



Vaccine Preventable Disease Surveillance systems in Guinea

Assessment of the implementation and use of VPD surveillance systems in Africa.

July 2025

KEY FINDINGS

- VPD systems in use: DHIS2
- Dual entry on paper-based and digital tools
- Case-based surveillance, aggregated data systems

Analysis Overview

The survey findings on Guinea's vaccine-preventable disease (VPD) surveillance system highlight a well-structured program supported by both paper-based and digital tools. A dedicated national focal person oversees the system, which relies on a single digital platform with weekly reporting to the national level and WHO AFRO. Strong governance is evident, with a formal governing body, a national HMIS strategy, and a costed work plan backed by multiple donors. The system uses WHO AFRO standardized indicators, and the facility reporting hierarchy is current, although funding gaps remain, especially for software maintenance.

While the Ministry of Health has a technical team for system monitoring and server management, staffing is inadequate, and training is not consistently delivered or evaluated. Still, the system provides timely dashboards and reports at national and sub-national levels and is used in planning and decision-making. A data quality assurance framework is in place, along with regular training for data entry staff, but data quality issues persist within the case-based surveillance system. On the other hand, reporting timeliness is generally maintained.

The system is in use across rural and urban facilities, with equitable access supported by national policies. All sites where the digital system is implemented use computers and mobile devices for data entry, with users provided mobile data and devices. Despite stable infrastructure in most areas, power and connectivity remain weaker in rural settings, and MOH staffing for hardware support is limited. The system supports data exchange standards like HL7 FHIR and ADX but lacks integration with WHO AFRO and depends on external support for interoperability. There is no national interoperability framework, and MOH staff need more training in this area. Despite these challenges, user satisfaction is high, and the long-term vision includes improved interoperability, ongoing training, enhanced data security, and sustained partner support.

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Foundational	Developing	Established	Not Applicable or No Data
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Domain/Theme	Sub-domain	Maturity Level
Governance and Strategic Alignment	Existence of a formal governing body	2
	Existence of a Digital Health Strategy	2
	Sustainable funding	2
	Equity infrastructure	2
	Equity policies (rural/urban)	2
	Submission to WHO AFRO regional system	2
Workforce/Technical Capacity	Dedicated VPD surveillance officer	2
	Admin/monitoring team in place	1
	Availability of monitoring tools/SOPs	1
	Software maintenance team in place	
	Integration/interoperability tech capacity	0
End-user Readiness	End-user satisfaction	2
	End-user training	2
Infrastructure Readiness	Availability of computers	0
	Mobile devices and mobile data access	2
	Stable power/internet infrastructure	2
	Capacity to maintain infrastructure	1
	Infrastructure disparities	2
System Lifecycle and Localization	Length of time system has been in use	0
	Multilingual software maturity	2
	VPD surveillance system transition	
	User support during system transition	0

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Domain/Theme	Sub-domain	Maturity Level
Interoperability	Integration with WHO AFRO system	0
	Integration with national HIS	1
	Interoperability standards use (FHIR, ADX)	2
	Existence of national interoperability framework	0
Data Standards and Data Quality	Metadata dictionary	2
	Org units structure	2
	Compliance with WHO AFRO standardized indicators	2
	Data quality governance	2
	Data entry/management training	2
Data Use and Reporting	Data reporting needs	2
	Data sharing practices	2
	Timeliness and quality of CBS data	2
	Timeliness and quality of aggregate data	
	Case-based data security compliance	2

Use and limitations of the maturity model

The maturity model provides a framework for identifying strengths and gaps in Guinea's VPD surveillance system. It covers key domains like governance, data quality, and infrastructure. However, it simplifies complex realities and may overlook regional variation or the interplay between paper based and digital tools. Results should be interpreted with field insights and stakeholder input.