Vaccine Preventable Disease Surveillance systems in **Mauritania**

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

July 2025

KEY FINDINGS

- VPD systems in use: Epi-Info
- Dual entry on paper-based and digital tools
- Case-based surveillance

Analysis Overview

Mauritania's vaccine-preventable disease (VPD) surveillance system is managed by a designated focal point at the national level and uses a dual-entry model that combines paper-based and digital tools. One digital system (Epi Info) is in use and data are reported weekly to the national level and submitted to WHO AFRO. Despite regular reporting, the system lacks a formal governing body and national HMIS digital strategy. Additionally, there is no costed work plan or dedicated funding for software development, hardware maintenance, or connectivity infrastructure. These gaps impact the system's sustainability and functionality, particularly outside urban areas.

Technical capacity within the Ministry of Health (MOH) is notably limited. There is no MOH technical team responsible for system monitoring, and no formal processes for performance monitoring exist. Training needs for staff are neither identified nor addressed, and there is no formal data quality assurance (QA) framework. While a dedicated person oversees data quality, regular training and evaluation mechanisms are missing. The digital system is integrated with WHO AFRO but not with other national health information systems, and there is no use of data exchange standards or an interoperability framework.

The system's reach is heavily skewed toward urban areas, with only one rural facility compared to nearly 1,000 urban facilities having access. Infrastructure disparities and staffing imbalances between rural and urban areas hinder equitable data reporting. While mobile data and devices are provided, only 16% of sites use computers and 2% use mobile devices for data entry. The system infrastructure is reportedly stable but varies widely in quality. Despite these challenges, the system produces national-level reports and informs planning and resource allocation. However, improvements in technical governance, infrastructure support, and workforce capacity are critical to realizing the country's long-term vision of establishing a centralized VPD surveillance database.

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Foundational	Developing	Established	Not Applicable or No Data

Domain/Theme	Sub-domain	Maturity Level
Governance and Strategic Alignment	Existence of a formal governing body	0
	Existence of a Digital Health Strategy	0
	Sustainable funding	2
	Equity infrastructure	0
	Equity policies (rural/urban)	0
	Submission to WHO AFRO regional system	2
Workforce/Technical Capacity	Dedicated VPD surveillance officer	2
	Admin/monitoring team in place	0
	Availability of monitoring tools/SOPs	0
	Software maintenance team in place	1
	Integration/interoperability tech capacity	0
End-user Readiness	End-user satisfaction	0
	End-user training	1
Infrastructure Readiness	Availability of computers	0
	Mobile devices and mobile data access	2
	Stable power/internet infrastructure	1
	Capacity to maintain infrastructure	0
	Infrastructure disparities	0
System Lifecycle and Localization	Length of time system has been in use	1
	Multilingual software maturity	0
	VPD surveillance system transition	
	User support during system transition	0

DIGITAL HEALTH SYSTEMS TO SUPPORT VPD SURVEILLANCE IN **MAURITANIA**

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Foundational	Developing	Established	Not Applicable or No Data

Domain/Theme	Sub-domain	Maturity Level
Interoperability	Integration with WHO AFRO system	2
	Integration with national HIS	0
	Interoperability standards use (FHIR, ADX)	0
	Existence of national interoperability framework	0
Data Standards and Data Quality	Metadata dictionary	1
	Org units structure	2
	Compliance with WHO AFRO standardized indicators	2
	Data quality governance	1
	Data entry/management training	0
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	0

Use and limitations of the maturity model

The maturity model provides a framework for identifying strengths and gaps in Mauritania'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.

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