Senegal

Routine Health Information System
Malaria reporting structures
Current as of: February 2019

RHIS Profile: This document outlines the reporting structures of routine health information systems (RHIS) that include malaria data. In Senegal, this includes the integrated health management information system (HMIS), *Système d'Information Sanitaire et Social* (SISS), and the integrated disease surveillance and response system (IDSR), *Surveillance Intégrée des maladies et de la Riposte* (SIMR). While SIMR does capture malaria information, the system focuses on other endemic diseases and often requires the use of more specific data collected from the Surveillance, Monitoring, and Evaluation (SME) system, in which surveillance is a full-fledged intervention alongside monitoring and evaluation. The Programme National de Lutte contre le Paludisme (PNLP) is currently working closely with the Division du Systéme d'Information Sanitaire et Social (DSISS) to integrate the older PNLP-managed malaria system into the national RHIS that now uses the District Health Information System (DHIS 2) platform.

Acronyms:
CS=Centre de Santé, DSDOM=Dispensateur de soins à domicile (village malaria worker), Cssi=Chef de services des soins infirmiers, PS=Poste de Santé
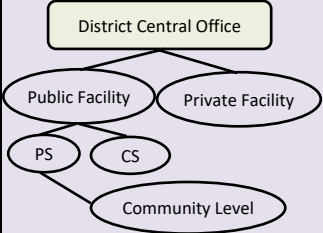
	Health Management Information System	Surveillance, Monitoring, and Evaluation of Malaria	Integrated Disease Surveillance and Response
	When started: 1986 **Scale-up status:** National	**When started:** 2005 Excel, 2015 DHIS 2 **Scale-up status:** National	**When started:** 2004, use Excel, DHIS 2 **Scale-up status:** National
National • 8 hospitals	**Reporting format/platform:** DHIS 2 **Managed by:** Hospital (Cssi), HMIS; 4 data experts, 1 public health expert, 1 statistician/demographer, 1 senior health technician **Dissemination:** With all actors, decision makers, and partners **Key Tasks:** Compilation, data quality control, standard deviation outlier analysis, minimum maximum outlier analysis, and follow-up analysis	**Reporting format/platform:** Excel and DHIS 2 **Managed by:** DSISS; 4 bioinformatics specialists, 1 public health expert, 1 statistician/demographer, 1 senior health technician **Dissemination:** With all actors, decision makers, and partners **Key Tasks:** Compilation, data quality control, standard deviation outlier analysis, minimum maximum outlier analysis , follow-up analysis, commentary, feedback, and recommendations	**Reporting format/platform:** Excel and DHIS 2 **Managed by:** Director of Prevention **Dissemination:** With all actors, decision makers, and partners **Key Tasks:** Compilation, data quality control, standard deviation outlier analysis, minimum maximum outlier analysis, follow-up analysis, commentary, feedback, and recommendations
Regional • 14 health regions (average of 5 districts per region) • 29 hospitals	**Reporting format/platform:** DHIS 2 **Managed by:** Hospital (Cssi); regional team composed of 1–2 doctors, 1 senior health technician, 1 malaria focal person **Reported to:** HMIS per DHIS 2 **Reporting frequency:** Monthly **Key Tasks:** Compilation of information from districts and region hospitals; transmission to HMIS	**Reporting format/platform:** DHIS 2 **Managed by:** Regional team composed of 1–2 doctors, 4 senior health technicians non-malaria focused **Reported to:** National **Reporting frequency:** Quarterly **Key Tasks:** Compilation of information from districts and region hospitals; transmission to SME	**Reporting format/platform:** Excel, phone, DHIS 2 **Managed by:** IDSR focal person **Reported to:** Office of Prevention **Reporting frequency:** Weekly **Key Tasks:** Compilation of information from districts and hospitals; transmission to IDSR
District • 77 health districts	**Reporting format/platform:** DHIS 2 **Managed by:** District team composed of 1–2 doctors, 1 senior health technician, 1 malaria focal person **Reported to:** Regional team **Reporting frequency:** Monthly (by 15th) **Key Tasks:** Compilation of zone reports from CS and health posts and community-level information; transmission to regional level; validation of DHIS 2 data	**Reporting format/platform:** DHIS 2 **Managed by:** District team composed of 1–2 doctors, 4 senior health technicians non-malaria focused **Reported to:** Regional and national team **Reporting frequency:** Monthly (by 15th) **Key Tasks:** Compilation of zone reports from CS and health posts and community-level information; transmission to the regional level; validation of DHIS 2 data	**Reporting format/platform:** Excel, DHIS 2 **Managed by:** IDSR focal person **Reported to:** Regional team **Reporting frequency:** Weekly **Key Tasks**: Compilation of zone reports from CS and health posts and community-level information; transmission to the regional level; validation of DHIS 2 data

Facility Level
• 102 CS
• 1,450 health posts
• Community level (health huts and DSDOMs)
  – 1,949 health huts (2017)
  – 2,536 DSDOMs (2017)
	Reporting format/platform: Paper, DHIS 2
	Managed by: Major or Nurse at CS; Infirmier Chef Post or Nurse at health post
	Reported to: District team
	Reporting frequency: Monthly (by 5th)
	Key Tasks: Transmit paper-based summary reports or data entry into DHIS 2
		Reporting format/platform: Excel, DHIS 2
		Managed by: Major or Nurse at CS; Infirmier Chef Post or Nurse at health post
		Reported to: District team
		Reporting frequency: Monthly
		Key Tasks: Transmit paper-based summary reports or data entry into DHIS 2
			Reporting format/platform: Phone call/platform, DHIS 2, Template Excel
			Managed by: Health worker
			Reported to: District team
			Reporting frequency: Weekly
			Key Tasks: Transmit paper-based summary reports or data entry into DHIS 2

District Central Office

Public Facility — Private Facility

PS — CS

Community Level

Table 1: Key Malaria Indicators by System

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

Number of malaria cases	HMIS	SME	IDSR
Suspect/fever cases	Y/Y		Y/Y
Tested (diagnostically)	Y	Y	Y
Diagnostically confirmed (positive)	Y	Y	Y
Clinical/presumed/unconfirmed	Y/Y/Y	Y	Y/Y/Y
Outpatient/inpatient	Y/Y	Y	Y/N
Uncomplicated/severe	Y/Y	Y	Y/N
Age categories (e.g., <5, 5+)/Sex disaggregation (M, F)	Y/N*	Y/N*	Y/N*
Pregnant women	Y	Y	Y
Number of malaria deaths			
Age categories (e.g., <5, 5+)/Sex disaggregation (M, F)	Y/N	Y	N/N*
Pregnant women	Y	Y	Y
Commodities (Availability or stockout/Consumption)			
RDT	Y	Y	Y
ACT	Y	Y	Y
Severe malaria treatment	Y	Y	N
SP	Y	Y	N
IPTp 1/2/3(+)	Y/Y/Y	Y/Y/Y	N/N/N
Completeness of reporting	Y	Y	Y

*Sex-specific reporting is expected to be introduced in 2018

Data Quality Activities:
Routine data quality reviews/audits:
- DHIS 2 data entry is conducted at health posts, Centre de Santé, and hospitals, and is verified onsite during quarterly and biannual supervision meetings.
- General validation is conducted at the district level.
- Quarterly data validation meetings are held at district and regional levels.

Malaria bulletin:
- Office of Prevention publishes a weekly surveillance bulletin on all epidemic diseases, and PNLP publishes a weekly bulletin of sentinel surveillance on malaria.
- PNLP publishes a quarterly epidemiological bulletin 45 days after the end of the quarter.
- Since 2014, PNLP has published an annual epidemiological bulletin on malaria in March of the following year.

Data availability:
- PNLP and district-level staff have access to DHIS 2 data through a web-based portal.
- The database can be shared by email on request.

Data use:
- Data analysis begins at the health post and health center, and continues throughout the district, regional, and national levels.
- Data are used at all levels by all stakeholders, partners, and decision makers. In-depth analysis is conducted at the national level by the PNLP.

Additional Context:
1. The current DHIS 2 platform comprises two elements:
   1. Monthly routine components of SISS.
   2. Weekly surveillance components in 7/14 districts; this will scale up to the national level in 2018.
2. Generalization of the weekly notification by the end of 2017.
3. Health system assessment in 2019 with the technical and financial support of the President's Malaria Initiative.
4. Senegal adopted a new country surveillance and elimination guidelines in 2017.
5. Senegal's PNLP is working to improve integration and reporting with private sector health providers.