an annual health bulletin. The last printed HMIS bulletin is from 2016. Quarterly surveillance reports of MCN and IDSR data are available. The last quarterly surveillance report was printed in 2019. Bulletins and reports must be requested because they are not available online.

Data availability

- DHIS 2 is available to national, council, and health facility staff. DHIS 2 data become available to national and council staff after they are directly input by health facility staff. Council staff provide data validation of platform data, and health facility staff are typically responsible for uploading data through eIDSR into DHIS 2. Partners working with DHIS 2 also have access to the platform. National-level staff have access to the MCN database, and council staff have view-only access. MCN/CBS data are available to national staff with login credentials through the Coconut surveillance platform.

Data use

- DHIS 2, MEEDS, and MCN/CBS are used for national-level decision making in strategic development, data reports, case forecasting, and targeting of malaria interventions. HMIS data also help ZAMEP with

some reporting and quantification of malaria commodities. ZAMEP completed the mid-term malaria program review in 2020.

Additional Context

Health service delivery in Zanzibar is implemented through public and private health facilities. All health facilities are registered to report into DHIS2, and ZAMEP has identified data quality issues in DHIS2. Given these issues, ZAMEP relies heavily on MCN/CBS to target and address malaria issues.

Currently, RHIS and IDSR, and MCN/CBS have high levels of completeness and timeliness. MCN/CBS enable Zanzibar's malaria surveillance and reactive case detection through timely case follow-up investigations. ZAMEP works with Zanzibar Government Datacente ZICTIA to house the MCN/CBS data.

Zanzibar implemented the MCN/CBS system in 2012. Using the Coconut surveillance platform, MCN/CBS is an active malaria case notification and follow-up system supported by ZAMEP and RTI International. MCN/CBS requires CMSO follow-up investigation for every confirmed malaria case. This involves returning to the health facility if necessary to confirm if the cases notified were true positive, driving to the patient's household, testing of all household members, assessing the status of preventive measures, including long-lasting insecticide-treated nets, and assessing local risk-factors. Investigation follow-up is tracked in the Coconut surveillance platform at the national level. The system had a software and logistic setback in 2017 but is currently being used again.

Challenges

- Zanzibar faces challenges related to health staff reporting overload, Internet bandwidth, and computer/platform literacy. In addition, the RHIS and IDSR currently struggle with completeness and timeliness of reporting. Although many public facilities have the laptops needed to upload data into DHIS2, the availability of these is not universal. Many public facilities are given laptops, but there is no replacement strategy in place for when laptops are stolen or destroyed. Private facilities, although expected to report into DHIS2, are not given laptops through the government, which often leads to reporting issues.
- Another challenge is that council data managers from the MOH HMIS team must proactively monitor health facilities that are not reporting and follow up with them. Data managers could benefit greatly from training in data management and analytical capacity.

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.

- Expansion of DHIS 2 geographic coverage
- Adoption or discontinued use of malaria bulletin
- Updates to supervision efforts and priorities

PMI Measure Malaria

University of North Carolina at Chapel Hill • 123 West Franklin Street, Suite 330
Chapel Hill, NC 27516 USA
Phone: 919-445-6949 • Fax: 919-445-9353
measuremalaria@unc.edu • www.measuremalaria.org

This information was made possible by the generous support of the American people through the United States Agency for International Development (USAID) and the U.S. President's Malaria Initiative (PMI) under the terms of the PMI Measure Malaria Associate Award No. 7200AA19LA00001. PMI Measure Malaria is implemented by the University of North Carolina at Chapel Hill, in partnership with ICF Macro, Inc.; Tulane University; John Snow, Inc.; and Palladium International, LLC. The contents do not necessarily reflect the views of USAID/PMI or the United States Government. FS-23-633n PMM