Vaccine Preventable Disease Surveillance systems in **Ivory Coast**

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

Analysis Overview

Côte d'Ivoire's vaccine-preventable disease (VPD) surveillance system demonstrates a strong foundational structure, with a dedicated national-level staff member managing operations and a dual-entry approach utilizing both paper-based and digital tools. Two digital systems are in use, with surveillance data expected daily and reliably reported at the required intervals. The country aligns with WHO AFRO's standardized indicators and shares data regularly with the regional platform. Governance is reinforced by a formal oversight body and a national digital strategy, with financial support from both the national treasury and multiple donors. A costed work plan and funding for software maintenance are in place, further underscoring a well-established framework.

However, notable gaps remain in infrastructure and human resource capacity. There is no dedicated funding for essential system infrastructure like power, connectivity, or hardware maintenance, and the Ministry of Health's technical team lacks sufficient personnel for system monitoring. Training needs are not systematically identified or evaluated, and there are no processes for assessing the effectiveness of technical training. Although tools for monitoring system performance are present, the lack of documented backup, restore, and disaster recovery plans present a risk to continuity during system failures or data loss.

The system does show operational strengths in data use and integration. Data quality is managed by dedicated staff at national and sub-national levels, and the system produces actionable dashboards used in planning and resource allocation. Case-based surveillance is nationally implemented and not disease-specific, with data hosted on secure servers that meet regulatory standards. All surveillance sites use computers and mobile devices, and integration with the WHO AFRO platform is in place. Nonetheless, the system is not interoperable with other national health platforms, and data exchange standards such as HL7 FHIR or ADX are not yet adopted.

Equity and sustainability challenges persist, particularly in rural areas. Infrastructure disparities, limited connectivity, and the lack of mobile data for end users impede timely reporting. There are no national policies to ensure equitable access to the surveillance system across regions. Furthermore, reliance on external actors for interoperability support, combined with the absence of a national interoperability framework and key security policies, undermines long-term sustainability. Overall satisfaction with the system is low, and future priorities center on improving data quality, expanding integration, and enabling on-site data entry at the point of care.

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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	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	2
Infrastructure Readiness	Availability of computers	0
	Mobile devices and mobile data access	1
	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	1
	Multilingual software maturity	
	VPD surveillance system transition	0
	User support during system transition	0

DIGITAL HEALTH SYSTEMS TO SUPPORT VPD SURVEILLANCE IN **IVORY COAST**

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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	0
	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	2

Use and limitations of the maturity model

The maturity model provides a framework for identifying strengths and gaps in Ivory Coasts'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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