

### RHIS Profile:

This document outlines the reporting structures of routine health information systems (RHIS) that include malaria data. The Angola National Health Management Information System (NHMIS) enables health information to flow in a single direction, from health service units and epidemiological surveillance sites to the central level (Departamento de Estatística do Gabinete de Estudos, Plano e Estatística [GEPE], and National Directorate of Public Health). Currently, malaria data in Angola are collected mostly through a parallel system. This parallel system, known as the National Malaria Surveillance System (NMSS), arose in 1999 to meet the needs of the National Malaria Control Program (NMCP). The NHMIS and disease-specific programs meet quarterly, biannually, and annually for data harmonization meetings to compare and harmonize data collected from their respective systems.

	NHMIS	NMSS	IDSR
	<p><b>When Started:</b> Prior to 1989</p> <p><b>Scale-up status:</b> N/A</p>	<p><b>When Started:</b> 1999</p> <p><b>Scale-up status:</b> National with the first Malaria National Strategic Plan 2008–2012</p>	<p><b>When Started:</b> 1985/1986</p> <p><b>Scale-up status:</b> National in 2005</p>
<b>National</b>	<p><b>Reporting format/platform:</b> Paper forms DHS2</p> <p><b>Managed by:</b> GEPE of Ministry of Health (MoH)</p> <p><b>Dissemination:</b> Annually in the “Anuário Estatístico”</p> <p><b>Key tasks:</b> Develop policy and coordinate all the health information system activities on behalf of the National Statistics Institute</p>	<p><b>Reporting format/platform:</b> Excel DHS2</p> <p><b>Managed by:</b> NMCP Monitoring and Evaluation (M&amp;E) Unit [M&amp;E Officer and Epidemiologist]</p> <p><b>Dissemination:</b> Quarterly, semiannual, and annual reports</p> <p><b>Key tasks:</b> Data collection and management, analysis, M&amp;E of the program.</p>	<p><b>Reporting format/platform:</b> Excel DHS2</p> <p><b>Managed by:</b> Departamento de Higiene e Vigilância Epidemiológica (DHVE) of MoH</p> <p><b>Dissemination:</b> Quarterly, semiannual, and annual epidemiological bulletin</p> <p><b>Key tasks:</b> Epidemiological data collection and management, analysis and dissemination of bulletin data, and outbreak investigation.</p>
<b>Subnational 1</b> Selected region type: Provincial	<p><b>Reporting format/platform:</b> Paper forms</p> <p><b>Managed by:</b> Provincial Health Public Directorate (PHPD) Statistics</p> <p><b>Reported to:</b> GEPE of MoH</p> <p><b>Reporting frequency:</b> Monthly</p> <p><b>Reporting frequency (details):</b></p>	<p><b>Reporting format/platform:</b> Excel</p> <p><b>Managed by:</b> Provincial Malaria Supervisor, MoH and Provincial Malaria Officer, Global Fund</p> <p><b>Reported to:</b> NMCP M&amp;E Unit</p> <p><b>Reporting frequency:</b> Monthly</p>	<p><b>Reporting format/platform:</b> Excel</p> <p><b>Managed by:</b> PHPD Epi Surveillance focal point</p> <p><b>Reported to:</b> Centro de Processamento de Dados Epidemiológicos (CPDE) at DHVE</p> <p><b>Reporting frequency:</b> Other</p>

<p><b>Average (or range) number of districts per region:</b></p>	<p>Monthly by the Statistician of the PHPD  <b>Key tasks:</b>  Collect and aggregate data from municipalities, analysis, feedback to municipalities, and data management at provincial level.</p>	<p><b>Reporting frequency (details):</b>  Monthly by the Provincial Malaria Supervisor, MoH  <b>Key tasks:</b>  Data management, converting paper-based data to Excel for reporting.</p>	<p><b>Reporting frequency (details):</b>  Monthly by the PHPD Epi Surveillance focal point; weekly by the PHPD Epi Surveillance focal point for potential epidemic diseases and fevers  <b>Key tasks:</b>  Data management and analysis, supporting outbreak investigation, converting paper-based data to Excel for reporting.</p>
<p><b>Subnational 2 Selected district type:</b>  Municipality</p> <p><b>Number of districts:</b>  164 municipalities</p> <p><b>Average (or range) number of facilities or other sub-unit per district:</b>  18 health facilities or other subunits per municipality</p>	<p><b>Reporting format/platform:</b>  Paper forms</p> <p><b>Managed by:</b>  Municipal Health Public Directorate (MHPD) Statistics Manager</p> <p><b>Reported to:</b>  PHPD Statistics Manager</p> <p><b>Reporting frequency:</b>  Monthly</p> <p><b>Reporting frequency (details):</b>  Monthly by the municipal statistician</p> <p><b>Key tasks:</b>  Collect and aggregate data from health facilities and community levels, analysis, feedback to health facility, and data management at municipal level.</p>	<p><b>Reporting format/platform:</b>  Excel  DHS2</p> <p><b>Managed by:</b>  Municipal Malaria Supervisor</p> <p><b>Reported to:</b>  EXCEL file reported to Provincial Malaria Supervisor, MoH and Provincial Malaria Officer, Global Fund</p> <p>DHS2 enters directly in the system to the national level</p> <p><b>Reporting frequency:</b>  Monthly</p> <p><b>Reporting frequency (details):</b>  Monthly by the Municipal Malaria Supervisor</p> <p><b>Key tasks:</b>  Malaria data management, supervision.</p>	<p><b>Reporting format/platform:</b>  Paper forms  DHS2</p> <p><b>Managed by:</b>  PHPD Epi Surveillance focal point</p> <p><b>Reported to:</b>  PHPD Epi Surveillance focal point</p> <p><b>Reporting frequency:</b>  Other</p> <p><b>Day of reporting cycle:</b>  Monthly for most diseases.  Weekly for some diseases.  Malaria as a potential epidemic disease is reported weekly to CPDE</p> <p><b>Key tasks:</b>  Data management and analysis, supporting outbreak investigation.</p>
<p><b>Facility Level</b></p>	<p><b>Reporting format/platform:</b>  Paper forms</p> <p><b>Community reporting format:</b></p> <p><b>Managed by:</b>  Hospital statistician or health facility point person.</p> <p><b>Community managed by:</b></p> <p><b>Reported to:</b>  MHPD</p> <p><b>Reporting frequency:</b>  Monthly</p> <p><b>Reporting frequency (details):</b>  Monthly by the appointed data reporting focal point or statistician of the health facility</p>	<p><b>Reporting format/platform:</b>  Paper forms</p> <p><b>Community reporting format:</b>  Mobile phone reporting</p> <p><b>Managed by:</b>  Physicians, nurses, clinic clerks, techs at facilities; ADECOS in community.</p> <p><b>Community managed by:</b>  At the moment is managed by the district administrator, Managed by FAS (Ministry of Territory) in collaboration with Malaria Supervisor</p> <p><b>Reported to:</b>  MHPD municipal malaria</p>	<p><b>Reporting format/platform:</b>  Paper forms</p> <p><b>Community reporting format:</b></p> <p><b>Managed by:</b>  Health facility focal points such as physicians, nurses, clinic clerks, techs</p> <p><b>Community managed by:</b></p> <p><b>Reported to:</b>  MHPD Epi Surveillance focal point</p> <p><b>Reporting frequency:</b>  Other</p> <p><b>Reporting frequency (details):</b>  Monthly; weekly for some diseases</p>

<p><b>Key tasks:</b> Collecting data from registers and reporting to the municipal level. Larger health facilities, such as hospitals, have a dedicated statistician tasked with collecting data from health facility registers and reporting to MHPD via paper forms. For smaller facilities, physicians or nurses serve this role.</p> <p>iCCM data are collected by Agentes de Desenvolvimento Comunitário e Sanitário (ADECOS) but not currently captured in the HMIS.</p>	<p>supervisor from health facility. ADECOS line manager should be HF level but at the moment they report through mobiles directly to the district. Ministry of Health aims that the report is made paper based to the Health Facility ; Facility reports to Municipal Malaria Supervisor.</p> <p><b>Reporting frequency:</b> Monthly</p> <p><b>Reporting frequency (details):</b> Monthly by the appointed data reporting focal point or statistician of the health facility and ADECO from community</p> <p><b>Key tasks:</b> Collecting data from registers and reporting to the municipal level</p>	<p><b>Key tasks:</b> Data management and analysis, supporting outbreak investigation. These point persons serve as surveillance focal points inside the health facility. Using the monthly and weekly surveillance forms, they report to the municipal surveillance focal point.</p>
--	--	--

**Table 1: Key Malaria Indicators by System:** Indicate Y or N for each reporting element captured by the system.

Number of malaria cases		NHMIS	NMSS	IDSR
	Suspect or Fever	N	N	N
	Tested (diagnostically)	N	Y	N
	Diagnostically confirmed (positive)	N	Y	N
	Clinical or presumed or unconfirmed	N	Y	Y
	Outpatient	Y	Y	N
	Inpatient	N	Y	N
	Uncomplicated	N	N	N
	Severe	N	N	N
	Age categories (e.g., <5, 5+)	Y	Y	Y
	Sex disaggregation (M, F)	N	N	N
	Pregnant women	N	Y	Y
Number of malaria deaths				
	Age categories (e.g., <5, 5+)	Y	Y	Y
	Sex disaggregation (M, F)	N	N	N
	Pregnant women	Y	Y	Y
Commodities - Availability or Stock Out				
	RDT	N	Y	N
	ACT	N	Y	N
	Severe Malaria Treatment <i>Severe malaria treatment could include injectable artemether, artesunate, or quinine.</i>	N	Y	N
	SP	N	Y	N

Commodities - Consumption				
	RDT	N	Y	N
	ACT	N	Y	N
	Severe Malaria Treatment <i>Severe malaria treatment could include injectable artemether, artesunate, or quinine.</i>	N	Y	N
	SP	N	Y	N
IPTp Doses				
	1 dose	N	Y	N
	2 doses	N	Y	N
	3 or more doses	N	Y	N
	Completeness of reporting	Y	Y	Y
	Note			

### Data Quality Activities:

#### **Routine data quality reviews/audits:**

Both onsite data verification (OSDV) and end user verification (EUV) are used. For NMCP data, national, provincial, and municipal supervisors carry out OSDV during their supervisory visits to check the data quality in all data collection tools (registers, reports) at all reporting level (health facilities, municipal, and provincial). EUV surveys are done by the United States Agency for International Development's (USAID) Procurement and Supply Chain Management (PSM) Project. Both the NMCP and NHMIS teams carry out data quality checks during data harmonization meetings held quarterly, semiannually, and annually at the national level, which bring together malaria and other disease monitoring and evaluation officers and the National Epidemiological Surveillance Officer from the Centro de Processamento de Dados Epidemiologicos. Data harmonization meetings between the NMCP and integrated disease surveillance and response occur each quarter. Supportive supervision is conducted in Angola with funding from the Ministry of Health (MoH) and partners such as the Global Fund and USAID. Supervision for the provincial level is done semiannually by the national officer; for the municipal level, it is done quarterly by the provincial focal point; and for the health facility level, it is done monthly by the municipal focal point.

#### **Malaria Bulletin:**

NMCP does not publish a regular malaria bulletin, but malaria data are included in GEPE's Anuário Estatístico (last published 2016) and the Departamento de Higiene e Vigilância Epidemiológica's national-level Boletim Epidemiológico (published electronically in 2017) and are reported to WHO for World Malaria Report and to PMI on a quarterly basis.

#### **Data availability:**

For each system, the NMCP has direct access to data through its Excel database and DHS2. Municipal focal points have access through the municipal Excel and DHS2 database. Provincial level Supervisors consolidate data from EXCEL database however for the DHS2 they have access to information sent by the district level, but they don't have authorization to edit. Key partners can be granted access through data request emails to the NMCP.

#### **Data use:**

Data from systems are used in periodic reports, decision making, case forecasting, and targeting of malaria interventions. The provincial level is the lowest level at which data are routinely analyzed.

### Additional Context:

The MoH, with the support of its partners, is reforming the RHIS, moving from a paper-based reporting system to an integrated DHIS2. There is a roadmap for the implementation of DHIS2, and OpenLMIS and some partners, under the coordination of the MoH, will use project funds to start implementation of DHIS2 in targeted provinces. Priorities for system strengthening include (1) implementation of DHIS2 and OpenLMIS, (2) integration of health information tools (templates), and (3) training of health workers on the use of integrated tools.

An integrated community case management (iCCM) pilot project has been ongoing since 2015. Implemented by World

Vision (WV) funded by the Global Fund and later by PSI funded by PMI in other geographic areas. The pilot projects seek to use Agentes de Desenvolvimento Comunitário e Sanitário (ADECOS), community agents, to collect community data. The ADECOS implemented from World Vision use the KOBACOLLECT application to send data through a mobile phone to the WV and MAT database called ODK. For reasons related with Patent of Kobocollect, arise a need for the development of system at MAT level which would collect data, be link with ODK and kobocollect, but also analysed and allowed access. For this reasons PSI developed an application for MAT called PIAE ("Plataforma de Interoperabilidade e análises Estatísticas) which collects ADECOS data, links with ODK and in KOBACOLLET but allows instant analysis and reporting. ADECOS data are then sent to NMCP to be entered in health management information system (HMIS). However, the NMCP and iCCM stakeholders of the Ministry of Territorial Administration are discussing how to report data directly from ADECOS in the HMIS.

The principal partners for the implementation of DHIS2 are USAID through PSI, the Global Fund through the Health Strengthening System Grant and Malaria grant World Vision, the European Union through the PASS II Project, and the World Bank.

This publication was produced with the support of the United States Agency for International Development (USAID) under the terms of MEASURE Evaluation cooperative agreement AID-OAA-L-14-00004. MEASURE Evaluation is implemented by the Carolina Population Center, University of North Carolina at Chapel Hill in partnership with ICF International; John Snow, Inc.; Management Sciences for Health; Palladium; and Tulane University. Views expressed are not necessarily those of USAID or the United States government.



**USAID**  
FROM THE AMERICAN PEOPLE



**U.S. President's Malaria Initiative**

**MEASURE**  
Evaluation

