Vaccine Preventable Disease Surveillance systems in **Central African Republic**

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

July 2025

KEY FINDINGS

- VPD systems in use: DHIS2, ODK, DVDMT (District Vaccination Data Management Tool)
- Dual entry on paper-based and digital tools
- Case-based surveillance and aggregated data systems

Analysis Overview

Based on the survey results, the Central African Republic (CAR) has established a foundational framework for digital vaccine-preventable disease (VPD) surveillance, marked by the appointment of a dedicated individual to oversee digital VPD surveillance activities. Although a fully digital VPD surveillance system is not yet in place, there are three digital systems / tools in use (DHIS2, ODK and District Vaccination Data Management Tool (DVDMT), an excel-based tool. Surveillance data is reported on a weekly basis. This data is disseminated at the district level and shared with WHO AFRO, reflecting a commitment to transparency and collaboration with international partners.

CAR has made notable progress in governance and strategic alignment, with formal structures such as a governing body and a national digital health strategy that supports broader health information system (HMIS) initiatives. These elements suggest a structured and forward-looking approach to digital health, although their application to VPD surveillance is still developing. The presence of a costed work plan for digital VPD surveillance also indicates a degree of strategic planning, and reliance on donor support—common across the region—has enabled initial steps toward system development and potential scale-up.

The maturity assessment scores highlight CAR's strengths in Data Use and Reporting and Governance and Strategic Alignment, suggesting relatively well-established mechanisms for utilizing surveillance data to inform decision-making. Moderate progress was seen in Data Standards and Data Quality, implying partial implementation of quality assurance processes and data standardization. However, major gaps were identified in System Lifecycle and Localization, Infrastructure Readiness, and Workforce/Technical Capacity, where low scores reflect weaknesses in technical resources, infrastructure, and the human capacity needed to sustain digital systems.

Of particular concern are the low scores in Interoperability and End-User Readiness, with the latter scoring zero—suggesting that frontline users may lack the tools, training, or access needed to effectively engage with digital surveillance systems. In conclusion, while CAR is still in the early stages of implementing a comprehensive digital VPD surveillance system, the existing governance structures, donor engagement, and strategic planning efforts provide a strong foundation. Moving forward, investment in infrastructure, workforce development, and user support will be critical to building a mature, effective surveillance system that ensures timely, high-quality data for public health action.

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

	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)	2
	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	1
	Software maintenance team in place	0
	Integration/interoperability tech capacity	0
End-user Readiness	End-user satisfaction	0
	End-user training	0
Infrastructure Readiness	Availability of computers	0
	Mobile devices and mobile data access	0
	Stable power/internet infrastructure	1
	Capacity to maintain infrastructure	1
	Infrastructure disparities	1
System Lifecycle and Localization	Length of time system has been in use	2
	Multilingual software maturity	
	VPD surveillance system transition	0
	User support during system transition	0

DIGITAL HEALTH SYSTEMS TO SUPPORT VPD CURVEILLANCE IN **CENTRAL AFRICAN REPUBLIC**

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

Foundational	Developing	Established	Not Applicable or No Data

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

DIGITAL HEALTH SYSTEMS TO SUPPORT VPD CURVEILLANCE IN **CENTRAL AFRICAN REPUBLIC**