Memorandum on the Federal Republic of Nigeria Programme Audit report

The attached Gavi audit report sets out the conclusions of the programme audit of Gavi's support to Nigeria's Federal Ministry of Health (FMoH) executed through its National Primary Health Care Development Agency (NPHCDA). The audit was conducted between 22 September and 13 October 2025.

The audit team reviewed NPHCDA's management of Gavi's cash and in-kind support to the immunisation programme during the four-year period from 1 January 2021 to 31 December 2024.

Specifically, the audit assessed how effectively programme management arrangements and partnerships support sustainable immunisation delivery, align with national priorities, and address key challenges in routine immunisation and outbreak response; the effectiveness of data systems and processes in generating accurate, integrated, and actionable immunisation data to support evidence-based planning, performance review, and decision making; the integration, effectiveness, and strategic alignment of Gavi-funded digital systems in strengthening immunisation data use, supporting coordinated decision-making, and contributing to a unified digital health ecosystem; the effectiveness of vaccine supply chain systems in ensuring visibility, accountability, and the delivery of viable vaccines to intended beneficiaries; the country's progress toward financial sustainability in immunisation, including alignment of co-financing commitments with operational spending, and the effectiveness of Gavi's support in strengthening the use of national financial systems; and the effectiveness of governance and oversight structures in ensuring accountability, coordination, and strategic guidance for Gavi-supported immunisation investments at national and subnational levels.

The Executive Summary of the report (pages 3 to 8) sets out the key conclusions, the details of which are described in the body of the report:

1. There is an overall audit rating of "**Needs significant improvement**" which means, "One or few significant issues noted, internal controls, governance and risk management practices have some weaknesses in design or operating effectiveness such that, until they are addressed, there is not yet reasonable assurance that the objectives are likely to be met."
2. In total, fifteen issues were identified in the following areas: (i) Governance and Oversight; (ii) Programme implementation arrangements; (iii) Immunisation data for decision making; (iv) Digital immunisation and vaccine logistics systems; (v) Vaccine management; and (vi) Financial management and sustainability.
3. To address the risks associated with these issues, the audit team raised 19 recommendations, of which 10 (52%) were rated as high risk.

4. Key findings were that:
    a. The roles of the existing immunisation governance structures (including the ICC, Core Group, national TWGs and state-level RI working groups) have not yet been fully integrated into the SWAp governance architecture.
    b. recurrent Vaccine Preventable Disease outbreaks occurred throughout the period.
    c. There were inconsistencies in immunisation denominator generation and use.
    d. Nigeria's digital health governance remains insufficiently structured to ensure coherent, sustainable and interoperable digital investments for immunisation.
    e. The central level cold and dry storage capacity was inadequate, due to delays in the planned refurbishment and construction of vaccine distribution hubs.
    f. There were weaknesses in accountability and loss-prevention measures across the supply chain including: inconsistencies between physical counts, manual ledgers and Open LMIS data; Stock-outs at all levels of the supply chain; Unexplained stock adjustments reflecting gaps in inventory control; a fire at the Gombe State Vaccine Store destroyed significant quantities of Gavi-funded and non-Gavi vaccines, cold-chain equipment, and delivery devices.
    g. Financial sustainability for the immunisation programme remains a challenge as: a substantial proportion of vaccine procurement (approximately 45%) has been financed through World Bank loans; co-financing funds are consistently released late in the financial year, misaligned with vaccine procurement cycles; and partners continue to finance core operational costs, including vaccine distribution.
    h. The audit identified USD 126,264 in questioned costs (consisting of USD 115,422 inadequately supported and USD 10,842 unsupported items) due to inadequate supporting documentation and missing support documents for expenditures.
    i. The audit also identified financial loss to the immunisation programme due to a fire at the Gombe state vaccine store of USD 507,619 related to vaccines and USD 75,607 related to equipment.

The findings of the programme audit were discussed with the FMoH's agency, the National Primary Health Care Development Agency. They accepted the audit findings, acknowledged the gaps identified, and committed to implement a detailed management action plan.

In a letter dated 29 April 2026, Gavi requested that the Government reimburse USD 10,842 relating to unsupported State-level expenditures, as well as USD 583,226 associated with uninsured Gavi-funded vaccines and equipment. For the remaining questioned items, Gavi concluded that there was sufficient programmatic evidence that the activities associated had taken place.

The Gavi Secretariat continues to work with the FMoH and NPHCDA to ensure that their commitments are met.

Geneva, May 2026

PROGRAMME AUDIT REPORT

Federal Republic of Nigeria
April 2026

Gavi
The Vaccine Alliance

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1. Executive Summary

1.1 Overall audit opinion

Audit opinion:
The audit team assessed the Federal Ministry of Health's management of Gavi support during the four-year period 2021-2024 as "Needs significant improvement" which means, "One or few significant issues noted, internal controls, governance and risk management practices have some weaknesses in design or operating effectiveness such that, until they are addressed, there is not yet reasonable assurance that the objectives are likely to be met".

Through our audit procedures, we identified high risk issues relating to governance and oversight, programme management; digital immunisation systems, budget and finance management; and fixed assets management.

To address the risks associated with these issues, the audit team raised 19 recommendations, of which 10 (52%) were rated as high risk. These recommendations need to be addressed by implementing remedial measures according to the agreed management actions.

1.2 Summary of key audit issues

** The audit ratings attributed to each section of this report, the level of risk assigned to each audit issue and each recommendation, are defined in Annex 2 of this report.*

1.3 Summary of issues

Through our audit procedures, we identified eight high-risk and seven medium-risk issues relating to the management and utilisation of Gavi support.

Section 3 of this report outlines the Federal Republic of Nigeria's operating context and highlights key challenges affecting the delivery and performance of its immunisation programme.

At the time of the audit (October 2025), Gavi's support continued to be channelled primarily through Alliance partners. The National Primary Health Care Development Agency (NPHCDA) has begun to assume a more prominent role in the management of Gavi funds following the partial adoption of country systems in December 2023 but partners still manage the majority of Gavi support. The eight high-risk issues identified during the audit are summarised below, with detailed observations presented in Section 4 of this report.

Governance and Oversight

Nigeria's immunisation programme has historically maintained several governance forums to oversee immunisation activities, including the Inter-Agency Coordinating Committee (ICC), the Core Group and five national technical working groups (TWGs). At the sub-national level, State and Local Government Routine Immunisation Working Groups provide coordination and oversight of immunisation activities within their respective jurisdictions.

In December 2023, the Government launched the Nigeria Health Sector Renewal Investment Initiative (NHSRII), introducing a Sector-Wide Approach (SWAp) to harmonise planning, budgeting and accountability processes across the health sector. Under this reform, sector governance is now led by the Ministerial Oversight Committee (MoC) and seven TWGs, with State Steering Committees (SOCs) for the Basic Health Care Provision Fund (BHCPF) providing oversight at the state level.

However, the roles of the existing immunisation governance structures (including the ICC, Core Group, national TWGs and state-level RI working groups) have not yet been fully integrated into the SWAp governance architecture. Reporting lines between the ICC, Core Group and the MoC remain undefined, and in most states visited the corresponding SOCs responsible for SWAp oversight were either inactive or not demonstrably engaged in immunisation governance. As a result, the legacy governance bodies continue to operate alongside the emerging SWAp mechanisms, with no clarity on roles, linkages or accountability arrangements.

This leaves oversight of the immunisation programme in a transitional state, with unclear alignment to the new health-sector coordination accountability mechanisms. Without timely integration, critical immunisation issues risk being excluded from high-level decision-making, weakening accountability across the governance system.

Programme management

Nigeria continues to experience recurrent outbreaks of vaccine-preventable diseases (VPDs). Between 2021 and 2024, measles outbreaks were reported in 302 Local Government Areas nationwide, resulting in more than 9,300 confirmed cases and 73 deaths in 2024. Although Nigeria was certified free of wild poliovirus in 2020, outbreaks of circulating vaccine-derived poliovirus type 2 persist and the country also faced its largest diphtheria outbreak in decades between 2022 and 2024, concentrated largely among zero-dose and under-vaccinated children.

In response, Nigeria has conducted repeated, large-scale integrated campaigns, including the Big Catch-Up (BCU) initiative targeting 200 priority LGAs across 30 states and, subsequently, the launch of a nationwide multi-antigen campaign targeting approximately 106 million children. While preliminary administrative data from the BCU suggest progress in reaching previously unvaccinated children, confirmed VPD cases have continued to rise. Measles cases more than doubled between 2021 and 2022, declined between 2022 and 2024, but began increasing again from 2024 through mid-2025. Diphtheria cases have risen steadily since late 2022, peaking at over 10,000 cases in 2024. Polio outbreaks, driven primarily by circulating vaccine-derived

poliovirus type 2, occurred throughout the audit period, notably in 2021 Nigeria reported 1,028 cases across 31 states, accounting for more than 70 percent of Africa's cVDPV2 cases.

The effectiveness of these interventions is further constrained by gaps in post-campaign evaluation and learning. A post-campaign coverage survey (PCCS) was not completed following the BCU before the initiation of subsequent campaigns. As a result, it was not possible to independently validate reported coverage, assess series completion, or identify residual immunity gaps. The overlap of successive campaigns further complicates attribution of impact, particularly for polio-related indicators.

Taken together, these issues highlight weaknesses in routine immunisation performance and outbreak response effectiveness, limiting the ability of the programme to transition from reactive outbreak control to routine immunisation management.

Immunisation data

Nigeria's immunisation coverage estimates rely on population projections produced by the National Population Commission (NPopC), as the last national census was conducted in 2006 and the planned 2023 census has been postponed indefinitely. Each year, Nigeria calculates its birth cohort for immunisation as 4% of the national population estimate, and these figures are uploaded into DHIS2 as denominators for administrative coverage monitoring.

The audit noted inconsistencies in denominator generation and use. For example, applying the 4% rule to NPopC projections yields an expected birth cohort of 8.46 million children in 2021, yet the corresponding denominator recorded in DHIS2 was 7.10 million, a discrepancy of more than 1.3 million children. A difference of similar magnitude was observed in 2022. In addition, denominators back-calculated from reported vaccinations and coverage percentages did not match the official DHIS2 denominator values, suggesting that denominator updates are not systematically validated before use.

Further inconsistencies were identified for antigens administered during the same visit. At both federal and state levels, denominators for Penta1, PCV1 and IPV1 (antigens given at six weeks) were not aligned across multiple years despite being intended for the same cohort.

Inconsistent denominators compromise the accuracy of administrative coverage figures, reduce confidence in DHIS2 coverage indicators, impede trend analysis and affect the precision of zero-dose estimates.

Digital immunisation and vaccine logistics systems

Nigeria has made significant investments in digital systems to support immunisation delivery, including DHIS2 for aggregate reporting, OpenLMIS for logistics management, and EMID for COVID-19 vaccination and pilot routine immunisation (RI) data capture. These systems were developed at different times, funded largely by development partners, and deployed with varying governance and integration arrangements. In recognition of fragmentation across the wider health sector, the Federal Ministry of Health launched the National Digital Health Initiative (NDHI) in March 2024 to establish a unified governance framework and an interoperable national digital health architecture.

However, Nigeria's digital health governance remains insufficiently structured to ensure coherent, sustainable and interoperable digital investments for immunisation. A formally approved and costed national digital health roadmap is not yet in place, and multiple taskforces and partner-driven initiatives continue to operate in parallel to NDHI, contributing to fragmented oversight and uncoordinated planning. Within NPHCDA, efforts to transition system stewardship to its ICT Directorate are ongoing; however, essential operational policies (such as standards for data governance, backups, password management and user administration) are not yet established.

Interoperability gaps persist across core systems. Planned integration between OpenLMIS and DHIS2 was not functional at the time of the audit, and OpenLMIS was also not interoperable with Remote Temperature

Monitoring (RTM) tools. The absence of an operational enterprise integration framework results in siloed systems, duplicated data entry and inconsistent datasets across platforms.

In addition, the physical infrastructure supporting some of the national system hosting poses immediate operational risks. At NPHCDA, server rooms were found with non-functional air-conditioning, evidence of water leakage near racks and inoperative fire safety equipment, increasing the risk of system failures or permanent data loss.

These gaps collectively compromise Nigeria's progress towards establishing functional, integrated digital systems for immunisation. Limited interoperability reduces data quality and visibility across the supply chain, while inadequate infrastructure exposes systems to failure.

Vaccine supply chain

Nigeria's vaccine supply chain is undergoing a major transformation intended to shift the country from a legacy five-tier structure to a more efficient three-hub national architecture centred in Lagos, Abuja and Kano. This redesign (first conceptualised in 2014 and revised in 2017) was expected to reduce national storage requirements by nearly half, enable hubs to receive international shipments directly, and decongest the National Strategic Cold Store (NSCS). The Lagos hub is financed through World Bank support, while the Abuja and Kano hubs are funded through Gavi investments implemented by UNICEF.

Construction of the hubs has, however, experienced significant delays. In Lagos, structural works have been completed but commissioning is not on track. The Abuja hub remains partially built, with construction of the dry store suspended. In Kano, the former North-West Zonal Store was demolished to make way for the new hub, but the structures collapsed during construction and the site seemed abandoned when the auditors visited.

These delays leave the NSCS as the sole national entry point for vaccines, despite having already exceeded its optimal capacity, and the demolition of the former North-West Zonal Store has further constrained cold and dry storage space in the northern region. At the national level, cold storage shows a 56% positive-temperature deficit and a 12% negative-temperature deficit. In Kano State, vaccines were observed stored in cold-room aisles, restricting access and hindering adherence to Early Expiry First Out (EEFO) practices.

In addition to infrastructure delays, the audit noted weaknesses in accountability and loss-prevention measures across the supply chain. Stock records at national, state, LGA and health-facility level showed inconsistencies between physical counts, manual ledgers and OpenLMIS data. At NSCS, reconciliation of five major antigens showed discrepancies for all sampled vaccines; similar variances were observed in 3 of 4 state stores, 5 of 16 LGAs, and 15 of 30 health facilities.

Stock-outs were reported at all levels of the system, with durations extending up to 70 days at LGA level and over 60 days at health-facility level. Unexplained stock adjustments (including implausible issues such as fractional vials) were common, reflecting gaps in inventory control.

Distribution from the NSCS could not be implemented according to a structured quarterly schedule, as deliveries were necessarily timed around the availability of vaccines following delayed federal procurement and financing releases. As a result, some Northern states received up to five separate deliveries within a single quarter, increasing distribution frequency and associated operational costs.

Gaps in asset protection further exposed the programme to losses. In February 2024, a fire at the Gombe State Vaccine Store destroyed significant quantities of Gavi-funded and non-Gavi vaccines, cold-chain equipment, and delivery devices. The programme assets were uninsured, contrary to Section 10 of the Partnership Framework Agreement. Although the incident was promptly reported by UNICEF to the Gavi Secretariat, no consolidated valuation of the destroyed assets had been finalised at the time of the audit, limiting management's ability to guide replacement decisions, pursue recovery options, or implement corrective asset-protection measures.

Collectively, delays in establishing the hub system, gaps in inventory accuracy, recurrent stock-outs, ad hoc distribution practices and uninsured programme assets represent a critical risk to the continuity, safety and reliability of Nigeria's vaccine supply chain in delivering vaccines to intended recipients.

Financial Management and sustainability

Nigeria has met its formal vaccine co-financing obligations during the audit period, however, a substantial proportion of vaccine procurement (approximately 45%) has been financed through World Bank loans, raising concerns about sustainability. In addition, co-financing funds are consistently released late in the financial year, misaligned with vaccine procurement cycles. As a result, UNICEF has had to provide extensive pre-financing through the Vaccine Independence Initiative (VII), amounting to USD 201 million between 2021 and 2025, including USD 75 million in 2025 alone, to prevent stock-outs. By the end of September 2025, only 78% of the 2025 co-financing requirement had been met, and vaccine orders for the first half of 2026 had not yet been placed.

Beyond procurement, operational funding for immunisation remains insufficient and heavily donor dependent. Despite the existence of a dedicated federal budget line, partners continue to finance core operational costs, including vaccine distribution, which UNICEF covered in eight of the last nine quarters to September 2025. At sub-national level, state prioritisation of health, primary healthcare and immunisation varies widely, with many states allocating well below national and international benchmarks. This variability undermines the reliability of last-mile service delivery and places routine immunisation performance at risk.

These challenges indicate that country has not yet achieved financial sustainability for immunisation which increases the risk of vaccine procurement delays, stock-outs and service disruptions, and threaten the continuity of immunisation delivery as the country prepares for transition under Gavi's standard eligibility and transition framework.

Gavi funds in Nigeria are largely channelled through Alliance partners under established frameworks such as UNICEF's Harmonised Approach to Cash Transfers (HACT) and WHO's Direct Disbursement Mechanism. To strengthen assurance in the eight MOU states, Gavi and UNICEF introduced additional controls, including roving assurance teams, embedded consultants and a cloud-based accounting solution.

The audit identified gaps in state-level financial controls and documentation. In one of four states, no HACT spot checks were conducted, and in the remaining three, follow-up on identified issues was not systematic, leaving long-standing control gaps unresolved. Accounting systems remain weak: two states relied on MS Excel records, and even where the cloud-based SAGE accounting system had been deployed, connectivity issues prevented its use.

Limitations in traceability (such as missing FACE forms and unavailable cashbooks) further restricted the ability to verify transactions and a sample review of USD 2.47 million in expenditures identified USD 126 K in questioned costs due to inadequate supporting documentation and missing expenditure support documents.

These weaknesses undermine accountability, impede compliance with the Partnership Framework Agreement, and increase fiduciary risk. Without stronger state-level controls, improved documentation practices, and more robust assurance mechanisms, Nigeria may be unable to ensure adequate accountability for Gavi funds, potentially jeopardising the joint goal of transitioning funding back into country systems.

1.4 Financial consequences of audit issues

The table below summarises amounts questioned by the audit team:

Table 1: Summary of expenditures questioned by the audit team, by category

Category of questioned expenditures	Amount questioned (NGN)	Amount questioned (USD)	% of expenditures reviewed	Details (report reference)
Inadequately supported	85,067,300	*115,422*	5.1%	4.6.3
Unsupported	7,990,283	*10,842*		
TOTAL questioned	**93,057,583**	***126,264***		

1.5 Financial loss to immunisation programme due to fire at Gombe state vaccine store

Table 2: Value of Gavi funded vaccines destroyed in fire

Category	Amount (USD)	Details (report reference)
Gavi funded vaccines destroyed[1]	*507,619*	4.5.2

Table 3: Quantities of Gavi funded equipment destroyed in fire

Category	Value (USD)	Details (report reference)
Walk-in Cold room (30 M^3)	*35,627*	4.5.2
Electric freezers	*22,062*	
Vaccine carriers (Model PIS E4/53-M)	*17,918*	
TOTAL[2]	***75,607***	

1.6 Cash balances

Table 4: Cash balances at central level by implementer as of 31 December 2024

Implementing partner	Balance USD	Source of information
UNICEF	*26,757,951*	Gavi finance records
WHO	*19,889,757*	Gavi finance records
NPHCDA	*4,777,043*	Gavi finance records
TOTAL	***51,424,751***	

[1] Value approximated using UNICEF reference prices but has not been adjusted for government co-financing component and freight costs

[2] Cost estimated for only Gavi supported assets and does not include freight charges, installation costs and ancillary components.

2. Objectives and scope

2.1 Audit objectives

In line with the Partnership Framework Agreement signed on 9th January 2014 and with Gavi's transparency and accountability policy, countries that receive Gavi's support are periodically subject to a programme audit, for which the primary objective is to provide reasonable assurance that Gavi's resources and support were used for intended purposes in accordance with Gavi's agreed terms and conditions and in line with the designated programme objectives.

As a result, the audit team assessed the various processes and programme management arrangements governing Gavi's support (vaccines, cash and equipment) for which the respective entities were responsible, so as to assess how effectively programme management arrangements and partnerships support sustainable immunisation delivery, align with national priorities, and address key challenges in routine immunisation and outbreak response; the effectiveness of data systems and processes in generating accurate, integrated, and actionable immunisation data to support evidence-based planning, performance review, and decision making; the integration, effectiveness, and strategic alignment of Gavi-funded digital systems in strengthening immunisation data use, supporting coordinated decision-making, and contributing to a unified digital health ecosystem; the effectiveness of vaccine supply chain systems in ensuring visibility, accountability, and the delivery of viable vaccines to intended beneficiaries; the country's progress toward financial sustainability in immunisation, including alignment of co-financing commitments with operational spending, and the effectiveness of Gavi's support in strengthening the use of national financial systems; and the effectiveness of governance and oversight structures in ensuring accountability, coordination, and strategic guidance for Gavi-supported immunisation investments at national and subnational levels.

The team also reviewed the relevance and reliability of the internal control systems, relative to the accuracy and integrity of the books and records, management and operational information; the effectiveness of operations; the physical security of assets and resources; and compliance with national procedures and regulations.

2.2 Audit scope

The audit team adopted a risk-based audit approach informed by our assessment of the risks across the immunisation programme areas supported by Gavi. This included governance and oversight, programme management, vaccine supply management, immunisation data management, budgeting and financial management. In addition, Gavi's supplemental Covid-19 support (cash and vaccines), and the effectiveness of targeted country assistance were reviewed.

The audit scope covered the four-year period from 1 January 2021 to 31 December 2024. The total cash, vaccine and ancillary support provided by Gavi to Nigeria as of 31 December 2024 is presented in Table 5 below.

Table 5: Cash, technical assistance, equipment, and vaccine support (2021 – 2024). Amounts in USD

Cash grants	2021	2022	2023	2024	TOTAL
COVID19	10,056,043	24,684,681	22,917,917	9,118,171	66,776,812
HPV	-	-	6,316,970	7,793,374	14,110,344
HSS	25,240,786	17,100,606	16,823,006	8,846,052	68,010,450
IPV	2,127,838	-	(268)	-	2,127,570
Measles	29,001,705	-	6,414,413	7,139,854	42,555,972
Malaria	-	-	-	132,031	132,031
Rota Virus	-	4,236,188	-	-	4,236,188
Yellow Fever	-	14,196,826	(17,444)	-	14,179,382
Total cash	**66,426,372**	**60,218,302**	**52,454,592**	**33,029,483**	**212,128,749**
COVID19	-	3,809,920	1,643,783	1,038,310	6,492,013
PEF TCA	6,613,050	3,105,173	4,758,432	9,073,571	23,550,227
Total TCA	**6,613,050**	**6,915,093**	**6,402,215**	**10,111,881**	**30,042,239**
CCEOP	-	-	(10,464)	-	(10,464)
COVID19	2,214,717	235,527	(77,734)	-	2,372,510
OCV	-	-	-	584,981	584,981
YF	143,559	49,250	296,789	-	489,597
Total Equipment	**2,358,276**	**284,777**	**208,591**	**584,981**	**3,436,625**
COVID 19	174,193,555	433,703,653	(3,881,307)	(2,608,113)	601,407,787
HPV	-	-	28,066,476	35,597,899	63,664,375
IPV	25,908,972	28,314,364	22,517,742	39,850,702	116,591,780
ISD	(340,542)	-	-	-	(340,542)
Measles	20,506,528	(1,595,220)	9,103,624	13,322,013	41,336,944
Malaria	-	-	-	3,414,585	3,414,585
MEN	-	-	5,224,593	7,228,493	12,453,086
MENA	12,319,534	4,477,026	3,630,258	2,056,640	22,483,457
MPOX	-	-	-	758,480	758,480
OCV	4,983,416	3,487,346	(3,759,595)	8,258,448	12,969,614
PCV	25,143,910	14,993,074	(104,647)	21,290,413	61,322,751
PENTA	1,994,222	2,431,617	12,044,485	9,373,675	25,843,998
RV	-	7,374,850	861,751	1,855,573	10,092,174
YF	25,429,631	39,176,794	32,855,222	39,018,004	136,479,651
Total Vaccine support	**290,139,224**	**532,363,504**	**106,558,602**	**179,416,811**	**1,108,478,141**
TOTAL	**365,536,922**	**599,781,676**	**165,624,001**	**223,143,155**	**1,354,085,754**

2.3 Audit approach

The programme audit was conducted in two phases. An initial in-country scoping visit from 16 and 20 June 2025, followed by three weeks fieldwork conducted between 22 September and 13 October 2025.

The team visited the National strategic cold chain store (NSCS), four State Health Offices, four State Vaccine Stores, 16 Local Government Area (LGA) health offices, 16 LGA Vaccine stores and 30 Health facilities. See Annex 4 for list of sites visited.

During the audit, the team interacted with key stakeholders including officials within the Federal Ministry of Health (FMoH), National Primary Health Care Development Agency (NPHCDA), Nigeria Centre for Disease Control and Prevention (NCDC), Assurance providers including the Gavi appointed assurance provider, NPHCDA internal audit team and the Office of the Auditor General for the Federation; State Primary Health Care Development Agencies (SPHCDAs); Gavi Alliance partners including World Health Organisation (WHO), United Nations Children Fund (UNICEF); and other Gavi Expanded partners such as Sydani, Clinton Health Access Initiative (CHAI), Solina and eHealth Africa.

Gavi support to Nigeria over the audit period was channelled through the WHO, UNICEF, NPHCDA and Gavi Expanded partners. Gavi disbursed amounts totalling USD 242,170,988 to the various implementers as illustrated in Table 6 below.

Table 6: Total Gavi cash disbursements to Nigeria by grant and recipient (2021 to 2024) in USD

Cash grants	Fund Recipient	Total in USD	Sub-granted to States	Audit Comments
HSS	WHO	*4,172,491*		Out of scope^
	UNICEF	*59,107,224*	*46,005,161*	Out of scope ^^
	CHAI	*2,814,325*		In Scope*
	NPHCDA	*394,283*		In Scope**
	Others	*1,522,127*		Scoped out ~
Sub-total HSS		***68,010,450***	***46,005,161***	
Covid-19	WHO	*28,565,992*		Out of scope^
	UNICEF	*31,348,959*	Unknown^^^	Partially out of scope^^^
	NPHCDA	*3,454,431*		In Scope**
	eHealth Africa	*1,556,961*		In Scope*
	Others	*1,850,470*		Scoped out ~
Sub-total TCV		***66,776,812***	-	
HPV	WHO	*7,595,621*		Out of scope^
	UNICEF	*6,514,723*	Unknown^^^	Partially out of scope^^^
Sub-total HPV		***14,110,344***	-	
IPV	WHO	*1,189,685*		Out of scope^
	UNICEF	*937,885*	Unknown^^^	Partially out of scope^^^
Sub-total IPV		***2,127,570***	-	
Measles	WHO	*27,976,688*		Out of scope^
	UNICEF	*13,881,389*	Unknown^^^	Partially out of scope^^^
	NPHCDA	*697,895*		In Scope**
Sub-total Measles		***42,555,972***	-	
Malaria	WHO	*64,623*		Out of scope^
	UNICEF	*67,408*	Unknown^^^	Partially out of scope^^^
Sub-total Malaria		***132,031***	-	
Rota Virus	WHO	*2,288,589*		Out of scope^
	UNICEF	*1,947,599*	Unknown^^^	Partially out of scope^^^
Sub-total Rota Virus		***4,236,188***	-	
Yellow Fever	WHO	*7,618,750*		Out of scope^
	UNICEF	*6,560,632*	Unknown^^^	Partially out of scope^^^
Sub-total Rota Virus		***14,179,382***	-	
TCA	WHO	*6,917,704*		Out of scope^
	UNICEF	*6,978,689*		Out of scope^
	Sydani	*3,896,201*		In Scope*
	CHAI	*5,448,565*		In Scope*
	World Bank	*1,761,000*		Out of scope^
	CDC	*1,380,318*		Scoped out ~
	Nigeria Governors Forum	*613,421*		Scoped out ~
	Others	*3,046,341*		Scoped out ~
Sub-total PEFTCA		***30,042,239***	-	
Grand total		***242,170,988***	***46,005,161***	

^ Funds directly executed by UN agencies was not subject to our audit review due to the UN Single Audit Principle[3]. The same applies to the World Bank.

^^ Funds sub-granted by the UN agencies to government agencies and CSOs were within our audit scope and were sampled for testing.

^^^ As noted above, funds directly executed by UN agencies was not subject to our audit review, however, funds sub-granted by the UN agencies to government agencies are within our audit scope, we were however unable to fully test these due to a limitation of scope. See section 2.4.

[3] The single audit principle is part of a common internal control and audit framework in United Nations system organisations. It directs a system of checks and balances, where the control and audit functions regarding funds directly expensed by the UN agencies are based on common methods and framework enabling auditors of one institution to rely on the work of auditors from another institution instead of re-performing the audit themselves.

*Funds received by CHAI, eHealth Africa and Sydani were used to support various interventions. While the audit did not review specific expenditure at these implementers, detailed work was done on the review of programmatic activities undertaken and systems developed (i.e., Open LMIS and EMID) including system design, policies and implementation at national and sampled states.
~ Scoped out as part of the audit risk assessment process.

Table 7: Percentage of Gavi-funded expenditures reviewed by the audit team

Recipients	Expenditures reported (in USD)	Expenditures reviewed (in USD)	% reviewed by the team
NPHCDA**	*536,307*	*0*	0%
UNICEF (Cash grants to sampled states)	*9,415,580*	*2,472,893*	26%
Total	***9,951,887***	***2,472,893***	25%

***Funds allocated to NPHCDA in the audit period (2021-24) were USD 5,323,133 (including in country balances of USD 776,524 and disbursements from Gavi of USD 4,546,609). These were in scope for this audit. However, expenditure incurred as of 31 December 2024 was USD 536,307 representing 10% of funds disbursed and 7% of the NPHCDA budget for the period. All expenditure incurred had been reviewed by the Gavi Assurance Provider. Additionally, the Office of the Auditor General for the Federation (OAuGF) had just completed the external audit for the year ended December 2024 in August 2025. The Programme audit team relied on these assurance mechanisms.*

2.4 Limitation of scope – funds disbursed through Gavi Alliance partners

Funds directly executed by WHO and UNICEF were not covered by this audit and were considered out of scope, in line with the United Nations Single Audit Principle. WHO implements a Direct Disbursement Model (DDM) through which payments are made directly to beneficiaries for approved activities, with no funds transferred to State governments. UNICEF, on the other hand, applies the Harmonised Approach to Cash Transfers (HACT), under which Gavi resources channelled through UNICEF may be disbursed to implementing partners, including State governments.

In accordance with Sections 22.1 and 22.2 of Annex 2 of the Partnership Framework Agreement (PFA), all Gavi funds received by government entities are subject to programme audit. This applies equally in instances where partner agencies sub-contract Gavi-funded activities to government institutions.

During this audit, financial information for sampled States—Bayelsa, Gombe, Kano and Lagos—was required to support testing of HACT-related expenditures. UNICEF did not provide disbursement records or financial reports for any of these States and advised the audit team to obtain the information directly from State authorities. The audit team was able to obtain sufficient documentation from Bayelsa, Gombe and Lagos to support sample testing; however, limited financial information was available from Kano, which constrained the scope of audit procedures that could be performed for that State.

2.5 Exchange rate

Most in-country expenditures were incurred using the Nigerian Naira (NGN). For information purposes and as part of the summary of this report, overall total amounts were reflected in United States Dollars (USD). For the expenditures reviewed, the rate applied was based on the average Central bank of Nigeria rate (for the audit period 2021 to 2024)[4] of 1 USD for NGN 737.

[4] Central bank of Nigeria

3. Background

3.1 Introduction

Nigeria, officially the Federal Republic of Nigeria, is a country in West Africa. It is situated between the Sahel to the north and the Gulf of Guinea in the Atlantic Ocean to the south. It covers an area of 923,769 square kilometres (356,669 sq. mi). With a population of more than 230 million, it is the most populous country in Africa, and the world's sixth-most populous country. Nigeria borders Niger in the north, Chad in the northeast, Cameroon in the east, and Benin in the west[5].

Administrative divisions

Nigeria is a federal republic comprising 36 states and the Federal Capital Territory, where its capital, Abuja, is located. The states are further sub-divided into 774 local government areas (LGAs) and over 8,800 wards. In some contexts, the states are aggregated into six geopolitical zones: North-West, North-East, North-Central, South-West, South-East, and South-South[6].

Economy and demographics

Nigeria is among the largest economies in Africa, with a gross domestic product (GDP) of approximately USD 363 billion in 2023, but over 40 percent of the population lives in poverty. Economic growth over the past decade has not maintained pace with population growth: GDP per capita in 2024 was USD 806.9, lower than USD 2,202 recorded in 2010.[7]

3.2 National health sector

The National Health System, as defined in the National Health Act, 2014 comprises: The Federal Ministry of Health and Social Welfare (FMoHSW); State Ministries of Health and the Federal Capital Territory Health Services & Environment Secretariat (HSES); Parastatals under the Federal and State Ministries of Health; all local government health authorities; ward health committees; village health committees; private health care providers; traditional health care providers; and alternative healthcare providers[8].

Health care provision is the concurrent responsibility of the three tiers of the Government. The Federal Government is responsible for tertiary health care and formulation of health policies through the Federal Ministry of Health (FMoH). This level also provides specialised services through the teaching hospitals, federal medical centres, specialist hospitals and medical research Institutes. The State governments provide largely secondary health care through the state general hospitals and occasionally tertiary care through the State-owned teaching hospitals; they also coordinate Primary Health care (PHC) implementation at the Local Government Area (LGA) level through the State Primary Health Care Development Agency (SPHCDA). The State governments adapt national policies and strategies, and lead implementation of health strategies and priority activities, at the operational level. The Local Government Areas (LGAs) manage the ward health committees, village health committees, private health care providers, and traditional and alternative health care providers that enhance service delivery and community mobilisation.

Nigeria's health sector faces significant challenges, with life expectancy at birth at 63.4 years as of 2021,[9]under-five mortality rate at 104.9 deaths per 1,000 live births as of 2023[10] and maternal mortality ratio

[5] World factbook
[6] Geopolitical Zones, Wards and Pulling Units in Nigeria
[7] World Bank: Nigeria GDP per capita
[8] National Health Act
[9] WHO: Nigeria health data overview
[10] UNICEF: Nigeria health data overview

of 993 per 100,000 live births[11]. As of 2024, Nigeria also has an estimated 2.1 million zero-dose children, the highest number globally. This figure has decreased from 3 million in 2020[12].

3.3 Immunisation in Nigeria

The legal framework for vaccination and immunisation services in Nigeria is primarily based on the National Health Act of 2014, which serves as the foundation for public health policy, including immunisation. Additionally, the Child Rights Act (2003) guarantees children's rights to health services, including immunisation[13].

At the federal level, the Federal Ministry of Health (FMoH) provides overarching policy guidance and regulatory oversight for the country's health sector, including immunisation services. The National Primary Health Care Development Agency (NPHCDA) Act (1992) established the NPHCDA, a parastatal of the FMoH, which plays a crucial role in planning and coordinating immunisation services at both the national and local levels. The NPHCDA merged with the National Programme on Immunisation (NPI) in 2007[14]. The National Agency for Food and Drug Administration and Control (NAFDAC) is responsible for regulating vaccine quality[15], while the Nigeria Centres for Disease Control and Prevention (NCDC) mandate covers disease surveillance, including Vaccine Preventable Diseases (VPDs)[16].

At the state level, State Ministries of Health (SMOH) coordinate the implementation of national immunisation policies within their respective states. This includes overseeing the distribution of vaccines to Local Government Areas (LGAs) and primary health care facilities, conducting state-level immunisation campaigns, monitoring vaccine distribution, and ensuring supervision of local health facilities to meet national immunisation targets.

LGAs act as intermediaries between the state health authorities and the community. They are responsible for the direct delivery of immunisation services at the grassroots level, which includes organizing immunisation sessions, conducting community outreach, ensuring that vaccines reach underserved populations, and handling data collection, reporting, and monitoring immunisation coverage.

The national immunisation schedule includes vaccines against Tuberculosis, Hepatitis B, Polio, Diphtheria, Pertussis, Meningitis, Tetanus (Td), Pneumonia, Rotavirus-related diarrhoea, Yellow Fever, Measles and Cervical cancer. See immunisation schedule on Annex 5.

Most immunisation services in Nigeria are delivered at public primary health care facilities, including health posts and community outreach clinics in rural or underserved areas. These services are typically free of charge, as they are funded by the government and international partners.

3.4 Immunisation supply chain structure

The national immunisation supply chain currently operates on a five-tier system, which includes the national, zonal, state, LGA, and Primary Health Care (PHC) levels, as illustrated in Annex 6. The National Primary Health Care Development Agency (NPHCDA) aims to redesign this system, transitioning from a five-tier to a four-tier supply chain comprising national, state, LGA (for buffer stock only), and PHC levels. Three national hubs are proposed for Lagos, Abuja, and Kano, each strategically positioned to access international flights. The remaining zonal stores located in Bauchi, Delta, and Enugu will continue to function as backup stores.

[11] WHO: Nigeria maternal mortality
[12] 2024 WHO/UNICEF Estimates of National Immunisation Coverage
[13] Child Rights Act, 2003
[14] About NPHCDA
[15] NAFDAC: Vaccines, Biologicals & Medical Devices
[16] About NCDC

However, as of the audit fieldwork in August 2025, the three-hub system had not yet been fully operationalized.

The Department of Logistics and Health Commodities (DL&HC) under NPHCDA oversees the operation of the National Strategic Cold Store (NSCS) in Abuja and the six zonal cold stores located in Bauchi, Delta, Enugu, Lagos, Niger, and Kano states — one store for each of Nigeria's six geopolitical zones. The DL&HC manages key functions including national forecasting, quantification, warehousing, inventory control, and distribution up to the state level. Vaccine procurement and related supplies are handled by the UNICEF Supply Division.

Vaccines are distributed from the central stores to the zonal and state levels quarterly, using a push system based on the pre-set targets for each state. Each of the 37 SPHCDA manages its respective state-level cold stores, while at the LGA level, the Primary Health Care Departments carry out similar functions.

The timing of distribution from states to LGAs ranges from quarterly to monthly, with further distribution from the LGA to the PHCs typically occurring monthly. Under Nigeria's federated system, individual states are responsible for overall vaccine storage, inventory control, and distribution down to the LGAs, with the LGAs managing last-mile distribution to the PHCs.

Technical oversight and guidance cascades across the tiers of the supply chain mirroring the first three levels of the system. This includes the National Logistics Working Group (NLWG), Zonal Logistics Working Groups (ZLWGs) for each of the six zones, and the State Logistics Working Groups (SLWGs) across the 37 states. These groups provide critical support to ensure smooth operations at the national, zonal, and state levels.

The country utilises Open LMIS as its vaccine logistics information system (vLMIS) which has been rolled out up to LGA level. The system is currently deployed in conjunction with manual/physical stock ledgers and tally sheets at all vaccine storage points.

3.5 Immunisation data

Nigeria's use of digital health data management began in 2006 with the introduction of the District Health Information Software (DHIS) for health data reporting. In 2013, a national directive established DHIS as the country's main electronic Health Management Information System (eHMIS), centralizing routine health data reporting. Following this, DHIS2 was rolled out nationwide to facilitate aggregate data reporting across various health programs, including routine immunisation (RI).

Data flows into DHIS2 from paper-based records collected at health facilities and uploaded at the Local Government Area (LGA) level via internet-enabled devices monthly.

In 2017, the National Primary Health Care Development Agency (NPHCDA) enhanced data collection and analysis by deploying an SMS-based reporting platform, which was later integrated with DHIS2. This platform, operational in 18 states, allows for real-time immunisation data collection with features such as simplicity, offline functionality, and real-time visibility.

With the COVID-19 pandemic, Nigeria launched the Electronic Management of immunisation Data (EMID) for COVID-19 vaccination tracking. EMID was piloted for RI data collection in two states, aiming to improve data quality and bridge administrative gaps but this initiative was later abandoned.

3.6 Gavi's relationship with Nigeria

Nigeria is classified by Gavi as a 'high impact' country[17], and since 2002, the country has received both vaccine and cash support from Gavi through the Federal Ministry of Health. In 2014, a Partnership Framework

[17] High-impact countries are large, federated countries with extremely high birth cohorts. Gavi considers high impact countries as critical to reaching the ambitious goals it has set for the strategic period 2021–2025, due to the large share of zero dose children in these countries

Agreement was signed between Gavi and the Federal Republic of Nigeria, formalising a structured framework for managing Gavi's support to the country.

Nigeria was initially scheduled to transition out of Gavi support by 2021. However, in 2017, the Gavi Board recognised that due to low coverage rates, poor health outcomes, a constrained macroeconomic environment, and multiple disease outbreaks, including Yellow Fever, Meningitis, and Cholera, Nigeria was unlikely to achieve a successful transition by the 2021 deadline. In response, the Board instructed the Gavi Secretariat to engage with the country and Alliance partners to develop a transition plan. As a result, the National Strategy for Immunisation and Primary Health Care System Strengthening (NSIPSS 2018-2028) was developed and approved.

Following the Gavi Board's approval of NSIPSS in 2018, Gavi has made substantial investments in vaccines, equipment, and cash support to Nigeria. During the audit period (2021–2024), Gavi disbursed more than USD 1.35 billion in assistance.

As Nigeria faces deepening fiscal constraints, including significant Naira depreciation and a projected decline in GDP per capita, Gavi has now approved a shift from the bespoke support strategy to the standard Eligibility, Transition and Co-Financing (ELTRACO) framework. Under this framework, Nigeria will move into preparatory transition in January 2026.

3.7 Entities involved in executing and managing Gavi funds

The management of Gavi's funds in Nigeria is primarily handled by Alliance Partners (UNICEF and WHO) along with expanded partners. Gavi has formalised agreements with each of these partners to oversee programme implementation. Each partner is responsible for developing the budget for each project/grant, in coordination with Gavi, the National Primary Health Care Development Agency (NPHCDA), and other relevant stakeholders.

Between 2019 and 2023, a plan was implemented to gradually transition a portion of the funds back to government systems, starting at the federal level. This transition was contingent upon meeting preconditions identified in the Programme Capacity Assessment (PCA) and eventually the Grant Management Requirements (GMRs). The partial return of funds to NPHCDA occurred in December 2023.

3.8 Progress on previously identified audit issues

Gavi conducted an audit in 2021 that assessed the Federal Ministry of Health's management of Gavi support during the three-year period 2018-2020. The overall audit rating was "Ineffective" which means, "*multiple significant and/or material issue(s) were noted. Internal controls, governance and risk management processes are not adequately designed and are not generally effective. The nature of these issues is such that the achievement of objectives is seriously compromised*". The audit identified high-risk areas, including vaccine and supply chain management, data management, and cold chain equipment monitoring. To mitigate these risks, the audit team issued 23 recommendations, with 10 rated as high priority, requiring immediate remedial action. Our review indicates that management has made some progress addressing the recommendations with 11 completed and 12 either ongoing or unresolved. The unresolved issues have been incorporated into the findings of the current report. See Annex 11.

3.9 Good Practices

The audit team noted the following good practices while executing the audit:

a) ***Launch of the National Health Sector Renewal Initiative (NHSRII) and Sector Wide Approach (SWAp):*** In December 2023, the Nigerian government launched the National Health Sector Renewal Investment Initiative (NHSRII), a comprehensive, government-led programme aimed at transforming the country's healthcare system. The NHSRII is operationalised through a Sector-Wide Approach (SWAp), which unites the federal and state governments, development partners, and citizens under a single, cohesive

framework for health sector reform. The SWAp ensures that all stakeholders align under a unified national health plan, budget, and reporting framework, fostering coherence and reducing duplication of efforts.
A formal compact was signed by the federal and state governments, along with most development partners, outlining the roles and responsibilities of all key stakeholders within the SWAp framework. The SWAp Steering Committee/Ministerial Oversight Committee, chaired by the Hon. Coordinating Minister of Health and Social Welfare, actively oversees the initiative, meeting quarterly to review performance across the health sector. Additionally, the National Primary Health Care Development Agency (NPHCDA) has developed a strategic blueprint for 2024-2026, which is fully aligned with both the NHSRII and the SWAp framework.

b) ***Launch of the Nigeria Digital in Health Initiative (NDHI):*** In 2024, the Nigerian government launched the Nigeria Digital in Health Initiative (NDHI), marking a significant step in the country's digital health transformation. The initiative aims to create a unified, interoperable digital health architecture, known as the Nigeria Digital Health Architecture (NDHA). This architecture includes essential components such as health registries, a Health Information Exchange (HIE), and a Shared Health Record. These systems are designed to improve data access and quality, enable seamless service delivery, and support innovations such as AI-driven tools and personal health applications.
In the short term, the NDHI seeks to establish technical standards and pilot digital integration, while in the long term, it aims to transform Nigeria's health system into a scalable, patient-centric, and data-driven ecosystem.
The NDHI has been endorsed at the highest levels, with approval from the National Council of Health, lending the initiative legitimacy and national ownership. The programme is governed by a 20-member committee, chaired by the Minister of State for Health, ensuring broad stakeholder representation and multi-sectoral engagement.

c) ***Improved approaches to health data access and reporting***: The Department of Health Planning, Research and Statistics (DHPRS) at the Federal Ministry of Health (FMoH) developed a website to consolidate all web links to health platforms and dashboards into a single, unified web-based platform. This initiative aims to enhance the visibility and accessibility of health data, making it easier for stakeholders to access essential health information and reports.
Additionally, the National Primary Health Care Development Agency (NPHCDA) deployed an SMS-based reporting platform in 2017, which was later integrated with the DHIS2 system. Now operational in 18 states, this platform enables real-time immunisation data collection and offers features such as simplicity, real-time visibility, and offline functionality.

d) ***Data driven approaches to identifying zero-dose children***: In 2022, the National Primary Health Care Development Agency (NPHCDA) partnered with the University of Southampton to introduce a localised methodology for estimating zero-dose children at the sub-national level. This approach triangulates data from multiple sources, including census figures, GRID3 and enumeration data to produce more accurate and granular estimates. Using this methodology, an estimated 2.07 million zero-dose children were identified in 2022, and 2.13 million in 2023. In response, the NPHCDA prioritised 100 Local Government Areas (LGAs) across 18 states (representing approximately 50% of Nigeria's zero-dose burden) for targeted interventions under the Zero-Dose Reduction Operational Plan (Z-DROP).

e) ***Integration of vaccination campaigns***: Nigeria has adopted an integrated approach to vaccination campaigns, aligning with WHO recommendations under the Immunisation Agenda 2030 (IA2030). Rather than conducting separate, disease-specific campaigns, the country has increasingly implemented joint vaccination exercises that combine interventions such as Measles, Polio and Yellow Fever. This integrated approach helps to maximise resource use, reduce operational duplication, strengthen coordination between disease control programmes and contributes to more efficient planning, logistics, and data collection.

f) ***Improvement in Effective Vaccine Management Assessment (EVMA) scores***: Nigeria conducted its most recent Effective Vaccine Management (EVM) assessment in December 2021, which showed continued

improvement compared with previous rounds. The overall country composite score increased to 78% in 2021, up from 52% in 2010, 67% in 2014, and 69% in 2017, reflecting steady progress in vaccine management capacity over the past decade.

g) ***Comprehensive Standard Operating Procedures (SOPs) to support effective vaccine management***: Nigeria has developed a comprehensive set of Standard Operating Procedures (SOPs) to guide and standardise all aspects of vaccine management across the supply chain. These SOPs cover critical functions such as forecasting, procurement, storage, distribution, temperature monitoring, and waste management, ensuring consistency and adherence to global best practices. Consequently, the audit noted adequate cold chain management practices at the National Strategic Cold Store (NSCS) with routine temperatures monitoring, preventive maintenance and power backup systems.

h) ***Progress on use of country systems***: After nearly nine years without direct funding, NPHCDA took decisive steps to strengthen financial management systems, ensuring that all Grant Management Requirements (GMRs) and pre-disbursement conditions were met, enabling Gavi to resume direct funding in December 2023.

Findings

4.1 Governance and Oversight

4.1.1 Immunisation governance and oversight bodies need to be integrated within the SWAp framework

Context and Criteria

NPHCDA has historically maintained several governance forums to oversee immunisation activities, including the Inter Agency Coordinating Committee (ICC), the Core Group, and five technical working groups (TWGs), namely the Routine Immunisation Working Group (RIWG), National Logistics Working Group (NLWG), Advocacy, Communication and Social Mobilisation (ACSM), Monitoring and Evaluation (M&E), and Training.

At the subnational level, State and Local Government Routine Immunisation Working Groups are tasked with coordinating immunisation efforts in their respective areas.

In December 2023, the Nigeria Health Sector Renewal Investment Initiative (NHSRII) was launched as a comprehensive, government-led programme designed to transform Nigeria's healthcare system. A key component of this initiative is the Sector-Wide Approach (SWAp), which unites federal and state governments, development partners, and citizens under a unified framework for health sector reform. NHSRII introduces three major reforms:
a) Harmonising accountability systems through a SWAp code of conduct with "One Plan, One Budget, One Report, One Conversation," aligning all stakeholders around a single national health plan, budget, and reporting framework.
b) Pooling and coordinating resources via government-led financial processes.
c) Focusing on 13 national priorities. One of the NHSRII's priorities is to accelerate immunisation and enhance coverage for priority antigens, including DPT3, Polio, Measles, and Yellow Fever.

SWAp is currently governed by the Ministerial Oversight Committee (MoC) for Basic Health Care Provision Fund (BHCPF) and seven TWGs, including Human Resources for Health TWG, Monitoring & Evaluation (M&E) TWG, State Advisory Group, Resource Coordination TWG, RMNCAH+N TWG, Financing for Vulnerable Populations TWG and ATM (AIDS, Tuberculosis, Malaria) TWG. The RMNCAH+N TWG provides technical expertise for the coordination of reproductive, maternal, newborn, child, adolescent health, and nutrition programs and is meant to oversee immunisation.

At the state level, the State Steering Committee for the Basic Health Care Provision Fund (BHCPF) provides oversight for SWAp activities.

Section 2.1.1 of the revised (2025) guideline for the administration, disbursement and monitoring of BHCPF states that, "...*the Ministerial Oversight Committee (MOC) shall serve as the central platform for oversight and governance of all priority programmes of the NHSRII (both government and donor-funded), inclusive of the SWAp Coordinating Office and the BHCPF*."

Section 2.2.1 of the revised (2025) guideline for the administration, disbursement and monitoring of BHCP states that, "*The State Oversight Committee (SOC) shall reflect the principles of the MOC at the state level. Based on the SWAP approach, the SOC will serve as a platform for oversight, coordination and governance of all priority health programmes and initiatives in the state, inclusive of SWAp implementation and the BHCP*F".

<table>
<tr>
<td>Condition
The audit noted that immunisation governance bodies are not yet fully aligned to the SWAp framework, and the transition from legacy structures to the new sector-wide architecture remains incomplete.
At the federal level, the ICC, Core Group and national TWGs continue to operate largely under pre-SWAp arrangements. None of these forums had updated terms of reference to reflect the NHSRII reforms, nor was there evidence of revised reporting lines linking them to the Ministerial Oversight Committee (MoC).
Similarly, the RMNCAH+N TWG, under the SWAp is expected to provide technical leadership over immunisation but had not formally incorporated immunisation oversight within its workplan or agenda at the time of the audit. As a result, immunisation issues may not be systematically escalated to the MoC for coordinated review.

At sub-national level, in 3 of the 4 states visited, the State Oversight Committee (SOC), which is intended to mirror the MoC at state level, was either not functional, or had no documented role in immunisation oversight. The State Routine Immunisation Working Groups (SRIWGs) therefore continued to operate in parallel, but without clear linkage to the SOCs or alignment with the broader SWAp accountability processes.

Furthermore, no formal guidance has been issued at national level or to states on how existing routine immunisation governance mechanisms should transition into or interact with SWAp structures. Stakeholders interviewed at national and state levels indicated uncertainty regarding the roles of legacy bodies and expected reporting pathways.</td>
<td colspan="2">Recommendation 1

To accelerate integration of immunisation oversight bodies into the SWAp framework, NPHCDA should:
• Institutionalise the MoC and SOC as the primary oversight bodies for immunisation activities at the federal and state levels, ensuring they have clear mandates to coordinate and oversee all immunisation activities under the SWAp framework.
• Clarify the governance interface between existing immunisation structures (ICC, Core Group, TWGs) and the new SWAp governance bodies, ensuring they work in a coordinated manner to drive the immunisation agenda.
• Formalise communication on governance arrangements to ensure that all stakeholders are informed of the new SWAp governance arrangements and their roles within this structure, fostering better coordination and oversight.</td>
</tr>
<tr>
<td>Root Cause
• The introduction of the SWAp in December 2023 and its new coordination arrangements has not yet been accompanied by a comprehensive review of existing immunisation governance structures to define their continued relevance or integration. This has created uncertainty about how legacy committees relate to SWAp oversight bodies such as the Ministerial Oversight Committee (MoC) and the State Oversight Committees (SOC).
• The updated BHCPF guidelines, which clarify the governance arrangements for SWAp, were only finalised in October 2025 and have yet to be rolled out for full implementation.
• There has been no formal communication regarding the operation or integration of existing governance and oversight bodies with the new SWAp structures, leaving gaps in understanding and alignment.</td>
<td colspan="2">Management comments

See detailed management responses on Annex 12</td>
</tr>
<tr>
<td>Risk / Impact / Implications
• The lack of formal integration may result in inadequate oversight of Gavi-funded activities, limiting the accountability and effectiveness of immunisation investments.
• Without harmonisation and formal embedding within the SWAp framework, the ICC and Core Group risk becoming unsustainable once Gavi grant support reduces or ceases.</td>
<td>Responsibility

NPHCDA</td>
<td>Deadline / Timetable

See Annex 12</td>
</tr>
</table>

4.1.2 Immunisation governance structures at federal and state levels need to be strengthened

Context and Criteria

NPHCDA has historically maintained several governance forums to oversee immunisation activities, including the Inter-Agency Coordinating Committee (ICC), the Core Group, and five technical working groups (TWGs): the Routine Immunisation Working Group (RIWG), National Logistics Working Group (NLWG), Advocacy, Communication and Social Mobilisation (ACSM), Monitoring and Evaluation (M&E), and Training.

Section 1.1 (Roles and Responsibilities) of the ICC Terms of Reference (TOR) states that "*It therefore has the main mandate to coordinate decision-making and information sharing around **all** immunisation activities/programmes undertaken by the Federal Government of Nigeria. This responsibility extends to coordinating partners' activities at sub-national level, at states and LGAs*."

Section 1.5 (Convening of Meetings) of the ICC TORs states that "*The ICC shall meet at least once on a quarterly basis*..."

Section 2 (Committees) of the ICC TORs states that "*The ICC would retain the Financial Committee as its only Committee. The Finance Committee will report to the ICC at each meeting*."

Section 3.3 (Methods of Working of the Core Group) of the ICC TORs notes that "*The Core Group will meet fortnightly and will hold further meetings during the week as deemed necessary by the participants. Decisions of the Core Group will be minuted within 48 hours of the meeting*."

Section 1.3 (Method of Working) of the Core Group TORs states that "*The Core Group will meet monthly. Emergency Core Group meetings can also be convened at the instance of the Chairman, as the need would arise*."

The Vaccine Financing and Accountability Task Team (VFATT) was formed in 2018 to work closely with the World Bank team to develop and ensure an efficient, transparent, and sustainable vaccine financing plan for the country.

At the subnational level, State and Local Government Routine Immunisation Working Groups (SRIWGs and LRIWGs) coordinate immunisation efforts in their respective jurisdictions. The task teams meet monthly to review progress, assess financial commitments, track fund utilisation, triangulate vaccine funds and in-country stock data, and develop strategies to address challenges in vaccine financing.

Condition

Immunisation governance structures are not fulfilling their broad mandate and are predominantly focused on Gavi-related matters: Although the ICC and Core Group TORs set out a comprehensive mandate to coordinate all immunisation activities, meeting minutes show that discussions largely centred on Gavi grant applications, disbursement conditions, and related reporting. Broader oversight such as national performance reviews or cross-programme decision-making was limited.

Governance forums are not meeting as prescribed by their terms of reference (TORs): The audit team's review of available meeting minutes revealed that only 63 percent of ICC and 15 percent of Core Group meetings were convened during the audit period. Several TWGs (ACSM, M&E, and Training) showed no evidence of activity at all.

Recommendation 2

To strengthen immunisation governance bodies, NPHCDA should:

- Undertake a comprehensive review of the TORs for the ICC, Core Group, and all TWGs to ensure consistency, and align mandates with current national priorities and the emerging SWAp governance architecture. The review should also establish clear reporting relationships between national, state, and LGA-level structures.

Inter-linkages of governance structures at federal level are not clear: NPHCDA has constituted additional TWGs such as the Vaccine Financing and Accountability Task Team (VFATT), Non-Polio SIA TWG, and AEFI TWG. While their mandates relate closely to those of the ICC and Core Group, reporting lines and coordination mechanisms are undefined. At the same time, the TORs of the ICC, Core Group, and TWGs are inconsistent. For instance: • The ICC TORs specify a standing Finance Committee expected to report at each meeting, no such reports were observed in the audit period 2021 to 2024. • Guidance within the ICC TORs on meeting frequency and documentation differs from that in standalone TORs for the Core Group and TWGs. • There is no evidence of formal linkage between national and state-level TWGs (e.g., between the NLWG and SLWGs). ***Improvements required in subnational governance structures***: The audit noted that for the four sampled states visited, there was no evidence of an operational connection between RIWG and the respective SRIWGs. Meeting attendance records also revealed limited engagement between SRIWGs and LRIWGs, with some LGA meetings held without participation from state-level members. Partner attendance was also low e.g., in Gombe some partners attended fewer than 10 percent of 23 meetings reviewed.	• Develop and institutionalise a formal communication and reporting framework between national and subnational governance bodies (e.g., NRIWG–SRIWG–LRIWG linkages) to facilitate systematic flow of decisions, performance data, and feedback. This should include structured joint reviews of Annual Operational Plans and immunisation performance • Establish mandatory operational standards for all governance forums (including minimum meeting frequency, quorum requirements, agenda-setting protocols, documentation standards and action-tracking procedures) and formally incorporate these into the TORs. NPHCDA should put in place mechanisms to enforce compliance with these standards, including routine performance reviews, escalation procedures where forums do not meet minimum requirements, and periodic reporting to senior management. Technical Working Groups that remain inactive despite these measures should be reconstituted or merged to avoid duplication.
Root Cause • The Terms of Reference (TORs) for key governance structures (including the ICC, Core Group, and several TWGs) have not been reviewed since their inception between 2012 and 2016. As a result, they do not reflect the current immunisation governance landscape, recent programme reforms (e.g., SWAp and NHSRII), or the creation of newer structures such as VFATT (2017) and the AEFI TWG (2025). • There are no enforcements of the formal mechanisms (through TORs) defining how the ICC, Core Group, and TWGs should interact with state-level structures. Communication remains ad hoc, which has weakened reporting, information flow, and accountability between levels of governance. • Meeting schedules, attendance requirements, and reporting obligations outlined in the TORs are not systematically monitored or enforced. Meeting invitations are sometimes sent at very short notice (less than 24 hours in some LGAs), and follow-up on agreed action points is rarely tracked.	Management comments See detailed management responses on Annex 12
Risk / Impact / Implications Without harmonisation of the various governance structures, the approach to managing all aspects in immunisation may remain siloed and could lead to duplication of effort, communication gaps, inefficient use and allocation of resources and conflicting priorities.	Responsibility NPHCDA Deadline / Timetable See Annex 12

4.2 Programme Implementation arrangements

4.2.1 Weak routine immunisation delivery systems limit coverage and leave many children unprotected

Context and Criteria

Routine immunisation (RI) delivery in Nigeria is guided by microplanning processes designed to ensure that immunisation services are tailored to local needs. Microplanning follows a bottom-up approach, using local data to define targets, map settlements to service delivery strategies (fixed, outreach, or mobile), and allocate resources such as personnel, vaccines, cold chain equipment and budgets.

Under the Reaching Every Ward (REW) strategy, microplans are expected to be developed through facility and LGA walkthroughs, with participation from community structures. These microplans should be reviewed biannually by health workers at facility and LGA level, in collaboration with community leaders, to update target populations and session plans (*NPHCDA Microplanning Guide*).

Nigeria adopts three RI service delivery models:

- Fixed sessions for communities within 0–2 km of health facilities;
- Outreach sessions for communities 2–5 km away; and
- Mobile sessions for communities more than 5 km away

Primary health-care facilities are expected to conduct 4–12 fixed sessions per month, at least 4 outreach sessions monthly, and mobile sessions as required.

Nigeria currently accounts for over 2.1 million zero-dose children and 3.1 million children with no measles vaccine[18]. To address persistent immunity gaps, NPHCDA has introduced two major strategies aligned with IA2030 and Gavi 5.0:

- the Zero Dose Reduction Plan (Z-DROP); and
- the Identify, Enumerate and Vaccinate (IEV) strategy.

[18] 2024 WHO/UNICEF Estimates of National Immunisation Coverage

Condition

Gaps in microplanning quality and implementation: Microplans are being developed across states; however, their use in guiding implementation is inconsistent:

- 2 of 4 states sampled did not present evidence of tracking implementation progress against microplan activities.
- Workplans were not linked to statistical targets in the microplan templates, weakening the ability to measure performance against planned outputs.
- 2 of 4 states provided no evidence of community leader engagement during microplanning; engagement was primarily observed during campaigns rather than routine immunisation.
- There was no evidence of completion of 13% (2023) and 12% (2024) of planned activities at the health facility level, indicating weak follow-through and limited monitoring.

Insufficient and delayed funding undermines session implementation: The Nigerian constitution mandates that states and Local Government Areas (LGAs) are responsible for managing primary healthcare services including immunisation. Accordingly, states are expected to allocate a significant portion of their health budgets to primary healthcare (PHC). However, this was not consistently observed across the states visited with health facilities reporting insufficient funding to conduct outreaches. Additionally, while the Basic Health Care Provision Fund (BHCPF) provides direct facility financing for routine immunisation, in 3 of 4 states, BHCPF disbursements were received only in the second half of the year, limiting timely execution of planned sessions. This contributed to 11% of fixed sessions and 23% of outreach sessions not being conducted in 2023, and 9% of fixed sessions and 22% of outreach sessions not conducted in 2024 at the 30 health facilities visited by the audit team.

A performance trend analysis conducted by NPHCDA for the conduct of planned fixed and outreach sessions revealed an average performance of 77% and 69%, respectively, between 2019 and 2023. Sub-national disparities in immunisation session performance were also evident, with states like Bayelsa, Gombe, Jigawa, Nasarawa and Yobe conducting over 80% of planned sessions in 2023 while some states including Borno, Kogi, Kaduna, Niger and Plateau conducted fewer than 80% of planned sessions for each quarter of 2023.

Mixed results under the Z-DROP Zero-Dose Strategy: Z-DROP prioritised 2,927 health facilities, 946 wards, and 100 LGAs across 18 states, representing approximately 50% of Nigeria's zero-dose burden. The Programme Assessment for Performance management and Action (PAPA 2.0) coverage survey (Aug–Sep 2024) found that 53% of children in these LGAs remained zero-dose i.e. 446,141 children, a reduction from 841,775 in 2022 but still representing a persistently high burden. Similarly, the IEV initiative carried out in six high-burden northern states (also implementing Z-DROP) in early 2025 found that 48% of 3.49 million enumerated children were zero-dose, indicating limited progress in reducing susceptibility to vaccine-preventable diseases.
Analysis of Z-DROP initiative performance indicates that between July 2024 and March 2025, health facilities in 12 of 18 states (67%) conducted fewer than 50% of planned fixed sessions, and 10 of 18 states (56%) conducted fewer than 50% of planned outreach sessions. Notably, Bauchi State, with the highest number of targeted LGAs (13), wards (164), and health facilities (319), achieved only 23% of planned outreach sessions and 2% of fixed sessions, the lowest execution rate nationally.

Recommendation 3

To improve routine immunisation service delivery, NPHCDA should:

- Expedite rollout of the revised BHCPF guidelines, which will expand funding to more PHCs, and align disbursement timing with session plans to support full execution of fixed and outreach sessions.
- Update microplanning templates to ensure clear linkage between planned activities, targets and outputs, and institutionalise biannual review of microplan implementation by SERRICs and LERRICs.
- Integrate Z-DROP and IEV data into DHIS2 dashboards to monitor enumerated versus vaccinated children and include zero-dose reduction metrics in routine performance reviews at federal, state and LGA levels.

<table>
<tr><td>Root Cause
• BHCPF design limits funding to one functional PHC per ward, leaving other facilities unfunded and unable to conduct planned outreach and mobile sessions.
• Microplanning templates do not enable activity-based planning linked to measurable targets, limiting the usefulness of microplans for implementation monitoring.
• State routine immunisation working groups and LGA RI working groups do not consistently track microplan implementation or session execution and supportive supervision plans were not seen at 3/16 LGAs visited and not adhered to at 9/16 LGAs visited.</td><td colspan="2">Management comments

See detailed management responses on Annex 12</td></tr>
<tr><td>Risk / Impact / Implications
• Routine immunisation targets are not met, reducing overall population immunity.
• Nigeria continues to have the largest number of zero-dose children in Gavi’s portfolio, affecting both national and global progress toward immunisation equity goals.</td><td>Responsibility

NPHCDA</td><td>Deadline / Timetable

See Annex 12</td></tr>
</table>

4.2.2 Design and coordination of technical assistance need to be improved

Context and Criteria

Gavi provides funding to partners through the partner's engagement framework(PEF) to allow them in turn to support countries' immunisation programmes. Support under PEF is divided in three areas including targeted country assistance (TCA), strategic focus areas (SFA) and foundational support (FS). As indicated in section 2.3, TCA funding to Nigeria has mainly been to Alliance Partners (UNICEF and WHO) and Expanded partners.

The PEF TCA guidance (2019–2020) defines the roles and responsibilities of key stakeholders in planning, monitoring, and reporting on technical assistance. These responsibilities are designed to ensure that TCA contributes to measurable, sustainable improvements in national immunisation programme performance.
Under this framework, the NPHCDA is responsible for leading the development of the OneTA Plan, coordinating the identification of TCA needs, assigning implementation responsibilities among core and expanded partners, and convening quarterly meetings to review progress. The guidance emphasises country ownership and mutual accountability, requiring that partners report regularly on programmatic and financial progress, and that NPHCDA validate the accuracy and consistency of reported results.
TCA performance should be reviewed jointly by NPHCDA, implementing partners, and other stakeholders, with clear evidence of:

- Alignment of TCA activities with programme priorities;
- Defined deliverables and performance indicators;
- Capacity transfer and sustainability plans; and
- Verification of results through evidence-based assessments demonstrating improvements in coverage, data quality, supply chain, and financial management

Condition

Limited state-level involvement in TA planning and prioritisation: Although NPHCDA is involved in the design and prioritisation of most PEF-TCA, state-level actors played no role in planning in any of the four sampled states. States typically learn about TA activities only after they have been approved and funded, leading to misalignment between state-level expectations and partner-delivered activities. The TA approach remains largely top-down.

Gaps in TCA performance monitoring: Core partners (UNICEF, WHO, CDC, and the World Bank) include planned activities in annual workplans and report progress bi-annually via the Gavi portal. While these plans are reviewed by both Gavi and NPHCDA, the subsequent portal reporting is not formally reviewed by the government hence there was no country ownership to provide oversight and validate the activities undertaken. Similarly, other TA partners also report via the Gavi portal but lacked formalised reporting mechanisms to NPHCDA during most of the audit period.

While there is meant to be a discussion of PEF-TCA performance as part of the joint appraisal process, a review of the joint appraisal reports for 2021 and 2022 indicates there is no significant tracking of achievement and assessing progress of PEF TCA. This is consistent with findings of the 2024 Nigeria PEF TCA Assessment which have noted that the time allocated for PEF-TCA review during joint appraisals is usually brief and the format does not always lend itself to frank discussions of strengths and areas for improvement. The audit acknowledges the introduction of quarterly review meetings in mid-2024, which represent an important step toward strengthening joint performance monitoring.

No systematic tracking of capacity-building outcomes: Despite capacity strengthening being a stated goal of TCA, there are no baseline capacity assessments, no agreed national or sub-national capacity-building plans, and no documented skills transfer

Recommendation 4

To improve the design, coordination and monitoring of technical assistance and ensure sustainability, NPHCDA should:

- Institutionalise state-level involvement in TA planning by building on the emerging state participation in the FPP process by introducing a sub-national annual prioritisation phase before national TA planning. Gavi-supported interventions should be embedded in State AOPs with a joint monitoring and reporting framework.
- Require all TA engagements to include explicit capacity-building components, clearly defined skills transfer plans and timelines for transitioning TA-supported responsibilities to NPHCDA and state-level staff where technical assistance is intended to strengthen institutional or staff capacity.
- Strengthen the existing quarterly review mechanism (QRM) by requiring all TA partners to present progress

frameworks. As a result, it is not possible to determine whether TA activities are improving institutional capacity or staff competencies. We acknowledge that some TA interventions, such as the Leadership, Management and Coordination (LMC) initiative did apply structured assessments and capacity-building plans. Nonetheless, such approaches were not consistently implemented across partners or states. ***Gaps in coordination and visibility of TA at sub-national level***: While the National Routine Immunisation Working Group (NRIWG) plays a key role in coordination between partners at the national level and the recently instituted quarterly review mechanism supports performance review of Gavi TA partners, there are gaps in coordination at the state and LGA levels. • Mapping of TA providers has not been fully scaled to LGAs, wards or settlements in 3 of 4 states and 12 of 16 LGAs assessed, consequently, the audit noted overlaps between partners delivering similar interventions in the same LGAs. See Annex 9a • Joint annual reviews occur at national level but not at state level, reducing opportunities for sub-national performance assessment. The 2022 Programme Audit identified weaknesses in TCA design, coordination, government ownership and performance monitoring. While the audit acknowledges improvements made since then (notably greater NPHCDA participation and the establishment of quarterly review meetings) several underlying challenges persist. These include incomplete government validation of partner-reported milestones, limited visibility of sub-national TA activities, and the absence of a structured national framework to guide skills transfer and capacity strengthening.	against agreed milestones to NPHCDA during these sessions. NPHCDA should consolidate these inputs into a national TA performance dashboard, which will serve as the formal basis for government validation of TA progress prior to Gavi's review and payment processes. • Work with the SWAp Secretariat to build on the ongoing national TA assessment and develop a harmonised, government-led TA mapping process. This should progressively extend to state level, clarifying partner roles, expected contributions and areas of support, and strengthening partner participation in existing coordination platforms such as State RIWGs and LGA RIWGs.
Root Cause • There is no defined roadmap for transferring responsibilities currently managed by partners to government staff, resulting in prolonged dependence on external TA. • Partners currently rely on the generic Gavi portal to report on implementation progress, but this system has several limitations, particularly concerning the quality and relevance of milestone data. The current approach to measuring results tends to focus either on activities, short-term outputs, and planning processes, or on end outcomes such as coverage, with limited emphasis on intermediate results and the actual impact of TA. • Inadequate visibility by NPHCDA on the implementation progress with no formalised process to validate the achievement of PEF TCA milestones. There was no evidence of review, monitoring and validation of TCA activity milestones and deliverables by NPHCDA. Reports on TCA activity milestones and deliverables were not shared with and/or reviewed by the NPHCDA before reporting in the Gavi portal. • Sub-national actors are excluded from grant-making and TA prioritisation processes, contributing to misalignment between national planning and state-level needs	Management comments See detailed management responses on Annex 12
Risk / Impact / Implications • TA inputs may not translate into sustainable improvements in programme performance, as capacity-building outcomes are neither planned nor tracked. • Without stronger government ownership and systematic oversight, TA activities risk being partner-driven rather than aligned with state and national priorities. Also the lack of clarity on roles and deliverables limits accountability, increases the risk of unverified results, and weakens Nigeria's readiness to transition from partner-heavy TA to country-owned systems. • Overlaps and fragmented deployment of TA at sub-national level reduce efficiency and dilute impact.	Responsibility NPHCDA Deadline / Timetable See Annex 12

4.2.3 Strengthen coordination, reporting and system functionality to improve VPD surveillance performance

Context and Criteria

Nigeria's disease surveillance system operates under the Integrated Disease Surveillance and Response (IDSR) framework, which gathers and analyses data on priority diseases nationwide to detect outbreaks and guide public health action. It ensures timely information flow from the local to national level. Disease surveillance is coordinated by Nigeria Centre for Disease Control and Prevention (NCDC).

The system monitors epidemic-prone and eradication-targeted diseases such as poliomyelitis (through acute flaccid paralysis surveillance), measles, and diphtheria. Polio surveillance uses both case detection and environmental sampling of wastewater. Health facilities must immediately report any child under 15 with sudden flaccid paralysis to Local Government Disease Surveillance and Notification Officers (DSNOs) for investigation.

Surveillance for other vaccine-preventable diseases builds on the same infrastructure, requiring immediate reporting and investigation by health facilities and DSNOs, with data passed from LGAs to state and federal health authorities for analysis and response. The system combines passive and active surveillance, applies standard case definitions, and ensures case-based investigation and laboratory confirmation. For suspected measles, a blood sample is collected for IgM testing, while samples for diphtheria are taken from oropharyngeal and nasal swabs.

Nigeria's surveillance capacity has been strengthened through the adoption of the Surveillance, Outbreak, Response Management and Analysis System (SORMAS), an open-source digital platform that supports real-time integration of laboratory data, contact tracing, and epidemiological surveillance. SORMAS serves as the principal digital tool for implementing the IDSR framework by facilitating comprehensive management of case and outbreak data. The system was envisaged to improve data quality and responsiveness of public health actions.

According to Section 2.2.2.3 of the National Guidelines for Measles and Rubella Surveillance, the DSNO at the LGA level is responsible for organising the transport of specimens from health facilities or communities to the designated laboratory. At the state level, the State DSNO, under the supervision of the State Epidemiologist, must ensure that specimens are transported to the designated laboratory within 24 hours.

Similarly, section 2.2.3.3 requires the LGA DSNO to analyse disease patterns and trends, interpret findings, and prepare routine surveillance reports. Relatedly, Section 2.2.3.4 assigns the State DSNO the duty of analysing disease and immunisation data jointly to produce reports on measles and rubella surveillance performance. This includes monitoring standard indicators such as timeliness of reporting from health facilities to LGAs, promptness of case investigations, timely delivery of specimens to laboratories, and turnaround time for serology results. The State DSNO is also responsible for ensuring timely data transmission to the national level and providing feedback to LGAs.

Condition	Recommendation 5
SORMAS was not accessible by State DSNOs*:** Despite nationwide rollout, three of four State DSNOs visited could not access SORMAS at the time of the audit. Without access to the principal digital surveillance tool, State DSNOs could not reliably monitor case notifications, follow up investigations, verify VPD events or coordinate response actions. This undermines the expected real-time flow of data from LGAs to state level and onward to NCDC. ***Limited engagement of private sector providers in VPD surveillance: The audit team, through consultations with stakeholders at both State and LGA levels, noted a lack of substantial evidence demonstrating the active engagement of the private sector in VPD surveillance activities nationwide. This limited involvement represents a missed opportunity for comprehensive detection of suspected VPD cases, particularly as recent data suggest that about 52 percent of Nigerians obtain healthcare services from private providers, a significant segment of the health system[19]. For example, in Nassarawa LGA, only one private hospital reported surveillance data. Similarly, in Kumbutso LGA, over 50 private health facilities were not involved in disease surveillance activities. ***VPD surveillance indicators are not being monitored at State or LGA levels:*** There was no evidence that State or LGA DSNOs were reviewing or documenting performance against required surveillance indicators, contrary to Sections 2.2.3.3 and 2.2.3.4 of the National Guidelines Guidelines for Measles and Rubella Surveillance. This represents a gap in performance management, data validation, and timely detection of deviations that require corrective action. ***Delays and non-return of laboratory results*** - A review of Immediate/Case-Based Surveillance Reporting (IDSR001A) forms at health facilities found extensive delays in measles result return. Among 12 randomly selected specimens: only one had a result documented; the turnaround time was 55 days; and for others, delays ranged from 36–329 days as of 3 October 2025. For diphtheria, records could not be analysed due to major anomalies in the tracking database, including missing fields, text entered where dates were required, and implausible dates such as 2026–2029. Several suspected cases dating back to 2023 still showed "pending" results.	To improve the VPD surveillance system in the Country, FMoH in collaboration with NCDC, NPHCDA, State PHCDA and partners should. • Grant access to the SORMAS system to all relevant stakeholders, including State DSNOs, within the VPD surveillance data collection and reporting structure to enhance coordination, data sharing, and real-time response capabilities. • Improve private sector engagement in disease surveillance by enhancing awareness of surveillance regulations and reporting requirements through targeted training programs, provision of necessary surveillance tools and data collection forms, incentivising participation and strengthening legal and policy frameworks to encourage compliance. • Establish a structured and inclusive communication system that actively involves State DSNOs in the specimen testing and results follow-up process. This should include ensuring that specimens collected at the LGA level, with support from health facilities, are tracked through laboratories with updates provided to both LGA and state levels.
Root Cause	Management comments
• Limited access to SORMAS can be attributed to several factors. Rapid scale-up led to many first-time users lacking sufficient technical training, which slowed adoption and resulted in inconsistent use. Operationally, insufficient deployment of support staff and administrative challenges have restricted expansion and routine use in some areas. Additionally, infrastructure gaps notably poor internet connectivity hinder real-time reporting, with offline data upload posing a bottleneck for some field officers.	See detailed management responses on Annex 12

[19] Harnessing the private sector to revitalize primary health care in Nigeria

<table>
<tr><td colspan="2">

- Limited engagement of the private sector in disease surveillance is attributed to limited awareness of surveillance regulations and reporting requirements among private health providers, inadequate training on surveillance tools and processes, lack of access to necessary data collection forms, and insufficient assignment of personnel dedicated to health records management in private facilities.

- The audit team noted that states are often excluded from the laboratory results feedback loop. Typically, when specimens are collected by the LGA DSNO with support from health facilities, these specimens are sent directly to testing laboratories without significant involvement from the state level. All four states visited reported that they were not engaged in following up on laboratory results for specimens submitted for testing, limiting their role in monitoring and responding to test outcomes.

</td><td></td></tr>
<tr><td>Risk / Impact / Implications

- Non application of SORMAS causes delays in reporting, data gaps, and limits the ability to track and follow up cases and outbreaks in real time.
- Delays in returning results to health facilities impede timely case investigation, delaying public health responses such as contact tracing, outbreak containment, and timely treatment initiation. This can lead to continued disease transmission.

</td><td>Responsibility

NPHCDA</td><td>Deadline / Timetable

See on Annex 12</td></tr>
</table>

4.2.4 Recurrent VPD outbreaks highlight the need to strengthen routine immunisation and surveillance systems

Context and Criteria

Nigeria continues to face frequent outbreaks of VPDs such as measles, polio, and diphtheria. Between 2021 and 2024, widespread measles outbreaks affected vast parts of the country, with 302 Local Government Areas (LGAs) across all states and the Federal Capital Territory reporting outbreaks in 2024 alone, resulting in over 9,300 confirmed cases and 73 deaths[20]. Despite Nigeria's declaration as free of wild poliovirus in 2020, circulating vaccine-derived poliovirus type 2 (cVDPV2) has caused multiple polio outbreaks[21], maintaining Nigeria's status as one of the countries most affected by vaccine-derived poliovirus globally. The country also experienced its largest diphtheria outbreak in decades from late 2022 through 2024. The outbreak began Kano state and rapidly spread to multiple states across the Northwest, Northeast and parts of the North-central zones. Thousands of suspected and confirmed cases were reported, with a significant concertation among zero-dose or under vaccinated children.

The Country has strategically leveraged mass vaccination campaigns and Supplementary Immunisation Activities (SIAs) to reach susceptible populations as a result of poor RI. Large-scale integrated vaccination campaigns are regularly conducted, targeting millions of children, often combining measles, polio, and other vaccines to maximise coverage and resource efficiency. During the audit period (2021-2024), the Country has been conducting integrated SIAs since 2021 in 13 and 24 states in alternating years. The last SIA prior to the audit was in 2024 and highlighted a nationwide multi-antigen vaccination campaign conducted between September and December 2024 across 24 states. It targeted vaccines including measles, polio, yellow fever, HPV, tetanus-diphtheria, and routine immunisation for prioritised zero-dose LGAs for clients aged 9 – 59 months for measles, 0 – 59 for polio, 9 months – 44 years for yellow fever, 15 – 49 years for Tetanus-Diphtheria, 9 - 14 years for HPV Vaccine and 0 -23 months for RI.

As part of efforts to reach zero-dose and under-vaccinated population. Nigeria conducted the Big Catch-Up (BCU) targeting 200 priority LGAs across 30 states. Planning for the BCU started in 2023. The BCU involved comprehensive pre-implementation activities including stakeholder meetings and health worker training to ensure coordinated efforts. Implementation strategies focused on vaccinating children aged 12 to 59 months who missed routine immunisations in three rounds, December 2024, February 2025, and April 2025 at fixed, outreach, and mobile vaccination sessions to reach children in hard-to-reach areas. Data collection and management processes were in place for monitoring progress and effectiveness. Post-implementation efforts concentrated on analysing outcomes and ensuring follow-up for children requiring additional vaccine doses.

The BCU aimed to vaccinate approximately 3,015,823 children (65% of the estimated zero-dose and under-vaccinated population). During the BCU , 6,493,740 doses of the Pentavalent vaccine were administered, including 36% as third doses. About 3,062,567 doses of the IPV were given, with around 50% as second doses. Additionally, 4,069,244 doses of the bOPV were administered, including 1,050,444 third doses, and 668,287 doses of PCV were used to vaccinate targeted children. The BCU reported 10,554 non-serious and 17 serious adverse events following immunisation (AEFIs), all of which were managed without any fatalities[22]. To evaluate the effectiveness of the BCU, it is critical to conduct a post-campaign coverage survey (PCCS) to provide independent, population-based estimates on the actual number of children that were vaccinated. The surveys help validate BCU success and identify gaps in immunity.

At the time of the audit, Nigeria rolled out one of the largest integrated vaccination campaigns in its history, aiming to protect around 106 million children across different antigens. The nationwide campaign will combine multiple vaccines and child health services in a single drive, ensuring efficient delivery to children across the country. The campaign targets children9 months–14 years for measles and rubella and 0–59 months for polio. It will be implemented in two phases: phase one covering 20 high-risk northern states and Oyo state in the southwest and phase 2 beginning early 2026 will be expanded to the remaining southern states.

[20] Measles Situation Report

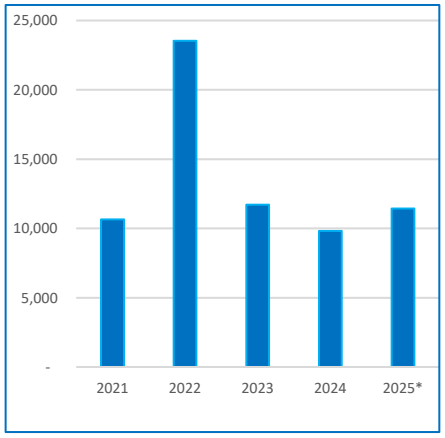
[21] A polio outbreak in Nigeria is officially defined by the detection of one or more cases of wild poliovirus or circulating vaccine-derived poliovirus in the community, particularly after a period with no reported cases

[22] The Big Catch-Up Routine Immunisation Intensification in Nigeria, 2025

Condition

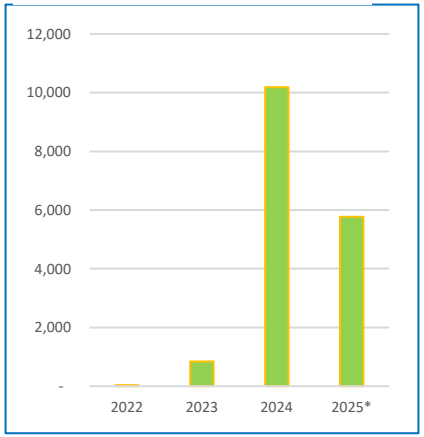
***Confirmed VPD cases continue to rise despite repeated SIAs and campaigns*:** The number of confirmed VPD cases has shown an upward trend despite multiple, large-scale campaigns. Measles cases more than doubled from 2021 to 2022, followed by a decreasing trend from 2022-2024, but started rising again from 2024 through mid-2025[23]. Diphtheria cases have steadily increased since the outbreak began in late 2022, peaking at over 10,000 cases in 2024. Polio outbreaks, primarily caused by circulating vaccine-derived poliovirus type 2 (cVDPV2), were significant in 2021 with 419 cases . A marked reduction occurred in 2022 with 48 cases, mostly confined to Sokoto and Zamfara states[24]. In 2023, 87 cases were reported, but the number increased by 13% in 2024[25].

Figure 2: Confirmed Measles Cases



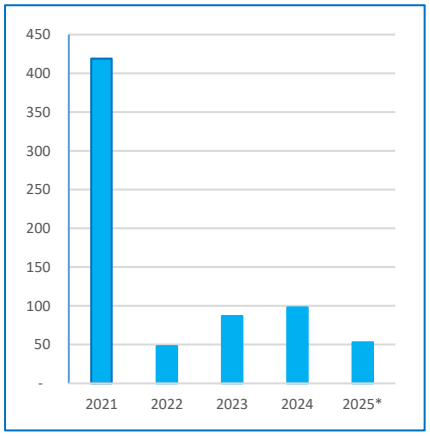
** Data up to Week 31*

Figure 3:Confirmed Diphtheria Cases



** Data up to Week 38*

Figure 1: Confirmed Polio Cases



** Data up to Week 43*

A PCCS was not completed before launching subsequent campaigns: The effectiveness of outbreak response and zero-dose reduction strategies is further constrained by weaknesses in post-campaign evaluation and learning. A post-campaign coverage survey (PCCS) was not completed following the Big Catch-Up (BCU) intervention before preparation began for subsequent large-scale campaigns. While preliminary administrative data from the BCU across 200 LGAs show average reported coverage of 73% for Pentavalent, 69% for OPV, 89% for PCV, and 52% for IPV across three rounds, the absence of an independent PCCS limited the ability to validate these results, assess series completion, or identify residual immunity gaps. The subsequent launch of the nationwide integrated measles, rubella and polio campaign (targeting approximately 106 million children) may further complicate

Recommendation 6

To control VPD outbreaks, MoH in collaboration with NPHCDA, State PHCDA and partners should.

- Improve RI delivery by implementing the strategies mentioned in Section 4.2.1
- Improve VPD surveillance and response as highlighted in section 4.2.3
- Ensure timely completion of post-campaign activities, including PCCS, and applying insights gained from these activities to enhance the design and execution of future campaigns

[23] NCDC data
[24] Polio eradication efforts in Northern Nigeria
[25] Polio eradication - cVDPV

<table>
<tr><td>evaluation efforts as it will become increasingly difficult to attribute changes in coverage to BCU interventions, particularly for polio-related indicators.</td><td></td></tr>
<tr><td>Root Cause
• Low immunisation coverage with significant regional disparities. Measles vaccination coverage remains below recommended targets, with national rates for the first dose (MCV1) ranging from 56% -57% (2021 – 2024) and the second dose (MCV2) ranging from 34% to 35% (2021-2024)[26]. Regional disparities are significant, with lowest rates in the northwest and higher rates in the southeast.
• Diphtheria outbreaks have been exacerbated by incomplete childhood immunisation. Nigeria had the highest prevalence of immunisation dropouts estimated at 33.59%[27] in 2022.
• Gaps in VPD surveillance as highlighted in section 4.2.3
• Competing priorities and intensive campaign activities including ongoing routine immunisation, multiple supplementary immunisation activities and outbreak responses led to overlapping schedules making the urgency to conduct subsequent campaigns overshadow the importance of completing prior evaluation activities</td><td>Management comments

See detailed management responses on Annex 12</td></tr>
<tr><td>Risk / Impact / Implications
• Recurrent VPD outbreaks disrupt routine immunisation services and divert attention from other health priorities. The outbreaks lead to higher illness and death rates, particularly among children, placing heavy strain on health facilities and resources.
• The absence of this survey prior to initiation of another campaign limits the use of the survey results to inform continuous improvement of the design and implementation of subsequent campaigns.</td><td>Responsibility
NPHCDA</td><td>Deadline / Timetable
See on Annex 12</td></tr>
</table>

26 UNICEF immunisation coverage estimates

27 Vaccination dropout among children in Sub-Saharan Africa

4.3 Immunisation data for decision meeting

4.3.1 Inaccurate denominators distort coverage rates and weaken programme planning

Context and Criteria

The last national census was conducted in 2006. The country planned to conduct a new census in 2023; however, this has been rescheduled with no definite date announced yet. The National Population Commission determines annual population and target estimates for different population cohorts, and these are then used to compute birth cohorts for immunisation.

For administrative coverage, Nigeria computes the annual birth cohort/target for immunisation as 4% of the total population estimate produced by the National Population Commission (NPopC). These are then used to compute birth cohorts for immunisation, which are uploaded into DHIS2 and used as denominators for monitoring administrative coverage.

The Identify, Enumerate, Vaccinate (IEV) strategy (originally applied in polio eradication operations) was adopted to address the persistent issue of reaching the same cohort of children repeatedly resulting in a high number of chronically missed children. This challenge is largely due to the use of inaccurate or outdated population data for planning and implementing health interventions. To address this, NPHCDA implemented Phase 1 of the IEV strategy in March-April 2025 across six states: Jigawa, Kano, Katsina, Kebbi, Sokoto, and Zamfara where all eligible children and pregnant women were enumerated.

Condition

National denominators do not align with NPopC estimates and coverage-derived values: When 4% is applied to NPopC population estimates for 2021 and 2022, the expected birth cohort differs materially from the denominators extracted from DHIS2. For example, in 2021 the 4% computation yields 8,459,733 while the DHIS2 denominator extract is 7,104,564; in 2022 the difference is of a similar magnitude. Additionally, when denominators are derived (back-calculated) from reported coverage and number of vaccinations, the "computed" denominators do not match the DHIS2 denominator extracts. See Table 8 below.

Table 8: Denominator inconsistencies

	2021	2022	Narrative
Population estimate	211,493,324	216,783,381	Published NPopC population estimate
4% of population [A]	8,459,733	8,671,335	
Denominator extract[B]	7,104,564	7,184,217	
Derived Denominator[C]	8,875,694	9,153,419	
Difference 1 ([A]-[B])	1,355,169	1,487,118	
Difference 2 ([A]-[C])	(415,961)	(482,083)	

Additionally, the audit team noted year-on-year denominator changes that are inconsistent with expected population trends at the Federal and state level. See Annex 7b for details.

Denominators for co-administered antigens are inconsistent at federal and state levels: For antigens administered during the same visit (e.g. Penta1, PCV1, IPV1 at 6 weeks), denominators are not aligned.

Recommendation 7

To improve oversight and accuracy of current denominators, NPHCDA should:

a) Create and institutionalise a review mechanism through which NPHCDA validates and signs off annual denominator sets (national and state) before they are uploaded into DHIS2 for use in administrative coverage.

b) Mandate that denominators for antigens administered at the same visit (e.g. IPV1, PCV1, Penta1) are identical at federal and state levels. Work with FMoH to configure DHIS2 to enforce alignment and consistency checks for these antigens, with exception reporting where discrepancies arise.

Recommendation 8

Given delayed census data, NPHCDA should use outputs from the IEV strategy to establish interim population targets for zero-dose tracking and microplanning, ensuring that

<table>
<tr><td>• At federal level, the computed denominators for IPV1, PCV1 and Penta1 differ in each of the years under review, despite being for the same target cohort.
• At state level, similar inconsistencies are seen. For example, in Bayelsa and Kano, denominators for IPV1, PCV1 and Penta1 were not identical even though the antigens are co-administered at the same visit.
This makes it difficult to interpret coverage patterns for co-administered vaccines and to reliably identify missed vaccination opportunities. See Annex 7a for details.</td><td colspan="2">these are treated as operational estimates until more formal population data become available.</td></tr>
<tr><td>Root Cause
• NPopC determines the annual population estimates and target estimates for different population cohorts and these are then used to compute birth cohorts. However, there is no demonstrated mechanism for NPHCDA to review, validate and formally sign off the denominators before they are uploaded into DHIS2. This weakens internal governance over a critical parameter for coverage monitoring.
• There are no system-enforced rules in DHIS2 requiring identical denominators for antigens given at the same visit (e.g. IPV1, PCV1, Penta1). Denominators have been configured independently for different antigens at federal and state levels, leading to misalignment and inconsistent coverage calculations
• There are delays in updating denominator data in DHIS2, partly due to the absence of a clearly designated function within NPHCDA responsible for annual population target updates for example denominators for 2025 were not yet uploaded in DHIS2 as at end September 2025.</td><td colspan="2">Management comments

See detailed management responses on Annex 12</td></tr>
<tr><td>Risk / Impact / Implications
Inconsistent and mis-aligned denominators mean that calculated coverage rates may not accurately reflect true immunisation performance. This reduces confidence in DHIS2-based indicators and makes it difficult to interpret trends over time or across states. The inconsistencies also affect the accuracy of zero-dose estimates, which rely on consistent denominators to measure progress.</td><td>Responsibility
NPHCDA</td><td>Deadline / Timetable
See Annex 12</td></tr>
</table>

4.3.2 Completeness and reliability of immunisation coverage data require enhancement

Context and Criteria

Gavi's application guidelines require Gavi-supported countries to improve data availability, data quality and use of data for their planning, programme management, understanding and documentation of results. The guidelines encourage the use of immunisation coverage data as an ongoing institutionalised process for better planning, improved programme performance and resource management.

Nigeria's routine immunisation coverage is tracked primarily through the District Health Information System (DHIS2), which is populated by facility-level data reported monthly by health workers to the LGAs. DHIS2 serves as the official source for administrative coverage reporting at federal and state levels.

A costed Data Quality Improvement Plan (DQIP) was developed and revised in July 2019 for 2019–2023 with 10 strategic interventions, including: improving data quality on DHIS2; strengthening data quality audit and assurance mechanisms; strengthening coordination structures for data reporting, warehousing, management and use of data for action; strengthening human resource capacity, management, and organisation; providing appropriate technologies, equipment and data capturing tools at all levels; and strengthening feedback and validation mechanisms to follow up on identified data quality issues.

The Identify, Enumerate, Vaccinate (IEV) strategy was developed to address the persistent issue of reaching the same cohort of children repeatedly resulting in a high number of chronically missed children. This challenge is largely due to the use of inaccurate or outdated population data for planning and implementing health interventions. To address this, NPHCDA implemented Phase 1 of the IEV strategy in March-April 2025 across six states: Jigawa, Kano, Katsina, Kebbi, Sokoto, and Zamfara where all eligible children and pregnant women were enumerated

Condition

Coverage data for co-administered antigens are inconsistent: Analysis of DHIS2 data shows persistent disparities in reported coverage for antigens administered during the same visit, such as Penta1, PCV1, and IPV1 at six weeks. This inconsistency either suggests "potential missed vaccination opportunities" of between 455,000 and 606,000 vaccinations per year from 2021–2024 or incomplete recording of all antigens administered during the same visit. Similar patterns are seen in the four states visited. For example, in Bayelsa and Gombe, there are large positive gaps between Penta1 and IPV1/PCV1 in most years, indicating that some children who received one antigen at the visit did not receive all co-scheduled antigens. See Annex 7(c) for details.

Administrative coverage data are not aligned with survey and WUENIC estimates: A comparison of state-level DTP1 coverage from household surveys (DHS 2018, MICS 2021, DHS 2023) with administrative coverage shows no positive correlation between the two data sources. Each analysis round demonstrates a negative correlation (e.g. –0.3, –0.5, –0.2), indicating that states with higher reported administrative coverage tend to have lower survey-based coverage, and vice versa. See Figure 4.

Recommendation 9

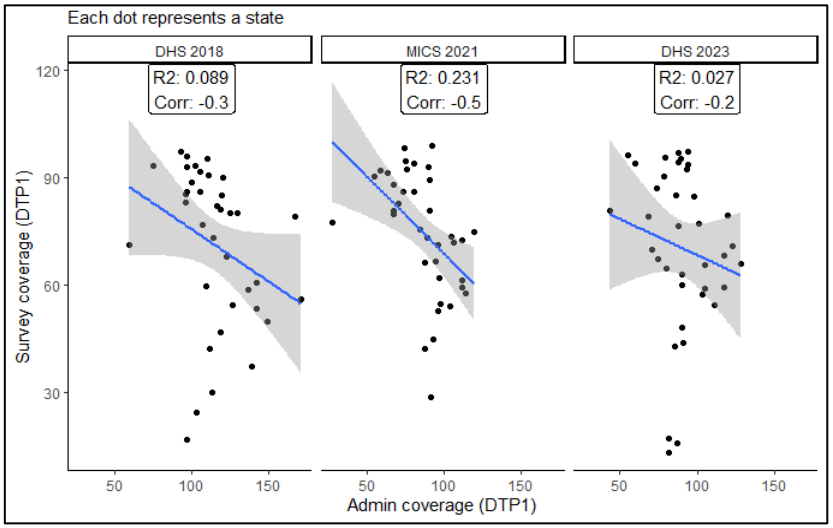
To improve the consistency and accuracy of immunisation data, NPHCDA should work with FMoH to review and update DHIS2 validation rules to reflect current programme needs and configure them to require review of flagged records before final submission, particularly for outliers and inconsistencies between co-administered antigens.

Recommendation 10

To improve reliability and completeness of immunisation coverage data, NPHCDA should

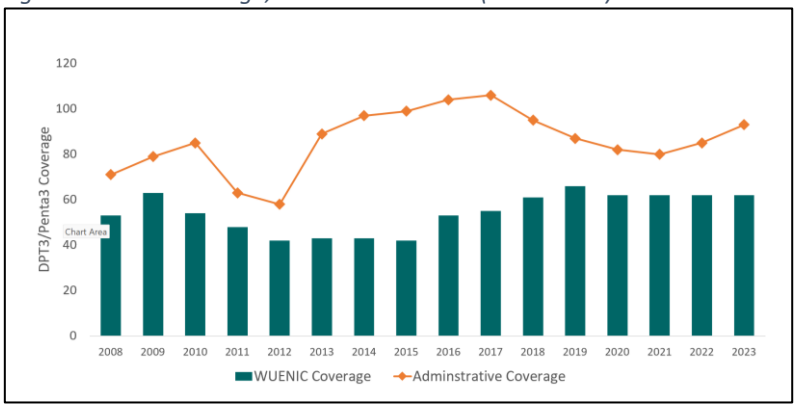
- Assess the DQIP for activities that align to current strategies like IEV being rolled out, confirm priorities and deprioritise activities that will not be implemented.
- Develop a roadmap that will align IEV to other data initiatives like the proposed EIR starting with the National Digital Health initiative to define milestones, governance structure, and financing plan.

Figure 4: Correlation between administrative data and survey coverage over time



Similarly, comparison of administrative coverage with WHO–UNICEF Estimates of National Immunisation Coverage (WUENIC) for DTP3 over 2008–2023 indicates consistent variations. Administrative coverage has consistently been 10–25 percentage points higher than WUENIC estimates (see Figure 5) demonstrating continued challenges in the accuracy and validation of reported coverage data.

Figure 5: DPT3 Coverage, Admin vs WUENIC (2008-2023)



- Liaise with states to print and supply health facilities with new data-collection tools that include IPV1 and IPV 2, with space for the new anticipated vaccines in the pipeline.
- Establish a routine process, led by NPHCDA in collaboration with partners, to triangulate vaccinations reported in DHIS2 with vaccines issued in OpenLMIS, and reconciling administrative coverage of antigens administered at the same time.

Discrepancies exist between service data (DHIS2) and stock data (OpenLMIS): Triangulation of the total number of vaccine doses issued from OpenLMIS against vaccinations reported in DHIS2 shows significant variances at both national and state levels with mismatches exceeding 15% for some antigens. The variances were more pronounced at state level e.g., Bayelsa reported Pentavalent vaccinations in 2023 were 286% higher than stock issues and remained 116% higher in 2024. In Gombe, Kano and Lagos, several antigens show large positive or negative percentage differences between stock issues and vaccinations reported, indicating inconsistent alignment between service and stock data. See Annex 7(d) for details. The 2022 Gavi Programme audit report also noted similar challenges when data for the period Jan 2019 to Jun 2021 was triangulated, comparing the number of vaccinations reported in DHIS2 and the total available vaccine doses in the country during the same period. The results revealed that more children were reported to have been vaccinated than the actual vaccine dose available at both national and sub-national level. ***Data capture and consolidation gaps at sub-national level***: At state level, gaps were identified in the design and availability of data capture tools and in the way immunisation data are consolidated: • IPV1 and IPV2 are not explicitly included on some monthly summary forms, leading health facilities to improvise and derive IPV figures from Penta1 and Penta3, which may not be accurate. See Annex 7(e) • At one health facility visited, monthly summary forms had been out of stock for more than 24 weeks. • In 28 out of 30 health facilities, there were variances between figures on monthly summary forms and those recorded in DHIS2. These inconsistencies point to errors during monthly consolidation or transcription into DHIS2.		
Root Cause • Although both OpenLMIS and DHIS2 are operational, there is no established, routine process for triangulating vaccinations reported with vaccines issued, nor for reconciling administrative coverage of antigens administered at the same time. • DHIS2 data validation rules have not been updated since the system was installed in 2014. While the system can flag inconsistent data entry, it does not enforce review or prevent the entry of potentially erroneous data • Limited data-focused supervision means that discrepancies between paper forms and DHIS2, or between stock and service records, are not routinely identified and corrected. For 10 out of 30 health facilities visited, there had been no recent supportive supervision focusing on data. • The DQIP, which sets out ten strategic interventions for data quality improvement, including audits, feedback, and validation mechanisms, has largely not been implemented; 9 out of 10 interventions remain outstanding.	Management comments See detailed management responses on Annex 12	
Risk / Impact / Implications • The persistent negative correlation between administrative and survey coverage, combined with variances between doses issued and doses administered, reduces confidence in administrative coverage data as a reliable measure of programme performance. This weakens evidence-based decision-making, increasing the risk that planning, targeting and resource allocation decisions are based on inaccurate data.	Responsibility NPHCDA	Deadline / Timetable See Annex 12

• Differences in reported coverage for co-administered antigens (IPV1, PCV1, Penta1) and weaknesses in primary data capture make it harder to distinguish true missed opportunities for vaccination from recording errors, affecting the targeting of zero-dose reduction strategies.		

4.4 Digital immunisation and vaccine logistics systems

4.4.1 Weak digital health governance threatens sustainability of immunisation information systems

Context and Criteria

The Federal Ministry of Health (FMoH) is the primary custodian of national health strategy and governance in Nigeria. For digital health—including digital systems supporting immunisation—FMoH is responsible for establishing governance structures, defining standards and ensuring that digital initiatives align with national health objectives.
To address fragmentation caused by multiple unintegrated digital applications and paper-based systems, the National Digital Health Initiative (NDHI) was launched in March 2024. NDHI is led by a 20-member multisectoral committee mandated to:

- lead digital health policy and regulation,
- provide central oversight of digital tools,
- coordinate standards for integration and interoperability, and
- develop a unified national digital health architecture.

The draft National Digital Health Architecture (NDHA), an output of NDHI, provides a blueprint for an interoperable health information system and outlines "digital building blocks" such as health data exchange and registry management to support unified surveillance, patient records, telemedicine, and insurance services.

While FMoH provides strategic direction, the National Primary Health Care Development Agency (NPHCDA) is the mandated lead implementer for immunisation services. In digital health, NPHCDA (working with partners such as CHAI, eHealth Africa (eHA) and HISP, and financed by Gavi and other donors) has deployed digital systems including:

- DHIS2, introduced in 2013, with the immunisation module added in 2014;
- EMID, developed by eHA in 2021 to support COVID-19 vaccination tracking. EMID was piloted for RI data collection in two states, aiming to improve data quality and bridge administrative gaps;
- OpenLMIS, introduced in 2021 as a logistics management information system for vaccines and CCE.

These systems were implemented at different times, with varying governance arrangements, standards and levels of integration.

Condition

***Improvements are required in digital health governance*:** Nigeria does not yet have a formally approved and costed national digital health roadmap to guide immunisation-related digital investments. In the absence of such a roadmap, digital initiatives supporting immunisation are not consistently guided by a unified framework that defines standards, prioritises investments, or clearly delineates roles and responsibilities across the Federal Ministry of Health (FMoH), NPHCDA and partners.

Additionally, NPHCDA is progressing with transitioning system support to its ICT directorate; however, there is currently no ICT policy or data governance standard in place covering essential areas such as backups, password management, user administration or system access protocols.

Recommendation 11

To ensure a more sustainable and efficient digital eco system;

- NPHCDA should work with NDHI to finalise and approve the National Digital Health Roadmap, establishing clear standards, governance roles and enforcement mechanisms. Further Gavi digital investments should only proceed once the roadmap is approved and operational.
  Additionally, all future Gavi and partner-funded digital investments should be channelled through FMoH/NDHI's oversight mechanisms, ensuring alignment with national priorities, a registry of approved tools and monitoring of compliance.

***Fragmented systems with limited interoperability*:** Interoperability across major digital systems is limited. Although integration between OpenLMIS and DHIS2 is planned, it was not functional at the time of the audit, and no interoperability exists between OpenLMIS and the Remote Temperature Monitoring (RTM) tool. The absence of an operational enterprise integration framework means that systems continue to function in silos, resulting in duplicated data entry, inconsistent datasets, and weak cross-platform analytics.
 	
Discontinued investments reveal fragmentation in digital system design: The Electronic Management of Immunisation Data (EMID) system was developed during the COVID-19 response and subsequently extended to include a routine immunisation (RI) module. The platform comprised a mobile point-of-care application, a DHIS2 integration layer, a citizen registration portal and a QR verification system.
Early integration challenges resulted in redesigns and delays. Although an RI module was developed and piloted in 2022–2023 with Gavi funding, the system was not adopted for national use and was subsequently archived. A second version addressing earlier design limitations was completed but was not piloted. There was no documented transition plan to guide whether, how, or under what conditions the system would be integrated, scaled, or formally discontinued.
The audit recognises that pilots are intended to test feasibility and that discontinuation does not, in itself, constitute a weakness; however, no evidence was found of a structured process to document lessons learned, assess integration options with existing national platforms, or formally conclude the investment).
 	
***Inadequate physical environment for servers*:** The server room at NPHCDA was observed to have non-functional air-conditioning despite substantial heat generation, evidence of water leakage near server racks and inoperative fire safety equipment. These deficiencies compromise the stability, reliability and security of national health information systems and increase the likelihood of service interruptions or data loss.
	• NPHCDA should develop and adopt an ICT policy and data governance procedures covering data backup/restoration, password and user management, access control and minimum security standards.
	• Under NDHI/FMoH stewardship, finalise and implement the enterprise integration architecture and establish a compliance mechanism requiring all immunisation systems to align with national interoperability standards.
	• Immediate infrastructure remediation required to refurbish or relocate servers to a secure environment with:
	  ○ Functional air conditioning
	  ○ Leak-proof roofing
	  ○ Fire safety equipment

Root Cause • NDHI, which is intended to guide digital transformation and enforce standards, was only established in 2024 and its mandate has not yet been institutionalised across government entities and partners. • ICT governance has not yet been embedded within NPHCDA. Although system transition is underway, there is no guiding ICT policy framework, no formal data governance standard, and limited structured capacity-building for ICT staff. • The national enterprise integration architecture remains in draft and has not been formally endorsed. In the absence of enforced standards, partners have continued to build systems independently using varying protocols, leading to fragmentation. • The current server infrastructure was donated by eHealth Africa (2022–2024) and was not formally assessed for long-term suitability and sustainability within NPHCDA's operating context.	Management comments See detailed management responses on Annex 12

Risk / Impact / Implications	Responsibility	Deadline / Timetable
• Limited interoperability results in data duplication, inconsistent standards across platforms and weak data visibility, constraining timely, data-driven programme management and undermining system efficiency. • The environmental deficiencies in the server room expose critical systems to permanent data loss, hardware damage, system downtime and operational disruptions. • According to the Gavi Digital Health Strategy (2022–2025), Nigeria currently meets only 3 of 6 foundational interventions and 1 of 6 advanced interventions, indicating gaps in achieving functional, integrated and interoperable immunisation information systems. See issue 4.4.2. • OpenLMIS, as implemented, does not meet 80% of Gavi's Targeted Software Standards (TSS) including real-time monitoring integration, advanced analytics, distribution workflows, and last-mile visibility. See issue 4.4.2.	NPHCDA	See Annex 12

4.4.2 Design and functionality of immunisation information systems require optimisation

Context and Criteria

Nigeria adopted OpenLMIS in 2021, initially to support COVID-19 vaccine logistics. The platform has since expanded to cover routine immunisation (RI) and is now positioned as the national system for vaccine supply chain management. The rollout—led by CHAI with Gavi funding—replaced previous manual reporting tools such as ODK, spreadsheets, and shared drives.
Under Phase 1, the system was deployed at national and state vaccine stores and later scaled to all 774 LGAs in Phase 2. The platform supports cold chain equipment management, stock management, and system administration. To date, 1,740 users have been registered, including national/state store managers, LGA cold chain officers, and system administrators.

Support arrangements are structured across three tiers:

- Tier 1: LGA super-users providing basic troubleshooting via state WhatsApp groups.
- Tier 2: CHAI, responsible for change management, super-user training, user acceptance testing and user management.
- Tier 3: Vitalliance, the vendor and steward of OpenLMIS, responsible for software upgrades, bug fixes and feature development.

The Gavi Targeted Support Standards[28] (TSS) outline expectations for an effective vaccine information system, including real-time stock visibility, robust reporting and analytics, strong data quality controls, integration with remote temperature monitoring, offline capability, secure access controls, and interoperability with other national systems.

Nigeria's primary HMIS platform, DHIS2, has served as the system of record for routine immunisation data since the national rollout between 2014 and 2017. Data flow extends from facility registers through LGA and state levels to the national instance, using NHMIS monthly forms and routine RI dashboards to support decision-making. There are ongoing discussions on integrating DHIS2 with OpenLMIS to enhance visibility on vaccine utilisation and traceability.

Condition

Limitations in OpenLMIS core functionality: OpenLMIS, in its current form, does not provide the level of operational visibility or analytical depth required for effective vaccine supply chain management. It cannot produce point-in-time reports, limiting retrospective stock reviews and trend analysis. Integrated dashboards are not yet available, and the system does not connect to remote temperature monitoring devices, reducing real-time cold chain visibility.

Key supply chain processes—such as requisition and order workflows—were not configured, hindering routine inventory management. Facility and product master data are not centrally harmonised, causing inconsistencies that compromise data reliability. There are weak validation rules, allowing entries without batch numbers, and duplicated code lists which impacts the quality of data. While the system can generate alerts, these are not visible to end users and therefore fail to support timely decision-making. Stock visibility currently stops at the LGA level, leaving health facility inventory, critical to service delivery, unreported.

Moreover, training materials were last updated in 2023 and no longer reflect current operations.

Recommendation 12

To optimise the design and functionality of OpenLMIS, NPHCDA should:

- Prioritise immediate OpenLMIS system stabilisation and security remediation: The newly appointed vendor should be tasked with addressing critical vulnerabilities as a matter of priority. This includes installing SSL certification, enabling audit trails, securing backend access and closing unauthenticated query endpoints. A rapid security and performance audit should be conducted to inform the stabilisation plan.
- Working with NDHI and the new vendor to prepare an upgrade roadmap covering: migration of OpenLMIS to the latest stable release upgrading the Superset analytics environment configuration of core supply

[28] Gavi TSS standards

System security and data integrity concerns: System security controls within OpenLMIS are inadequate for a national platform handling sensitive supply chain data. The system currently operates without SSL certification, leaving data transmissions unencrypted. It also lacks audit trail functionality, limiting the ability to track user actions or investigate anomalies. In addition, certain backend queries can be accessed without authentication, creating significant exposure to unauthorised activity which compromises overall system integrity. These risks are amplified by the fact that the system is running on an outdated software version, as is the Superset analytics platform, which further reduces the ability to benefit from enhanced security features and performance improvements available in current releases.

***Gaps in system transition planning*:** There is no transition plan or total cost of ownership analysis to guide future investment decisions or clarify the ongoing resource requirements for system hosting, management and support. Existing server and dashboard infrastructure has not been assessed for scalability in line with rising data volumes. Moreover, backend administration rights remain with an implementing partner rather than with NPHCDA, which limits institutional ownership and the ability to manage the system independently. Furthermore, the vendor support contract expired in March 2025 and had not been renewed by time of audit, meaning that no upgrades, bug fixes or new feature deployments had occurred.

Gaps in DHIS2 functionality for immunisation: Although DHIS2 serves as the national system of record for routine immunisation data, several essential modules and tools have not yet been integrated. Zero-dose tracking, microplanning, and the WHO routine data quality tool are absent, hampering data analysis to support programme monitoring and improvement.

Issues with Master Facility List (MFL) accuracy and coverage: The Master Facility List, a foundational data source for both OpenLMIS and DHIS2, contains outdated facility names and omits some facilities. This hinders accurate reporting and will impact system interoperability as DHIS2 may not have an up-to-date facility list. Previous pilots to integrate private facility reporting in Lagos and Kano were not successful, further limiting the system's ability to provide a comprehensive national picture of service delivery points.

Progress since assessment

Since the completion of this system review, NPHCDA has appointed a new implementing partner and vendor (Village Reach) to support OpenLMIS. Initial activities have reportedly commenced to address issues identified during the audit, including system upgrades, enhanced support arrangements and remediation of specific functional gaps.

The audit team did not engage with the newly appointed vendor, review its terms of reference, or assess the adequacy or effectiveness of the planned interventions. Accordingly, no assurance is provided on the scope and implementation of these corrective actions

chain modules, including requisition and order workflows integration with remote temperature monitoring devices strengthening validation rules, batch tracking and code list governance

The roadmap should be phased, costed and aligned with programme priorities and available resources.

- Formalise governance arrangements by establishing a joint OpenLMIS steering group with NDHI assigning clear ownership for configuration, upgrades and data governance instituting periodic technical and functional reviews ensuring the vendor's activities align with national digital health standards. This governance structure should be anchored in the national digital health architecture to ensure long-term coherence and sustainability.

Recommendation 13

To optimise the design and functionality of DHIS2, NPHCDA should work with FMoH:

- to establish a support contract with HISP to ensure ongoing optimisation of DHIS2. Priority actions include integrating zero-dose tracking, microplanning and WHO data quality tools. As the new vendor stabilises OpenLMIS, both platforms should work jointly on designing the planned interoperability layer to improve visibility of stock utilisation, traceability and accountability.
- to undertake a national exercise to validate and update the Master Facility List, ensuring alignment between DHIS2, OpenLMIS and other national systems. Regular review mechanisms should be put in place to maintain accuracy, including for private sector facilities.

<table>
<tr><td>Root Cause
• The expiry of the vendor support contract in March 2025 resulted in the discontinuation of routine system maintenance, upgrades and bug fixes. Without a formal arrangement for technical support, OpenLMIS did not evolve in line with programme needs, leaving core functional and security gaps unaddressed.
• OpenLMIS is not currently overseen by the National Digital Health Infrastructure (NDHI) unit, reducing alignment with broader digital health architecture and standards. Backend administration was managed by the implementing partner with no NPHCDA involvement at the time of our review and this limited national control over configuration, data governance and long-term sustainability.
• Security considerations were not adequately embedded during system design and implementation. As a result, OpenLMIS operates without essential safeguards, including SSL certification, authenticated access to server queries and audit trail functionality.
• The absence of a structured support arrangement with HISP has limited ongoing optimisation of the DHIS2 platform. Key programme modules have not been integrated, and internal capacity to manage system enhancements remains weak.
• The Master Facility List has not been routinely validated or updated, resulting in missing facilities, outdated names and unsuccessful integration of private sector service points.</td><td colspan="2">Management comments

See detailed management responses on Annex 12</td></tr>
<tr><td>Risk / Impact / Implications
• Inadequate system design contributes to stock forecasting errors, weak accountability, poor data quality, duplicate entries, and limited decision support.
• Security vulnerabilities expose the system to potential breaches, unauthorised access, and compromised data integrity.
• Longer-term sustainability is compromised by the absence of structured transition and management arrangements.
• Gaps in immunisation reporting reduce the reliability of coverage estimates, which may misrepresent programme performance.</td><td>Responsibility

NPHCDA</td><td>Deadline / Timetable

See Annex 12</td></tr>
</table>

4.5 Vaccine supply chain

4.5.1 Delays in establishing the national vaccine hub system have undermined storage capacity and created supply chain inefficiencies

Context and Criteria

In 2014, Nigeria proposed a redesign of the vaccine storage architecture at the national level from one national and six zonal stores to a three-hub national vaccine storage model, with Kano, Abuja and Lagos serving as primary hubs. Each hub was intended to receive vaccines directly from manufacturers and supply its catchment states. The design aligned with the country's geopolitical zones, covering approximately 39% of the population from Kano, 26% from Abuja, and 35% from Lagos.

Under this redesigned architecture, the four existing zonal stores, that would not be upgraded to Hub status, were to be repurposed primarily for contingency storage, operating at around 25% of their previous capacities. The model was expected to reduce national vaccine storage needs by roughly 50%, from 672,000 litres under the legacy model to 339,000 litres,[29] and was originally intended to meet storage demand through 2020 before being revised in 2017 to extend coverage to 2035.

Construction progressed as follows:

- Lagos hub: construction began in 2022 and was expected to be commissioned in 2025.
- Abuja hub: expansion of the cold and dry store began in 2023.
- Kano hub: construction of a cold store, dry store, and administrative block began in 2024 following demolition of the North-West Zonal Store.

A typical construction project follows several key stages[30] wherein key stakeholders including the contractor, supplier and client should be engaged

1. Planning and Design which is the initial and critical phase involves defining the project scope, deliverables, budget, schedule, and specifications. It also includes selecting the design team, consultants, contractors, and suppliers.
2. Pre-Construction stage that stage prepares the site, mobilises resources, and coordinates activities to ensure a smooth construction phase. This stage establishes expectations and standards for timely and efficient execution.
3. Procurement which involves planning, executing, and controlling the acquisition of goods, services, and equipment essential for construction.
4. Execution which oversees the actual construction activities, ensuring alignment with project plans and objectives through effective communication and collaboration with all stakeholders. This stage also includes monitoring progress, managing changes, and addressing risks.
5. Commissioning involves testing, inspection, and verification to ensure that the completed project meets all operational requirements.
6. Closure which is the final stage that focuses on completing all project activities, formalising acceptance, and documenting lessons learned for future projects.

This redesign is critical for efficiency and sustainability: once complete, the hubs are expected to decongest the National Strategic Cold Store (NSCS), strengthen direct receipt of international shipments, and improve national and subnational storage availability.

[29] Time-critical need for national vaccine storage expansion and architecture re-design, NPHCDA December 2024

[30] Guide for Construction Project Management

Condition

Significant delays and project failures in completing and commissioning the three hubs: There have been substantial delays in the completion and commissioning of the three national vaccine hubs, each of which plays a critical role in the planned transition to a redesigned national supply chain. See Annex 8o for the project timeline.

- In Abuja, while the cold store component of the hub has been completed, construction of the dry store has been suspended. At the time of the audit, the envisioned site was an excavated area with no ongoing activity. (See Annex 8l).
- In Lagos, although construction of the hub has been completed, it is not on track for commissioning in 2025 as originally planned.
- In Kano, the audit observed a project failure. The North-West Zonal Store was demolished in August 2024 to allow construction of a new cold store, dry store and administrative block. Construction began in October 2024, and by February 2025 the perimeter walls had been completed. However, shortly after the installation of structural steel beams for the dry store, the walls collapsed. Approximately two weeks later, the walls of the cold store also collapsed inward. This Kano incident was reported to Gavi prior to the audit. At the time of the audit, a remaining section of the dry store wall was visibly cracked and unstable, and the site had been completely abandoned. (See Annex 8m)

These delays mirror concerns raised in the previous Programme Audit (2021 audit conducted July–August 2021; report published October 2022), which highlighted that Gavi had made USD 5.5 million available in 2019 for system design and hub construction, but that NPHCDA was unable to fully utilise the funds due to the absence of a cohesive system design plan. At the time, timelines for completion of the hubs had not been established, and the audit recommended establishing a project management team and expediting construction activities.

Continued delays exacerbate existing storage constraints: The cumulative effect of these delays has exacerbated existing storage constraints. The NSCS remains the sole national entry point for vaccines. A review of cold chain storage needs at the National level without the operation of the Kano and Lagos hubs revealed a 56% positive (+2 to +8°C) storage deficiency along with a 12% negative (–25 °C to –15°C) storage deficiency, as illustrated in Table 9 below.

Table 9: Cold storage capacity at NSCS

Storage Space	+2 to +8 storage vol (L)	-25 to -15 storage vol (L)
Storage space available	350,000	58,333
Storage gap	445,018	7,974
% Storage Gap	**56%**	**12%**

In the northern region, the demolition of the former North-West Zonal Store has left a significant gap in cold and dry storage availability. During the audit visit, the Kano State vaccine store was operating at full capacity, with vaccines stored in the aisles of the walk-in cold rooms, limiting accessibility for picking, verification and adherence to Early Expiry First Out (EEFO) practices. The

Recommendation 14

To complete, commission and fully realise the benefits of the 3-hub model, NPHCDA, in collaboration with partners, should:

- Apply lessons learned from the Lagos hub to inform remediation strategies for the Abuja and Kano sites, including re-assessment of construction quality, structural integrity and engineering plans.
- Constitute a multisectoral project management team involving all relevant stakeholders (engineering, procurement, supply chain, donors, state representatives) to oversee project inception, execution, commissioning and closure. This team should ascertain, in liaison with UNICEF, the causes of the project failure in Kano.
- Develop and implement a comprehensive construction risk management plan, including regular site inspections, quality assurance protocols and escalation mechanisms.
- Introduce interim storage and distribution measures such as “just-in-time” delivery, cross-docking and improved last-mile delivery practices to mitigate current storage pressures until the hubs are operational.

<table>
<tr><td colspan="2">audit team also noted Solar Direct Drive refrigerators intended for distribution to health facilities being stored outdoors, exposed to harsh environmental conditions. (See Annex 8n)</td><td></td></tr>
<tr><td>Root Cause
• Lack of a standardised, enforced knowledge-transfer and quality management framework across sites. Lessons from the Lagos hub (e.g., issues discovered during construction QA/QC, contractor performance, or geotechnical constraints) were not systematically captured, validated, and embedded into the planning, engineering, and oversight processes for Kano.
• There was no evidence that all relevant stakeholders (including NPHCDA technical teams, supply chain beneficiaries and engineering oversight authorities) were engaged during key project stages (planning, design, pre-construction, procurement, execution). This limited opportunities to identify construction risks or correct emerging issues before the collapse occurred.
• No documentation was obtained demonstrating that the project was guided by a detailed risk assessment outlining potential structural, procurement or sequencing risks, their likelihood, impact or mitigation measures.</td><td colspan="2">Management comments

See detailed management responses on Annex 12</td></tr>
<tr><td>Risk / Impact / Implications
• Nigeria continues to miss the operational and economic benefits of the hub model, including reduced handling points, optimised logistics and decentralised receipt of international shipments.
• Persistent cold and dry storage shortages constrain safe storage, hamper stock verification and increase the risk of mishandling. See issue 4.5.2
• Storage congestion increases the likelihood of vaccine quality concerns, breaches of EEFO protocols and stock management errors.
• Challenges in distribution of commodities as highlighted in section 4.4.2</td><td>Responsibility
NPHCDA</td><td>Deadline / Timetable
See Annex 12</td></tr>
</table>

4.5.2 Weaknesses in inventory management may hamper vaccine accountability

Context and Criteria

All vaccines procured for Nigeria are received at the NSCS in Abuja and distributed to zonal stores, state vaccine stores, LGA cold stores, and finally to health facilities. This reflects the current five-tier supply chain structure, pending transition to a redesigned four-tier system centred on three national hubs in Lagos, Abuja and Kano. As noted on 4.5.1, delays in commissioning these hubs mean that NSCS remains the primary national entry point, placing considerable pressure on its storage and operational capacity.

Inventory management processes rely on a combination of manual stock ledgers and OpenLMIS. Manual ledgers are used at all vaccine handling points (including state, LGA and facility levels) to record receipts, issues, VVM stage and stock balances. OpenLMIS is expected to provide electronic stock visibility from NSCS to LGAs, but it does not consistently provide historic stock positions or reliable reconciliation support due to system design challenges identified on 4.4.2

Accurate inventory management is essential for ensuring continuous vaccine availability, maintaining vaccine potency, preventing stock-outs, and enabling accountability for vaccines supplied through the system. Reliable inventory records are also a core requirement for planning, forecasting, and reporting to NPHCDA and partners

Section 10 of the Partnership Framework Agreement (PFA) states that the Government must maintain "all-risk property insurance on programme assets (including vaccines and related supplies)" unless otherwise agreed with Gavi.

Condition

Inconsistencies in stock records across the supply chain: The audit identified widespread variances when comparing manual records, OpenLMIS data and physical stock counts at national, state, LGA and facility levels. At national level, a manual reconciliation[31] for January–December 2024 was performed by the audit team. For all five sampled antigens (Pentavalent, IPV, PCV, MCV and BCG) reconciliations of opening stock plus receipts minus issues and wastage resulted in variances, as detailed in Annex 8a. Comparisons of stock receipts and issues recorded in manual ledgers with those captured in OpenLMIS also revealed discrepancies across all antigens during the same period (see Annex 8b).

Physical stock counts conducted at NSCS also highlighted some weaknesses in inventory management. While counts for BCG and PCV matched what was recorded in the manual ledgers and OpenLMIS, IPV and MCV batches could not be traced individually in manual ledgers because multiple batches had been combined into aggregated entries. For Pentavalent, the physical counts for one of the three batches sampled differed from both OpenLMIS and manual ledger totals, and the combined physical quantities for all three batches did not align with either system (see Annex 8c).

Similar discrepancies were found at sub-national levels. Variances across physical counts, manual ledgers and OpenLMIS were observed in 3 of 4 State Vaccine Stores, 5 of 16 LGAs, and 15 of 30 health facilities visited (See Annex 8d, Annex 8e and Annex 8f).

Recommendation 15

To improve inventory management at National and subnational level, NPHCDA in collaboration with SPHCDA and partners should:

- Accelerate the development and implementation of the WMS at the Hubs, starting with the NSCS, building on user acceptance training completed in October 2025.
- Update the existing SOPs to include procedures and approval levels of passing stock adjustments at different vaccine handling points
- Introduce minimum standards requiring routine physical stock counts and documented supervisory review.
- Undertake a structured assessment of vaccine loss risk mitigation options, including cost–benefit analysis of insurance versus self-insurance mechanisms, and propose a sustainable model for asset protection.

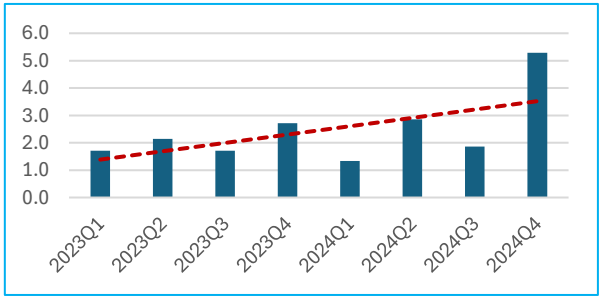
[31] Reconciliation involved calculating the opening stock plus receipts and subtracting issuances and wastages

Vaccine stock outs across multiple tiers of the system: During the review period, 2 out of 4 states reported stockouts of at least one of the five sampled vaccines. The longest stockout durations at the state level were 13 days for Pentavalent, 27 days for IPV, 51 days for PCV, and 11 days for BCG. At the LGA level, 10 out of 16 stores experienced stockouts of at least one sampled vaccine, with maximum stockout durations of 45 days (Pentavalent), 31 days (IPV), 70 days (PCV), 129 days (MCV), and 22 days (BCG). Additionally, 16 out of 30 health facilities recorded stockouts of at least one sampled vaccine, with the longest stockout periods being 28 days (Pentavalent), 62 days (IPV), 67 days (PCV), 37 days (MCV), and 14 days (BCG). Notably, at Jogana PHC, while the stock ledger indicated an MCV stockout lasting 346 days, DHIS2 records showed that the facility continued to vaccinate children with MCV throughout this period, indicating weaknesses in record-keeping. Rota virus vaccine was stocked out at all levels during at the time of audit fieldwork due to a global shortage. (See Annex 8g, Annex 8h, Annex 8i).

***Unexplained stock adjustments*:** A review of selected health facility ledgers revealed that stock adjustments were frequently made without justification. At Unguwa Uku PHC and Gwagwarwa PHC, numerous adjustments were recorded for Pentavalent, IPV, PCV, and BCG vaccines, as well as diluents, but without explanations (See Annex 8j). Additionally, there were instances where vaccines were issued in quantities that did not correspond to their known packed doses per vial. For instance, at Kaura Goje PHC, the PCV vaccine, typically packaged in 4-dose vials, was recorded as issued in doses of 30, implying issuance of 7.5 vials (see Annex 8k). This reflects inconsistencies and potential inaccuracies in vaccine inventory recording and management at the facility level.

Ineffective distribution planning: The audit observed that although distribution of vaccines and related supplies from the NSCS to zonal and state stores is intended to follow a quarterly schedule, actual distribution deliveries were far more frequent. For example, Northern State vaccine stores (Jigawa, Kaduna, Kano, Katsina, Kebbi, Sokoto, Zamfara), received up to five deliveries in a single quarter (Q1 2024), driven largely by stock availability rather than structured planning.

Figure 6: Average distributions to 7 Northern Region States



Similar challenges were flagged in the 2021 programme audit, which found that NSCS lacked the storage capacity to hold a full quarter's supply.

Recommendation 16

To improve distribution planning and scheduling NSCS should:

- Design and implement an annual distribution schedule that clearly defines expected delivery periods to the respective stores for each cycle. Where co-financing funds are released late and vaccines are received late, NSCS should adjust distribution plans transparently and issue revised schedules to states to support local planning.

Failure to insure vaccines and cold chain assets has resulted in substantial programme losses: In February 2024, a fire at the Gombe state vaccine store destroyed substantial quantities of both Gavi-funded and non-Gavi vaccines, cold chain equipment, and vaccine delivery devices. Table 10 below presents the Gavi funded vaccines that were destroyed

Table 10: Gavi funded vaccines destroyed in fire at Gombe SVS

Antigen	Quantity	Unit cost (USD)	Total (USD)
IPV	126,630	*1.75*	*221,603*
Measles	47,500	*0.423*	*20,093*
MenA	25,500	*0.674*	*17,187*
PCV	65,600	*2.75*	*180,400*
Pentavalent	43,420	*0.8*	*34,736*
Rota	42,000	*0.8*	*33,600*
TOTAL			***507,619***[32]

Gavi-funded cold chain equipment (one walk-in cold room, six electric freezers and 112 vaccine carriers) was also destroyed.

Table 11: Gavi funded equipment destroyed in fire at Gombe SVS

Category	Quantity	Estimated cost (USD)	Estimated value (USD)
Walk-in Cold room (30 M^3)	1	*35,627*	*35,627*
Electric freezers			
Model MF 114	1	*1,073*	*1,073*
Model MF 214	2	*1,937*	*3,875*
Model MF 314	2	*1,359*	*2,718*
Model DW-86L828J	1	*14,396*	*14,396*
Vaccine carriers (Model PIS E4/53-M)	112	*160*	*17,918*
TOTAL			***75,607***[33]

All losses related to programme assets that were not insured, contrary to Section 10 of the Partnership Framework Agreement. The incident had been promptly reported by UNICEF to the Gavi Secretariat in February 2024, and the Secretariat's Legal department was also informed; however, no subsequent steps have been taken to pursue recovery or mitigation of the losses.

[32] Valued using UNICEF reference prices but not been adjusted for government co-financing component

[33] Cost does not include freight charges, installation costs and ancillary components.

<table>
<tr>
<td>Root Cause
• Absence of a Warehouse Management System (WMS) at NSCS, requiring reliance on manual processes and staff memory to locate batches across multiple cold rooms. This is inadequate for a warehouse handling more than 300 shipments annually.
• Periodic physical counts were not conducted at some locations. The audit team checked the manual ledgers and noted that there was no evidence that physical counts were being conducted at 1 out of 16 LGAs and 4 out of 30 health facilities.
• Incomplete and improper archiving of stock records was observed in several locations, where manual ledgers were not properly maintained and were sometimes torn, making it difficult to retrieve historical data.
• There were no clearly documented procedures for passing stock adjustments at both national and sub national vaccine handling points, including the required approval and sign-off levels.
• NSCS does not have a clearly documented distribution schedule defining the expected period of delivery of vaccines and related supplies to the respective peripheral stores during the respective distribution cycles.
• Distributions are sometimes influenced by availability of sufficient quantities of vaccines related to delays in placing vaccine orders. See issue 4.6.1
• Vaccines and cold chain assets were not insured, despite explicit requirements in the PFA.</td>
<td colspan="2">Management comments

See detailed management responses on Annex 12</td>
</tr>
<tr>
<td>Risk / Impact / Implications
• The reliability of vaccine inventory data is compromised, weakening Nigeria’s ability to account for vaccines supplied, stored and administered.
• Inaccurate stock visibility impedes forecasting, planning and supply decision-making, increasing the risk of future stock-outs.
• Stock-outs contribute to missed vaccination opportunities, reduced coverage and increased vulnerability to vaccine-preventable diseases.
• Unstructured distribution practices increase operational costs and place additional strain on limited resources
• Uninsured losses following the Gombe fire represent a financial loss. This issue had been previously highlighted in the 2022 Programme Audit report, which noted that vaccines in the stores visited were not insured due to budgetary constraints. The associated risk noted at the time was that, in the event of fire, burglary or natural disaster, significant losses could occur. See finding 4.1.3 in Nigeria Programme Audit Report. The audit recommended that NPHCDA secure funding to insure vaccines against damage or loss. The 2024 incident therefore reflects the materialisation of a previously identified risk.</td>
<td>Responsibility
NPHCDA</td>
<td>Deadline / Timetable
See Annex 12</td>
</tr>
</table>

4.6 Financial management and sustainability

4.6.1 Financial sustainability for the immunisation programme remains a challenge

Context and Criteria

Nigeria's immunisation financing framework is supported through several channels:

- Vaccine procurement is mainly funded through Federal Government co-financing (via the Service Wide Vote). Vaccine procurement is centralised at the national level, managed by UNICEF and Bio-Vaccines Nigeria Limited (BVNL)
- Capital expenditure (investment in long-term assets and infrastructure for immunisation) is financed largely through NPHCDA and State Primary Health Care Development Agencies (SPHCDAs).
- Immunisation operational costs include storage, transport and distribution of vaccines, service delivery, human resources (salaries and training), logistics, monitoring and evaluation, outreach and communication, and cold-chain maintenance. These are funded through both federal and state budgets:
  - At federal level, operational costs are funded through the NPHCDA budget, where immunisation has a dedicated budget line, and through the Basic Health Care Provision Fund (BHCPF). NPHCDA's budget includes allocations for routine immunisation, polio eradication, non-polio SIAs and other PHC services and the BHCPF is funded from an annual Federal Government grant of at least 1% of the Consolidated Revenue Fund (CRF), grants from international donors and other sources including the private sector. It operates through three gateways: the National Health Insurance Authority (NHIA) gateway for insurance benefits; the NPHCDA gateway for strengthening PHC (including immunisation); and the National Emergency Medical Treatment gateway for emergency services.
  - States and LGAs fund immunisation through SPHCDA and PHC budgets, mainly covering HR, supportive supervision and supply chain costs.

Development partners (Gavi, BMGF, World Bank, WHO, UNICEF and others) continue to finance a substantial share of system-strengthening activities, including training, surveillance, supervision, programme management and cold-chain optimisation.

The Vaccine Independence Initiative (VII), managed by UNICEF, provides a pre-financing solution that allows countries to avoid temporary cash-flow delays disrupting access to essential supplies, including vaccines. VII's flexible credit terms allow governments to pay after delivery rather than in advance.

Efficient vaccine procurement is time-sensitive, requiring coordination between funding, procurement, delivery and distribution. UNICEF and BVNL typically operate a 3–7-month lead time for procurement and delivery.

Vaccine financing sustainability has historically been guided by the Nigeria Strategy for Immunisation and PHC System Strengthening (NSIPSS) and the NSIPSS Accountability Framework (AF), under which Nigeria committed to increasing co-financing by around 10% annually and progressively moving towards full domestic financing by 2028. Overall health financing is supposed to be guided by the Abuja Declaration of reaching a target of 15%. Despite these commitments, both national and sub-national health budgets remain below the Abuja Declaration target of 15%.

Condition

Co-financing obligations are met, but releases are delayed: Nigeria has fulfilled its co-financing obligations over the audit period, however, a substantial share (45%) of vaccine procurement has been financed through World Bank loans, raising concerns about sustainability. Additionally, co-financing funds are typically released late in the financial year (Q3–Q4), rather than in line with vaccine procurement cycles. See Table 12 below. In 2019, full disbursement occurred before year-end, but completion of vaccine financing only occurred in 2020 and as at the end of September 2025, only 78% of the 2025 co-financing requirement had been met.

Table 12: Trend in timeliness of co-financing funds released between 2021-2024

Year	Planned release	Month of transfer of funds
2021	January	June
	June	December
2022	January	July
	June	August
2023	January	September
2024	January	January
	June	December

To bridge these delays, UNICEF has provided significant pre-financing support through VII. Between 2021 and 2025, a total of USD 201 million was pre-financed through VII, including USD 75 million in 2025 alone, to accelerate procurement and prevent stock-outs when government or World Bank disbursements were delayed.

Operational cost funding is inadequate and remains heavily donor-dependent: Although immunisation has a dedicated budget line at federal level, operational funding is not sufficient to meet actual programme needs. Partners continue to finance major components of operational costs for example distribution where UNICEF had paid distribution costs in 8 of the last 9 quarters by end of September 2025.

At sub-national level, financing and prioritisation of PHC and immunisation are variable. The Nigerian constitution mandates that states and LGAs manage primary healthcare services and are expected to allocate a significant share of their health budgets to PHC. However, this is not consistently observed. Some states have performed relatively well on health budget allocations. For example, Kano allocated 15% state budget to health in 2023, 17% in 2022 and 15% in 2021, meeting or exceeding the Abuja declaration target. Others show mixed performances e.g., Yobe State allocated 9% of its budget in 2023, 16% in 2022 and 13% in 2021, similarly Bauchi State allocated 15% in 2023, 11% in 2022 and 12% in 2021.

Prioritisation of PHC within health budgets also varies with Bauchi allocating 28%, 22% and 24% of its health budget to PHC in 2023, 2022 and 2021 respectively while Delta allocated only 2% of its health budget to PHC in each of 2021–2023, and Borno allocated 3%, 5% and 15% to PHC in 2021, 2022 and 2023 respectively.

Recommendation 17

To further accelerate the progress towards financial sustainability for immunisation, NPHCDA should:

- Sustain engagement with National Assembly "vaccine champions" to defend immunisation allocations and prioritise timely disbursement at federal level.
- Extend similar advocacy to priority states and those lagging behind in PHC funding to encourage increased and more predictable allocations for PHC and immunisation.
- Adopt and enforce a multi-year budgeting cycle that incorporates vaccine procurement requirements for the succeeding year (at minimum Q1 and Q2) within the current year's budget envelope.

<table>
<tr><td>Root Cause
• Health and PHC budgets remain constrained, with immunisation operational expenses competing with other priorities within a limited fiscal envelope.
• Lengthy federal budget release procedures and bureaucratic approvals contribute to late disbursements of co-financing and operational funds, misalignment with procurement cycles, and reliance on bridging arrangements such as VII.
• Limited ownership and prioritisation of PHC at sub-national level
• In most states, immunisation is not a stand-alone budget line. Funds are allocated to PHC more broadly and allocations to immunisation are then made on an ad hoc basis.</td><td colspan="2">Management comments

See detailed management responses on Annex 12</td></tr>
<tr><td>Risk / Impact / Implications
• As at the end of September 2025, the order for vaccines required for Q1 and Q2 2026 had not yet been placed, increasing the risk of future stock-outs and service disruption.
• Insufficient and inconsistent PHC financing at state level puts last-mile immunisation delivery at risk, even when national-level vaccine procurement is fully funded.
• Ongoing reliance on World Bank loans and UNICEF VII to meet co-financing requirements and bridge cash-flow gaps indicates that Nigeria has not yet achieved financial sustainability for immunisation.</td><td>Responsibility
NPHCDA</td><td>Deadline / Timetable
See Annex 12</td></tr>
</table>

4.6.2 The Financial management capacity building plan requires alignment to current reforms

Context and Criteria

Nigeria has a Financial Management Capacity Building (FMCB) plan designed to strengthen the financial management function at NPHCDA in line with the expectations of the Accountability Framework of the Nigeria Strategy for Immunisation and PHC System Strengthening (NSIPSS). The FMCB plan aims to build the capacity of staff involved in financial management, ensure that processes are documented clearly from end to end, and establish functional systems that promote efficiency and effectiveness.

The FMCB plan sets out three short-term actions, namely:

- establishing a Project Coordination Unit to manage and coordinate donor project activities, comprising at minimum a Project Coordinator, M&E Specialist, Procurement Officer, Project Accountants, Internal Auditor and Compliance Officer;
- defining specific procedures for the management of donor funds covering sourcing, budgeting, expenditure, documentation, reporting and asset management; and
- setting up or configuring an existing computerised accounting system capable of recording and reporting financial transactions in accordance with Gavi and other donor requirements.

The plan also outlines twenty-three wider reforms with the main ones including: training staff to enhance knowledge and skills in financial management and procurement (including procurement planning); and deploying an Enterprise Resource Planning (ERP) solution with capabilities to support budget performance monitoring, real-time transaction recording to avoid donor reporting delays, and integration with existing systems and functions across Finance, Procurement, Internal Audit, ICT and the Grants Coordination and Compliance Office (GCCO).

Since the development of the FMCB plan in 2022, major changes have occurred in the health and public financial management landscape, including changes in leadership and organisational structure within NPHCDA, the rollout of the National Health Sector Renewal Investment Initiative (NHSRII) and the SWAp framework, and the development and rollout of the NPHCDA Strategic Blueprint (2024–2026).

Condition

There are gaps in the implementation of the short-term FMCB actions:

- The accounting system deployed has not yet been configured to match the Nigeria National Chart of Accounts, limiting alignment with other government agencies and parastatals.
- The standard operating procedures (SOPs) require revision to reflect the current organisational structure and operational realities.
- The reorganisation of NPHCDA resulted in the position of Head of Grant Coordination (envisioned to coordinate donor-funded activities) remaining vacant.

In addition, the twenty-three wider reforms have not yet been implemented, with most now behind schedule. The FMCB plan was intended to be completed by the end of 2024. The most significant outstanding reform is the deployment of the ERP system with full capabilities for budget monitoring, real-time transaction processing, and integration with other systems. Other planned capabilities such as integration with the e-LMIS, fixed asset management, receivables, payables, advances, end-to-end procurement processing, and enhanced reporting tools also remain outstanding.

Recommendation 18

To align the financial management operations with the current reforms, NPHCDA should:

- Update the FMCB plan to reflect current organisational arrangements and the priorities outlined in the NPHCDA Strategic Blueprint. As part of this update, NPHCDA should clarify the proposed structure, roles and reporting lines of the enhanced Grants Coordination and Compliance Office (eGCCO).
- Expand the FMCB plan to include state-level financial management capacity needs
- Fast-track ERP deployment, ensuring modules for budgeting, accounting, procurement and integration with the e-LMIS are fully operational.

<table>
<tr><td></td><td colspan="2">• Update financial SOPs to align with new systems and the revised organisational structure.</td></tr>
<tr><td>Root Cause
NPHCDA has implemented the FMCB actions in a phased manner, prioritising short-term measures focused on meeting the minimum conditions for receiving, managing and reporting on Gavi funds. Initiation of the longer-term FMCB reforms has been delayed due to changes in leadership and the need to realign activities with the NPHCDA Strategic Blueprint (2024–2026).</td><td colspan="2">Management comments

See detailed management responses on Annex 12</td></tr>
<tr><td>Risk / Impact / Implications
Risks and capacity gaps remain unaddressed, reducing the country’s readiness to transition to direct management of Gavi funds and limiting the effectiveness of internal control improvements expected under the FMCB plan.</td><td>Responsibility
NPHCDA</td><td>Deadline / Timetable
See Annex 12</td></tr>
</table>

4.6.3 Weak financial controls and documentation gaps resulted in questioned expenditure

Context and Criteria

As noted in section 3.7, Gavi's funds in Nigeria are primarily handled by Alliance Partners (UNICEF and WHO) and expanded partners. Gavi has formalised agreements with each of these partners to oversee programme implementation.

UNICEF applies the Harmonised Approach to Cash Transfers (HACT) to manage funds. HACT is a standard framework designed to manage risks through: (i) assessing implementing partners; (ii) assurance planning and monitoring; and (iii) transferring and reporting on cash to government and non-government implementing partners. Following Gavi's Programme Capacity Assessment (PCA), it was agreed that standard HACT procedures alone were not optimal to address the specific risks related to Gavi's investments in Nigeria. As a result, Gavi and UNICEF agreed on additional assurance measures for the eight Gavi HSS focus/MOU states, including:

a) establishing a dedicated roving financial assurance team at UNICEF to conduct on-site/remote reviews, training and capacity development;
b) embedding a dedicated consultant within each implementing partner as the first line of reference on financial management;
c) enhanced financial management training and assurance reviews, both on-site and remotely;
d) rolling out a cloud-based accounting system to enhance accountability and records management; and
e) procuring equipment (laptops, scanners, cabinets etc.) for each focus state to enable electronic transaction recording and processing.

WHO, on the other hand, operates the Direct Disbursement Mechanism (DDM) to make payments to personnel implementing Supplementary Immunisation Activities (SIAs).

In line with the Financial Management Strategy under Gavi 5.0, Gavi developed a new strategic approach for fiduciary risk assurance and financial management of cash grants, approved by the Board in June 2020. This led to the appointment of an Assurance Provider to support efficient and effective financial management of Gavi funds in-country. Expected deliverables of the Assurance Provider include:

- undertaking ex-ante budget reviews prior to submission to Gavi;
- supporting the Government with internal and external audit management;
- implementing third-party monitoring of HSS activities and campaigns; and
- supporting the transition to use of country systems.

Under the Partnership Framework Agreement (PFA), Annex 1, paragraph 20 defines "misuse of funds and supplies". Sub-paragraph 20.1 requires that the Government use all funds, vaccines and related supplies provided by Gavi solely for Programme activities, ensure there is no misuse, waste, corrupt, illegal or fraudulent activity involving such funds and supplies, and ensure that all expenses are properly evidenced with supporting documentation sufficient to permit Gavi to verify such expenses.

Further, paragraph 23 of Annex 1 requires the Government to maintain accurate and separate accounts and records for each Programme in accordance with internationally recognised standards, sufficient to establish and verify costs and expenditures. These accounts and records, and supporting documents evidencing expenses made with Gavi funds, must be retained for a minimum of five years after Programme completion. Where Gavi-provided funds are pooled with other sources, accounts and records must also be maintained for the pooled funds.

Condition

A review of expenditure documentation in the four sampled states (2 Gavi focus/MOU states (i.e., Gombe and Bayelsa) and 2 Non-Gavi focus/MOU states (i.e., Kano and Lagos)) was conducted to assess how HACT and related assurance mechanisms are being implemented. The following observations were made:

HACT spot checks and follow-up mechanisms are incomplete: In one of four states (Kano), there was no evidence of HACT spot checks. In the three states where spot checks were conducted, there was no formal documentation of follow-up mechanisms to ensure that issues raised (especially those not relating to cash refunds) were addressed. Spot check reports are issued to the implementing partner, which then provides responses to justify expenditures. Where explanations are accepted, issues are closed; where they are not, the implementing partner is advised to refund the funds. However, non-cash related recommendations are often not implemented.

For example, in Gombe state, unresolved issues included:

- the need for the Internal Auditor and/or UNICEF resident HACT Consultant to perform pre- and post-audits;
- updating the procurement manual to align with the 2007 Procurement Act, Gavi SOPs and best accounting practices; and
- absence of bank reconciliation statements prepared and reviewed by a superior officer.

In Bayelsa state, unresolved issues included delayed accountabilities.

Accounting systems are not robust: The non-MoU states used Microsoft Excel spreadsheets as their accounting system, which is prone to errors and weak controls. The two Gavi MoU states had installed a cloud-based accounting system (SAGE 200 Evolution). However, due to internet connectivity challenges, Gombe was not using SAGE in practice and relied instead on Excel.

Assurance over Gavi-funded activities is uneven: Only one of the four states had Gavi-funded activities overseen by the State Auditor-General's Office, with reviews conducted and reports issued. In the other three states, external audits had been conducted, but management issues identified in audit reports were not addressed in a timely manner. For example, in Gombe, issues remained unresolved for an average of 469 days as at 4 October 2025.

Limitations in documentation and traceability of funds: The Funding Authorisation and Certificate of Expenditure (FACE) form is a simplified and harmonised UNICEF form used to support state requests and reporting on expenditure. However, FACE forms could not be obtained for certain funds received by Kano state, so it was not possible to ascertain which funds related specifically to Gavi programmes. Additionally, cash books could not be obtained for specified periods (see Table 13), limiting the ability to verify expenditure flows. Where cashbooks were unavailable, FACE forms were used as the basis for sampling expenditures for testing, but this did not fully compensate for missing primary records.

Recommendation 19

In the context of preparatory transition and the eventual channelling of funding through country systems, there is a need to strengthen financial control, documentation and compliance at sub-national level. NPHCDA should:

- Establish an accountability mechanism for all Gavi funds received by the country, requiring all partners to report on and account for the funds they manage, with sufficient detail to enable Government to track allocations, expenditures and outstanding issues.
- Provide structured training in grant management, financial reporting and internal controls to state-level finance and programme staff, and explicitly explore how assurance arrangements (e.g. HACT, Assurance Provider) can be complemented with capacity-building support to prepare states to receive and account for Gavi funds.
- Develop a joint audit and assurance protocol between NPHCDA, UNICEF and State Offices of the Auditor-General to coordinate reviews, minimise duplication and strengthen oversight of Gavi funds—ensuring that recommendations from spot checks, external audits and assurance reviews are consolidated, tracked and followed up to closure.

Table 13: Missing cash books by state

State	Period
Gombe	2019 - 2021
Kano	2019-2021, 2023
Lagos	2019-2024

Questioned expenditure amounting to USD 126K: The audit team reviewed a sample of transactions in three of the sampled states incurred between 1 January 2021 and 31 December 2024. The states reported total expenditures of USD 9.4 million, of which 26% (USD 2.47 million) was selected for review. From this sample, USD 126K (see Table 14 below) in expenditure was questioned due to inadequacy of supporting documentation and unsupported expenditures.

Table 14: Questioned costs

State	Reported expenditure (NGN)	Sampled Amount (NGN)	Adequately supported (NGN)	Total Questioned cost (NGN)	Unsupported (NGN)	Inadequately supported (no activity reports) (NGN)
Gombe	3,854,143,822	312,014,786	223,116,903	88,897,883	3,830,583	85,067,300
Bayelsa	1,058,364,277	182,277,665	178,117,965	4,159,700	4,159,700	-
Lagos	2,026,854,295	1,328,250,497	1,328,250,497	-	-	-
Total	**6,939,362,394**	**1,822,542,948**	**1,729,485,365**	**93,057,583**	**7,990,283**	**85,067,300**
USD	**9,415,580**	**2,472,893**	**2,346,629**	**126,264**	**10,842**	**115,422**

Unsupported mainly relates to missing evidence of receipt of items or services procured e.g. fuel, stationery, advocacy jingles and missing invoices and cash receipts from vendors. Inadequately supported expenditure relates to missing activity reports, meeting minutes or instances where payment vouchers are not approved by an appropriate level of management in line with financial procedures. Details of these are presented in Annex 10.

Root Cause

- ***Limited visibility over partner-managed funds and assurance outcomes***: Where UNICEF channels funds directly to state accounts, visibility for NPHCDA and Government over what is funded, how funds are distributed across states and how this aligns with state operational budgets is limited. Challenges in the effectiveness of assurance mechanisms, including weak follow-up to HACT spot checks, further reduce transparency and accountability.
- ***Insufficient financial management capacity and follow-through at state level***: Capacity gaps in financial management at state level (including weak documentation practices, limited reconciliation, and lack of formal follow-up on audit and spot check recommendations) contribute to recurring issues. In Bayelsa, Gombe and Lagos, there was no formal documentation of actions taken to resolve issues raised in spot checks, leading to repeated and unresolved control weaknesses.
- ***Assurance arrangements are not sufficiently geared towards building sustainable capacity***: While spot checks and external reviews are conducted, there is a need to recalibrate the balance between transactional assurance and broader capacity-building, particularly to prepare states to receive and account for Gavi funds through country systems.

Management comments

See detailed management responses on Annex 12

Risk / Impact / Implications	Responsibility	Deadline / Timetable
• Weak documentation, unresolved audit issues and questioned expenditures may undermine confidence in state-level implementing partners and jeopardise future funding from Gavi and other development partners. • Inadequate supporting documentation and weak financial controls increase the risk of non-compliance with the PFA requirements on proper use and documentation of Gavi funds. This raises the risk of financial mismanagement, including potential misuse or fraud, and could lead to questioned costs and, in severe cases, suspension or termination of funding.	NPHCDA	See Annex 12

4. Annexes

Annex 1 : Acronyms

AOP	Annual Operational Plan
AEFI	Adverse Effects Following Immunisation
AF	Accountability Framework
AP	Assurance Provider
BCG	Bacillus Calmette–Guérin vaccine
BHCPF	Basic Health Care Provision Fund
CCE	Cold Chain Equipment
CCEOP	Cold Chain Equipment Optimisation Platform
CDC	Centres for Disease Control and Prevention
CHAI	Clinton Health Access Initiative
CSO	Civil Society Organisation
DHIS2	District Health Information Software 2
DL&HC	Department of Logistics and Health Commodities
EEFO	Early Expiry First Out
EMID	Electronic Management of immunisation Data
EVMA	Effective Vaccine Management assessment
FCT	Federal Capital Territory
FMoH	Federal Ministry of Health
HPV	Human Papilloma Virus
HSS	Health System Strengthening
ICC	Interagency Coordination Committee
IEV	Identify Enumerate and Vaccinate
IPV	Inactivated Polio Vaccine
LGA	Local Government Area
LMIS	Logistics Management Information System
MOC	Ministerial Oversight Committee
MR	Measles-Rubella
NDHI	National Digital Health Initiative
NLWG	National Logistics Working Group
NITAG	National Immunisation Technical Advisory Group
NPHCDA	National Primary Health Care Development Agency
NSCS	National Strategic Cold Store

NHSRII	Nigeria Health Sector Renewal Investment Initiative
NSIPSS	Nigeria Strategy for Immunisation and PHC System Strengthening
PCV	Pneumococcal Conjugate Vaccine
PEF	Partnership Engagement Framework
PHC	Primary Health Care
SLWG	State Logistics Working Groups
SIA	Supplementary Immunisation Activities
SOP	Standard Operating Procedure
SPHDA	State Primary Health Care Development Agencies
SWAp	Sector-Wide Approach
TA	Technical Assistance
TCA	Targeted Country Assistance
UNICEF	United Nations International Children's Emergency Fund
VPD	Vaccine Preventable Disease
WUENIC	WHO/UNICEF Estimates of National Immunisation Coverage
WHO	World Health Organisation

Annex 2 : Methodology

Gavi's Audit and Investigations (A&I) audits are conducted in conformance with the Global Internal Audit Standards of the Institute of Internal Auditors. These Standards constitute the fundamental requirements for the professional practice of internal auditing and for evaluating the effectiveness of the audit activity's performance. The Institute of Internal Auditors' Global Guidance is also adhered to as applicable to guide operations. In addition, A&I staff adhere to A&I's Audit Manual.

The principles and details of the A&I's audit approach are described in its Board-approved Terms of Reference and Audit Manual and specific terms of reference for each engagement. These documents help our auditors to provide high quality professional work, and to operate efficiently and effectively. They help safeguard the independence of the A&I's auditors and the integrity of their work. The A&I's Audit Manual contains detailed instructions for carrying out its audits, in line with the appropriate standards and expected quality.

In general, the scope of A&I's work extends not only to the Gavi Secretariat but also to the programmes and activities carried out by Gavi's grant recipients and partners. More specifically, its scope encompasses the examination and evaluation of the adequacy and effectiveness of Gavi's governance, risk management processes, system of internal control, and the quality of performance in carrying out assigned responsibilities to achieve Stated goals and objectives.

Annex 3 : Definitions – audit opinion, audit rating and prioritisation

A. Overall Audit Opinion

The audit team ascribes an audit rating for each area/section reviewed, and the summation of these audit ratings underpins the overall audit opinion. The audit ratings and overall opinion are ranked according to the following scale:

Effective	**No issues or few minor issues noted**. Internal controls, governance and risk management processes are adequately designed, consistently well implemented, and effective to provide reasonable assurance that the objectives will be met.
Partially Effective	**Moderate issues noted.** Internal controls, governance and risk management practices are adequately designed, generally well implemented, but one or a limited number of issues were identified that may present a moderate risk to the achievement of the objectives.
Needs significant improvement	**One or few significant issues noted.** Internal controls, governance and risk management practices have some weaknesses in design or operating effectiveness such that, until they are addressed, there is not yet reasonable assurance that the objectives are likely to be met.
Ineffective	**Multiple significant and/or (a) material issue(s) noted.** Internal controls, governance and risk management processes are not adequately designed and/or are not generally effective. The nature of these issues is such that the achievement of objectives is seriously compromised**.**

B. Issue Rating

For ease of follow up and to enable management to focus effectively in addressing the issues in our report, we have classified the issues arising from our review in order of significance: High, Medium and Low. In ranking the issues between 'High,' 'Medium' and 'Low,' we have considered the relative importance of each matter, taken in the context of both quantitative and qualitative factors, such as the relative magnitude and the nature and effect on the subject matter. This is in accordance with the Committee of Sponsoring Organisations of the Treadway Committee (COSO) guidance and the Institute of Internal Auditors standards.

Rating	Implication
High	At least one instance of the criteria described below is applicable to the finding raised: • Controls mitigating high inherent risks or strategic business risks are either inadequate or ineffective. • The issues identified may result in a risk materialising that could either have: a major impact on delivery of organisational objectives; major reputation damage; or major financial consequences. • The risk has either materialised or the probability of it occurring is very likely and the mitigations put in place do not mitigate the risk. • Fraud and unethical behaviour including management override of key controls. Management attention is required as a matter of priority.
Medium	At least one instance of the criteria described below is applicable to the finding raised: • Controls mitigating medium inherent risks are either inadequate or ineffective. • The issues identified may result in a risk materialising that could either have: a moderate impact on delivery of organisational objectives; moderate reputation damage; or moderate financial consequences. • The probability of the risk occurring is possible and the mitigations put in place moderately reduce the risk. Management action is required within a reasonable time period.
Low	At least one instance of the criteria described below is applicable to the finding raised: • Controls mitigating low inherent risks are either inadequate or ineffective. • The Issues identified could have a minor negative impact on the risk and control environment. • The probability of the risk occurring is unlikely to happen. Corrective action is required as appropriate.

Annex 4 : List of sites visited

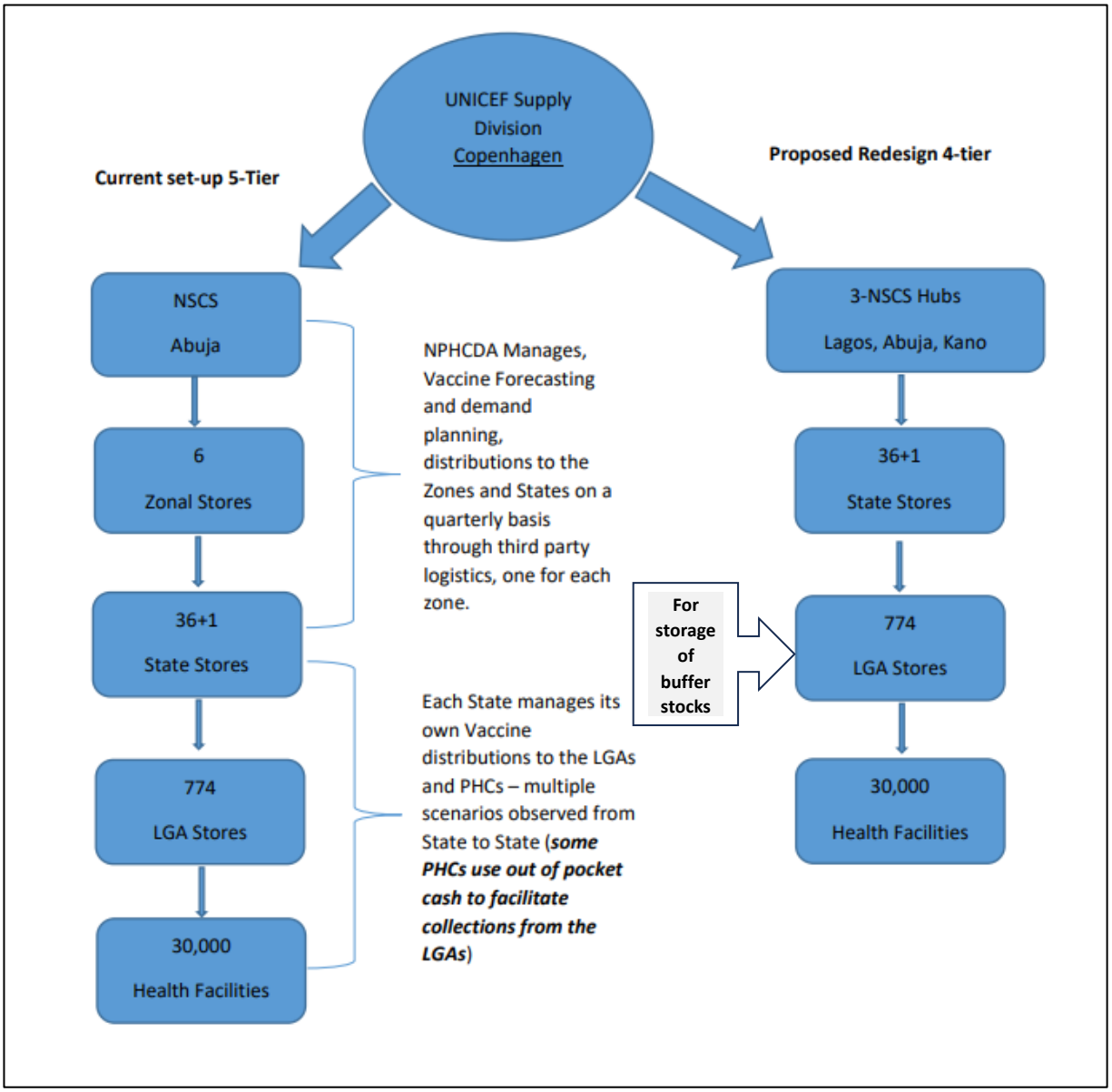
States (04)	LGAs (16)	Health Facilities (30)
Kano	1. Nassarawa 2. Tarauni 3. Kumbotso 4. Gezawa	1. Gwagwarwa 2. Karua Goje 3. Ungua Uku 4. Tarauni 5. Panshekara 6. Mariri 7. Jogana
Bayelsa	1.Yenegoa 2.Ogbia 3.Nembe 4.Sagbama	1.Zarama 2.Yeni – Zuegene 3.Nembe 4.Bassambiri 5.Elebele 6.Otueke 7.Sagbama
Gombe	1.Billiri 2.Kaltungo 3.Balanga 4.Shongom	1.Swa 2.Talasse 3.Kentengeren 4.Kulgul 5.Sabon Layi Awak 6.Gwandum 7.Kulishin 8.Kalorgu
Lagos	1.Kosofe 2.Surulere 3.Lagos Island 4.Eti Osa	1.Mende 2.Maidan 3.Coker Aguda 4.Orile 5.Sura 6.Itafaji Hp 7.Oriyanrin 8.Ikota

Annex 5 : Nigeria immunisation schedule

NPHCDA

Minimum Target Age of Child	Type of Vaccine	Dosage	Route of Administration	Site
At Birth	BCG	0.05ml	Intra dermal	Left Upper Arm
	*OPV0	2 drops	Oral	Mouth
	**Hep B0 birth	0.5ml	Intramuscular	Anterolateral aspect of Right thigh
6 Weeks	Pentavalent (DPT, Hep B and Hib) 1	0.5ml	Intramuscular	Anterolateral aspect of Left thigh
	Pneumococcal Conjugate Vaccine1	0.5ml	Intramuscular	Anterolateral aspect of right thigh
	*OPV1	2 drops	Oral	Mouth
	***Rota 1	5 drops	Oral	Mouth
	IPV1	0.5ml	Intramuscular	Anterolateral aspect of right thigh (2.5cm apart from PCV)
10 Weeks	Pentavalent (DPT, Hep B and Hib)2	0.5ml	Intramuscular	Anterolateral aspect of left thigh
	Pneumococcal Conjugate Vaccine2	0.5ml	Intramuscular	Anterolateral aspect of right thigh
	*OPV 2	2 drops	Oral	Mouth
	***Rota 2	5 drops	Oral	Mouth
14 Weeks	Pentavalent 3 (DPT, Hep B and Hib)	0.5ml	Intramuscular	Anterolateral aspect of Left thigh
	Pneumococcal Conjugate Vaccine3	0.5ml	Intramuscular	Anterolateral aspect of right thigh
	*OPV 3	2 drops	Oral	Mouth
	***Rota 3	5 drops	Oral	Mouth
	IPV2	0.5ml	Intramuscular	Anterolateral aspect of right thigh (2.5cm apart from PCV)
6 Months	Vitamin A 1st dose	100,000 IU	Oral	Mouth
9 Months	Measles 1st dose	0.5ml	Subcutaneous	Left upper arm
	Yellow Fever	0.5ml	Subcutaneous	Right upper arm
	Meningitis Vaccine	0.5ml	Intramuscular	Anterolateral aspect of Left thigh
12 Months	Vitamin A 2nd dose	200,000 IU	Oral	Mouth
15 Months	Measles 2nd dose (MCV2)	0.5ml	Subcutaneous	Left upper arm
9-13 years	***HPV 6 months interval (2 doses)	0.5ml	Intramuscular	Deltoid muscle (upper arm)

Annex 6: Vaccine flow structure in current and proposed system redesign



Annex 7: Gaps in Immunisation data for decision making

Annex 7(a): Denominators/targets for antigens administered at the same time

At Federal level

Year	IPV 1	PCV 1	Penta 1
2021	8,875,773	8,859,280	8,901,023
2022	9,153,044	9,149,019	9,231,010
2023	9,439,543	8,859,280	8,998,788
2024	9,946,271	9,100,125	9,180,301

At State level

a) Bayelsa

Year	IPV 1	PCV 1	Penta 1
2021	104,599	146,820	146,820
2022	107,647	150,784	150,784
2023	110,774	249,103	249,103
2024	114,297	253,836	253,836

b) Gombe

Year	IPV 1	PCV 1	Penta 1
2021	151,014	191,571	191,571
2022	155,850	197,319	197,319
2023	160,846	162,999	162,999
2024	166,452	167,726	167,726

c) Kano

Year	IPV 1	PCV 1	Penta 1
2021	610,861	291,690	291,690
2022	631,029	301,024	301,024
2023	651,864	429,711	429,711
2024	675,163	445,224	445,224

d) Lagos

Year	IPV 1	PCV 1	Penta 1
2021	578,307	573,268	573,268
2022	596,828	589,893	589,893
2023	615,906	549,224	549,224
2024	637,333	558,946	558,946

Annex 7(b): Inconsistent year on year changes to denominators at both Federal and state level

Federal Level

Year	BCG	IPV 1	IPV 2	PCV 1	PCV 3	Penta 1	Penta 2	Penta 3	Measles 1	Measles 2
2021										
2022	3.1%	3.1%	3.1%	3.3%	3.5%	3.7%	3.3%	3.4%	3.1%	3.1%
2023	3.1%	3.1%	3.1%	-3.2%	-2.1%	-2.5%	-3.2%	-2.4%	3.1%	3.1%
2024	5.4%	5.4%	5.4%	2.7%	2.1%	2.0%	2.7%	2.2%	5.4%	5.4%

State Level

a) Bayelsa

Year	BCG	IPV 1	IPV 2	PCV 1	PCV 3	Penta 1	Penta 2	Penta 3	Measles 1	Measles 2

2021	104,636	104,599	104,642	146,820	146,820	146,820	146,820	146,820	104,630	104,604
2022	107,656	107,647	107,635	150,784	150,784	150,784	150,784	150,784	107,656	107,641
2023	110,784	110,774	110,777	249,103	249,103	249,103	249,103	249,103	110,778	110,788
2024	114,287	114,297	114,298	253,836	253,836	253,836	253,836	253,836	114,291	114,285
CAGR	*3.0%*	*3.0%*	*3.0%*	*20.0%*	*20.0%*	*20.0%*	*20.0%*	*20.0%*	*3.0%*	*3.0%*

b) Gombe

Year	BCG Den	IPV 1	IPV 2	PCV 1	PCV 3	Penta 1	Penta 2	Penta 3	Measles 1	Measles 2
2021	151,013	151,014	151,038	191,571	191,571	191,571	191,571	191,571	151,023	151,026
2022	155,858	155,850	155,862	197,319	197,319	197,319	197,319	197,319	155,849	155,864
2023	160,835	160,846	160,847	162,999	162,999	162,999	162,999	162,999	160,836	160,857
2024	166,443	166,452	166,438	167,726	167,726	167,726	167,726	167,726	166,437	166,433
CAGR	*3.3%*	*3.3%*	*3.3%*	*-4.3%*	*-4.3%*	*-4.3%*	*-4.3%*	*-4.3%*	*3.3%*	*3.3%*

c) Kano

Year	BCG	IPV 1	IPV 2	PCV 1	PCV 3	Penta 1	Penta 2	Penta 3	Measles 1	Measles 2
2021	610,869	610,861	610,761	291,690	291,690	291,690	291,690	291,690	610,814	610,972
2022	630,998	631,029	630,989	301,024	301,024	301,024	301,024	301,024	631,016	631,010
2023	651,852	651,864	651,855	429,711	429,711	429,711	429,711	429,711	651,841	651,825
2024	675,166	675,163	675,224	445,224	445,224	445,224	445,224	445,224	675,160	675,144
CAGR	*3.4%*	*3.4%*	*3.4%*	*15.1%*	*15.1%*	*15.1%*	*15.1%*	*15.1%*	*3.4%*	*3.4%*

d) Lagos

Year	BCG	IPV 1	IPV 2	PCV 1	PCV 3	Penta 1	Penta 2	Penta 3	Measles 1	Measles 2
2021	578,255	578,307	578,308	573,268	573,268	573,268	573,268	573,268	578,340	578,263
2022	596,785	596,828	596,826	589,893	589,893	589,893	589,893	589,893	596,820	596,837
2023	615,896	615,906	615,906	549,224	549,224	549,224	549,224	549,224	615,920	615,963
2024	637,318	637,333	637,318	558,946	558,946	558,946	558,946	558,946	637,374	637,388
CAGR	*3.3%*	*3.3%*	*3.3%*	*-0.8%*	*-0.8%*	*-0.8%*	*-0.8%*	*-0.8%*	*3.3%*	*3.3%*

Annex 7(c): Inconsistent coverage date for co-administered antigens at both Federal and state level

Federal level

Year	IPV 1	PCV 1	Penta 1	Potential missed opportunity
2021	6,305,349	6,873,890	6,854,678	568,541
2022	6,996,587	7,548,174	7,601,737	605,150
2023	8,480,485	8,243,078	8,025,119	455,366
2024	8,606,508	8,699,382	8,132,829	566,553

State Level

a) Bayelsa

Year	IPV 1	PCV 1	Penta 1	Potential missed opportunity
2021	30,093	30,582	42,930	12,837
2022	43,651	42,798	59,876	17,078

c) Kano

Year	IPV 1	PCV 1	Penta 1	Potential missed opportunity
2021	551,546	573,133	272,934	300,199

2023	68,735	66,782	149,960	83,178
2024	85,060	83,688	185,859	102,171

b) Gombe

Year	IPV 1	PCV 1	Penta 1	Potential missed opportunity
2021	125,674	135,287	172,414	46,740
2022	175,830	180,992	246,273	70,443
2023	178,153	178,438	182,395	4,242
2024	149,474	148,023	149,142	1,451

2022	602,065	612,618	289,856	322,762
2023	642,477	641,163	422,879	219,598
2024	568,082	587,774	387,879	199,895

d) Lagos

Year	IPV 1	PCV 1	Penta 1	Potential missed opportunity
2021	441,306	413,772	408,855	32,451
2022	471,912	462,817	454,453	17,459
2023	517,731	516,135	464,809	52,922
2024	472,200	439,505	407,024	65,176

Annex 7(d): Significant variances between reported vaccinations and vaccines doses issued at both Federal and State level

Federal

	2023			2024		
Antigen	Stock Issues	Vaccinations	Percentage Difference	Stock Issues	Vaccinations	Percentage Difference
BCG	17,914,070	8,175,742	54%	22,977,080	8,259,454	64%
IPV	11,339,230	14,109,713	-24%	17,898,630	15,013,657	16%
Measles	10,540,860	11,204,108	-6%	14,451,310	12,564,398	13%
Pentavalent	26,072,100	22,892,498	12%	20,173,600	23,201,532	-15%

State Level

a) Bayelsa

	2023			2024		
Antigen	Stock Issues	Vaccinations	Percentage difference	Stock Issues	Vaccinations	% Difference
BCG	152,000	48,335	68%	152,760	62,732	59%
IPV	62,400	124,511	-100%	135,040	162,348	-20%
Measles	122,600	78,533	36%	78,150	107,054	-37%
Pentavalent	89,690	346,257	-286%	201,050	434,430	-116%

b) Gombe

	2023			2024		
Antigen	Stock Issues	Vaccinations	Percentage Difference	Stock Issues	Vaccinations	% Difference
BCG	511,120	160,095	69%	518,600	133,005	74%
IPV	326,000	335,880	-3%	457,230	278,547	39%
Measles	318,980	198,046	38%	306,140	240,632	21%
Pentavalent	385,560	518,827	-35%	538,300	432,034	20%

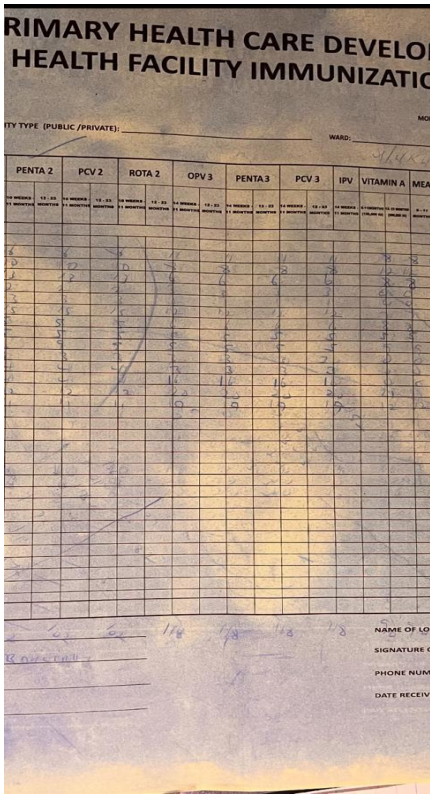
c) Kano

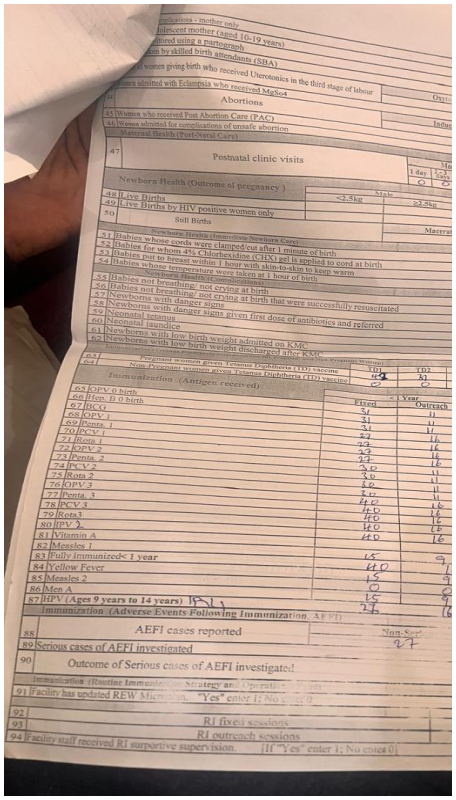
Antigen	Stock Issues	Va
BCG	1,188,500	
IPV	740,560	1
Measles	584,350	
Pentavalent	4,022,930	1

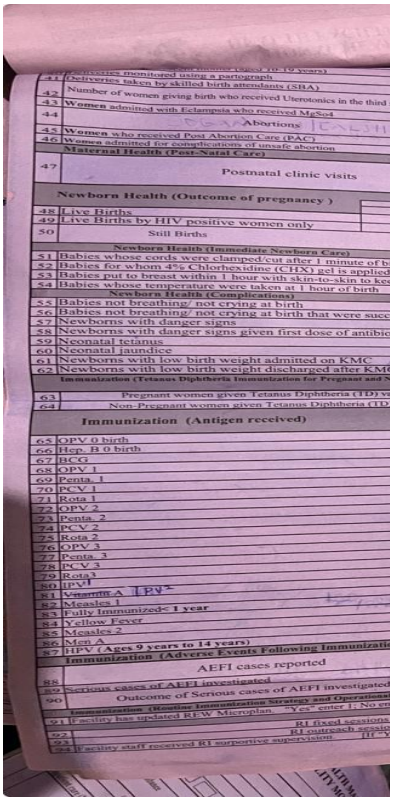
d) Lagos

Antigen	Stock Issues	Va
BCG	905,720	
IPV	667,250	1
Measles	599,380	
Pentavalent	1,001,610	1

Annex 7(e): Data tools do not include IPV 1 and 2







Annex 8: Gaps in Vaccine Supply Chain

Annex 8a: Stock reconciliation at NSCS

Vaccines	UoM	Opening Balance as of 1 Jan 2024	Total Receipts [Jan '24 - Dec '24]	Total Issues [Jan '24 - Dec '24]	Adjustments (damages, expiries etc.) [Jan '24 - Dec '24]	Expected Balance	Stock Balance	Variance
Pentavalent vaccine	(I Vial = 1 dose)	3,693,940	22,594,600	21,022,720		5,265,820	6,675,240	- 1,409,420
Inactivated Polio vaccine	(I Vial = 10 doses)	3,868,230	14,819,720	16,130,236	1,980	2,555,734	3,189,190	- 633,456
Pneumococcal Conjugate Vaccine	(I Vial = 4 doses)	2,220,740	21,672,808.00	20,236,831		3,656,717	922,132	2,734,585
Measles Containing Vaccine	(I Vial = 10 doses)	4,619,740	15,024,990	17,993,170		1,651,560	1,877,030	- 225,470

BCG	(I Vial = 20 doses)	13,094,680	12,946,720	22,060,480		3,980,920	3,311,760	669,160

Annex 8b: Variances between Manual and OpenLMIS records

Vaccines	Total Receipts [Jan '24 - Dec '24] Stock Ledger	Total Receipts [Jan '24 - Dec '24] OpenLMIS	Variance	Total Issues [Jan '24 - Dec '24] Stock Ledger	Total Issues [Jan '24 - Dec '24] OpenLMIS	Variance
Pentavalent vaccine	22,594,600	23,516,770	(922,170)	21,022,720	19,625,720	1,397,000
Inactivated Polio vaccine (IPV)	14,819,720	11,890,000	2,929,720	16,130,236	17,183,326	(1,053,090)
Pneumococcal Conjugate Vaccine (PCV)	21,672,808.00	18,905,200.00	2,767,608	20,236,831	22,244,730	(2,007,899)
Measles Containing Vaccine	15,024,990	12,516,300	2,508,690	17,993,170	17,183,326	809,844
BCG	12,946,720	11,608,000	1,338,720	22,060,480	23,138,950	(1,078,470)

Annex 8c: NSCS Physical Count Results.

Name of Vaccine	Batch No.	Expiry date	Quantity counted (A)	Quantity recorded in Stock Register (B)	Quantity recorded in Open LMIS (C)	Variance (A-B)	Variance (A-C)	Variance (B-C)
Pentavalent vaccine	2864X016A	28-Feb-27	2,082,830	88,480	1,500	- 105,650	- 18,670	86,980
	2865X009B	31-Oct-27		1,106,170	1,106,170			-
	2865X010A	30-Nov-27		993,830	993,830			-
				2,188,480	*2,101,500*			
Inactivated Polio vaccine	2509002A	Jan-28	318,000	**	318,000		-	
Pneumococcal Conjugate Vaccine	2095Y004A	Dec-27	508,000	508,000	508,000	-	-	-
Measles containing vaccine	25000125	Mar-28	335,900	**	335,900		-	
BCG	E2402, E2410	Aug 2026, Jan 2027	44,280	44,280	44,280	-	-	-

Annex 8d: State Vaccine Stores Physical Count Results.

State	Pentavalent			IPV			PCV			MCV			BCG		
	Variance Counted Vs Ledger	Variance Counted Vs OpenLMIS	Variance Register Vs OpenLMIS	Variance Counted Vs Ledger	Variance Counted Vs OpenLMIS	Variance Register Vs OpenLMIS	Variance Counted Vs Ledger	Variance Counted Vs OpenLMIS	Variance Register Vs OpenLMIS	Variance Counted Vs Ledger	Variance Counted Vs OpenLMIS	Variance Register Vs OpenLMIS	Variance Counted Vs Ledger	Variance Counted Vs OpenLMIS	Variance Register Vs OpenLMIS
Bayelsa	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-
Gombe	-	-	-	100	100	-	-	-16300	-16300	10	-13200	-13210	-	-6600	-6600
Kano	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lagos	-	-	-	10	10	-	-	-	-	3000	-	-3000	20	-20	-40

Annex 8e: LGA Vaccine Stores Physical Count Results.

LGA	Pentavalent			IPV			PCV			MCV			BCG		
	Variance Counted Vs Ledger	Variance Counted Vs OpenLMIS	Variance Register Vs OpenLMIS	Variance Counted Vs Ledger	Variance Counted Vs OpenLMIS	Variance Register Vs OpenLMIS	Variance Counted Vs Ledger	Variance Counted Vs OpenLMIS	Variance Register Vs OpenLMIS	Variance Counted Vs Ledger	Variance Counted Vs OpenLMIS	Variance Register Vs OpenLMIS	Variance Counted Vs Ledger	Variance Counted Vs OpenLMIS	Variance Register Vs OpenLMIS
Balanga	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Billiri	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kaltungo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eti Osa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kosofe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lagos Island	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surulele	-	-	-	-	-	-	-	-4	-4	-50	-50	-	-	-	-
Gezawa	240	240	-	-10	-	10	-172	-172	-	-	-	-	-	-	-

Kumbotso LGA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nassarawa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tarauni	-40	-40	-	-	-	-	-	-	-	-	-	-	-	-	-
Nembe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ogbai	-10	-10	-	-	-	-	12	12	-	10	10	-	20	20	-
Sagbama	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shongom	-	-	-	-	-	-	-	-	-	10	10	-	-	-	-
Yenegoa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Annex 8f: Health Facilities Physical Count Results.

Health Facilities	Pentavalent			IPV			PCV			MCV			BCG		
	Quantity counted	Quantity recorded in Stock Ledger	Variance	Quantity counted	Quantity recorded in Stock Ledger	Variance	Quantity counted	Quantity recorded in Stock Ledger	Variance	Quantity counted	Quantity recorded in Stock Ledger	Variance	Quantity counted	Quantity recorded in Stock Ledger	Variance
Nembe Bassambiri	40	40	-	40	40	-	24	40	-16	10	20	-10	20	20	-
Elebele	0	0	-	10	0	10	8	0	8	20	0	20	60	0	60
Gwandum	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Maidan	700	700	-	460	460	-	132	132	-	200		200	200	200	-
Orile	560	560	-	560	560	-	448	448	-	420	420	-	240	240	-
Panshekara	190	190	-	100	100	-	164	164	-	0	0	-	20	20	-
Ikota	150	150	-	110	100	10	132	132	-	120	120	-	220	220	-
Itafaji	60	50	10	30	30	-	56	56	-	80	80	-	80	80	-
Mende	150	120	30	120	110	10	148	148	-	90	90	-	260	260	-
Oriyanrin	60	60	-	60	70	-10	64	64	-	90	90	-	40	40	-
Gwagwarwa	500	490	10	270	270	-	440	540	-100	90	90	-	340	340	-
Unguwa Uku	270	270	-	170	170	-	272	272	-	20	20	-	260	260	-
Jogana	210	210	-	50	50	-	160	160	-	0	0	-	100	100	-
Mariri	170	170	-	1290	1190	100	1668	1660	8	70	70	-	1220	1220	-
Tarauni	500	500	-	470	470	-	500	500	-	270	270	-	440	440	-
Coker Aguda	130	150	-20	340	360	-20	312	332	-20	120	120	-	360	360	-
Sura	170	170	-	100	100	-	124	124	-	90	90	-	140	140	-
Kalorgu															
Kaura Goje	660	670	-10	540	540	-	672	654	18	260	260	-	200	240	-40
Ketengereng	160	160	-	40	40	-	100	100	-	50	50	-	0	0	-
Kulgul	40	40	-	50	50	-	12	12	-	60	60	-	120	120	-
Kulishin	20	20	-			-	40	40	-	20	20	-	20	20	-
Nembe	10	10	-	10	10	-	24	24	-	20	20	-	80	80	-
Otuoke	130	130	-	20	20	-	72	72	-	40	40	-	40	60	-20
Sabon Layi Awak	100	100	-	0	0	-	100	100	-	50	50	-	0	0	-
Sagbama	10	10	-	10	10	-	12	12	-	0	10	-10	20	40	-20
Swa															
Talasse	220	220	-	200	200	-	276	276	-	120	120	-	40	40	-
Yenizhegene	40	**		10		10	180		180	190		190	580	0	580
Zamara	80	50	30	10		10	48		48	50		50	80	0	80

Annex 8g: Number of Stock out days at Sate Vaccine Stores

State	Pentavalent	IPV	PCV	MCV	BCG
Gombe					11
Lagos	12	27	10		
	13		9		
			51		
Max # of stock out days	**13**	**27**	**51**		**11**

Annex 8h: Number of Stock out days at LGA Vaccine Stores

LGA	Pentavalent	IPV	PCV	MCV	BCG
Nassarawa	15		7		4
			70		
			14		
Kumbotso	45	10	5	42	15
	5	28	3	111	10
	4	27	67	2	
	25	3	12	29	
	29			40	
	15				
Gezawa	22	8	46	7	22
	27	24	19	129	7
	15	15	37	36	2
			6		
			6		
Billiri	5				
				3	3
					10
Balanga	3	5	3	2	6
	5		2	9	0
	6		5	3	4
	10			2	3
	5			2	
			10	7	9
	12		8	7	9
	12		4	4	12
	9		5	10	12
	9			5	3
Kaltungo	10			2	
			14	4	6
					10
					6
				7	3
Shongom		30	6		17
		6			
Eti Osa	31	18	68		3
	3				
Sagbama	16	25			
		4			
Kosofe	23	31	30		
			36		
Max # of stock out days	**45**	**31**	**70**	**129**	**22**

Annex 8i: Number of stock out days at Health Facilities

Health Facility	Pentavalent	IPV	PCV	MCV	BCG
Unguwa Uku		2			
Gwagwarwa	4	2	20	37	
				3	
Jogana	12	7	7	7	7
	28	12	7	14	7
	7	7	7	14	7
	6	14	7	9	14
	7	9	24	7	9
	2	7	7	*	7
Kaura Goje				6	
Panshekara	3				
	2	3	10		3
		12	13	15	
			4	8	
			13	5	
				20	
Mariri		62	67		2
			2	3	4
	4	5	14		
			6		
	4	12	3	6	
	4	7	7	13	
Talasse	7		4		
					4
					7
				5	
Sabon Layi Awak		2			2
			8		8
			7		
					5
Kulgul	6	27	19	14	
					5
					6
					5
					5
Ketegerneg					3
					2
Sura	11	9	16	4	
Itafaji		18	18		5
					5
Ikota	5		33		
	5				
Oriyanrin			66		
Mende	19		26	6	
			8		
	14		51		
Sagbama	7	2	2	2	
	2	5	2	5	7
	3	5	7	7	
	5	7			
	18	2			
	7				
Max # of stock out days	**28**	**62**	**67**	**37**	**14**

** Although the stock ledger showed that the facility had experienced a MCV stockout for 346 days, DHIS2 records indicated that the facility continued to vaccinate children with MCV throughout this period.*

Health Facility	Pentavalent	IPV	PCV	MCV	BCG

Annex 8j: Unexplained adjustments

Pentavalent Vaccine			
Month	New Stock Balance after adjustment	Stock Balance before adjustment	Variance
9-May-24	610	600	10
10-Jul-24	240	190	50
12-Nov-24	30	10	20
29-Nov-24	500	470	30
29-Nov-24	180	120	60
3-Feb-25	410	270	140
5-Mar-25	620	270	350
16-Apr-25	280	150	130
5-May-25	600	50	550

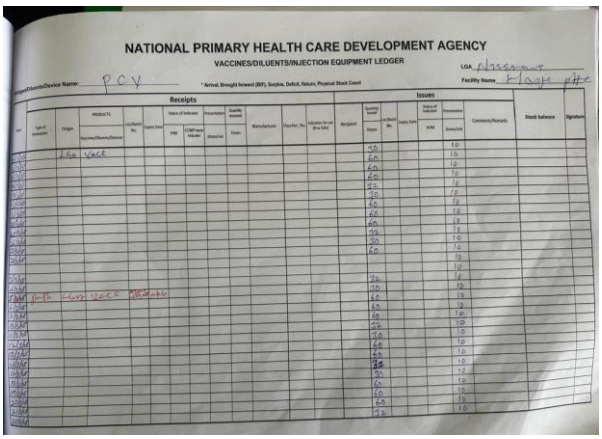
IPV				
Month	New Stock Balance after adjustment	Stock Balance before adjustment	Variance	Remarks
9-May-24	340	400	-60	30 doses were issued and instead of a balance of 370, the balance recorded was 340
5-Jun-24	200	0	200	The balance in the ledger was 0 and then the facility issued 80 doses and another 40 doses and the balance recorded was 200 without any receipt recorded
10-Jul-24	300	170	130	The balance in the ledger was 170 and 300 doses were received and the balance was recorded as 300
28-Jul-24	220	30	190	The balance in the ledger was 30, the facility issued 30 doses and yet recorded the balance as 220
2-Sep-24	311	170	141	The balance in the ledger was 170 and the facility issued 30 doses and yet recorded the balance as 311
21-Sep-24	180	60	120	The balance in the ledger was 60 and the facility issued 20 doses and yet recorded the balance as 180
3-Oct-24	120	20	100	The balance in the ledger was 20 and the facility issued 30 doses and yet recorded the balance as 120
5-Nov-24	60	20	40	The balance in the ledger was 20, the facility issued 10 doses and yet recorded the balance as 60
11-Nov-24	50	10	40	The balance in the ledger was 10, the facility issued 20 doses and yet recorded the balance as 50
11-Dec-24	200	140	60	The balance in the ledger was 140, the facility issued 20 doses and yet recorded the balance as 200
19-Dec-24	210	70	140	The balance in the ledger was 70, the facility issued 30 doses and yet recorded the balance as 210
13-Jan-25	210	80	130	The balance in the ledger was 80, the facility issued 20 doses and yet recorded the balance as 210
18-Feb-25	90	70	20	The balance in the ledger was 70, the facility issued 20 doses and yet recorded the balance as 90
7-Mar-25	400	230	170	The balance in the ledger was 230, the facility issued 30 doses and yet recorded the balance as 400

Pneumococcal Conjugate Vaccine				
Month	New Stock Balance after adjustment	Stock Balance before adjustment	Variance	Remarks
5-Jun-24	130	0	130	The balance in the ledger was 0, the facility issued 20 doses and yet recorded the balance as 130
10-Jul-24	240	190	50	The balance in the ledger was 190, the facility issued 10 doses and yet recorded the balance as 240
26-Jul-24	300	250	50	The balance in the ledger was 250 the facility issued 30 doses and yet recorded the balance as 300
30-Aug-24	470	230	240	The balance in the ledger was 230 the facility issued 20 doses and yet recorded the balance as 470
26-Sep-24	160	110	50	The balance in the ledger was 110 the facility issued 40 doses and yet recorded the balance as 160
3-Oct-24	140	10	130	The balance in the ledger was 10 the facility issued 20 doses and yet recorded the balance as 140
8-Oct-24	40	40	0	The balance in the ledger was 40 the facility issued 40 doses and yet recorded the balance as 40; when new stock was brought in 560, the balance became 600
10-Oct-24	530	540	-10	The balance in the ledger was 540 the facility issued 40 doses (4vials) and yet recorded the balance as 530; the issues were written as vials instead of doses on the ledger
13-Nov-24	0	10	-10	The balance in the ledger was 10 the facility issued 40 doses and yet recorded the balance as 0; the next day additional doses of 30 were issued and the balance was still written as 0; when new stock of 140 came in, the balance was updated as 140
2-Dec-24	470	350	120	The balance in the ledger was 350 the facility issued 30 doses and yet recorded the balance as 470;
23-Dec-24	130	50	80	The balance in the ledger was 50 the facility issued 20 doses and yet recorded the balance as 130;
23-Dec-24	190	100	90	The balance in the ledger was 100 the facility issued 10 doses and yet recorded the balance as 190;
15-Jan-25	190	0	190	The balance in the ledger was 0 the facility issued 30 doses and yet recorded the balance as 190;
21-Jan-25	100	80	20	The balance in the ledger was 80 the facility issued 20 doses and yet recorded the balance as 100;

IPV				
Month	New Stock Balance after adjustment	Stock Balance before adjustment	Variance	Remarks
31-Jan-25	290	360	-70	From 31 Jan 2025, whoever was completing or reconstructing the ledger got tired of writing the actual number of vaccines that were being issued; and instead reduced the balance from 390 to 260; without indicating the dates On the next page, on 10 Feb 2025, issued 30 in the comments column mentioned collected; and recorded a balance of 330
3-Mar-25	300	410	-110	The balance in the ledger was 410 the facility issued 30 doses and yet recorded the balance as 300; the next day; they issued 30 doses and recorded a balance of 270
6-Mar-25	600	270	330	The balance in the ledger was 270 the facility issued 40 doses and yet recorded the balance as 600; the next day; they issued 40 doses and recorded a balance of 570
18-Mar-25	0	360	-360	The balance in the ledger was 360 the facility collected / received 300doses; but did not write anything in the balance column; the next day, they issued 30 doses and recorded a balance of 570;
16-Apr-25	220	150	70	The balance in the ledger was 150 the facility issued 30doses; and recorded a balance of 220;
6-May-25	600	50	550	The balance in the ledger was 50 the facility issued 20doses; and recorded a balance of 600;
4-Jun-25	290	110	180	

BCG / diluent				
Month	New Stock Balance after adjustment	Stock Balance before adjustment	Variance	Remarks
May-24	300	300	0	The balance in the ledger was 300 the facility issued 40doses; and still recorded a balance of 300;
May-24	260	300	-40	The balance in the ledger was 300, the facility issued 160 doses and recorded a balance of 260; 4 issues were made while the balance was not changing
May-24	260	260	0	The balance in the ledger was 260, the facility issued 100 doses and recorded a balance of 260;
May-24	480	560	-80	The balance in the ledger was 560, the facility issued 40 doses and recorded a balance of 480;
Aug-24	500	100	400	The balance in the ledger was 100, the facility received 300 doses but instead recorded a balance of 500
Aug-24	340	420	-80	The balance in the ledger was 420 and the facility issued 200 doses but recorded a balance of 340
Aug-24	500	340	160	The balance in the ledger was 340 and the facility received 280 doses but recorded a balance of 500 instead of 620
Aug-24	220	500	-280	The balance in the ledger was 500 and they issued 540 doses; and recorded a balance of 220
Sep-24	500	300	200	The balance in the ledger was 300, the facility issued 20 doses and recorded a balance of 500

Annex 8k: Stock ledger page for PCV

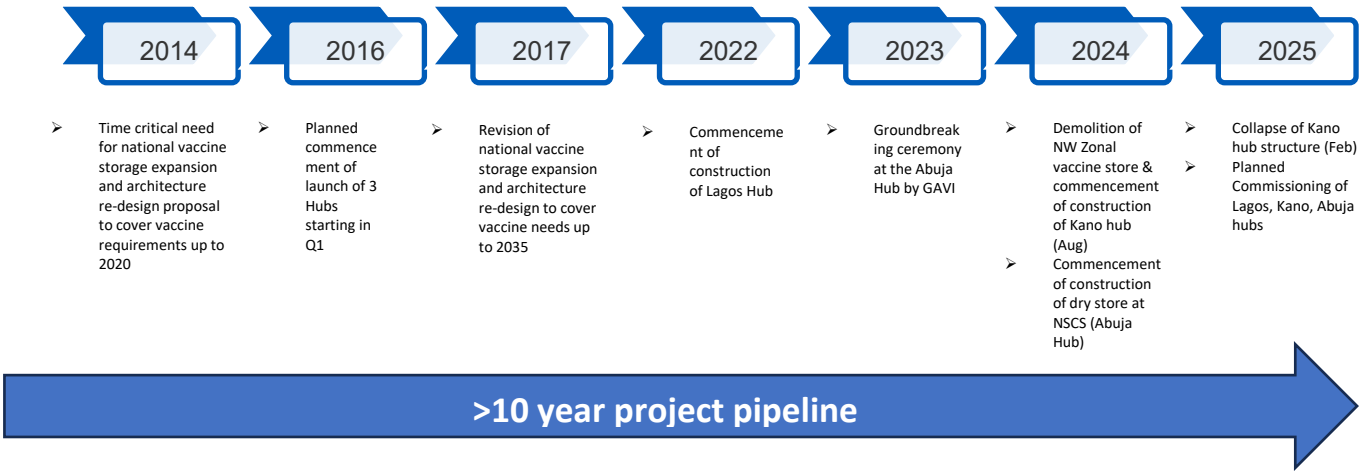


Annex 8l: Proposed site for Abuja hub dry goods store

Annex 8m: Kano Hub Site

Annex 8n: Storage challenges in Kano State

Annex 8o: 3-hub project timeline



Annex 9: Gaps in Programme Management

Annex 9(a): TA providers and supported activities in Kano State

TA Service Provider(s)	Areas of focus for TA	Overlap of activities within same LGA
New Incentives	RI, Zero dose, Supply chain, Demand Generation, Capacity building	YES
McKinsey	RI and Zero Dose	YES
UNICEF	RI, Zero dose, Leadership, Financial Management, Service delivery, Supply chain, Demand Generation, Data management, Capacity building	YES
WHO	RI, Zero dose, Leadership, Financial Management, Service delivery, Supply chain,	YES

	Demand Generation, Data management, Capacity building	
CHAI	RI, Zero dose, Leadership, Service delivery, Supply chain, Data management, Capacity building	YES
AFENET	RI, Zero dose, Leadership, Service delivery, Demand Generation, Data management, Capacity building	YES
dRPC	RI, Zero dose, Leadership, Demand Generation, Capacity building	YES
Solina	RI, Zero dose, Leadership, Financial Management, Service delivery, Supply chain, Demand Generation, Data management, Capacity building	YES

Annex 10: Schedule of questioned expenditure

State	Year	Date	Voucher No	Payment reference	Activity Details	Amount (NGN)	Adequately supported	Total Questioned cost (NGN)	Unsupported	Inadequately supported (No activity reports) (NGN)	Auditor's explanations/reasoning
Gombe State	2022	19-Apr-22	2006	GSPHCDA/S/ADM/31/V.I	Mahmud Ahmad Yalya & 903 Others: Payment for COVID - 19 Phase 2 Mass Vaccination	23,516,800		23,516,800	-	23,516,800	No activity report provided or attached. outreach allowances paid to 904 individuals (Outreach Allowances 191, Validators 124, Vaccinator 226, Recorders 229, and Town Announcers 134) who participated in COVID 19 mass vaccination
Gombe State	2022	22-Apr-22	2013	GSPHCDA/S/ADM/31/V.I	Danborn John Gimba & Others: Payment for COVID - 19 Phase 2 Mass Vaccination	8,896,000		8,896,000	-	8,896,000	No activity report provided or attached. outreach allowances paid to 377 individuals who participated in COVID 19 mass vaccination
Gombe State	2022	27-Apr-22	2015	GSPHCDA/S/ADM/31/V.I	Payment to SILHAF MULTI SERVICES: COVID-19 Mass Vaccination-Rental of Vans	3,830,583		3,830,583	3,830,583	-	No invoice or cash receipt from vendor attached to the voucher or provided
Gombe State	2022	24-Jun-22	2021	GSPHCDA/S/ADM/31/V.1	Salamatu Sanu & Others: PAYMENT FOR INTEGRATED YELLOW FEVER CAMPAIGN, HIRING OF VEHICLE FOR TEAMS IN THE WARD	9,240,000		9,240,000	-	9,240,000	No activity report provided or attached. The Executive Secretary did not sign the PV to acknowledge approval of the expenditure
Gombe State	2022	27-Jun-22	2026	GSPHCDA/S/ADM/31/V.1	Ahmadu Saleh & Others: PAYMENT FOR SECOND PHASE OF INTEGRATED CAMPAIGN	21,960,000		21,960,000	-	21,960,000	No activity report provided or attached. The Executive Secretary did not sign the PV to acknowledge approval of the expenditure

State	Year	Date	Voucher No	Payment reference	Activity Details	Amount (NGN)	Adequately supported	Total Questioned cost (NGN)	Unsupported	Inadequately supported (No activity reports) (NGN)	Auditor's explanations/reasoning
Gombe State	2022	18-Jul-22	2014	GSPHCDA/S/ADM/31/V.1	Payment for 2nd phase of House to House Mobilization on Integrated Measles Campaign	4,504,500		4,504,500	-	4,504,500	No activity report provided or attached. The Executive Secretary did not sign the PV to acknowledge approval of the expenditure
Gombe State	2022	13-Dec-22	13	GSPHCDA/S/ADM/31/V.I/175	Amina Umar & others: Payment for Maternal New Child Health Week	11,400,000		11,400,000	-	11,400,000	Payment of N10,000 to 1,140 Agents covering the 114 wards in the states. The Activity Report was not provided or attached
Gombe State	2022	22-Dec-22	30	GSPHCDA/S/ADM/31/V.I/183	Jamila Ahmed Wakili & others: Payment to LGA and State Monitors for 1 Day Review/Data Validation Meeting on MNCHW December 2022	1,078,000		1,078,000	-	1,078,000	The minutes of the Meeting/Activity Report were not provided or attached
Gombe State	2023	15-Oct-23	21	21003001	HADIZA UMAR SHINGA & OTHERS: PAYMENT FOR JOINT ASSESSMENT REVIEW/ EXTENSIONOF THE IMPLEMENTATION OF SSHDPII	4,472,000		4,472,000	-	4,472,000	NO Activity Report provided
Bayelsa State	2024	19-Dec-24	Y3-0289/2024	Y3-0289/2024	FUEL FOR BIG CATCH UP	2,988,000		2,988,000	2,988,000		Related to fuel for state and LGA generators for 9 days. However, there was no evidence that the fuel was delivered. The state generators were allocated 40 liters per day and the LGA generators 160 liters per day. Three quotations were obtained, and the lowest bidder was awarded.

State	Year	Date	Voucher No	Payment reference	Activity Details	Amount (NGN)	Adequately supported	Total Questioned cost (NGN)	Unsupported	Inadequately supported (No activity reports) (NGN)	Auditor's explanations/reasoning
Bayelsa State	2024	29-Apr-24	Y2-000333/24	Y2-000333/24	Payment for stationery supplied	115,000		115,000	115,000		i. No goods received note (GRN) to show that the items were actually supplied and received.
Bayelsa State	2022	4-Apr-22	2	2	'OBR 1 ACTIVITY	656,700		656,700	656,700		Includes payment for airing of jingles for the 1st synchronization OBRI (9-12 April) however there was no evidence confirming that the jingles aired as scheduled.
Bayelsa State	2022	16-May-22	6	6	'OBR2 ACTIVITY	820,000	420,000	400,000	400,000		Missing support for LGA disbursements N 100,000 and N 300,000 for airing of Jingles to Gefesco NIG LTD. Total N 400,000 not supported.
TOTAL						**93,477,583**	**420,000**	**93,057,583**	**7,990,283**	**85,067,300**	

Annex 11: Status of previous audit and review recommendations

#	Issue	Audit Recommendation	Management action	Responsibility	Deadline	Evaluation of Status 30 September 2025
1	Delay in operationalisation of the Immunisation Supply Chain Policy and Governance structures	NPHCDA should develop a suitable implementation framework, including plan and budget, as well as the necessary resources, to operationalise its 2021 immunisation supply chain policy. This framework should indicate key timelines for the activities, as well to articulate appropriate mechanisms for follow-up, support, monitoring and supervision	The recommendation is agreed.	DLHC, NLWG	31-Dec-22	• The 2021 iSC Policy has an implementation Framework outlined in its content (pp. 29) • Annual Costed workplans were prepared for "22,23,24 and 25 with funding sources identified. This recommendation is closed
2	Inaccuracies in vaccine forecasting	NPHCDA should: (i) review its vaccine consumption data at least twice a year to update its forecasts; and (ii) put in place a process which captures data on actual wastage rates, in order to increase the accuracy of its national and State level forecasts (refer to Recommendation 10)	Recommendation 2 agreed	NLWG	Twice a year	Quarterly forecast review by the NLWG commenced in December 2023. Consumption data is used to refine procurement and shipment plans. This recommendation is closed.
3		NPHCDA should ensure that the necessary documentation supporting its forecasting process, key decisions and assumptions, is consistently put on file for future reference.	Recommendation 3 is currently being practised; however, the country will work to strengthen the forecast documentation.	NLWG	31-Dec-22	We noted that files annually opened for hard copies of (previously electronic) documents used to support forecasting process. This recommendation is closed.
4	Inadequate central level cold chain storage capacity	Given the importance and the complexity of successfully reengineering the supply chain to the proposed “hub model,” NPHCDA should put in place a project management team responsible for preparing a cohesive plan and overseeing the implementation. Since an increasing volume of vaccines is to be handled by the Abuja, Kano and Lagos hubs, the construction at these sites should be expedited.	Gavi Country Support Team will follow up with NPHCDA, UNICEF and other stakeholders to accomplish necessary steps preceding the implementation of the cohesive plan. The implementation is scheduled to start from September 2022.	Gavi, UNICEF and NPHCDA	30-Sep-22	This recommendation is still outstanding. There have been substantial delays in the completion and commissioning of the three national vaccine hubs. See issue documented on 4.5.1 and Recommendation 20.

#	Issue	Audit Recommendation	Management action	Responsibility	Deadline	Evaluation of Status 30 September 2025
5		NPHCDA should secure funding so that it can insure its vaccines against damage or loss.	Agreed. Given the prevailing tight fiscal space for the FGoN, the NPHCDA will work with Gavi and other donors to explore the possibility of accessing funds to insure the vaccines and devices	NPHCDA	31-Dec-22	This recommendation is still outstanding. Failure to insure vaccines and cold chain assets has resulted in substantial programme losses: In February 2024, a fire at the Gombe state vaccine store destroyed substantial quantities of both Gavi-funded and non-Gavi vaccines, cold chain equipment, and vaccine delivery devices. See issue documented on 4.5.2 and Recommendation 21.
6	Vaccine temperature was not monitored during distribution	NPHCDA should undertake a cost effectiveness analysis to determine if investment in the refrigerated trucks would provide better value for money and operational efficiency. Thereafter, if the analysis supports the investment case, NPHCDA should develop a plan with the alliance partners, in order to mobilise the necessary resources. If/when refrigerated trucks are not used, NPHCDA should use appropriate temperature monitoring devices to ensure the continuous temperature monitoring of vaccines.	Use of refrigerated trucks is not currently within NPHCDA's plans in the medium term. Once the time is right, NPHCDA will decide on this. For now, NPHCDA will continue the use of cold boxes and appropriate temperature monitoring devices for vaccines distribution, while strengthening reporting.	NLWG, NPHCDA	Ongoing	Experience using refrigerated trucks showed that they were not cost-effective, given Nigeria's terrain and other challenges: Volume of vaccines, vast distances, high maintenance costs This recommendation is closed
7		NPHCDA should institute and document a mechanism to verify and validate that the 3PL companies strictly deliver vaccines under the 72 hours window.	Agreed	NLWG, NPHCDA	31-Dec-22	ToR for the 3PL companies were revised with special attention to Lagos to ensure vaccine delivery travel times never reach 72 hours. This recommendation is closed
8		NPHCDA and the state level stores are recommended to ensure that the VVM status is always checked and recorded during the hand-over of vaccines deliveries/ receipts between storekeepers working across different tiers and levels of the health system.	Although this is already ongoing, NLWG will intensify efforts to ensure 100% implementation of VVM checks	NLWG, NPHCDA	Ongoing	VVM monitoring is an ongoing activity, recorded electronically and manually. Copies of receipt documents from different levels of the iSC showing recorded VVM statuses were verified. This recommendation is closed

#	Issue	Audit Recommendation	Management action	Responsibility	Deadline	Evaluation of Status 30 September 2025
9		NPHCDA should advocate that the States and LGAs earmark and budget sufficient funds to finance vaccine distribution transit costs at the state and LGA level.	NPHCDA has been advocating for this for many years, with no success. The government plans to incorporate the cost of vaccine distribution from national to the last mile into the federal vaccine procurement costs.	NLWG, NPHCDA	31-Dec-22	Initial funding to scale up sub-national (state to HF) level distribution and provide proof of concept for state buy-in has been provided in the IMPACT project and through FPP. Approval obtained to conduct state engagement. This recommendation is closed
10	Lack of logistic management information systems, unreliable stock data, and poor stock management practices	NPHCDA, in coordination with Gavi and its alliance partners, should finalise the choice of vLMIS and prepare a costed plan for its implementation and rollout. The vLMIS is crucial for the implementation of the new iSC policy. It will provide critical data for several supply chain related decisions such as, forecasting (actual consumption and wastage), vaccine distribution, expiry and VVM monitoring, storage capacity planning for Supplementary Immunisation campaigns etc.	Already done	Not applicable	Not applicable	This recommendation is still outstanding. NPHCDA, with funding support from Gavi, technical support from CHAI and oversight by the NLWG has rolled out OpenLMIS® which is now providing visibility on vaccine stock down to LGA level. However, significant deficiencies were noted with the LMIS system. See issue on 4.4.2 and Recommendation 22

#	Issue	Audit Recommendation	Management action	Responsibility	Deadline	Evaluation of Status 30 September 2025
11		NPHCDA and SPHCDA are recommended to train all staff responsible for managing and handling vaccines to comply with the new established SOPs, particularly: 1. Maintaining accurate and real time vaccine registers, including the recording of batch numbers, expiry dates and VVM status. 2. Reviewing the consumption patterns at the corresponding subsidiary level before re-supplying their direct reports with additional vaccines. 3. Documenting, with necessary justifications, the process, results and follow up of each physical stock counts. 4. Promptly escalating and resolving temperature excursions notified by RTMDs. Adequately document all interventions. 5. Providing to all PHCs with the required stock keeping forms/records and job aids. 6. Ensuring compliance with EEFO principles, through proper recording and spot checks.	Agreed. Although the country recently concluded a nationwide Vaccine Management Training that addresses these issues, the NLWG will also leverage other trainings and engagement opportunities with national, state, LGA, and PHC teams to ensure adherence	NLWG	31-Dec-22	Training on these SOPs was conducted during Targeted EVMA in addition to continuous on-the-job training during supportive supervision, OpenLMIS check-in training and monthly LCCO meetings. This recommendation is closed

#	Issue	Audit Recommendation	Management action	Responsibility	Deadline	Evaluation of Status 30 September 2025
12	Unsatisfactory waste management	NPHCDA and SPHCDA are recommended to fully cost out waste management plans, to support the implementation and disposal of waste across the supply chain. In addition, appropriate resources need to be mobilised so that the States can budget for wastage disposal and reverse logistics management.	Agreed	NPHCDA	31-Dec-22	• UNICEF engaged Crown Agents for an assessment to form the basis of a strategic waste management plan for the country. Meanwhile, the following have been done: • Establishment of a national waste management committee with clear TORs • State Immunisation Waste Management Officers across 36 states and FCT were identified and trained • Reverse Logistics has been factored into the cost of Last Mile Delivery The recommendation is closed.
13	Irregularities in administrative immunisation coverage	It is recommended that NPHCDA and SPHCDA: • Routinely perform a triangulation of its immunisation data between doses distributed, vaccine utilisation and administrative coverage; and • Consistently complete data verification and validation exercises at the health facility levels as required by the National Data Management standard operating procedures.	Agreed	NPHCDA SPHCDAs	31-Dec-22	This recommendation is still outstanding. •The auditors noted no triangulation of coverage and vaccine data. •Some states have routine DQS but these were not comprehensive. See issues raised on 4.3.2 and Recommendation 23 & Recommendation 24
14	Delays in conducting surveys to provide timely and reliable information for decision making	It is recommended that NPHCDA, in collaboration with its partners, prioritise and fast track the completion of the MICS/ NICS survey; use the survey result to triangulate data; design appropriate targeted strategies and methodologies to boost the coverage; and address gaps in data quality (refer to recommendations from 15 to 18 below)	Agreed	NPHCDA	31-Dec-22	MICS/NICS 2021 were completed, and the results used to establish the status of the immunisation performance and identified 100 Zero dose districts for targeted intervention. Other new surveys are also available (i.e., NDHS) This recommendation is closed

#	Issue	Audit Recommendation	Management action	Responsibility	Deadline	Evaluation of Status 30 September 2025
15	Weaknesses in the design and implementation of the Data Quality Improvement Plan	NPHCDA should budget for its outstanding DQIP activities and ensure that funding is allocated to critical areas of the plan. It should also advocate for the States to include these DQIP activities in their state budgets.	Agreed. NPHCDA will budget for the outstanding DQIP activities and solicit partner support to implement and sustain the activities to improve data quality	NPHCDA	31-Dec-22	NPHCDA developed a costed DQIP and with support of partners some activities were conducted in Lagos, Jigawa, and Bayelsa states, in collaboration with MRITE. This recommendation is closed
16		NPHCDA should ensure that all DQIP activities are included in the performance measurement framework and are properly monitored.	Agreed	NPHCDA	31-Dec-22	This recommendation is still outstanding. The DQIP, which sets out ten strategic interventions for data quality improvement, including audits, feedback, and validation mechanisms, has largely not been implemented; 9 out of 10 interventions remain outstanding. This is due to funding constraints. See issues raised on 4.3.2 and Recommendation 25 & Recommendation 26
17	Gaps in data quality assurance mechanisms	NPHCDA should design and put in place a consistent, process that systematically identifies and corrects data anomalies at both national and sub-national levels. Additionally, NPHCDA should work with the State-level data teams to ensure that immunisation data is regularly reviewed and compared to underlying records at both the LGA and PHC levels and that the results of this process are recorded and put on file.	Agreed. There have been several efforts at the national level to systematically identify and follow up with states and LGAs on data quality issues. Examples include WHO data quality tool on DHIS2 platform and Data Quality Tracking Tool (DQTT) developed by AFENET and this is interoperable with DHIS2 platform. The outputs of DQTT are used to follow up with states every month.	NPHCDA	31-Dec-22	This recommendation is still outstanding. There have been efforts to intitutionalise data quality and routine monthly data review meetings at the ward and LGA levels, ensuring accurate data entry into DHIS. However, inaccurancies and inconsistencies are still observed. See issues raised on 4.3.2 and Recommendation 27 & Recommendation 28

#	Issue	Audit Recommendation	Management action	Responsibility	Deadline	Evaluation of Status 30 September 2025
18	Data flow process errors undermining the integrity of the data reported at national level	NPHCDA is recommended to establish principles for a proper data validation mechanism to be put in place at the subnational level, for e.g., regular reviews of primary data documents at PHC prior to submission the LGA, as well as a consistent process for DHIS2 data to be checked against original, underlying records.	Agreed. Issues around documentation and data inconsistencies have been an issue, but there is an effort from the country to address this, e.g., the EMID and full transitioning into e-Registry. The immunisation academy – using remote learning for continuous capacity building.	NPHCDA	31-Dec-22	This recommendation is still outstanding. At the sub-national level, some states with support from WHO, conduct data harmonisation meetings to ensure consistency before uploading the RI data into DHIS every month. Others are yet to achieve this due to funding constraints; therefore, inaccuracies and inconsistencies are still observed. See issues raised on 4.3.2 and Recommendation 29 & Recommendation 30
19	Inadequate monitoring of the CCE functionality and poor knowledge of cold chain capacity at the subnational level	NPHCDA should effectively advocate and follow up to ensure that sufficient funds for repairs and maintenance are allocated in the States' budgets	Agreed	NPHCDA	31-Dec-22	Repairs and maintenance of CCE is a key component of state continuous Improvement Plans (cIPs). The cIPs are used to advocate for State Budget funding for repairs and maintenance of CCE and other equipment Additionally, new CCE are procured with 10 years warranty for maintenance. This recommendation is closed.
20		NPHCDA should define (and promulgate) appropriate guidelines consistent with existing sub-national maintenance processes, setting out the frequency that State Maintenance Units should inspect their CCE units, so as to report their condition and status back to NPHCDA. Use of the Inventory Replacement and Rehabilitation Plan could be embedded in this requirement.	Agreed	NPHCDA	31-Dec-22	The frequency of maintenance is already embedded in the SOPs on maintenance. These have been developed and disseminated across all 36 States & the FCT. This recommendation is closed.

#	Issue	Audit Recommendation	Management action	Responsibility	Deadline	Evaluation of Status 30 September 2025
21	Unusable cold chain equipment not decommissioned	NPHCDA, through NLWG, should engage with the Ministry of Finance's Survey Board to conduct annual audits to identify and record all equipment that are eligible for disposal. The effort should be clearly costed, and the budget sources timely identified. To operationalise the engagement with the MOF's Survey Board, NPHCDA is encouraged to consult UNICEF's guidance material titled 'Decommissioning and safe disposal of cold chain equipment,' issued in April 2018. According to the guidance, there is a possibility of earning money by selling recovered refrigerant to a certified reclaimer. This money could partly contribute to expenses related to decommissioning.	Agreed	NPHCDA	31-Dec-22	This recommendation is still outstanding. Decommissioning was included in the FPP, and this will further support validation of serviceable and non-serviceable CCE. UNICEF's guidance material was part of the supporting documents for the upcoming decommissioning drive to be funded by Gavi through the FPP and a multistakeholder team including the Ministry of Finance's Survey Board will form the implementation team. States have been advocated to for them to set-up committees that will be tasked with the responsibility of: • Identification of obsolete CCEs and unserviceable Equipment • Working with State maintenance units to conduct technical assessment of CCEs and submission of the report to the authorised decommisioning Committee. The advocacy will continue during supportive supervisory visits.
22	Weaknesses in operationalisation of Targeted Country Assistance	NPHCDA through NERICC platform, should engage in designing the TCA delivery approach to ensure that the designated activities are specific, measurable, accurate, relevant and include defined timelines.	Since the TCA plan goes beyond NERICC (includes NPSIAs, COVAX, Surveillance, etc), the TCA delivery and coordination approach will be designed and managed through the office of the Director, Department of Disease Control and Immunisation.	NPHCDA (Director, DCI)	31-Dec-22	This recommendation is still outstanding. NPHCDA is involved in the design and prioritisation of PEF-TCA, however, state-level actors play no role in planning for TA. This has been reframed and presented under 4.2.2 and Recommendation 31.

#	Issue	Audit Recommendation	Management action	Responsibility	Deadline	Evaluation of Status 30 September 2025
23		NPHCDA through its NERICC platform, should mature its role in holding the TCA partners to account given that it is the primary intended beneficiary, so that it can formally confirm and validate on the reported deliverables prior to these being reported by the partners via the Gavi PEF portal.	Agreed, but will be conducted by the DCI. We propose to have a dedicated team that will provide the overall coordination platform. The PIT team that was proposed in the PCA report will be a starting point for a robust and better coordination of the Gavi activities including the TCA	NPHCDA (Director, DCI)	31-Dec-22	This recommendation is still outstanding. We noted the introduction of quarterly review meetings in mid-2024, which represent an important step toward strengthening joint performance monitoring. This has been reframed and presented under 4.2.2 and Recommendation 32.

Annex 12: Detailed management responses

Issue	Audit Recommendation	Management Action	Action Owner	Timelines
4.1.1 Immunisation governance and oversight bodies need to be integrated within the SWAp framework	**Recommendation 1** To accelerate integration of immunisation oversight bodies into the SWAp framework, NPHCDA should: • Institutionalise the MoC and SOC as the primary oversight bodies for immunisation activities at the federal and state levels, ensuring they have clear mandates to coordinate and oversee all immunisation activities under the SWAp framework. • Clarify the governance interface between existing immunisation structures (ICC, Core Group, TWGs) and the new SWAp governance bodies, ensuring they work in a coordinated manner to drive the immunisation agenda. • Formalise communication on governance arrangements to ensure that all stakeholders are informed of the new SWAp governance arrangements and their roles within this structure, fostering better coordination and oversight.	We are on this trajectory. Following the last ICC meeting it was agreed that in addition to the MoC meeting the NPHCDA will continue other othersight meetings for the immunization and PHC programmes. Therefore in view of this development, we came up with the following action points: 1. The DCI team will develop and operationalise a detailed communication plan based on the guidance provided by the HCMHSW and the calendar developed for the ICC and Core Group meetings. 2. Develop and disseminate the organogram showing the interface and reporting lines between the MoC, ICC, Core Group, TWGs and the SWAp governance structure. 3. Activate all the TWGs and indicate how these feed into the Core Group and ICC and they align with the SWAp governance structures and other technical bodies of the SWAp. 4. Disseminate the changes and communication line to all the stakeholders and work with the subnational team to align the SoCs and other existing governance and oversight structures.	DDCI and Team	June 30, 2026

Issue	Audit Recommendation	Management Action	Action Owner	Timelines
4.1.2 Immunisation governance structures at federal and state levels need to be strengthened	**Recommendation 2** To strengthen immunisation governance bodies, NPHCDA should: • Undertake a comprehensive review of the TORs for the ICC, Core Group, and all TWGs to ensure consistency, and align mandates with current national priorities and the emerging SWAp governance architecture. The review should also establish clear reporting relationships between national, state, and LGA-level structures. • Develop and institutionalise a formal communication and reporting framework between national and subnational governance bodies (e.g., NRIWG–SRIWG–LRIWG linkages) to facilitate systematic flow of decisions, performance data, and feedback. This should include structured joint reviews of Annual Operational Plans and immunisation performance • Establish mandatory operational standards for all governance forums (including minimum meeting frequency, quorum requirements, agenda-setting protocols, documentation standards and action-tracking procedures) and formally incorporate these into the TORs. NPHCDA should put in place mechanisms to enforce compliance with these standards, including routine performance reviews, escalation procedures where forums do not meet minimum requirements, and periodic reporting to senior management. Technical Working Groups that remain inactive despite these measures should be reconstituted or merged to avoid duplication	We align to this. 1. The Secretariat of the ICC and Core to review the existing ToRs of the ICC, Core and TWG's to strengthen the bodies and align with the SWAp. 2. NPHCDA through the NRIWG will develop a plan to disseminate the revised structures and work with the states to replicate similar structures at the sub-national levels for better alignment and seamless communication. The NPHCDA will convene an agency wide AOP workshop, to finalize the 2026 AOP and ensure this feedback is well captured in the plan. Also use the opportunity to disseminate the relevant audit findings to the NPHCDA subnational teams. 3. Develop SOPs from existing approved accountability documents and update to include governance structures and ensure operationalisation compliance	DDCI, DLHC, DAC DPRS	June 30, 2026

Issue	Audit Recommendation	Management Action	Action Owner	Timelines
4.2.1 Weak routine immunisation delivery systems limit coverage and leave many children unprotected	**Recommendation 3** To improve routine immunisation service delivery, NPHCDA should: • Expedite rollout of the revised BHCPF guidelines, which will expand funding to more PHCs, and align disbursement timing with session plans to support full execution of fixed and outreach sessions. • Update microplanning templates to ensure clear linkage between planned activities, targets and outputs, and institutionalise biannual review of microplan implementation by State RIWGs and LGA RIWGs. • Integrate Z-DROP and IEV data into DHIS2 dashboards to monitor enumerated versus vaccinated children and include zero-dose reduction metrics in routine performance reviews at federal, state and LGA levels	1. BHCPF team to provide update to the NRIWG to align on the additional facilities and the potential benefit RI will drive from BHCPF on financing the vaccine collection and the funding of integrated outreaches for ease of tracking by the immunization team. 2. NRIWG will convene a meeting to review and update the microplan template and ensure they are incorporated into the biannual reviews of the immunisation activities for national and subnational. 3. The team will develop plan for the nationwide scale-up and Integration IE+V, use the IE data to track and vaccinate ZD children and ensure the data is reported in the DHIS2.	1. BHCPF Team 2. NRWG and DPRS 3. IEV FP NRWG	June 30, 2026
4.2.2 Design and coordination of technical assistance need to be improved	**Recommendation 4** To improve the design, coordination and monitoring of technical assistance and ensure sustainability, NPHCDA should: • Institutionalise state-level involvement in TA planning by building on the emerging state participation in the FPP process by introducing a sub-national annual prioritisation phase before national TA planning. Gavi-supported interventions should be embedded in State AOPs with a joint monitoring and reporting framework. • Require all TA engagements to include explicit capacity-building components, clearly defined skills transfer plans and timelines for transitioning TA-supported responsibilities to NPHCDA and state-level staff where technical assistance is intended to strengthen institutional or staff capacity. • Strengthen the existing quarterly review mechanism (QRM) by requiring all TA partners to present progress against agreed milestones to NPHCDA during these sessions. NPHCDA should consolidate these inputs into a national TA	1. We shall develop plan of subnational involvement in the prioritization of the TA support to ensure alignment with this recommendation - one TA plan to be finalized with inputs from the states. Work with the states to ensure the Gavi support is embedded in the state AOP, leveraging the subnational funding provided by Gavi in the HSS3. 2. The TA plan will be reviewed and deliverables should include staff capacity transfer to both national and subnational government staff, with clear timelines for the transitioning such to government. 3. Based on the updated TA plan, a milestones-based dashboard will be activated for TAs to share progress and identify bottlenecks against targets which will feed into the QRM process and strengthen it in line with broader AOP. This will also be used as a basis for TA renewal and payment	DDCI	September 30, 2026

Issue	Audit Recommendation	Management Action	Action Owner	Timelines
	performance dashboard, which will serve as the formal basis for government validation of TA progress prior to Gavi's review and payment processes. • Work with the SWAp Secretariat to build on the ongoing national TA assessment and develop a harmonised, government-led TA mapping process. This should progressively extend to state level, clarifying partner roles, expected contributions and areas of support, and strengthening partner participation in existing coordination platforms such as State RIWGs and LGA RIWGs.	4. Engage SWAp team on the one TA plan for harmonization and alignment at national and sub-national levels based on the programme needs and current realities.		
4.2.3 Strengthen coordination, reporting and system functionality to improve VPD surveillance performance	**Recommendation 5** To improve the VPD surveillance system in the Country, FMoH in collaboration with NCDC, NPHCDA, State PHCDA and partners should. • Grant access to the SORMAS system to all relevant stakeholders, including State DSNOs, within the VPD surveillance data collection and reporting structure to enhance coordination, data sharing, and real-time response capabilities. • Improve private sector engagement in disease surveillance by enhancing awareness of surveillance regulations and reporting requirements through targeted training programs, provision of necessary surveillance tools and data collection forms, incentivising participation and strengthening legal and policy frameworks to encourage compliance. • Establish a structured and inclusive communication system that actively involves State DSNOs in the specimen testing and results follow-up process. This should include ensuring that specimens collected at the LGA level, with support from health facilities, are tracked through laboratories with updates provided to both LGA and state levels.	Head of Surveillance Division to: • secure access to SORMAS for national and sub-national officers, national team and DSNOs • build capacity of private sector health workers and provide tools for reporting • provide monthly updates on the surveillance and triangulate with RI performance. Ensure States' participation in surveillance activities, eg case investigations, following up with the proceedings • Train national and subnational on the basis of surveillance and use of data for decision making	Head of Surveillance with Guidance from the DDCI	September 30, 2026

Issue	Audit Recommendation	Management Action	Action Owner	Timelines
4.2.4 Recurrent VPD outbreaks highlight the need to strengthen routine immunisation and surveillance systems	**Recommendation 6** To Control VPD outbreaks, MoH in collaboration with NPHCDA, State PHCDA and partners should. • Improve RI delivery by implementing the strategies mentioned in Section 4.2.1 • Improve VPD surveillance and response as highlighted in section 4.2.3 • Ensure timely completion of post-campaign activities, including PCCS, and applying insights gained from these activities to enhance the design and execution of future campaigns	1. The Service Delivery team will factor the strategies captured in 4.2.1 and ensure it is captured in the AOP for implementation (these strategies are: Zero Dose Reduction Plan (Z-DROP); and the Identify, Enumerate and Vaccinate (IEV) strategy) 2. The surveillance division will ensure activities in 4.2.3 (The role of DSNOs in surveillance and case management activities as capture in the MR Surveillance guidelines) are captured in AOP and implemented as plan 3. The NPSIA unit to follow up the designed chronogram for the implementation of the post campaign activities, immediate and the long-term activities.	1. Head NRIWG Division 2. Head of Surveillance Division 3. Head of Disease Control Division	September 30, 2026
4.3.1 Inaccurate denominators distort coverage rates and weaken programme planning	**Recommendation 7** To improve oversight and accuracy of current denominators, NPHCDA should: • Create and institutionalise a review mechanism through which NPHCDA validates and signs off annual denominator sets (national and state) before they are uploaded into DHIS2 for use in administrative coverage. • Mandate that denominators for antigens administered at the same visit (e.g. IPV1, PCV1, Penta1) are identical at federal and state levels. Work with FMoH to configure DHIS2 to enforce alignment and consistency checks for these antigens, with exception reporting where discrepancies arise.	All denominators for all RI antigens will be aligned across board. DDCI and DPRS will engage the DPRS of FMoH for the signoff of the annual denominator. RI data team will work with FMoH to design validation rule.	1. NRIWG Data team lead to follow-up with DPRS	September 30, 2026
	Recommendation 8 Given delayed census data, NPHCDA should use outputs from the IEV strategy to establish interim population targets for zero-dose tracking and microplanning, ensuring that these are treated as operational estimates until more formal population data become available.	1. IE is ongoing in 14 States, and the data will be used immediately based on the developed data utilization plan with support from CDS3. 2. NRIWG to develop scale-up plan for national coverage, in alignment to the revised DQIP	NRIWG	September 30, 2026

Issue	Audit Recommendation	Management Action	Action Owner	Timelines
4.3.2 Completeness and reliability of immunisation coverage data require enhancement	**Recommendation 9** To improve the consistency and accuracy of immunisation data, NPHCDA should work with FMoH to review and update DHIS2 validation rules to reflect current programme needs and configure them to require review of flagged records before final submission, particularly for outliers and inconsistencies between co-administered antigens.	Discussions with FMoH are ongoing on setting/updating validation rules for all programme areas utilising DHIS2 for reporting their programmes.	DPRS to lead the intervention and NRIWG Data team to track progress	September 30, 2026
	Recommendation 10 To improve reliability and completeness of immunisation coverage data, NPHCDA should: • Assess the DQIP for activities that align to current strategies e.g. IEV being rolled out. Confirm and deprioritise other activities that will not be implemented. • Develop a roadmap that will align IEV to other data initiatives like the proposed EIR starting with the National Digital Health initiative to define milestones, governance structure, and financing plan. • Liaise with states to print and supply health facilities with new data-collection tools that include IPV1 and IPV 2, with space for the new anticipated vaccines in the pipeline. • Establish a routine process, led by NPHCDA in collaboration with partners, to triangulate vaccinations reported in DHIS2 with vaccines issued in OpenLMIS, and reconciling administrative coverage of antigens administered at the same time.	1. NRIWG Data team and PRS to review the existing DQIP and reprioritize activities for implementation and scale-up. While current FPP have been finalized, the DQIP review may lead to new country priorities that may require additional funding. 2. Agreed. The IE+V to work with the broader EIR team and national digital team to develop the roadmap for national alignment. 3. This has been addressed with the recent MR introduction. 4. DHIS2 and OpenLMIS interoperability has been established. Next step is to deploy the Last Mile visibility tool for stock management reporting at HF level. Then the Analytics Dashboard (new feature for OpenLMIS extensions) will be activated for triangulation of number of doses deployed (OpenLMIS) with number of clients vaccinated (DHIS2 data).	1. NRIWG TL 2. DPRS 4. DLHC	September 30, 2026

Issue	Audit Recommendation	Management Action	Action Owner	Timelines
4.4.1 Weak digital health governance threatens sustainability of immunisation information systems	**Recommendation 11** To ensure a more sustainable and efficient digital eco system; • NPHCDA should work with NDHI to finalise and approve the National Digital Health Roadmap, establishing clear standards, governance roles and enforcement mechanisms. Further Gavi digital investments should only proceed once the roadmap is approved and operational. Additionally, all future Gavi and partner-funded digital investments should be channelled through FMoH/NDHI's oversight mechanisms, ensuring alignment with national priorities, a registry of approved tools and monitoring of compliance. • NPHCDA should develop and adopt an ICT policy and data governance procedures covering data backup/restoration, password and user management, access control and minimum security standards. • Under NDHI/FMoH stewardship, finalise and implement the enterprise integration architecture and establish a compliance mechanism requiring all immunisation systems to align with national interoperability standards. • Immediate infrastructure remediation required to refurbish or relocate servers to a secure environment with: o Functional air conditioning o Leak-proof roofing o Fire safety equipment	1. ICT Policy: NPHCDA can achieve this by adopting a phased approach over 6–9 months, beginning with a gap assessment and stakeholder engagement, followed by the development and approval of an ICT and data governance policy. The approved policy should then be operationalized through system configuration, staff training, and enforcement of data backup, access control, and minimum-security standards. Continuous monitoring and periodic reviews should be instituted to ensure compliance and sustainability. 2. Following the recommendation, a full assessment was conducted to enable a complete revamp of the server room. The implementation plan is as follows: Phase I: National Data & Infrastructure Assessment — Immediate to January 2026 Phase II: Contract Process — February 2026 Phase III: Core Infrastructure Setup and Disaster Recovery (DR) Setup — March 2026 Phase IV: Data Transmission Phase V: Governance and Capacity Building Phase VI: Support	DPRS	September 30, 2026

Issue	Audit Recommendation	Management Action	Action Owner	Timelines
4.4.2 Design and functionality of immunisation information systems require optimisation	**Recommendation 12** To optimise the design and functionality of OpenLMIS, NPHCDA should: • Prioritise immediate OpenLMIS system stabilisation and security remediation: The newly appointed vendor should be tasked with addressing critical vulnerabilities as a matter of priority. This includes installing SSL certification, enabling audit trails, securing backend access and closing unauthenticated query endpoints. A rapid security and performance audit should be conducted to inform the stabilisation plan. • Working with NDHI and the new vendor to prepare an upgrade roadmap covering: migration of OpenLMIS to the latest stable release upgrading the Superset analytics environment configuration of core supply chain modules, including requisition and order workflows integration with remote temperature monitoring devices strengthening validation rules, batch tracking and code list governance. The roadmap should be phased, costed and aligned with programme priorities and available resources. • Formalise governance arrangements by establishing a joint OpenLMIS steering group with NDHI assigning clear ownership for configuration, upgrades and data governance instituting periodic technical and functional reviews ensuring the vendor's activities align with national digital health standards. This governance structure should be anchored in the national digital health architecture to ensure long-term coherence and sustainability.	1. System Optimization & Security (Q4 2025): a) Completed the comprehensive gap analysis of OpenLMIS design and functionality requirements. b) Shared prioritised extension development list with UNICEF and VillageReach for expedited implementation c) Partner with new vendor to address critical security vulnerabilities (SSL certification, audit trails, backend access controls, endpoint authentication) – Q1 2026 2. Upgrade Roadmap Development (Q1 2026) a) Collaborate with **NDHI** and VillageReach to prepare phased upgrade plan including: b) Migration to latest stable OpenLMIS release c) Superset analytics environment upgrade d) Core supply chain module configuration (requisition/order workflows) e) Remote temperature monitoring device integration (CCDX) f) Enhanced validation rules and batch tracking g) Develop costed implementation timeline aligned with programme priorities 3. Governance & Sustainability (Q1 2026 - Ongoing) a) Established OpenLMIS Project Implementation Team (PIT) as steering group b) Align governance structure with **NDHI** and national digital health architecture standards c) Define clear ownership roles for configuration, upgrades, and data governance to NPHCDA ICT d) Institute quarterly technical and functional review cycles e) Ensure full administrative control transition to NPHCDA ICT	DLHC DPRS	December 31, 2026

Issue	Audit Recommendation	Management Action	Action Owner	Timelines
	Recommendation 13 To optimise the design and functionality of DHIS2, NPHCDA should work with FMoH: • To establish a support contract with HISP to ensure ongoing optimisation of DHIS2. Priority actions include integrating zero-dose tracking, microplanning and WHO data quality tools. As the new vendor stabilises OpenLMIS, both platforms should work jointly on designing the planned interoperability layer to improve visibility of stock utilisation, traceability and accountability. • To undertake a national exercise to validate and update the Master Facility List, ensuring alignment between DHIS2, OpenLMIS and other national systems. Regular review mechanisms should be put in place to maintain accuracy, including for private sector facilities.	1. Head of M&E (PRS) will coordinate the achievement of the optimisation process 2. Develop plan and secure access from FMoH for review of Health Facility Master list of all facilities including RI providing facilities to maintain accuracy. 3. Provide Monthly Progress update to NRIWG until the recommendation is achieved	1. Head of M&E in PRS 2. Head NRIWG	December 31, 2026

Issue	Audit Recommendation	Management Action	Action Owner	Timelines
4.5.1 Delays in establishing the national vaccine hub system have undermined storage capacity and created supply chain inefficiencies	**Recommendation 14** To complete, commission and fully realise the benefits of the 3-hub model, NPHCDA, in collaboration with partners, should: • Apply lessons learned from the Lagos hub to inform remediation strategies for the Abuja and Kano sites, including re-assessment of construction quality, structural integrity and engineering plans. • Constitute a multisectoral project management team involving all relevant stakeholders (engineering, procurement, supply chain, donors, state representatives) to oversee project inception, execution, commissioning and closure. • Develop and implement a comprehensive construction risk management plan, including regular site inspections, quality assurance protocols and escalation mechanisms. • Introduce interim storage and distribution measures such as "just-in-time" delivery, cross-docking and improved last-mile delivery practices to mitigate current storage pressures until the hubs are operational.	1. Lessons Learned & Site Re-assessment (Q1 2026) a) Conduct comprehensive review of Lagos hub construction challenges and successes b) Review existing structural integrity and engineering assessments for Abuja and Kano sites to determine avenues for remediation. c) Re-evaluate construction quality baseline and identify remediation requirements d) Re-assess status of the cold store e) Apply Lagos hub lessons to update Abuja and Kano construction strategies 2. Enhanced Project Management Structure (Q1-Q2 2026) a. Reconstitute Central 3-Hubs Project Management Team for strategic oversight b. Establish dedicated Project Management Offices (PMOs) at Abuja and Kano construction sites with UNICEF collaboration c. Engage supervisory consulting firm with a consortium of experts multisectoral project teams including: i. Team Leader ii. Architect iii. Structural/Civil Engineer iv. Mechanical Engineer v. Electrical Engineer vi. Quantity Surveyor vii. Procurement and supply chain managers viii. Quality assurance officers d. Engagement of the construction firm for Abuja & Kano e. Implement updated Terms of Reference for hub consultant supervisors with strengthened monitoring mandates	1. Dr Kabiru 2. Tochukwu Azubike 3. Mr. Adagu 4. Mr. Yoms	31 Dec 2026

Issue	Audit Recommendation	Management Action	Action Owner	Timelines
		3. Comprehensive Risk Management Framework (Q1 2026) a. Develop and deploy construction risk management plan covering: i. Weekly site inspection protocols with documented checklists ii. Quality assurance testing at critical construction milestones iii. Four-tier escalation mechanism (Site PMO → Central Team → Management → Partners) iv. Environmental and safety compliance monitoring v. Budget and timeline variance tracking b. Institute monthly PMO reporting to Central Project Management Team c. Establish quarterly stakeholder review meetings with donor participation 4. Interim Storage & Distribution Mitigation (Immediate - Q1 2026) a. Critical Priority: Implement temporary measures to address current storage capacity constraints: i. Deploy "just-in-time" delivery protocols to reduce warehousing duration ii. Establish cross-docking operations at state level to bypass congested storage points iii. Strengthen last-mile delivery capabilities through: 1. Enhanced cold chain transport scheduling 2. Optimized delivery route planning 3. Increased coordination with LGA distribution points iv. Explore temporary storage rental options in strategic locations v. Implement enhanced inventory forecasting to minimize excess stock holding vi. Strengthen coordination for 3PL distribution		

Issue	Audit Recommendation	Management Action	Action Owner	Timelines
4.5.2 Weaknesses in inventory management may hamper vaccine accountability	**Recommendation 15** To improve inventory management at National and subnational level, NPHCDA in collaboration with SPHCDA and partners should: • Accelerate the development and implementation of the WMS at the Hubs, starting with the NSCS, building on user acceptance training completed in October 2025. • Update the existing SOPs to include procedures and approval levels of passing stock adjustments at different vaccine handling points • Introduce minimum standards requiring routine physical stock counts and documented supervisory review. • Undertake a structured assessment of vaccine loss risk mitigation options, including cost–benefit analysis of insurance versus self-insurance mechanisms, and propose a sustainable model for asset protection.	1. Warehouse Management System (WMS) Implementation (Q4 2025 - Q2 2026) a) Completed: User Acceptance Testing (UAT) at National Strategic Cold Store (NSCS) - October 2025 b) In Progress: WMS rollout to NSCS initiated November 2025 c) Q1 2026: Deploy WMS to Lagos, Abuja and Kano (when operational) hubs d) Q1-Q2 2026: Phased state-level WMS implementation in collaboration with SPHCDAs e) Provide ongoing user training and technical support at each deployment site f) Establish WMS helpdesk for troubleshooting and system optimization 2. Standard Operating Procedures (SOPs) Revision (Q1 2026) a. Update national vaccine inventory management SOPs b. Disseminate updated SOPs to all states through SPHCDA coordination c. Integrate SOP requirements into WMS workflow automation 3. Physical Stock Count Standards & Supervisory Review (Q1-Q2 2026) a. Establish minimum inventory management standards b. Institute documented supervisory review protocols: c. Develop standardized stock count forms and checklists integrated with WMS/OpenLMIS 4. Vaccine Loss Risk Mitigation Assessment (Q1-Q3 2026) a. Commission comprehensive vaccine loss risk assessment b. Conduct cost-benefit analysis of risk mitigation options: c. Engage insurance providers and financial advisors for technical input	Mr. Yoms Ishaku & Tochukwu Azubike	31 Dec 2026

Issue	Audit Recommendation	Management Action	Action Owner	Timelines
		d. Develop risk mitigation recommendation paper with sustainable financing model e. Present findings to NPHCDA management and partners for decision by Q3 2026		
	Recommendation 16 To improve distribution planning and scheduling NSCS should: • Design and implement an annual distribution schedule that clearly defines expected delivery periods to the respective stores for each cycle. Where co-financing funds are released late and vaccines are received late, NSCS should adjust distribution plans transparently and issue revised schedules to states to support local planning.	There is an operational annual distribution schedule, which will be shared with the states, and quarterly updates communicated regularly to ensure alignment on the details of each delivery.	Yoms, Adagu	Ongoing
4.6.1 Financial sustainability for the immunisation programme remains a challenge	**Recommendation 17** To further accelerate the progress towards financial sustainability for immunisation, NPHCDA should: • Sustain engagement with National Assembly "vaccine champions" to defend immunisation allocations and prioritise timely disbursement at federal level. • Extend similar advocacy to priority states and those lagging behind in PHC funding to encourage increased and more predictable allocations for PHC and immunisation. • Adopt and enforce a multi-year budgeting cycle that incorporates vaccine procurement requirements for the succeeding year (at minimum Q1 and Q2) within the current year's budget envelope.	1. VFATT to develop the annual activity plan to track the functions of the engaged CSOs and support from the Vaccine Champions on timely immunization financing. 2. Gavi CSO manager to provide Monthly update to VFATT on the national and subnational engagement aimed at supporting securing co-financing and operational support for the delivery of vaccine at the subnational levels. 3. Engage the NTLC and DA&C for high level advocacy to subnational government on vaccine financing and operational support. VFATT to engage the BHCPF on the revise financing plan and the support to immunization financing at National and Subnational levels. 4. VFATT using the partnership to track the progress of the 1st line charge conversation status.	VFATT Lead and NRIWG TL	Monthly through VFATT and Quarterly through the QRM

Issue	Audit Recommendation	Management Action	Action Owner	Timelines
4.6.2 The Financial management capacity building plan requires alignment to current reforms	**Recommendation 18** To align the financial management operations with the current reforms, NPHCDA should: • Update the FMCB plan to reflect current organisational arrangements and the priorities outlined in the NPHCDA Strategic Blueprint. As part of this update, NPHCDA should clarify the proposed structure, roles and reporting lines of the enhanced Grants Coordination and Compliance Office (eGCCO). • Expand the FMCB plan to include state-level financial management capacity needs • Fast-track ERP deployment, ensuring modules for budgeting, accounting, procurement and integration with the e-LMIS are fully operational. • Update financial SOPs to align with new systems and the revised organisational structure.	We have taken note of the audit recommendations and will update the FMCB plan accordingly. This update will also address any capacity gaps identified through recent federal and state-level reviews and audits. NPHCDA will continue to explore funding from Gavi and other partners to support unfunded actions in the FMCB plan. ERP deployment remains a priority. The needs assessment has been completed, and an implementation plan will be developed to guide resourcing and eventual deployment of the system, including staff training. Financial SOPs will be updated once system setup is completed.	DDIA (COMPLIANCE)	November 30, 2026

Issue	Audit Recommendation	Management Action	Action Owner	Timelines
4.6.3 Weak financial controls and documentation gaps resulted in questioned expenditure	**Recommendation 19** In the context of preparatory transition and the eventual channelling of funding through country systems, there is a need to strengthen financial control, documentation and compliance at sub-national level. NPHCDA should: • Establish an accountability mechanism for all Gavi funds received by the country, requiring all partners to report on and account for the funds they manage, with sufficient detail to enable Government to track allocations, expenditures and outstanding issues. • Provide structured training in grant management, financial reporting and internal controls to state-level finance and programme staff, and explicitly explore how assurance arrangements (e.g. HACT, Assurance Provider) can be complemented with capacity-building support to prepare states to receive and account for Gavi funds. • Develop a joint audit and assurance protocol between NPHCDA, UNICEF and State Offices of the Auditor-General to coordinate reviews, minimise duplication and strengthen oversight of Gavi funds—ensuring that recommendations from spot checks, external audits and assurance reviews are consolidated, tracked and followed up to closure.	1. We are in alignment with the recommendation. Currently, all fund managers report on the status of their Gavi cash grants during the quarterly review meetings convened by NPHCDA for Gavi programs and implementers. In addition, monthly coordination meetings have been established between NPHCDA and the Core Alliance partners to monitor implementation progress. Going forward, the status of cash grants will be a standing agenda item at these monthly meetings to enable more frequent oversight and timely corrective actions where necessary. 2. Financial management capacity-building for state and LGA officials is included in the approved HSS3 plan. NPHCDA will work in collaboration with UNICEF to implement these activities in selected states and LGAs 3. The audit and assurance protocol will be formalized within the instruments of engagement for Gavi HSS focus states. All recommendations arising from audits, reviews, and spot checks will be consolidated into a centralized tracker and systematically monitored to ensure timely resolution and closure.	DDIA (COMPLIANCE) DDFA (EXTERNAL GRANTS)	February 28. 2027