Vaccine Preventable Disease Surveillance systems in **Niger**

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

Analysis Overview

Niger has a well-structured vaccine-preventable disease (VPD) surveillance system that combines both paper-based and digital tools, with a dedicated national focal point overseeing operations. The country operates a single digital system (DHIS2) with weekly reporting that is timely and consistent, including regular submissions to the WHO AFRO regional platform. The system produces relevant reports and dashboards at both national and sub-national levels and is actively used for planning and resource allocation. Case-based surveillance is in place and not limited to specific diseases, and the country has strong data-sharing practices with partners and across ministries.

The VPD surveillance system is supported by a formal governance structure and a national HMIS digital strategy, although it still relies on multiple donors for funding. While the Ministry of Health (MOH) has the personnel needed to manage system infrastructure and interoperability, the team is understaffed. Nevertheless, tools for monitoring system performance, backups, and data recovery are in place, and the technical team regularly receives training. Integration with both the WHO AFRO platform and two or more national health systems is operational, supported by the use of data exchange standards like HL7 FHIR and ADX, although the national interoperability framework is not yet fully implemented.

Infrastructure disparities between rural and urban areas continue to pose challenges, particularly in staffing levels. Although 70% of end users rely on mobile devices and mobile data is provided, only 30% of sites use computers for data entry. Despite these limitations, the infrastructure is generally stable, and sufficient MOH staff are available to maintain hardware and connectivity at surveillance sites. Overall satisfaction levels are high. The long-term vision for Niger's VPD surveillance is to achieve real-time, case-based data entry and visualization, goal that aligns well with ongoing system improvements and digital evolution.

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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	2
	Existence of a Digital Health Strategy	2
	Sustainable funding	2
	Equity infrastructure	1
	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	1
	Availability of monitoring tools/SOPs	2
	Software maintenance team in place	0
	Integration/interoperability tech capacity	0
End-user Readiness	End-user satisfaction	0
	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	2
	Infrastructure disparities	1
System Lifecycle and Localization	Length of time system has been in use	1
	Multilingual software maturity	
	VPD surveillance system transition	0
	User support during system transition	0

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

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Foundational	Developing	Established	Not Applicable or No Data

Domain/Theme	Sub-domain	Maturity Level
Interoperability	Integration with WHO AFRO system	1
	Integration with national HIS	2
	Interoperability standards use (FHIR, ADX)	2
	Existence of national interoperability framework	1
Data Standards and Data Quality	Metadata dictionary	0
	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 Niger'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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