NATIONAL HEALTH PRODUCTS SUPPLY CHAIN STRATEGY AND IMPLEMENTATION PLAN

Federal Republic of Nigeria

National Health Products Supply Chain Strategy and Implementation Plan 2021-2025

Federal Ministry of Health
Department of Food and Drug Services

National Product Supply Chain Management Programme (NPSCMP)

JULY 2020

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Acronyms

1. CMS: Central Medical Store
2. PPP: Public Private Partnership
3. LMIS: Logistics Management Information System
4. E-POD: Electronic Proof of Delivery
5. NHLMIS: National Health Logistics Management Information System
6. WHO: World Health Organization
7. 3PL: Third Party Logistics Service Provider
8. FCT: Federal Capital Territory
9. GH: General Hospital
10. LMD: Last Mile Delivery
11. MoU: Memorandum of Understanding
12. NWAC: National Warehousing Advisory Committee
13. NPSCMP: National Products Supply Chain Management Programme
14. MSSV: Monitoring and Supportive Supervisory Visits
15. SDGs: Sustainable Development Goals
16. LGA: Local Government Areas
17. PHC – Public Health Care
18. PHC-DRF: Public Health Care- Drug Revolving Funds
19. SMSS – Sustainable Medicines Supply Scheme
20. DRF: Drug Revolving Fund
21. SMSS: Sustainable Medicine Supply System

Foreword

The Federal Ministry of Health's (FMOH), National Health Policy documents, of 1988, 2004 and 2016 have overseen critical stages in the evolution of the Nigeria Health System with far reaching impact on improving the performance of the system over the course of their lifetime. In the decades prior to the current 2016 policy, Nigeria has recorded some progress and improvements in key indices for 'major' communicable diseases (HIV/AIDS, TB and Malaria), as well as maternal and child health. Recently, Nigeria has been able to among others, interrupt the transmission of wild poliovirus, eradicate the Guinea-worm disease and successfully contained the spread of the deadly Ebola virus disease.

These successes have been proof of the benefit of building a resilient health system that assures access to basic health care services in a sustainable manner. The national health sector supply chain strategic plan is borne from the 2016 National Health Policy. As part of the agenda in the National Health Supply Chain Strategic and Implementation Plan (NHSCP) 2021-2025, the FMOH aims at improving the capacity of the supply chain to accurately quantify, procure and cost effectively distribute quality medicines and other health products to the last mile.

The imperatives in this strategic plan are optimizing national leadership, governance and coordination role play, advancing performance through private sector-like business operation, and promoting decision making that is based on data analytics-generated information. As importance as ever, is the need to deploy a strategy that fosters end-to-end visibility of the supply chain, leading to accountability of all stakeholders and partners for inventory and performance.

At the heart of what we seek in the Strategic Plan is integration of health sector supply chain to achieve synergy, efficiency and effectiveness of all supply chain functions. The supply chain strategy embraces and provides a guide for greater ownership and role play by the State Ministries of Health and below them. The principle on which it is based is that State and local ownership and participation will lead to a more sustainable supply of medicines and other health products, a way to reaching the Government aspiration of Universal Health Coverage.

The strategic and implementation plan is an expression of the supply chain focus areas that the Federal Ministry of Health has prioritized over the strategic plan period. It therefore provides a guide on interventions that will lead to better supply related outcomes, as well as a guide for partner support and investment. I therefore urge all those involved in implementing this plan to fully dedicate themselves to this effort over the next five years. The Federal Ministry of Health will remain committed to ensuring the successful implementation of this plan in order to achieve our goals of ensuring equitable access to essential and other health products for all our citizens.

Dr. Osagie E. Ehanire (MD, FWACS)
Honourable Minister of Health
Federal Ministry of Health

Acknowledgements

We wish to appreciate the enthusiastic and robust support demonstrated by the Honourable Minister of Health, Dr. Osagie E. Ehanire, to the vision of this Supply Chain Strategic document.

We wish to acknowledge the commitment and efforts of the Director, Food and Drugs Services, M. O. Lawal, whose vision and direction provided a platform for the development of this important long desired document.

We acknowledge the technical and unrelenting commitment and support of the National Public Health Programmes (NASCP, NTBLCP, NMEP, RH/FP, IMMUNIZATION, NTD), FMOH- Laboratory division, MLSCN, NCDC, NACA and NAFDAC for participating in the development and ownership of this document.

Similarly, we would like to thank all our donor agencies, implementing partners, Principal Recipients and The Global Fund through the Resilient and Sustainable System for Health for supporting all the steps we have taken in this endeavour.

We recognize the effort of the management and staff of the NPSCMP in the actualization of this task. We know it was difficult meeting up with some of the timelines but, we are grateful you made the finalization of this document top priority.

As we all take the next steps towards implementing this document across all programmes and at all levels, we are optimistic of an improved and transformed supply chain management system in the country.

A. M. Abdullahi
Permanent Secretary

Permanent Secretary,
Federal Ministry of Health

1. Background

1.1. Introduction

Access to essential medicines and other health products is not only a human right irrespective of setting or socio-economic status but also an important strategy to realizing the sustainable development goals (SDGs). Globally, the most leading causes of death and disability can be alleviated, treated or prevented with cost-effective essential medicines. However, unavailability and poor access to essential drugs and the limited availability of basic medical equipment remains major problems of the health system in developing countries. Only about a third of health facilities in Nigeria had essential medicines in stock (2016 National Health Facility Survey by SOML).

Concerted efforts are urgently required by supply chain actors and decision makers to ensure that high-quality medicines are made available, affordable and used rationally to achieve a sustainable health impact through an effective coordinating structure and leveraging on government controlled and private sector expertise and capabilities in health supply.

The Federal Ministry of Health through the National Products Supply Chain Management Programme (NPSCMP) of Department of Food and Drug Services which has the mandate to coordinate all health sector supply chain activities in the country led the development of the maiden National Health Supply Chain Strategic and Implementation Plan (NHSCSP), 2021 - 2025. This strategic plan supports the overall health goals of National Health Policy (2016) and the National Strategic Health Development Plan II (NSHDPII 2018-2022). Whereas the health policy provides for the manufacture, procurement, distribution, and use of health products/ laboratory commodities and technologies, it does not provide supply chain strategies to achieve the policy goals and in accordance with quality expectations.

This National Health Supply Chain Strategic and Implementation Plan development was motivated by the desire to create a patient oriented supply chain master plan to achieve high levels of efficiency and effectiveness in the delivery of medicines and other health products to the people of Nigeria. The strategy document takes forward the various Government policies and legal documents by articulating various areas of performance required to achieve the policy goals.

The cardinal focus of this strategic plan is to contribute to the achievement of the Sustainable Development Goal (SDG) 3.8. This SDG aims at Universal Health Coverage (UHC), financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all. This approach has medicines accessibility, availability, acceptability and quality of services as its ideals.

The fundamental desirables for clients' loyalty to healthcare services include affordable cost, convenience, availability of quality health products and accessibility. The desirables for Government health systems include ownership, leadership, stability, resilience and competitive advantage. Those for supply chain system are cost-efficient operation of supply chain, agility, responsiveness and reliability.

Improving the end-to-end health supply chain to better address the needs of population groups and improve health outcomes require a transition to a patient-driven distribution model. The realization of this ideal can be measured through a maturity model. In the strategic planning process, Government and its partners adapted a global maturity model (MM) to the local context for profiling the new vision for national supply chain. The five stages of global maturity model (MM) were used to characterize the supply chain system, define its baseline, and set performance targets for transition to the desired maturity stage (Figure 1)[1].

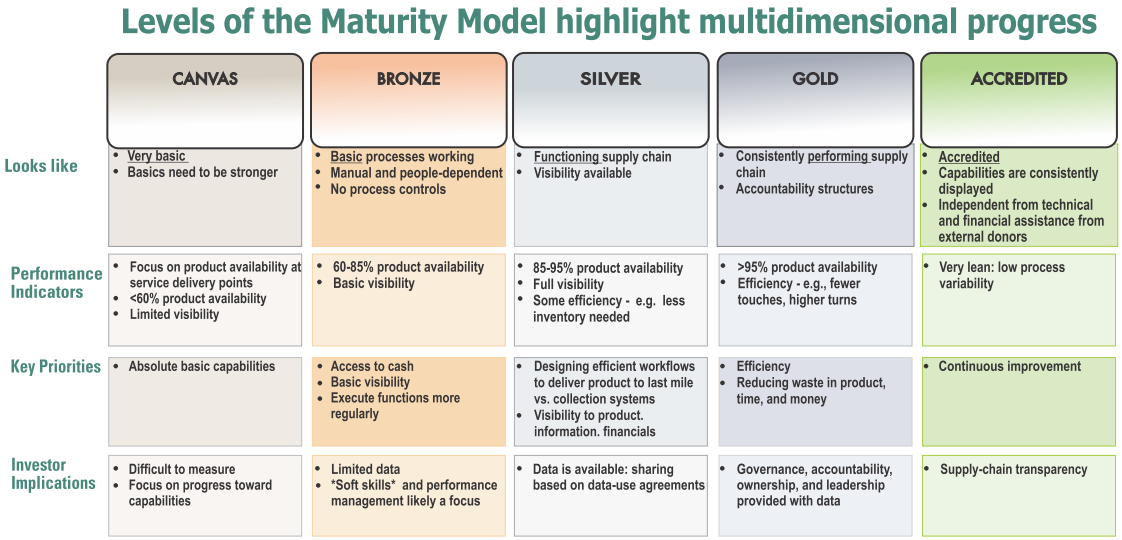


Figure 1.1: Example of five Stages of Global Supply Chain Maturity Model (MM)

[1] Source: 2020 APICS Inc. The Association for Supply Chain Management.

1.2 Process of the Strategic Plan Development

The development of the strategic plan was led by the National Product Supply Chain Management Programme (NPSCMP) of the Department of Food and Drug Services, Federal Ministry of Health (FMOH). The process involved consultative discussions with relevant national, sub-national and international health procurement and supply management (PSM) stakeholders in Nigeria - key officials of FMOH and its Agencies, States Ministries of Health (SMOH) and local government (LGAs), representatives of development partners, donors, the private health sector, Civil Society Organizations (CSOs), the regulatory bodies and beneficiaries. Figure 1.2 shows the key milestones in the process.

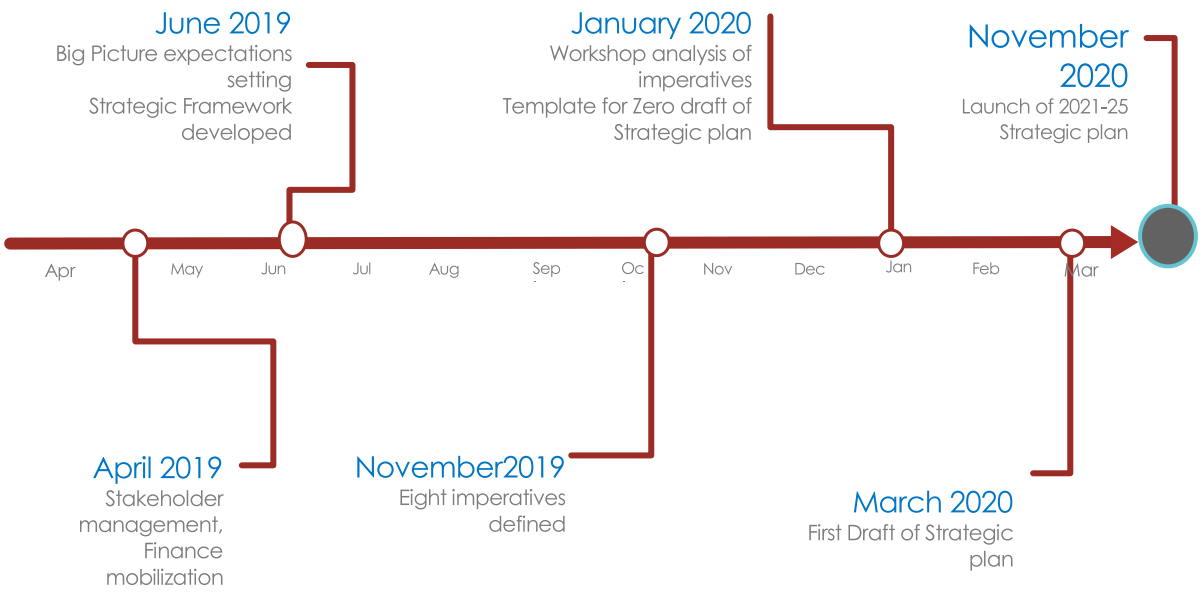


Figure 1.2: Strategic Planning Process Milestones

1.3 Legal and Regulatory Framework

The development of the National Health Supply Chain Strategic and Implementation Plan (2021 – 2025) was carried out with due consideration of the extant legal and regulatory provisions that define the procedures, regulations, guidelines and codes of conduct relating to the procurement, storage, distribution and use of medicines and other healthcare products/ laboratory commodities in Nigeria. The critical document considered was the National Health Act (2014), which established the Federal national health system that defines and provides a framework for standards and regulation of health services without prejudice to extant professional regulatory laws.

The National Supply Chain Strategic Plan also considered the Public Procurement Act (2007), which is a statute document that establishes the National Council on Public Procurement and the Bureau of Public Procurement as the regulatory authority responsible for the monitoring and oversight of public procurement, harmonizing the existing government policies

and practices. This Act does this by regulating, setting standards and developing the legal framework and professional capacity for public procurement in Nigeria.

The National Health Supply Chain Strategic and Implementation Plan was also aligned with other policy documents and guidelines that provide the vision and goals of the national health system, such as the National Health Policy (2016), National Strategic Health Development Plan (NSHDP II), National Drug Policy (2003), Nigeria Supply Chain Policy for Pharmaceuticals and Other Healthcare Products (2016), National Drug Distribution Guidelines (2012), National Quality Assurance Policy for Medicines and Other Health Products (August 2015), Essential Medicines lists (2016), National policy on Public-Private Partnership (2009), disease-specific policies and guidelines among others.

The goal of the National Drug Policy is to make available at all times to the Nigerian populace adequate supplies of drugs that are effective, affordable, safe and of good quality; to ensure the rational use of such drugs; and to stimulate increased local production of essential drugs. Though applicable to all public health programme within the country, the National Supply Chain Policy for the Management of Pharmaceuticals and other Health Products (2016) addresses the realities of operations and challenges in Nigeria's supply chain landscape, provides a mechanism for coordination of related interventions by different parties, clarify the roles and responsibilities of different parties and promote harmony among the various policies operating on the supply chain in Nigeria.

1.4 Structure of the Strategic Plan Document

The strategic plan presentation was influenced by findings of the situational analysis as well as key stakeholder interview findings. The findings in these pointed to supply chain system and performance gaps that would need to be addressed in order for the health sector supply chain to grow to desired maturity levels, and to be a more agile, responsive and reliable supplier of medicines and other health products to reach all Nigerians along the UHC concept.

The section on the *Theory of Change*, articulates the key elements that should be addressed in order to achieve required change or transformation in the supply chain. Thereafter, the section on *Transformative Ideas*, summarizes the strategy focuses that will make the biggest impact in the supply chain over strategic plan period. In this strategy, *optimization of the NPSCMP capacity for supply chain leadership, governance and coordination*, *the integration of parallel supply chains* (public health and essential medicines), *enhancement of State level ownership and supply chain role play* (through establishment of pharmaceutical grade stores in all States, and the adoption of optimized fund generation mechanisms for increased sustainability of supply chain) and integration of parallel supply chains into one, managed through the States are identified as the pillars of the plan.

The strategic plan is therefore arranged in the following focus areas:

1. Strategies that optimize the leadership, governance and coordination roles of NPSCMP
2. Strategies that increase States' ownership of supply chain functions and their resource sustainability
3. Strategies to achieve integration of supply chains
4. Strategies to optimize supply chain functions, along the procurement and supply cycle value chain

2. Situational Analysis

2.1. Nigeria Demography and Health System

Nigeria is categorized as lower middle-income country by the World Bank. It is the most populated country in Africa with a 2017 estimate of 200 million people[2] and an average annual population growth rate of 2.61%, with a GDP of 376.4 billion US dollars. Of the total population, 48.4% fall below the international poverty line of $1.9 per person/day as set by the World Bank.

Nigeria Fast Facts 2020

- Population: 200.964M
- Forecasted 5-year compound annual GDP Growth Rate: 2.5%
- Average Estimated Inflation: 11.7%
- % of Population Working Age: 87%
- % of Population Residing in Rural Areas: 50%

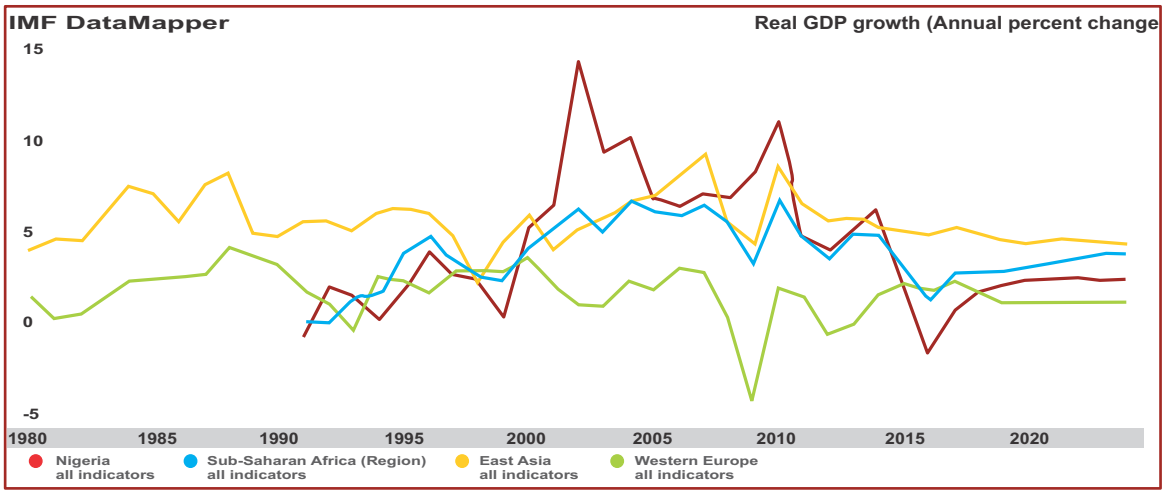


Figure 2.1: Nigeria Economic Indicators compared to selected regions[2]

The country is divided into six geo-political zones, which are subdivided into 36 States plus the Federal Capital Territory (Figure 2.3). The States are further divided into 774 Local Government Areas (LGAs).

[2] Source: IMF Economic Data, 2020

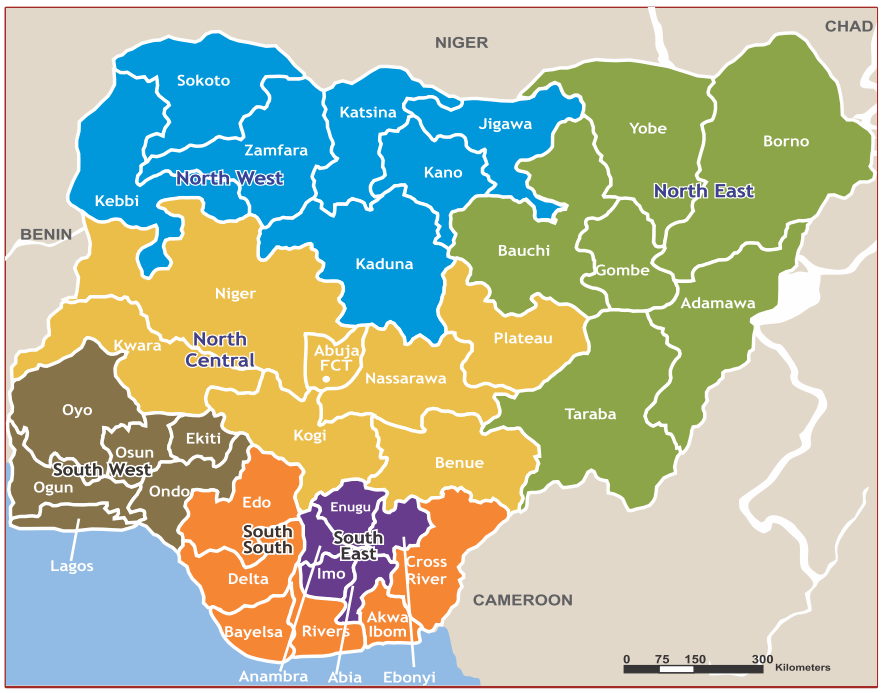


Figure 2.2: Political Map of Nigerian - States

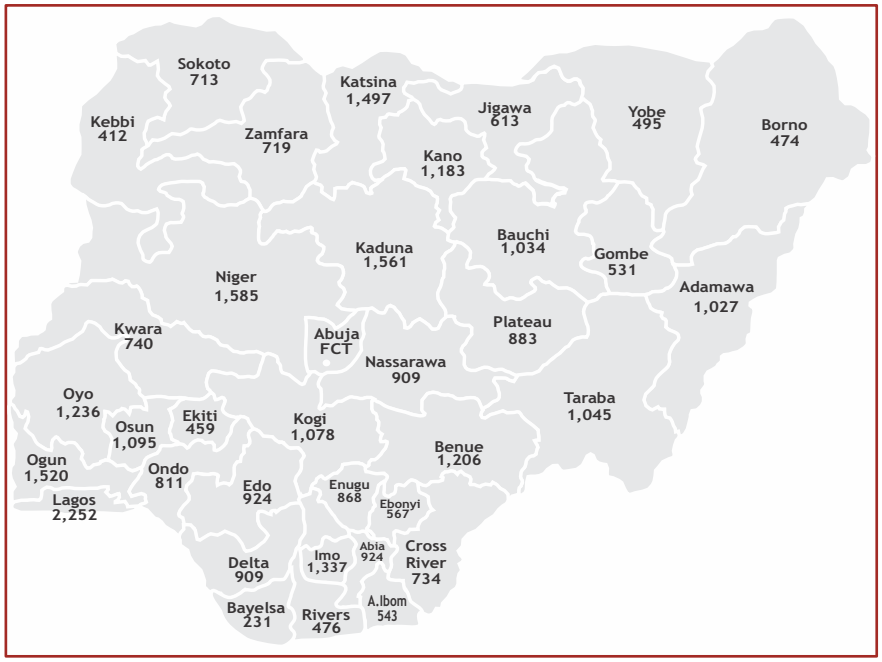


Figure 2.3: Number of health facilities in each State of Nigeria

Household out-of-pocket expenditure has remained the major source of financing healthcare in Nigeria and constituting about 72% of total health expenditure in 2017. The health budget allocation at 3.9% in 2018 was below the minimum 15% of budget pledged by African Union leaders in Abuja Declaration (April 2001) to ensure sustainable health financing. Nigeria's healthcare indicators are among the lowest in the world, though showing huge opportunities for improvement.

Some of the challenges in healthcare service delivery in Nigeria include human resources and funding constraints. Existing health facilities do not provide adequate coverage for the population.

Nigeria operates a three-tier health system with tertiary health facilities at the Federal level, secondary health facilities at the State level and primary health facilities at the LGA level. According to the Master Health Facility List (2014), there are 85 tertiary, 3,993 secondary and 30,345 primary health facilities (private and public) across the country (Figure 2.3)[3].

Health care services are largely public sector driven with only 33% of health facilities being privately owned and 67% are government owned. About 88% of health facilities are primary, 11.6% are secondary and 0.25% are tertiary. The secondary and tertiary health facilities are mostly found in the urban areas whereas, the rural areas are predominantly served by the primary health care (PHC) facilities (Master Facility List of Nigeria – MFL)

The Federal government owns many of the tertiary health facilities as well as some secondary healthcare facilities which are operated by federal agencies. Each State hosts at least one federal-owned tertiary health facility, though many States also own tertiary level facilities. The public secondary health facilities are largely owned by the States. In recent times, there has been a push toward joint ownership and management of PHC facilities by States and local governments; the principle of "PHC Under One Roof."

Private-for-profit and private non-profit health facilities provide primary, secondary and tertiary care around the country. Preventive health care is largely led by government departments and agencies, and also by non-governmental organizations.

In health policy making and regulation, the federal government (FG) leads while State Government (SG) participate through the National Council on Health (NCH), the highest decision-making body in the health sector. This is chaired by the Honorable Minister of Health. FG determines salary scales, though SGs can decide on whether to adopt them or not. FG sets health workers training curricula, licenses practitioners, facilities and health products such as medicines or laboratory commodities. However, there is generally very little control over number of practitioners trained.

FG and SG control location of public sector facilities. User fees are determined separately. LG lacks the capacity to invest substantially in human capital development and health infrastructure. A substantial share of the FG health budget is spent on providing support to SG and LG. Although, most of the PHC responsibilities lie with the LG, PHC is provided at all levels, whereas secondary care provision happens at both secondary and tertiary health facilities. All tiers have monitoring and evaluation mechanisms. The Federal Ministry of Health

[3] Figure 2.3 may exclude several private-owned facilities. Source: Deloitte's Report on NSCIP 2018

(FMOH) regulates pharmaceuticals and food products through a dedicated Agency, the National Agency for Food and Drug Administration and Control (NAFDAC). SG participates in enforcement.

The Department of Food and Drug Services (DFDS) of FMOH has the mandate to coordinate Supply Chain Management (SCM) of medicines and other health commodities of all national health programme through the formulation, implementation and monitoring of the National Drug Policy, provision of technical support for selection, forecasting/quantification, procurement, warehousing and distribution, conducting drug utilization surveys and nationwide monitoring of the Drug and Therapeutics Committee and acting as the Secretariat for the National Drug Formulary and Essential Drug List Committee. DFDS coordinates supply chain players in Nigeria.

Nigeria operates a five-tier distribution system (from national to zonal, State, LGA warehouses, and finally to health facilities) for public health commodities, though not all national health programme go through these five distribution tiers. Private sector supply chains operate differently from this distribution system. Donors and implementing partners provide supply chain support and technical assistance to the public health sector.

Figure 2.4: Current Flow of Health Products Vs Planned Integrated Flow

2.2. Triggers for National Health Supply Chain Strategic Planning: Achievements, Outstanding Challenges and Gaps, Opportunities and Threats

- Strengths

Nigeria is endowed with considerable strengths and competencies upon which this strategic plan will build. Findings of the Deloittes (2018) assessment

of the Nigeria Supply Chain Integration Project (NSCIP) for five public health programme revealed that several initiatives have been implemented with key successes recorded.

National Level Indicators (Q1, 2018)	Ave.
% of facilities that had a stock-out (min of one)	36%
% of products for which the physical inventory tallied with the inventory control card	49%
% of quantities of each product lost per total	17%
% facilities that placed an order for resupply when stock position is below minimum inventory level	20%
Average time between when a LMCU sends a distribution order till the orders are received	13 Days
% of facilities meeting required storage conditions	51%
% of facilities that received all orders in full	60%
% of facilities meeting minimum standards on waste management	34%
Proportion of public health programme for which quantification was coordinated by the LMCU	21%

Table 2.1: National Level Indicators[4]

The major mechanism for coordination of supply chain is the Procurement and Supply Chain Management – Technical Working Group (PSM-TWG) meetings at both Federal and State levels. Some States (e.g. Kano, Kaduna and Jigawa) have Drug Revolving Fund (DRF) schemes that are functional. These can be used as models upon which to build other state drug revolving systems.

There is some political will to increase the sustainability of health supply chains, with great potentials for improvement. The National Stock Status Reporting (NSSR) showed good progress for the public health programme except for malaria and TB programme (Figure 2.5)[5].

[4] Source: Deloitte Assessment Report NSCIP, 2018
[5] Q3 2017 is the latest NSSR Deloitte received

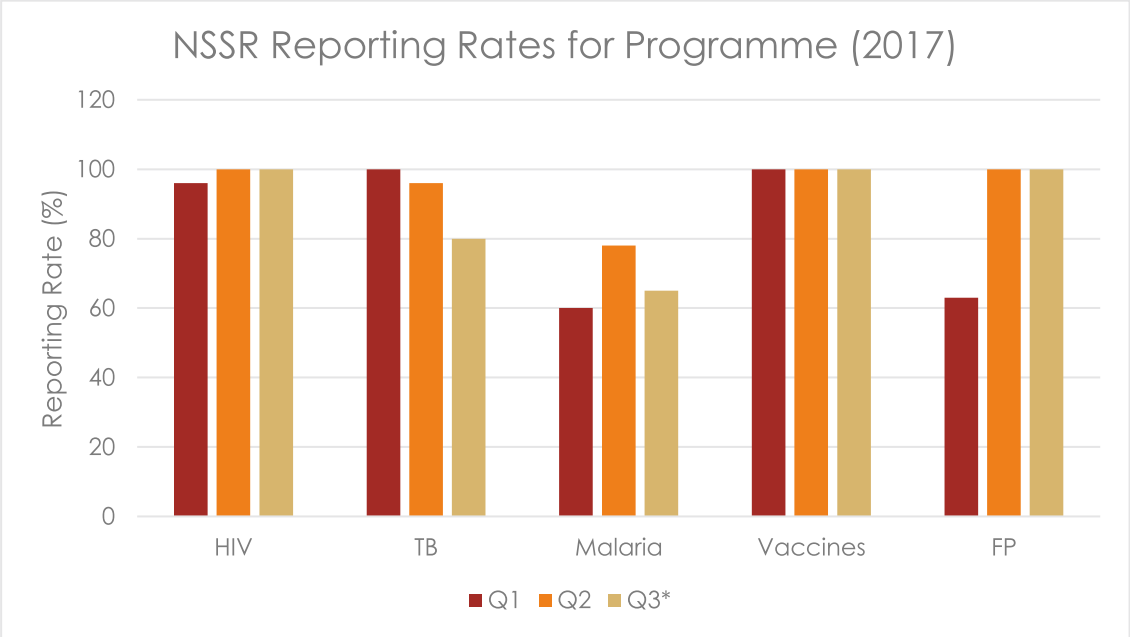


Figure 2.5 NSSR Reporting Rates for Programme

Programme	Q3, 2017 Key Findings
HIV	• Flagged understock: 67% of drug groups • Within min-max stock spec: 33% • Overstocked: 6.7% • Emergency Stock Level: 6.7%
Malaria	• Within min-max stock spec: 71% • Overstocked: 6.7% • Emergency Stock Level: 12% • Stock Out: 5%
Family Planning	• Flagged understock: 20% of drug groups • Within min-max stock spec: 10% • Overstocked: 70%
Vaccines	• Within min-max stock spec: 47% • Overstocked: 35% • Emergency Stock Level: 18%
TB	• Flagged understock: 8.33% of drug groups • Within min-max stock spec: 8.3% • Emergency Stock Level: 50% • Stock Out: 33%

Table 2.2: Supply Chain Assessment Findings[6]

- Weaknesses

Despite the successes recorded by the NPSCMP's NSCIP project, some of the persisting drawbacks/challenges include poor dissemination and visibility of the supply chain policies, operational guidelines, frameworks and SOPs along with sub-optimal implementation and adherence to these by State and LGA

[6] Source: Deloitte Assessment report on NSCIP, 2018

levels. This is due in part to inadequate involvement or buy-in of some key stakeholders as well as political interference.

There is inadequate capacity in management of procurement processes, weak community participation and ownership, shortage of skilled human resource to adequately drive supply chain programme and poor retention of trained supply chain personnel. There is still inadequate capacity for data analytics and use at all levels, poor use of supply chain KPIs for performance management across all programme, insufficient government funding and overdependence on donors/partners.

Other weaknesses include the lack of clarity of the overall supply chain strategies, roadmap, sustainability plan and milestones by stakeholders as well as the absence of formal frequency and/or structure for information flow to the constituted authorities (e.g. Director of Food and Drug Services (DFDS), Permanent Secretary or Minister). Zonal hubs are yet to be integrated in terms of commodity distribution, leading to duplication of activities/efforts (between and within national health programme, inadequate funding for capacity building of LMCU and LLMCU staff, and poor data quality (incomplete and late data submission).

Products selection is not standardized or coordinated between programme, States or the health facilities. The selected medicines may not necessarily conform to the National Essential Medicines List as required by National Drug Formulary and Essential Drug List Act and there is inadequate compliance to the national drug policy. Fifty-four percent (54%) of key medicines were not available at public health facilities, and this has driven majority of Nigerians to the private sector to meet their medicine needs. Medicines prices are unaffordable to majority of Nigerians and medicines purchase is generally done out of pocket.

Bulk procurement is done without the necessary advantage of economies of scale. While most procurement agencies in developing countries purchase medicines at least 0.6 times international reference prices, Nigeria reported procurements that averaged 3 times international prices (range 0.2 to 30.7 times). This implies that price negotiations are not efficient and an average of 75% of savings could be made with review of the procurement processes.

Furthermore, thirty (30%) percent of procurements delivered products which had remaining shelf life below the recommended 80%. The medicines purchased with suboptimal shelf life ranged from 1.1 to 21.7 times international prices. Some of these gaps are broadly summarized below:

a) Existence of parallel supply chain structures for federal-managed public health programme medicines and State-managed essential medicines. There is avoidable wastage of resources with parallel structures, therefore leveraging on the best practices and lessons

learnt in both health programme (Figure 6) through supply chain integration is the way forward.

b) Government leadership, oversight, coordination and ownership is still weak with great opportunities for improvement and learning from private sector experiences.
c) Supply chain operations are generally inefficient while cost-effectiveness is far below expectation.
d) Traditional feedback and support mechanisms to health facilities (the bedrock of system strengthening) is weak due to non-adherence to the established reporting structures of government by implementing partners who have little or no influence in driving any sustainable change due to their lack of the requisite authority to supervise or sanction non-performing service providers.
e) Extensive focus on monitoring and reporting of supply chain activities/outputs rather than the results or outcomes.
f) Supply chain roles and responsibilities of all stakeholders not yet clearly harmonized within and across levels in line with their respective core competencies.
g) Service level coverage, seen from the lens of universal health coverage (UHC), is still poor; focused mainly on donor-funded public health programme (HIV, TB, Malaria, RH, Nutrition, Immunization etc.) rather than the health of the nation.
h) The National Supply Chain Policy is not strictly followed by the implementing partners and other stakeholders.
i) Low commitment to prevent the wastages of donor-procured products treated as "free".
j) Inability of Government to set target for improved capacity in local manufacturing of pharmaceuticals to global standard and enforcement of local content

This strategic plan will aim at overcoming or minimizing these weaknesses in the supply chain.

- Opportunities

There are potential opportunities which can be leveraged to advance national supply chain systems. These include the efficient systems of operations of private sector players, and the availability of developmental partners and donors (both local and international) ready to support the supply chain system development.

- Threats

The major threats to the supply chain are reducing partner resources, insurgency, insecurities and staff attrition.

Although no objective assessment has been conducted to characterize the maturity stage of Nigeria supply chain systems on the 5-stage MM scale, stakeholders involved in the strategic planning process have adjudged that Nigeria supply chain systems exhibit some features of stage 2 (parallel supply chain) and stage 3 (combined supply chain) – Figure 1.1 above.

It is essential to develop the National Health Supply Chain Strategic and Implementation Plan (2021 – 2025) to reflect the current realities and learnings towards the attainment of the Sustainable Development Goal (SDG 3.8), and to address emerging health issues in line with the provisions of the *National Health Act 2014*. Another consideration is Government policy guiding the PHC governance reform aimed at bringing PHC Under One Roof (PHCUOR) and Nigeria's commitment to universal health coverage. Participants in the development of this plan mooted that the strategic plan should transform the supply chain from current state to stage 4 on the global logistics maturity model by 2025.

2.3. Limitations and Challenges

The strategic planning process was limited by the absence of a detailed situational analysis of various aspects of the current status of the supply chain. While the work of NPSCMP's flagship project NSCIP was well studied by Deloitte (2018), the process used would have benefited and needs to be strengthened by more detailed assessments of

- NPSCMP organizational capacity, especially in the context of its location in the Food and Drug Services Department of the Federal Ministry of Health
- Factors precipitating and influencing the Public Health Programme supply chains at Federal Level
- Government funding of health services in general and supply chain in particular to determine innovative ways to increase investment and sustainability in the context of UHC aspirations. A lack of understanding of this poses a great challenge in the designing of a supply chain that delivers products to individual patients who may not afford the prices levied. How will the poor be supported without undermining the drug revolving funds?
- Current capacity for storage and distribution in the States and LGAs – this is necessary to determine investment in warehousing infrastructure and their location in each State, as well as in the designing of appropriate last mile distribution modalities
- Objective understanding of the "model" drug revolving fund schemes in the states where they exist, to learn lessons and pitfalls for the other States

These assessments are also necessary for the design of an appropriate performance monitoring and evaluation component of the strategic plan, which should ideally be based on quantified baselines against which measurable objectives can be set. To offset some of these challenges, it is

recommended that the final draft of the strategic plan should include some measures that address these gaps.

3. Vision, Mission and Guiding Principles

- ### Vision

"To have a government-led sustainable system that is responsive, reliable, agile and cost-friendly to run, delivers services to the citizenry in line with universal health coverage (UHC) and in such quality standards that compete with offerings in the commercial sector in terms of cost and convenience."

- ### Mission

"To provide stakeholders in procurement and supply chain management (PSM) of medicines and healthcare products/ laboratory commodities with a comprehensive framework for optimizing all resources for cost-effective, efficient, transparent and accountable supply chain management for health development towards the achievement of Universal Health Coverage as encapsulated in the National Health Act 2014, in tandem with the Sustainable Development Goal 3.8"

- ### Guiding Principles

The overall guiding principle of this strategic plan is to achieve end-to-end transformation of the National Public Health Supply Chain through:

a) Establishing and defining a national supply chain with one service stream that brings together resources from the three tiers of government to characterize a supply chain system for the Nigerian patient in terms of cost and convenience.
b) Harnessing the strengthens of State-managed DRF/SDSS and federal-managed public health programme products management through the integration of the supply chains systems (Figures 6 – 7) to increase ownership, reduce wastages, promote operational efficiency, cost sensitivity, and efficient assets management.
c) Reducing donor dependence, achieving financial self-sustenance and low cost of running supply chain. The cost recovery mechanism of Essential Medicines (DRF) will engender financial self-sustenance.
d) Leveraging or adopting supply chain best practices and learnings from the private sectors, infuse global best practices and ensure fit-for-context, purpose and value for money.
e) Standardizing PSM practices and streamlining roles and responsibilities of key stakeholders at all levels (upstream and downstream) with visible and effective coordination structures with unity of action and purpose.
f) Increasing the Federal Ministry of Health's commitment to universal health coverage (UHC) through UHC-aligned supply chain practices.

g) Supply chain monitoring and evaluation with one system of tools and outcomes-orientated key performance indicators (KPIs).
h) Instituting continuous quality improvement (CQI) initiatives through periodic data quality assessments (DQAs), facility capability audits (FAC), peer-focused performance reviews, monitoring and supportive supervision.
i) Instituting supply chain waste prevention and management measures across all PSM activities by promoting operational efficiency, cost sensitivity and efficient assets management.
j) Cross-level collaboration between key stakeholders, to harness strengths from each stakeholder for optimization; defining functions not to be shared or transferred (e.g. procurement), systems to be transferred/adopted, introduced, optimized or those requiring trade-off and opportunities not utilized.
k) Government ownership, leadership and supply chain innovations for the optimization and sustainability of PSM outcomes.
l) Instituting quality management standards in the local drug industry to improve access, affordability, availability and socio-economic benefits.
m) Collaboration with key stakeholders locally and international to eradicate poor quality products from entering or been used in Nigeria.

4. Expectations of the Revised Health Supply chain

There is need to integrate procurement and supply management in the country to optimize resource utilization and ensure sustainability. Experience in other developing countries has shown that an autonomous Programme vested with the responsibility of managing medicines procurement and supplies has resulted in efficient and cost-effective management. Further Institutionalizing the NPSCMP will ensure that a sustainable system required for providing good quality, effective and affordable medicines is put in place. This Programme will also be able to improve price negotiations using international reference prices as benchmark for pricing of all medicines, in pooled procurement scheme.

The overall goal for the National Health Supply Chain Strategic and Implementation Plan, NHSCSP, (2021 – 2025) is to empower governments at the three levels to function effectively as stewards of the supply chain. It aims at forging a collaboration to implement a single channel of service delivery to the Nigerian client using lessons from the private sector and existing public health programmes to implement a sustainable, cost effective, UHC-aligned and dynamically responsive management system.

In other words, the strategy will leverage private sector resources, synergy in public-private participation, lessons from current practices, consideration of future fitness and system maturity aspirations to design or operationalize a cross-level organizational system that integrates the management of public health programme products and essential medicines for the provision of one stream of service for the Nigerian patient in defined quality standards that can be measured.

Integrated annual, mid-term and end-term evaluations will be a critical part of this strategy. The supply chain strategic interventions will develop a SCM system, appropriate for the future.

5. Theory of Change - Four Pillars of Transformation

This strategy aims at achieving a supply chain which becomes a leading coordinated, innovative, stakeholder (State & LGA) owned, accessible (UHC) and sustainable supply chain service. A required foundational change is at the level of the organizational structure, in order to provide for and optimize the roles of leadership, governance and coordination. This is so because organizational change is brought about identifying core competencies as well as influencing culture of the organization. For this reason, the first pillar for the changes aimed at in the strategy is the optimization of the lead Programme, NPSCMP. The optimization will improve the role play of NPSCMP as leader and coordinator of the health supply chain in Nigeria. The changes at this level will in turn lead and influence the rest of the health supply chain at State and LGA levels.

The second critical path to the health supply chain vision lies in the increased ownership and supply chain role play that the States assume. This level of Government in Nigeria is responsible for implementation of health care, through operation of hospitals and supervision of health services at LGA level. The State level also operate supply chain infrastructure and are responsible for forecasting and quantification decisions that influence medicines availability throughout the states. Changes in the ownership, participation, operation and financing of health supply chain will result in transformation of the supply chain, and the attainment of the Government vision in this area as well as in health service delivery at large.

One of the most challenging phenomena of the current health supply situation is the existence of parallel supply chains. The need for the States to manage public health products (for HIV&AIDS, TB, malaria, family planning etc.) in parallel to essential medicines requires tremendous capacity and resources to implement. The strategy aims to do things differently. Integration into a unit supply chain will be face-changing, leading to a myriad of other changes in various PSM areas, which would all be done more efficiently to greater effectiveness for disease treatment and control.

Lastly, all policies, guidelines and strategies must affect each area of supply chain. The final pillar of the strategy will be aimed at building systems for supply chain, to have better procurement and supply management practice that delivers medicines and other health products to as close to the people as possible. The supply system must deliver quality products at prices that do not deter access by all.

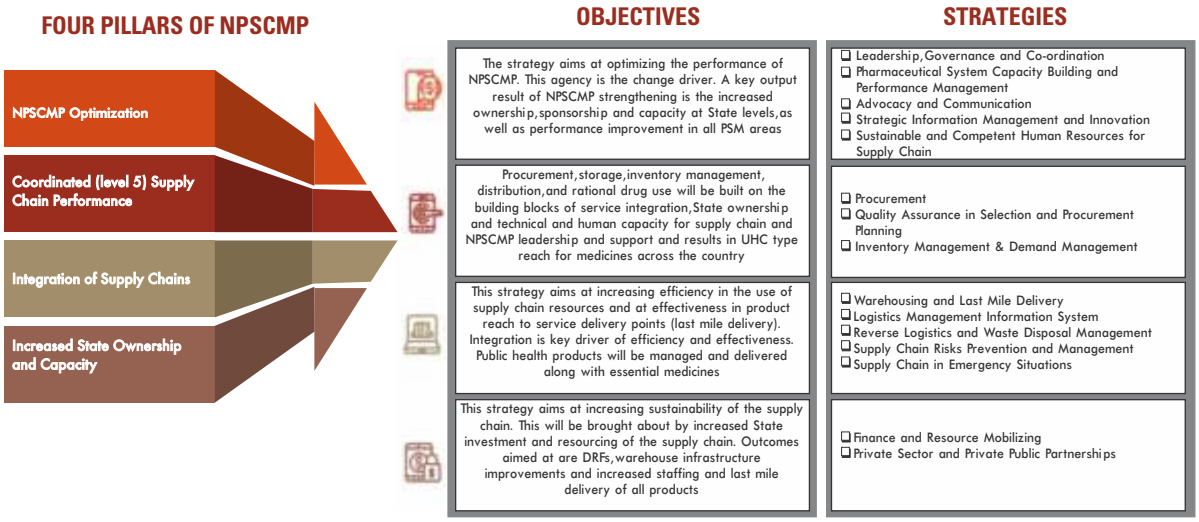


Figure 5.1: Four Pillars of NPSCMP-Objectives and Strategies

As noted above the four pillars are mutually reinforcing and critical for success. In order to effectively integrate the supply chain, leadership, governance and coordination over various supply chain functions are required, from Federal to State and LGA levels. The health product supply system will be enhanced through capacity strengthening of each and every function area of the supply chain. The supply chain system will be sustained through increased ownership by Government and performance management which is underpinned by a leadership that utilizes strategic information for learning and innovation, establishing a cycle of perpetual enhancement and growth.

Integration at all levels of the supply chain will facilitate operations and enhance efficiency of resource utilization. A key product of the coordination role of NPSCMP will be to bring about the integration of supply chains at Federal, State and LGA levels. This is aimed at achieving the integration of products (public health and essential medicines) into one stream to be managed and distributed through State level pharmaceutical grade stores, coordination of systems and roles for forecasting, supply plan and procurement.

6. Pillar One: NPSCMP Optimization

Under this strategic plan, the key outputs of the NPSCMP roles will be:

- *Technical Capacity Building* of supply chain functions at all levels, through formulation of policies and guidelines and training on one hand and performance management through monitoring and evaluation on the other.
- *Advocacy and Communication* to increase government ownership and sponsorship of supply chain functions, with the ultimate goal of achieving a sustainable supply chain which fits universal health coverage access to medicines for all.

- *Strategic Information Management* to harness lesson learning from operational research, logistics information management and other national and international platforms of learning to create a dynamic basis for introducing advancements in the supply chain system
- *Human Resource Management* to increase the allocation of pharmaceutical staff to various levels of the health product supply chain as well as to improve the continuous professional development of these staff, their motivation and retention in their posts.

THE IDENTIFIED GAPS TO WHICH THE STRATEGIES ARE ADDRESSED INCLUDE:

- No formal frequency or structure for information flows to the constituted authorities (e.g. Director of Food and Drug Services (DFDS), Permanent Secretary or Minister);
- Poor dissemination and visibility of the supply chain policies, operational guidelines, frameworks and SOPs
- Lack of clarity of the overall supply chain strategies, roadmap, sustainability plan and milestones by stakeholders,
- Political interference
- Weak community participation and ownership,
- Shortage of skilled human resource to adequately drive supply chain programme
- Inadequate capacity for data analytics and use at all levels,
- Poor use of supply chain KPIs for performance management
- Insufficient government funding
- Duplication of activities/efforts (between and within national health Programme),
- Overdependence on donors/partners
- Inadequate funding for capacity building of LMCU and LLMCU staff.

The strategy will produce the desired outputs and outcomes through the optimization of the NPSCMP organizational structure into distinctive units that focus on roles that are geared towards achieving supply chain integration, supply chain capacity enhancement and performance management as well as coordination of roles played by stakeholders at Federal, State and LGA levels. The specific roles to be articulated or redefined are Pharmaceutical Systems Support and Performance Management, Advocacy and Communication, Strategic Information and Knowledge Management and Human Resources Management. These units will lead the implementation of the strategies in this thematic area, and result in the reduction of the various performance gaps listed above.

However, in order to provide for an objective performance management plan, this strategic plan needs to be further developed to include a more quantitative assessment of the gaps.

6.1 Leadership, Governance and Co-ordination

A chief function of Government is to coordinate among its various departments and levels of governance and implementation. The NPSCMP organizational structure will take on board and define coordinating mechanisms to increase standardization of best practice. The Federal Ministry of Health (FMOH), State Ministry of Health (SMOH) in the 36 States plus Federal Capital Territory and the Directorate of Public Health Services in the 774 Local Government Areas will form the primary institutional framework for this National supply chain strategy.

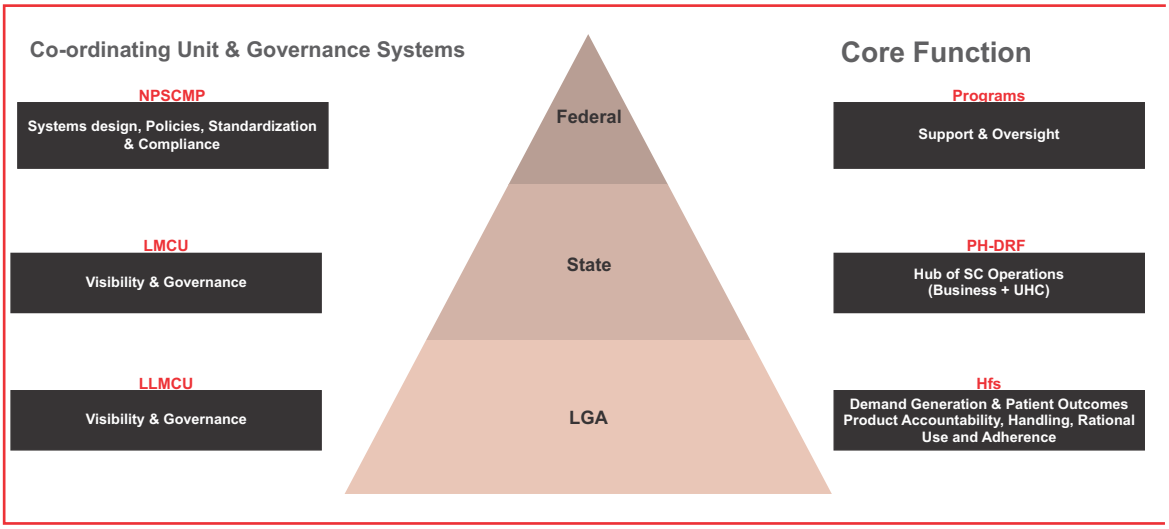
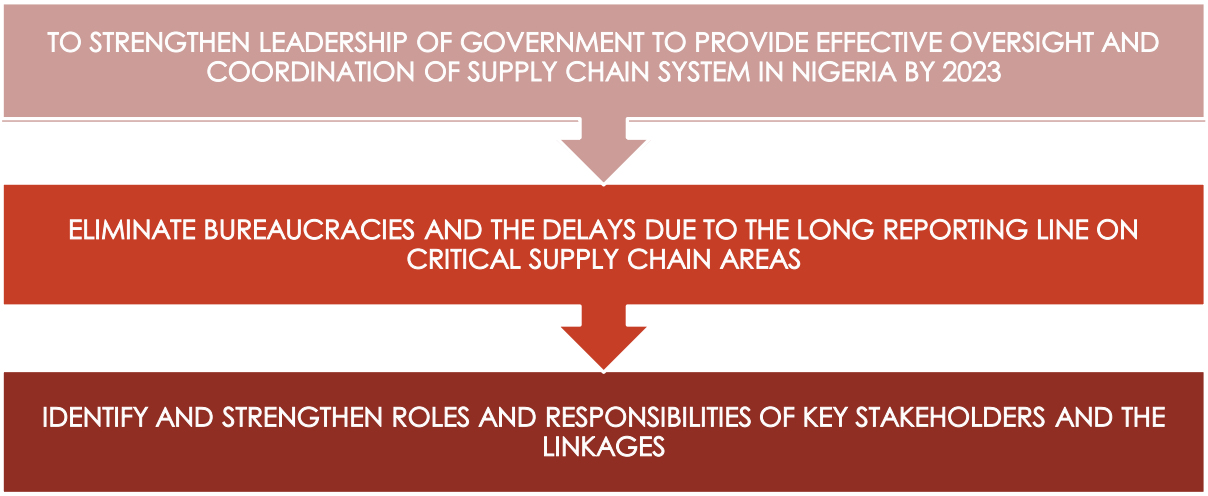


Figure 6.1 Organizational Hierarchy

Other implementation and support partners in the framework will include the government Ministries, Departments and Agencies (MDAs), the armed forces (Military and Paramilitary), donors, implementing and technical assistance partners, civil society organizations, private sector healthcare institutions including pharmaceutical manufacturers, wholesalers and providers and Faith-based Healthcare Institutions amongst others.

The overall **strategic objectives** to address this function include:

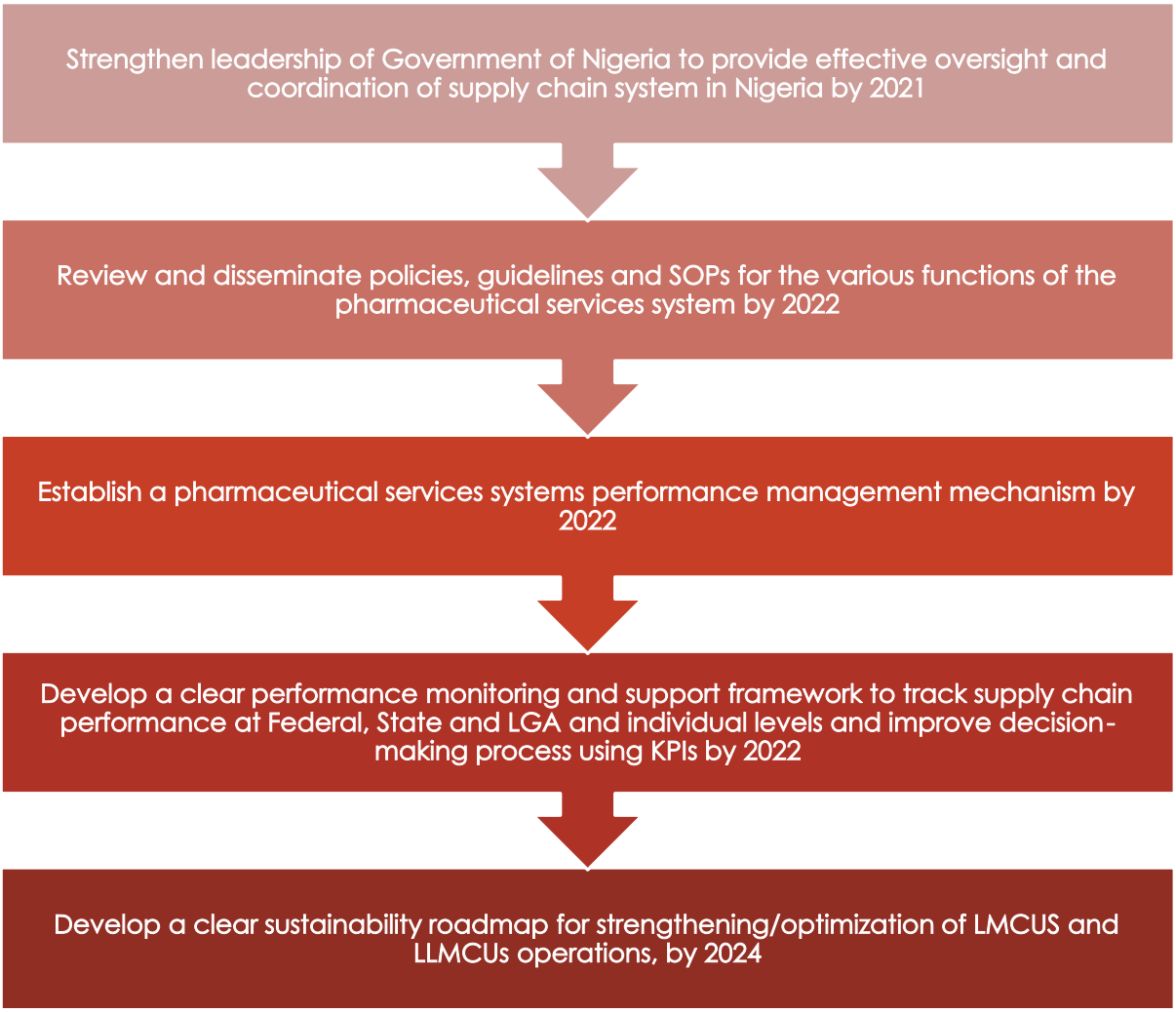


6.2 Pharmaceutical System Capacity Building and Performance Management

This is the key function that will create value in all technical supply chain functions in the PSM cycle through standard/policy setting, guidelines development, training and monitoring and evaluation. Capacity of NPSCMP will be built both in terms of human resource allocation as well as in skills and technical ability to implement and supervise supply chain functions at all levels of Government.

The policy and guidelines formulation function will be enhanced. The roles played by NPSCMP will be more institutionalized through increased resourcing of LMCUs at State levels and LLMCUs at LGA levels. These will be equipped to provide supervision support and performance management of the supply chain.

The overall **strategic objectives** to address this function include:

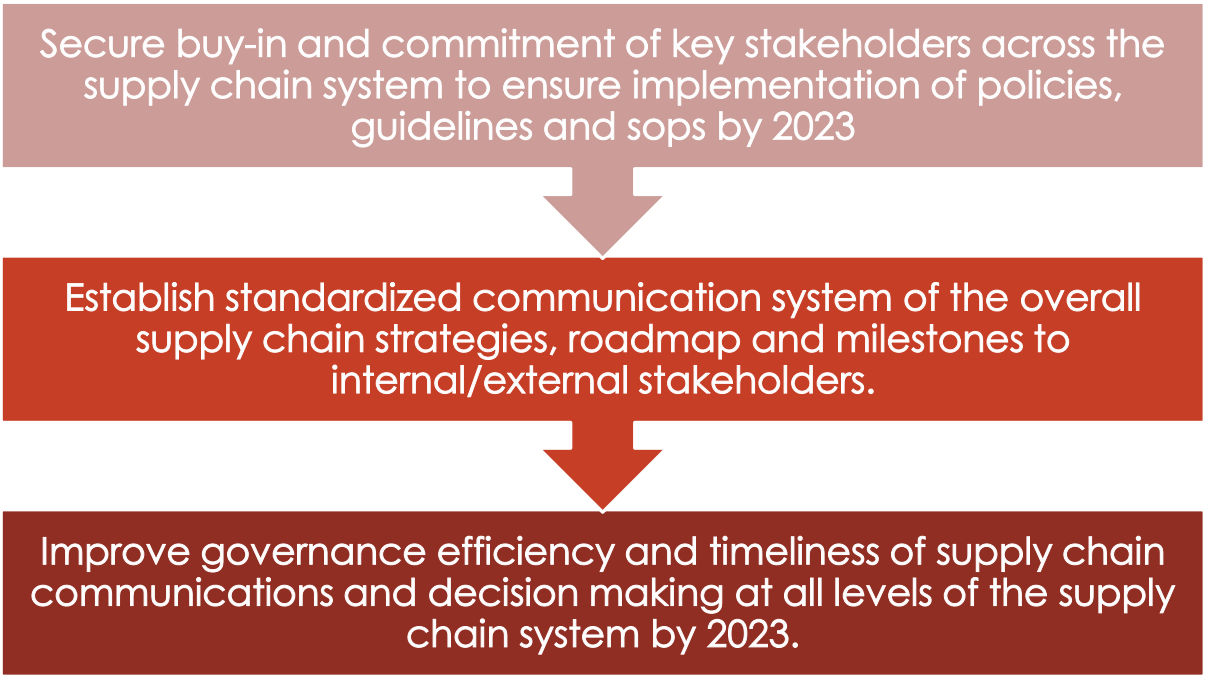


6.3 Advocacy and Communication

A key finding of the strategic planning process was that there is inadequate ownership of supply chain at various levels of Government. This results in low investment by Governments in supply chain operations, including allocation of staff and support for operational activities for sustainability.

This strategy manages all external communications, fundraising and stakeholder engagement. It is the voice of NPSCMP, an instigator of change, the rallying unit that ensures buy-in from Federal, State and Local Government stakeholders on one hand and external partners and development aid agencies on the other hand.

The overall **strategic objectives** to address this function include:

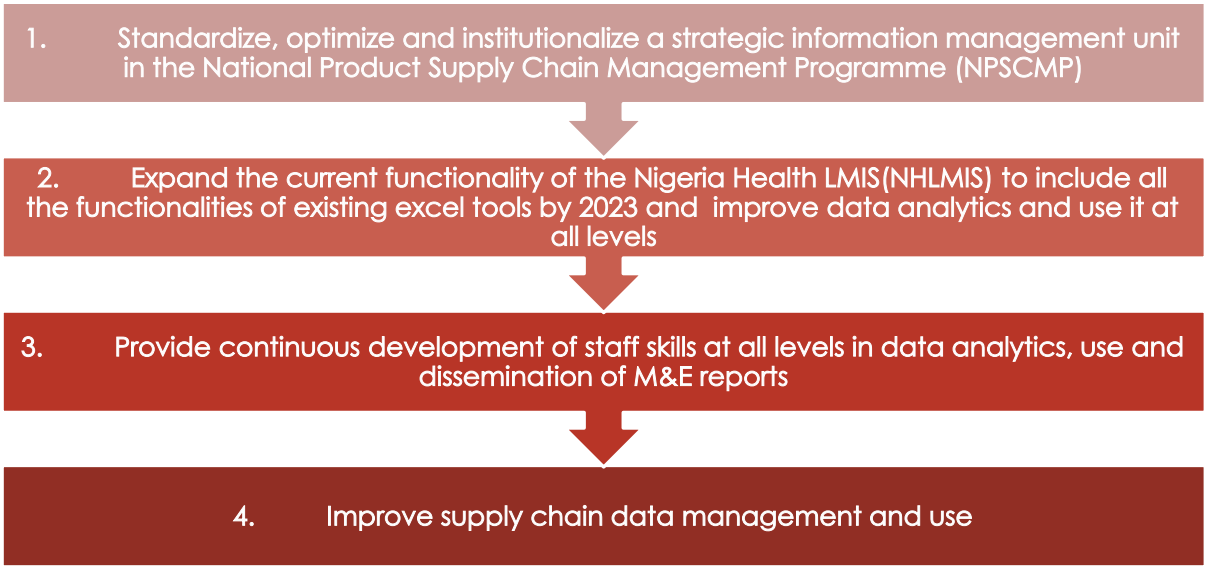


6.4 Strategic Information Management and Innovation

This strategy will transform the supply chain into a dynamic learning and best practice arena with ever increasing capacity for problem solving. Policies and guidelines as well as practice in all areas of supply chain will be informed by data analytics from operational research and data collected from each area.

Current LMIS systems are focused on resupply with limited early warning signs and weak capacity of personnel to interpret red flags. This will be addressed. Further understanding and regularly surveying the service needs of patients will be used to develop or revise policies and practices to achieve the desired levels of service based on established performance measures.

The overall **strategic objectives** to address this function include:



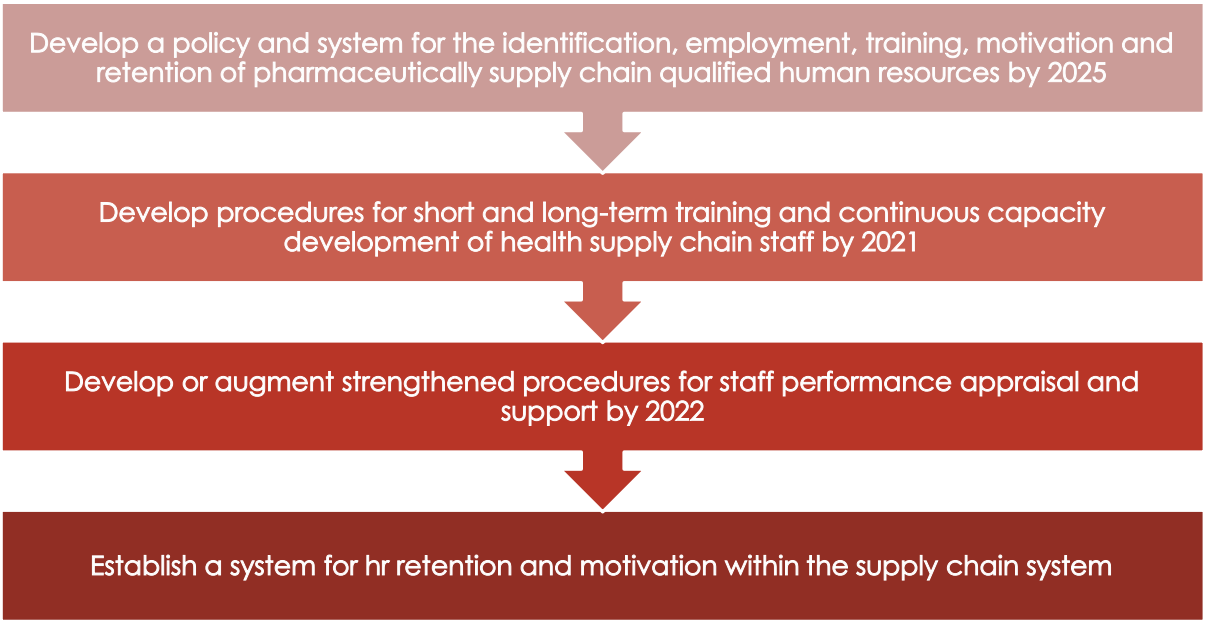
6.5 Sustainable and Competent Human Resources for Supply Chain

There is inadequate skilled human resource to adequately drive supply chain programme, poor retention of trained supply chain personnel, non-release of funds by the government for activities related to supply chain, non-availability of national guideline for human resources in supply chain, and weak systems for integrated supportive supervision.

The cornerstone of any organization is its human resource. They must be appropriately qualified and motivated to be retained to play their roles in the most effective way. The strategy aims at identifying, developing and securing appropriately qualified human resources for the delivery of quality pharmaceutical services. These should be in the right numbers with deployment that is managed and supported to achieve a learning sector with ever increasing competence and skills to operate system in a dynamic environment.

Furthermore, the human resource will prosper in a conducive culture that facilitates learning, growth and innovation. The strategy aims at fostering an environment for professionalism and fulfilment for staff to attain the best output and desired outcomes. There is opportunity for partnership with private sector and threats of withdrawal of partners funding, insurgency and insecurities.

The overall **strategic objectives** to address this function include:



7 Pillar Two: Increased State Ownership and Capacity

The stakeholders identified several gaps that affect supply chain performance at Stake level. The strategies identified are aimed at addressing these gaps. The success of the plan in this area will be measured by the levels of fill of the gaps such as:

- Inadequate involvement or buy-in of some key stakeholders
- Sub-optimal implementation and adherence to guidelines and policies
- Products selection is not standardized or coordinated between programme, States or the health facilities.
- Inadequate human resource and financial management capacity of procurement processes,
- Poor retention of trained supply chain personnel
- Non-conformity of selected medicines to the National Essential Medicines List as required by National Drug Formulary and Essential Drug List Act
- Inadequate compliance to the national drug policy.
- Bulk procurement is done without the necessary advantage of economies of scale. (Nigeria reported procurements that averaged 3 times international prices ranging from 0.2 to 30.7 times[7].
- Thirty (30%) percent of procurements had remaining shelf life at delivery below the 80% requirement for rational procurement[8].
- The medicines purchased with suboptimal shelf life ranged from 1.1 to 21.7 times international prices[9].

[7] Deloitte Assessment Report NSCIP, 2018
[8] Deloitte Assessment Report NSCIP, 2018
[9] Deloitte Assessment Report NSCIP, 2018

- Poor data quality (incomplete and late data submission)

Note that in certain areas where required, implementation of the strategic plan will start with baseline measures to help determine implementation performance targets.

7.1 Financing and Resource Mobilization

Financial sustainability for the supply chain management of medicines and other health products requires establishing a balance between the demand for medicines, the cost of meeting this demand, and the available resources. The consequences of not achieving this were illustrated in a National Health Facility Survey in 2016 which found that essential drugs were available in only about a third (32.3%) of all PHC facilities in Nigeria[10].

Against this backdrop, a PHC-level Drug Revolving Fund/Sustainable Drug Supply System (PHC-DRF/SDSS) can be a promising mechanism for improving the financing and effective management of essential drugs. To this end, Nigeria's Federal Ministry of Health has developed guidelines for DRF schemes in the States, some of which have begun to implement this policy. Despite promising experiences in some States[11], however, these are still early days for designing and implementing sustainable drug financing modalities in Nigeria. Continued efforts from Federal and State governments, with support from technical and donor partners, will likely be required to strengthen existing State DRF/SDSS initiatives and to encourage other States to adopt the model.

Experience, however, indicates that revolving drug funds can face difficulties that undermine their effectiveness. Effective financing policy, therefore, recognizes the need to have multiple elements to funding strategies in order to ensure adequate financial coverage for medicines. Options that may be considered include increased government funding of medicines, strengthening health insurance coverage for medicines, and/or improving efficiency of utilization donor assistance to build capacity for self-sustainability. The country's National Drug Policy[12] recognizes this, stating that "*Participation in the National Health Insurance Scheme by individuals, organizations and communities shall be encouraged*".

Over and above the DRF/SDSS initiative, a pluralistic approach in which needs are met through a combination of drug financing mechanisms will be necessary. Making better use of available funding is a necessary starting point in this regard and the PPP model preferred by the government is a promising approach in this regard.

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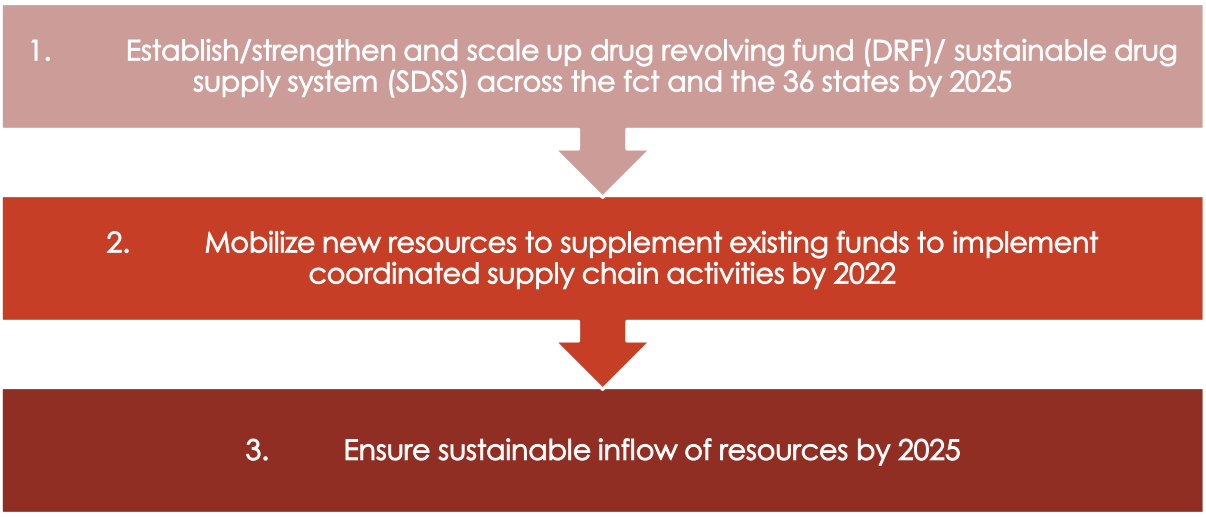
[10] Reported in: Sustainable financing of essential medicines to strengthen the primary health care system in Ebonyi State, Nigeria. USAID Maternal and Child Survival Programme, October 2018. https://www.mcsprogram.org/resource/sustainable-financing-of-essential-medicines-to-strengthen-the-primary-health-care-system-in-nigeria/

[11] Ibid

[12] National Drug Policy, 2005, section 6.19. http://collections.infocollections.org/whocountry/en/d/Js6865e/9.19.html#Js6865e.9.19

The overall **strategic objectives** to address this function include:



7.2 Private Sector Engagement and Public Private Partnerships

Fundamental to the government's thinking for the future of the health supply chain is to partner, where possible, with the private sector to deliver supply chain services in all States. For the purposes of this document, the government takes a broad view of PPP, as "a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance.[13]"

In applying this approach to the Nigerian health service, the government must retain overall ownership and control in order to successfully discharge its responsibility to the people of Nigeria while ensuring affordable healthcare. The government continues to own supply chain assets, such as warehouses, while the private sector brings their systems, processes, people and quality standards to operate the facilities and provide the supply chain service. Such a symbiotic relationship ensures that the Government retains control while benefiting the private partner through not having to invest heavily in physical assets to manage the supply chain. This approach also brings a lower cost to serve compared to other PPP approaches.

A full evaluation of each State will be required to determine readiness for PPP. Successful implementation of a PPP model makes it essential that the government acquires the capacity to oversee and govern performance contracts. The right tools for contracting, service level agreement management, and performance tracking mechanisms will be critical in

[13] Public-Private Partnerships, A reference guide, version 2.0. 2014 International Bank for Reconstruction and Development / The World Bank, Asian Development Bank, and Inter-American Development Bank.

transforming government to becoming the stewards of the supply chain and the PPP service contracts supporting supply chain operations.

The overall **strategic objectives** to address this function include:

1. Establish PPPs to increase the efficiency, cost-effectiveness and sustainability of the delivery of medicines and services to patients in Nigeria no matter where they live

2. Support states to develop and manage 3PL contracts including public private partnerships (PPPs) by 2021

7.3 Supply Chain Assets Management

This strategy aims at obtaining the best value in medicine inventory and supply chain infrastructure and systems. It provides for rational management of stores and their contents, motor vehicles and other fixtures, apparatus and equipment. Asset management will decrease inventory write off by ensuring good pharmaceutical storage and transportation practice.

An asset refers to the fixed properties (warehouse) and its inventory owned by government, company or a person having value and available for use. An asset management framework is a set of documents, systems and processes that addresses an organization's asset management responsibilities. In its simplest form, an asset management framework may just be the sum of the following documents - Asset Management Policy, Asset Management Strategy, and Asset Management Plan.

Some of the problems to be addressed by this strategic plan will include inadequate funding for the maintenance of available assets, insecurities, thefts and lack of training of personnel on asset management while tapping into the existing expertise of developmental partners and availability of insurance companies.

Key enablers will include effective coordination structures, thorough and accurate asset records, automation of asset transfers or automated asset management solution, leverage on partnerships and budget for asset replacement, tracking asset condition and maintenance.

The overall **strategic objective** to address this function is to:

Establish an effective supply chain asset management programme that provides issue visibility that brings about reduction in cost and wastages in warehouses across the supply chain system in Nigeria by 2025

8 Pillar Three: Integration of Supply chains

8.1 Warehousing and Last Mile Distribution

The current State of the warehouse infrastructure at the State level and health facilities are inadequate and below the level and standard required for pharmaceuticals. It is plagued by poor systems and processes. One of such processes is the existence of parallel supply chains, one carrying malaria, HIV&AIDS, TB and Family Planning among others, and the other carrying essential medicines to treat the most common illnesses. The funding mechanisms for both procurement and supply chain are different between these product groups, with essential drugs items being financed by drug revolving fund schemes (SDSS) at State level. Furthermore, there are inefficient monitoring and quality control systems, compounded by inadequate funding and limited government involvement.

Parallel supply chains add strain on weak supply chains through multiplicity of supply lines and higher processing and management costs. Integration improves supply chain performance through increased simplicity, allowing better processes and management, rationalization of costs when duplication is removed and easier reporting requirements which can improve visibility and accountability.

Strategies in this area seek to address the challenges and gaps in the storage infrastructure and systems. These are critical change making initiatives that will transform the supply chain in Nigeria. In the short to medium term (2022- 2025), there will be a phased integration of public health and essential medicines into single supply chain with a base at State level. In the longer term, they will lead to installation of pharmaceutical grade stores in every State in the country and create a State-of-the-art network of facilities to undertake last-mile delivery of medicines and other health products to LGAs down to health facilities. In the immediate term, all public health programme should maintain status quo pending upgrade of state warehouses

This strategic area therefore seeks to incorporate the following best practices in the effective management of its warehouses:

1. Responding rapidly to changes in the market and patient demand
2. Minimizing variances in the logistics service through efficient tracking and handling of inventory in the warehouse

3. Minimizing inventory to reduce costs through efficient management of warehouses and their strategic placement to avoid inventory buildup in the system.
4. Consolidating product movement by grouping shipments
5. Maintaining high quality systems and engaging in continuous improvement initiatives
6. Supporting the entire commodity life cycle and reverse logistics supply chain

Figure 8.1: Comparative Qualities of Public Health Programme and Essential medicines management in Nigeria

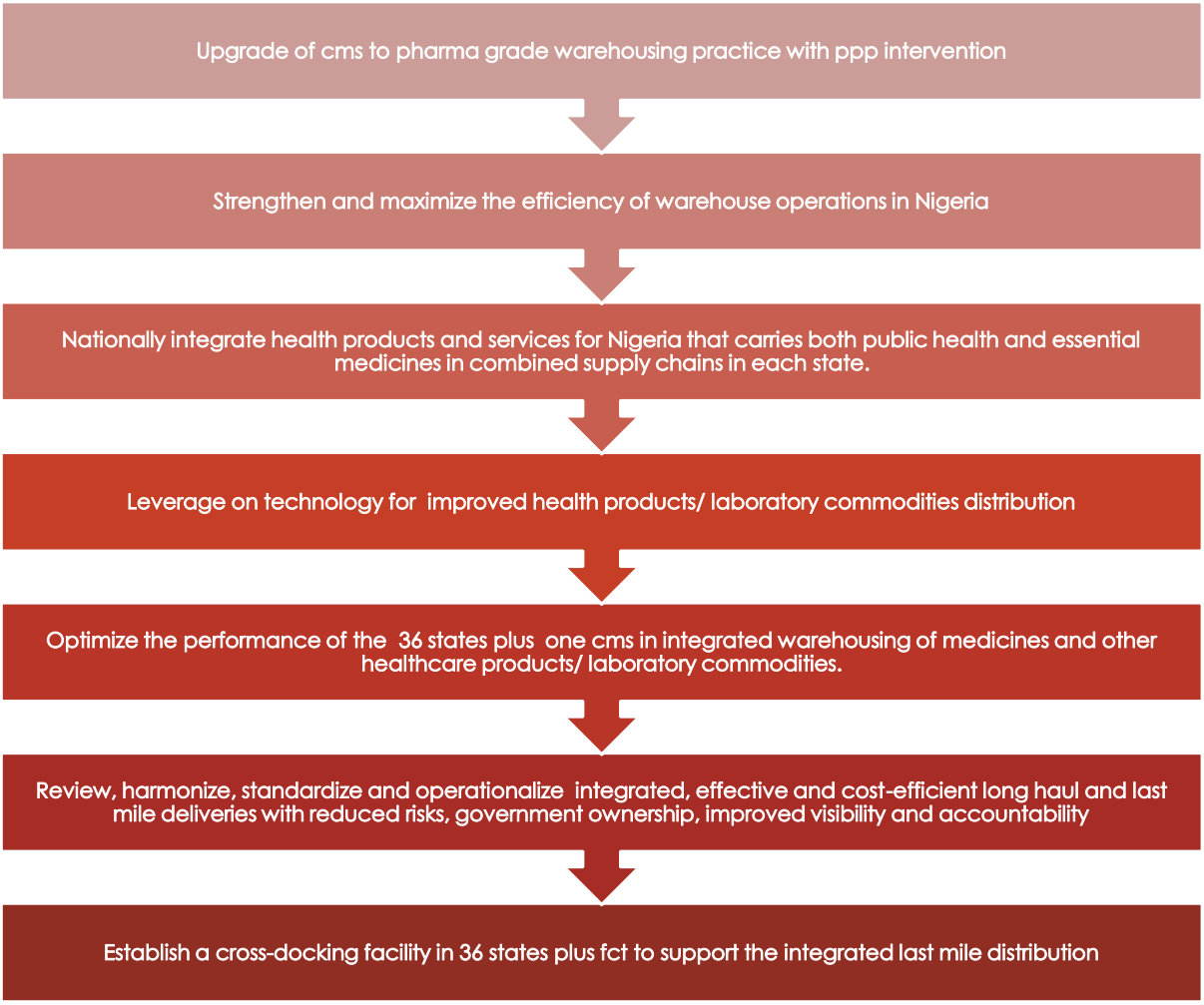
Public Programme Management	Essential Medicines Management
•Poor Asset Management	•Good Asset Management
•High Supply Chain Costs	•Low Costs
•Poor Product Accountability	•Good Product Availability
•Higher Private Sector Participation	•Lower Private Sector Participation
•Good Coverage	•Poor Coverage
•Good Quality Monitoring	•Poor Quality Monitoring
•Well Structured Systems	•Poorly Structured Systems
•Good Planning	•Poor Planning
•Service Level Uniformity	•High Service Level Deviation
•Quality LMIS	•Poor LMIS
•Quality LMD Plans	•Poor LMD Plans

This concerted effort aims to leverage on the existing Pharma-grade National warehouses, available private sector expertise, latest technology platforms, integration of public health programme commodities with State-managed essential medicines and the opportunity to adopt PPP Model for warehousing to support facility storage upgrade. The following considerations will then form the basis of the warehousing decisions within the public healthcare system with all relevant key stakeholders:

1. Determining the optimum number of storage facilities required to aid in reducing inventory while eliminating or reducing stock outs
2. Evaluating existing storage facilities and selecting the right locations for new facilities to ensure cost-efficient access to the market and transportation
3. Designing/re-designing each facility where possible to be the right size and configuration to suit the commodities handled and process run within the facilities
4. Developing management systems that employ space, equipment required, and information technology to minimize delays, commodity damages, obsolescence and stock losses
5. Defining basic warehouse operations around movement and storage where the movement function characterizes a distribution and cross-docking warehouse for the health products.

Further to this strategic area, is the objective towards achieving a balance between the warehousing function (receiving, put-away, order-picking) and last mile delivery along with the associated costs. The goals will be to streamline the processes across these functions in such a way that distribution adds value to the supply chain through the physical delivery of commodities at the place and time desired bridging the gap between health facilities and patients. Last Mile Delivery is therefore dependent on an effective distribution network which is largely influenced by the number of storage facilities, location, ownership, warehouse operations and the transportation management.

The overall **strategic objectives** to address this function include:



8.2 Logistics Management Information System

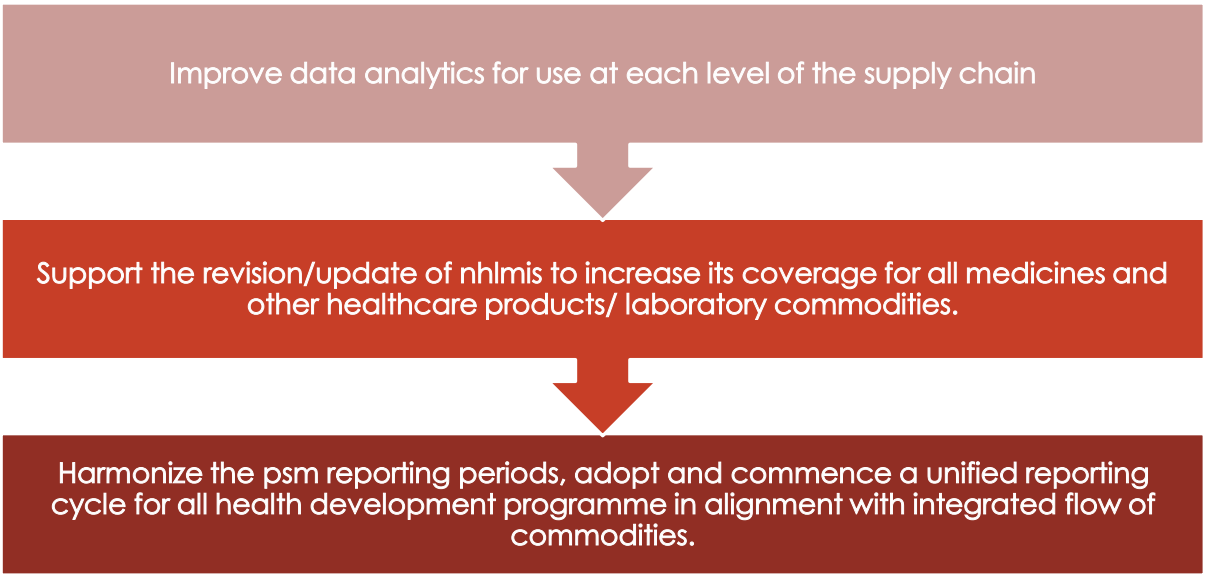
The Information flow along with the commodity and financial flow must readily flow across the supply chain in order to enable the planning, execution and evaluation of key functions. Each participant in the public healthcare supply chain system therefore needs relevant information to make effective forecasts and operational decisions. If the supply chain has to operate without inventory data or demand information, it would be difficult to maintain a proper flow of the right quantities of the right health products and medicines. This ever-

changing nature of the supply chain therefore motivates the need for information and investment in technology.

Effective management of the Logistics Management Information System is vital for synchronizing supply chain process that span across the Federal, State and Local level, meeting patient demands and creating responsive supply chains.

The fundamental building blocks in achieving this operational capability is illustrated in the LMIS Strategic Objectives and Key Outcomes in Figure 4 below. The objective within this context will be to leverage on the strengths of the existing LMIS which uses the recently launched Navision system, availability of the NHLMIS, end-to-end visibility and the instituted quarterly stock status reporting for public health programme amidst some of the challenges around government ownership and inadequate funding.

The overall **strategic objectives** to address this function include:



9 Pillar Four: Optimize Supply Chain Performance

The desire of the government of Nigeria is to establish a supply chain that operates according to international best practice. In this regard, the government considers the most important elements of supply chain best practice to be overriding commitment to patients supply chain organization with a wide span of control, harmonization of supply chains roles played by every level and appropriate involvement of private sector participation. All this should be managed and coordinated, based on system information and data to guide performance and innovation.

Some of the gaps to be addressed under this strategic plan are related to patient outcomes. There is need to increase availability of key medicines above the Fifty-four percent (54%) current levels. The strategies will also aim to

make medicines prices more affordable to majority of Nigerians by introducing schemes that reduce out-of-pocket purchasing of medicines amongst other things.

The Government will establish a holistic approach to manage the entire supply chain from supplier/manufacturer to final patient. Having a single point of management control over all of the supply chain components, policies and practices will avoid strengthening one component to the detriment of others; for example, the procurement function may start placing larger orders to achieve lower prices, but the storage facility is not equipped to handle large volumes of product in single consignments. A wide span of organizational control is therefore essential in order to ensure system-wide visibility at a single point within the organization and avoid the development of a sub-optimal supply chain.

- Highly formalized supply chain process

The process required to deliver health facility orders correctly and on time results from all supply chain processes working in harmony, including gathering demand data, forecasting and providing replenishment data, placing orders to suppliers, planning labor, distributing the products and so on. To achieve harmony, each process will be defined by inputs and outputs, each stakeholder will be made to understand his or her responsibilities and those of the rest of the team, and the sequence and timing of events will be scheduled regularly.

- Commitment to external relationships

The government understands that the use of external resources, such as contracted services, can significantly contribute to supply chain excellence. But to derive the maximum benefits from external resources, the government appreciates that it must retain ownership and responsibility for the supply service, as well as being able to manage them well, which requires excellent contract and project management skills. Of paramount importance, in this regard, will be clearly defining the roles of all the players including governments and any 3PLs or 4PLs.

- Achieving and sustaining perfect basic performance

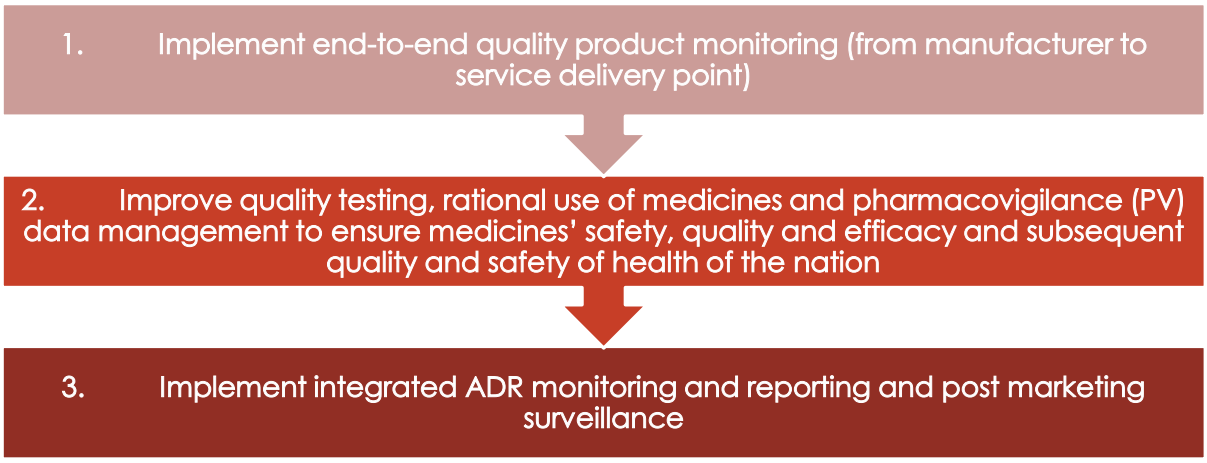
Characteristic of best practice supply chain organizations is their ability to achieve cost and service targets routinely. This is due to a combination of realistic targets, trained staff motivated to achieve those targets, and performance measures that reward good performance and highlight areas requiring attention. By accomplishing expected, i.e. perfect, basic performance, government managers and their supply chain partners will be able to shift their efforts from day-to-day operations to medium- and long-term strategic planning to the benefit of patients. Fundamental to this, will be the ability to accurately monitor the supply chain functional elements as well as service levels and costs, which requires quality data, supported by analysis of the operation's strengths and weaknesses. The government will require access

to this data and to develop the ability for in-depth understanding and analysis that will allow it to identify potential improvements and how to achieve them.

9.1 Quality Assurance in Selection and Procurement Planning

Quality medicine and other health products are a precursor to adequate and efficient health care. However, an abundance of poor-quality medical products in low- and middle-income countries—including Nigeria—makes it hard to effectively treat and prevent public health threats. Detecting substandard and falsified medicines and removing them from the market, while increasing the availability of quality-assured medicines, is critical to combating treatable diseases, a study[14] conducted in Lagos State on evaluating the quality of antihypertensive drugs in Lagos State, collected and tested 102 samples, and discovered that 29.3% were falsely labeled, 74.5% were substandard, 76.5% were of poor quality and 23.5% were of good quality[15]. Quality assurance needs to be embedded in all components of Supply Chain Management Circle. Medicines will be checked and certified to be safe and compliant with all standards, regulations, and requirements of the National Regulatory Authority (NRA), NAFDAC, and other governing bodies. The system of quality assurance will ensure that only those medicines and other health products that are of acceptable quality and safety are selected and introduced in the supply chain.

The overall **strategic objectives** to address this function include:



9.2 Procurement

Effective supply chain management requires the careful co-ordination of inbound and outbound systems, procurement plays a major role in both the commodity and information flow by linking all members in the supply chain and further assuring the quality of suppliers providing the goods and services.

[14] https://www.usp-pqm.org/where-we-work/field-offices/nigeria
[15] https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0211567

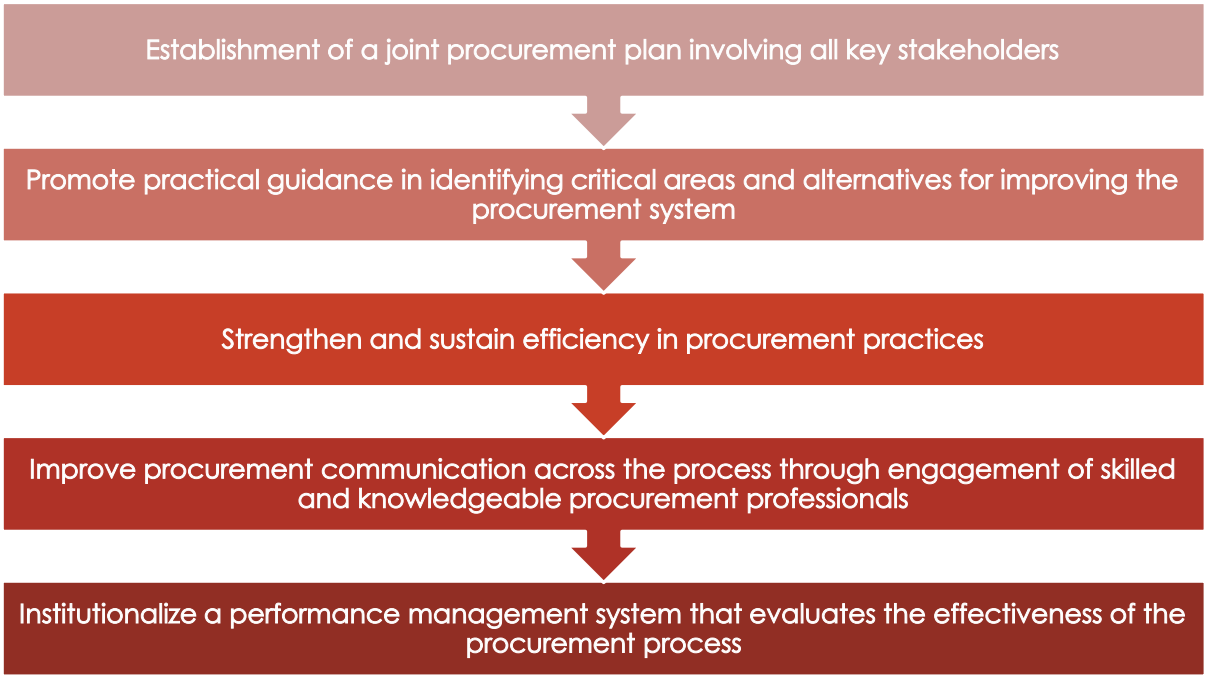
Procurement can however be a very complex process as it involves activities associated with qualifying suppliers, procuring different types of inputs and monitoring supplier performance consistent with patient demands. This critical link in the supply chain therefore requires a very well-defined process which is understood by all key stakeholders and cuts across all functional and organizational boundaries. The effective management of this process maximizes value for both the buying and selling organizations thereby maximizing value for the entire supply chain.

The key outcome of this thematic area will be to strategically position the procurement function across all key stakeholders so that the process is successfully broken down into a set of strategic activities focused on:

1. Identifying the needs
2. Defining and evaluating patient requirements
3. Deciding on whether to outsource or insource
4. Identify the various types of purchases in each respective programme
5. Performing a market analysis
6. Supplier Selection with emphasis on cost, quality, reliability, capability, financial stability and other factors such as location
7. Post-purchase evaluation

The management of this process should then include co-ordination amongst key stakeholders, determining the necessary level of investment, performing the procurement process and evaluating the effectiveness of the procurement process. This integrated and strategic approach seeks to alleviate some of the issues around stock-outs or overstocks, undue political interference in certain procurement activities, lack of a well-defined, transparent and effectively managed procurement process and limited procurement expertise and adoption of associated best practices.

The overall **strategic objectives** to address this function include:



9.3 Inventory Management & Demand Management

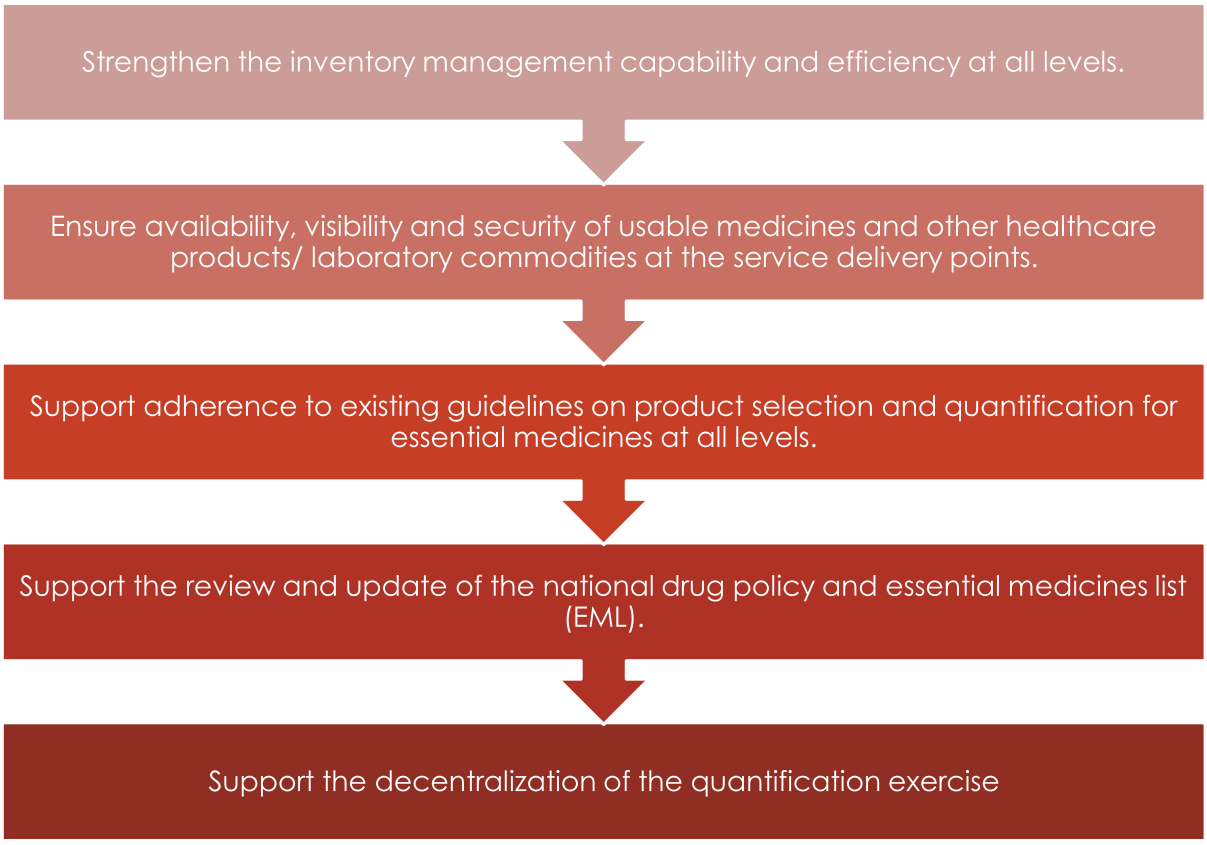
From a supply chain perspective, inventory management is usually concerned with the inbound and outbound flow of commodities at every stage of the supply chain. This area benefits strongly from inventory visibility and supply chain collaboration across these partners. Further pertinent to this area is the product selection and quantification i.e. demand management which helps to unify supply chain members with a common goal of satisfying patient demands. The public healthcare system therefore relies on an integrated supply chain where forecasts and demand information are shared with partners throughout the whole supply chain forming the basis for informed inventory decision making and collaborative planning.

Although there is currently an inventory management structure in place with appropriate tools including the NHLMIS, there still remains some gaps which include inadequate human resource capacity for inventory management, inadequate and inconsistent supply of required essential medicines, minimal visibility of inventory management data at all levels, high rate of expiries and pipeline leakages, key approaches to managing inventory and well defined inventory policies and KPIs as a way of formalizing the results of strategic inventory decisions so that they are implemented consistently.

The Inventory Strategic Objectives and Key Outcomes illustrated in figure 3 below further provides an overview of all the pertinent areas the strategy will focus on in strengthening both the Inventory Management and Product Selection and Quantification (Forecasting, Supply Planning) functions. This aims

to achieve an uninterrupted flow of medicines and other healthcare products from the manufacturers, CMS, Health Facilities and right down to the patient.

The overall **strategic objectives** to address this function include:

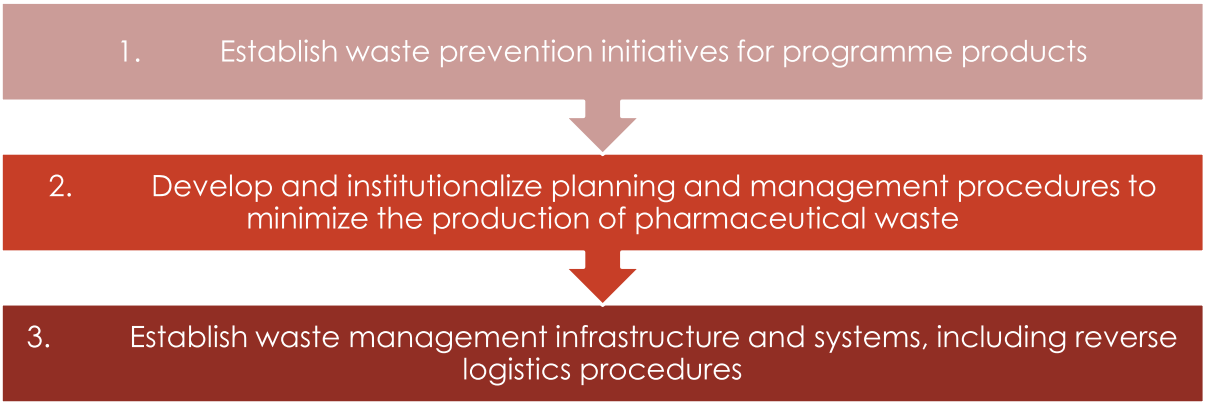


9.4 Reverse Logistics and Waste Disposal Management

Medical waste is produced when delivering health care services such as diagnosis, treatment and immunization. This strategy aims to establish appropriate preventive and management processes and procedures throughout the supply chain in order to protect humans, animal and environmental health in the collection, transportation, treatment and disposal of waste. The effective and efficient management of reverse flows in a supply chain therefore requires careful consideration of several key activities or issues. Although there are existing waste management policies and government agencies assigned to oversee medical waste management, the system still lacks "returns flow programme" with clearly defined procedures and processes for various types of returns. The magnitude of this problem is further influenced by inefficiencies associated with poor inventory management and waste preventive measures, inefficient disposal methods, inadequate funding and infrastructural capacity for waste disposal; and lack of technical expertise in the management and disposal of waste. The strategic area will therefore evaluate the impact of supply chain decisions on the Public Healthcare System by establishing:

1. How processes will be set-up for minimizing and eliminating returns through supply chain functional areas,
2. How commodities will be gathered for disposal
3. Where toxic hazardous or dangerous materials will be stored,
4. What industrial processes the government will leverage on to dispose, separate or deconstruct commodities consistent with overall environmental policies

The overall **strategic objectives** to address this function include:



9.5 Human Rights in Supply Chain Management

The corporate responsibility to respect human rights requires organizations not only to avoid causing or contributing to adverse human rights impacts, but also to address those adverse impacts that are directly linked to their operations, products or services by their business relationships, even if they have not contributed to those impacts. This is done by conducting human rights due diligence to identify, address and mitigate adverse human rights impacts with which they may be involved through their supply chain relationships as recommended by the UN Guiding Principles on Business and Human Rights (UNGPs).

Human rights due diligence is essentially a risk management process conducted in four steps: assessing human rights impacts; integrating findings and responding to impacts; tracking performance; and communicating about how impacts are addressed. Therefore, supply chain actors should consider the human rights risks along their supply chains and take the steps to ensure that their practices respect and protect the rights of workers and communities. Threats to human rights in public supply chains include compulsory or forced labor; bonded labor; human trafficking; restrictions on freedom of association and the right to collective bargaining; poor, unhygienic or unsafe working conditions; illegal child labor; very low, or no, pay; excessive working hours; discrimination; harsh and inhumane treatment and fraud in contract labor.

Key enablers will include organizational commitment; supplier engagement and collaboration.

The overall **strategic objectives** to address this function include:

To ensure that adequate measures are in place to respect and protect the rights of workers and communities in supply chain management practices

9.6 Supply Chain in Emergency Situations

An emergency is a situation that poses an immediate risk to health, life, property, or environment. Complex emergencies are defined as the wide array of "international conflict, humanitarian and domestic disaster relief scenarios, involving combinations of warfare, food insecurity, epidemics, and social conflict. These scenarios are characterized by some combination of displaced people; widespread damage; hindrance of intervention or prevention due to political, security, or infrastructure constraints; threat of loss of life; or need for large scale assistance. Emergency supply chains (ESC) support these complex emergencies.

This strategy aims to strengthen public health preparedness and response through development of basic core functional areas that support a medical countermeasure logistics response in emergencies. The preparation and support for the provision of right resources at the right time to secure the nation's health in emergencies requires assuring access to medical countermeasures (MCM) for potential crisis, creating pathway for quick delivery, maintaining medical stocks, preparing stakeholders to execute MCMs operations, projecting paths for quick material movement to needed areas in clinically relevant time, integrating with national, state and local planning committees and providing training, technical assistance, and exercise support to ensure readiness. MCM is any medical material supplies during emergency.

The overall **strategic objectives** to address this function include:

Develop a clear roadmap, guidelines, sops and capacity for national emergency supply chain by 2025

9.7 Risk Management

By definition, a risk is an uncertainty to any objective. Risk management is the identification, analysis, evaluation and mitigation of risks. For the supply chain space, supply chain risk management (SCRM) is the implementation of strategies to manage both every day and exceptional risks along the supply chain based on continuous risk assessments with the objective of reducing vulnerability and ensuring continuity.

Risk management should be a dedicated activity carried out by the process owners and should take into consideration, the needs and requirements of all interested parties/ stakeholders. A risk register should be maintained also by the process owners detailing identified risks, risk scoring to indicate consequences/ impact and likelihood of occurrence, mitigation and treatment plans, to ensure evidence based and effective management of risks.

The overall **strategic objectives** to address this function include:

Identify and categorise risks across all supply chain functions and formulate risk management measures by 2022

10.1 Results and Implementation Framework

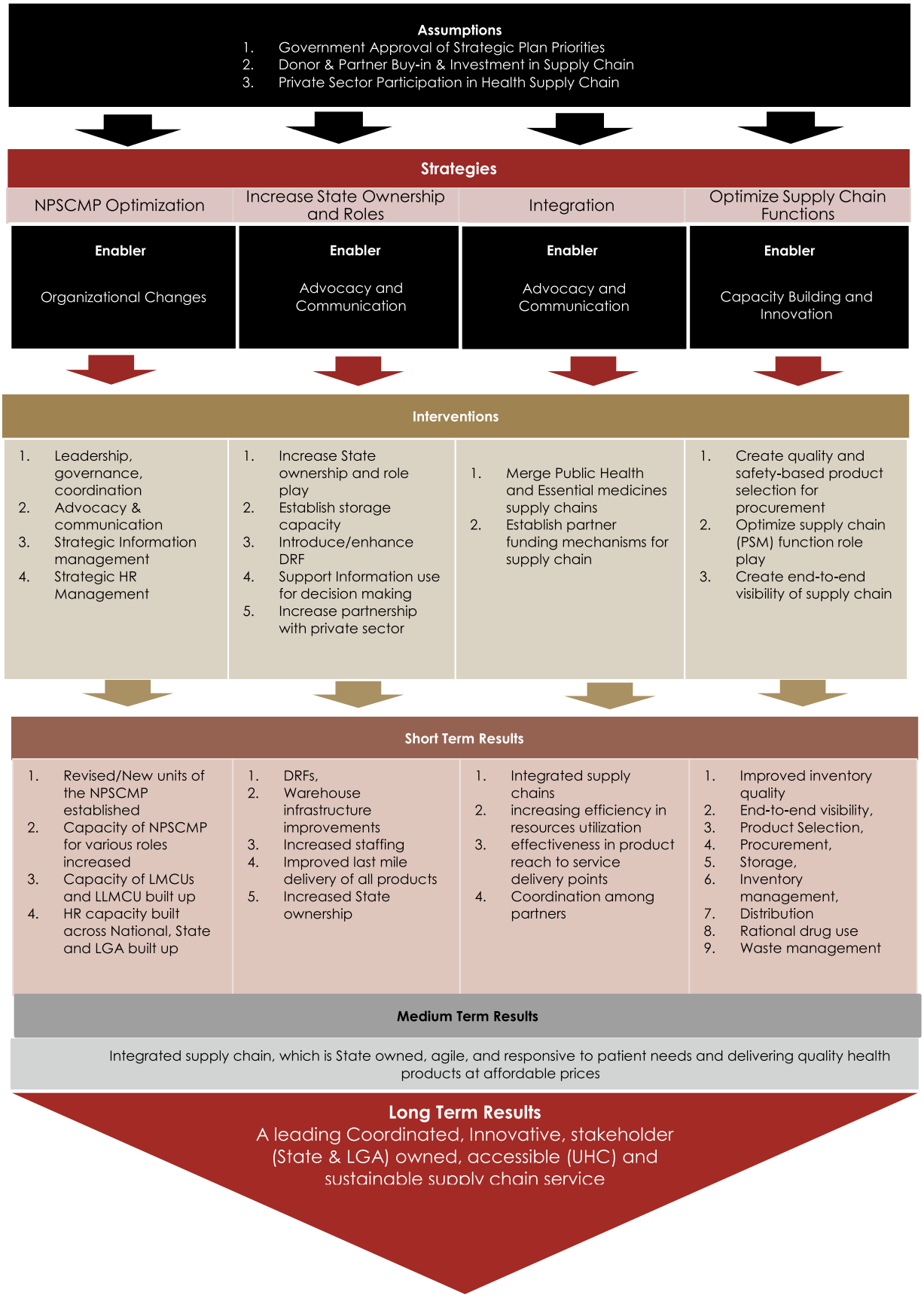


Figure 10.1: Results Framework

10.2 M&E Framework

The following monitoring and evaluation framework provides a guide on how the strategic plan implementation will be monitored and its results reviewed. A full monitoring and implementation plan will be developed in due course, depending on funding and resourcing of the different parts of the strategic plan, with the aim of measuring the impact of the changes aimed at improving the supply chain.

The logical framework is adopted to monitor the establishment of the pillars of the supply chain system envisaged in the strategic plan. The framework identifies measureable objectives identified as integral to the supply chain system building, as expressed in the resulted framework above.

The goal of the strategic plan is to develop a resilient supply chain that is coordinated, responsive, and sustainable and stakeholders owned. This will assure access to medicines and other health products supplies to end users. The monitoring and evaluation framework identifies performance measurement indicators, targets and periodic reporting, with established means of verification to determine whether key activities implemented are leading to desired outcomes or results in supply chain maturity.

The framework should be read from bottom-up, for activities, which lead to outcomes or results that will ultimately contribute to the goal of the strategic plan. Note that each of the four pillars is necessary to attain the goal.

Goal: Integrated supply chain, which is State owned, agile and responsive to patient needs and delivering quality health products at affordable prices by 2025				
Pillar 1: NPSCMP Optimization		Indicators	Means of verification	Risks/Assumptions
Results	Strengthen NPSCMP's leadership to provide effective oversight and coordination of supply chain system in Nigeria: 1. Revised/New units of the NPSCMP established 2. Capacity of NPSCMP for various roles increased 3. Capacity of LMCUs and LLMCU built up	1. Organisational grading of NPSCMP increased from baseline (compare to maturity model) 2. Improvement in Bureaucracy rating compared to baseline	NPSCMP organisational capacity assessment reports	1. Government approval of Strategic Plan Priorities 2. Donor and Partner Buy-in and Investment in Supply Chain 3. Private Sector Participation in Health Supply Chain

	4. HR capacity built across Federal, State and LGA 5. Monitoring and Evaluation- i. Provision for Human resource for Monitoring and Evaluation ii. Capacity building for Monitoring and Evaluation	3. Percentage Improvement in partners involvement in supply chain over baseline		
Key Activities	*1.1.* Restructure NPSCMP organogram to reflect all key Units for Leadership, Governance and Coordination, Advocacy and Communication, Strategic Information and Operations Research and Strategic Human Resources Management 1.2. Develop/streamline Leadership, Governance and Coordination functions and structures of NPSCMP 1.3. Develop Advocacy and Communication functions for NPSCMP 1.4. Establish NPSCMP strategic information and operations research functions 1.5. Optimise NPSCMP HR management functions	1.1 State of organizational changes made at NPSCMP 1.2 No. of Advocacy and Communication functions defined/developed 1.3 Percentage of decisions based on information and research findings 1.4 Percentage increase in Supply Chain HR placement and retention over baseline	1.Restructured NPSCMP organogram 2. Advocacy and communications SOPs 3. Strategic information and operations research SOPs 4.Supply chain HR recruitment and review reports 5. LMCU/LLMCU Sustainability roadmap 6. Performance M&E Framework	Government approval of Strategic Plan Priorities
Pillar 2: Increase State Ownership and Capacity		**Indicators**	**Means of verification**	**Risks/Assumptions**
Results	Establish functional drug revolving fund (DRF), Sustainable Drug Supply System (SDSS) across the FCT and the 36 states of Nigeria with sustainable inflow of resources: 1. The number of Drug Revolving Funds (DRFs) increased 2. Increased supply chain staff allocation and recruitment in establishments at State and LGA levels 3. Increased State investment in supply chain	1. Percentage increase in number of states operating a DRF 3. Percentage increase (over baseline) in supply chain staff allocations/recruitment in each state 4. Percentage increase in State contribution to Supply Chain budget (over baseline)	DRFs financial statements Warehouse improvement or construction reports State MOH staff establishments and position fill reports State MOH budgets and disbursement reports	Donor and Partner Buy-in and Investment in Supply Chain State Commitment (financial and of the) Private Sector Participation in Health Supply Chain

Key Activities	1. Documentation and learning from successful DRF/SDSS schemes 2. Develop framework for governing DRF/SDSS 3. Establish DRF/SDSS with Private Sector Involvement/Participation 4. Advocate for increased number of staff and recruitment in State MOH establishment 5. Advocate for increased State contribution to Supply Chain Budget 6. Develop policy and guidelines for pooled procurement 7. Training and capacity building of new and existing staff	1. Proportion of DRFs/SMSS created with Private Sector Involvement 2. Percentage increase (over baseline) in supply chain staff allocations/recruitment in each state 3. Percentage increase in State contribution to Supply Chain budget (over baseline) 4.Number of states using pooled procurement and economies of scale in procurement	1. Drug Revolving Fund Reports 2. State MOH staff establishments and position fill reports 3. State MOH budgets and disbursement reports	Private Sector Participation in Health Supply Chain
Pillar 3: Integration of Supply Chains		**Indicators**	**Means of verification**	**Risks/Assumptions**
Results	Establish/strengthen existing CMS to pharma grade warehouses, optimize efficiency and performance of states and federal warehouse operations, improved data analytics and leverage on technology for a nationally integrated health products and services including reporting periods, effective and cost-efficient long haul and last mile deliveries for Nigeria: 1. Warehouse infrastructure improvements 2. Integrated supply chains between focus public health products and essential medicines of other health products 3. Increasing efficiency in resources utilization 4. Effectiveness in product reach to service delivery points 5. Coordination among partners 6. Improvements in the efficiency level of medicines and other health product procurement results	1. Percentage of States with new or improved pharmaceutical grade warehouses 2. Percentage of programme supply chains that are integrated at each level of supply chain (quantification, procurement, storage and last mile delivery) 3. Percentage improvement in cost of supply chain activities (over baseline) 4. Percentage increase in last mile delivery schedule compliance (over baseline) 5. Increase in number of coordination meetings held	Last mile delivery reports Coordination meeting reports	1. Donor and Partner Buy-in and Investment in Supply Chain 2. Private Sector Participation in Health Supply Chain

Key Activities	1. Hold meeting to achieve effective cross-level collaboration among the three tiers of Government 2. Hold meetings/workshops with health programme, partners and other stakeholders. 3. Develop/update supply chain planning processes and implementation plan for Public Health programme and Essential medicines	1.1 Number of joint planning and review meetings held to improve cross-level and cross partner coordination across the three tiers of Government 1.2 Percentage of programme supply chains that are integrated at each level of supply chain (quantification, procurement, storage and last mile delivery) 1.3 Percentage improvement in cost of supply chain activities (over baseline) 1.4 Percentage increase in last mile delivery schedule compliance (over baseline)	Last mile delivery reports Coordination meeting reports	1. Government approval of Strategic Plan Priorities 2. Donor and Partner Buy-in and Investment in Supply Chain 3. Private Sector Participation in Health Supply Chain
Pillar 4: Optimize Supply Chain Functions		**Indicators**	**Means of verification**	**Risks/Assumptions**
Results	Institutionalize end-to-end quality product monitoring, performance management system, decentralized quantification, joint procurement planning and sustained efficiency in procurement and inventory management practices, commodity security, adherence to guidelines and policies, waste prevention and management infrastructure and systems, improved rational use of medicines and pharmacovigilance: 1. Inventory quality 2.End-to-end visibility 3. Product availability at service delivery points 4. Inventory management 5. Last mile distribution 6.Rational drug use 7. Supply Asset Management 8.Waste management	1.1 Percentage improvement in measures in each supply chain area (over baselines) products available 1.2 Percentage reduction in stock outs rates over baseline 1.3 Percentage reduction in waste over baseline at national level	Supply chain assessment reports in LMIS	1. Government approval of Strategic Plan Priorities 2. Donor and Partner Buy-in and Investment in Supply Chain 3. Private sector Participation in Health Supply Chain

Key Activities	1. Conduct/implement State-owned quantification for all medicines 2. Establish State-owned and operated Inventory Management Systems 3.Implement State-owned procurement and selection of PSM products and commodities 4.Develop/establish State-owned and operated pharmacovigilance 5. Develop/establish waste prevention and management policies and procedures	1.1 Percentage improvement in each supply chain function (over baseline) 1.2 Percentage reduction in waste of medicines and other health products (over baseline) at state level	Supply chain assessment reports in LMIS	1. Donor and Partner Buy-in and Investment in Supply Chain 2. Private sector Participation in Health Supply Chain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10.3 Costing Summary

The costing summary is based on all activities required to produce the milestones that should be attained to achieve transformation of the supply chain in Nigeria. The four pillars described above will lead to a resilient and sustainable supply system for the public sector. There are thirteen (13) high-level milestones as listed in Table 10.2 below.

The attainment of the milestones is viewed as the realization of the vision of a coordinated, government-led sustainable system that is responsive, reliable, agile and cost-friendly to run, delivers services to the citizenry in line with universal health coverage (UHC) and in such quality standards that compete with offerings in the commercial sector in terms of cost and convenience. This vision requires an investment of **USD 68.0 million** over the period 2021 – 2025.

Table 10.2: Milestones and Summary Budget for the Strategic Plan 2021-2025

Milestone #	Strategic Area, Activities	Budget Year 2021-US$	Budget Year 2022-US$	Budget Year 2023 US$	Budget Year 2024-US$	Budget Year 2025-US$	Total Budget
1	NPSCMP Organogram re-structured with Key Units for Leadership, Governance & Coordination, Advocacy & Communication, Strategic Information and Operations Research and Strategic Human Resources Management Completed	4,406,728.81	2,485,562.53	2,119,946.25	2,119,946.25	2,119,946.25	**13,252,130.10**
2	Advocacy and Communication Functions of NPSCMP Established Completed with advocacy activities and communication started	111,758.89	45,389.64	45,389.64	45,389.64	45,389.64	**293,317.44**
3	NPSCMP Strategic Information and Operations Research Functions establishment Completed	1,575,955.19	1,375,069.40	1,564,689.56	1,113,910.49	1,113,910.49	**6,743,535.11**
4	NPSCMP HR Management Function Optimisation Completed	2,108,516.40	2,105,278.79	1,966,327.36	1,942,617.29	1,942,617.29	**10,065,357.13**
5	Supply chain Integration of Public Health and Essential Medicines Completed	455,955.81	35,488.37	90,302.15	154,251.56	35,488.37	**771,486.28**
6	DRF/SDSS establishment with Private sector participation completed	435,883.72	1,348,262.53	2,683,142.46	-	-	**4,467,288.72**
7	State Owned and operated F&Q implementation for all medicines completed	250,089.92	145,764.34	145,764.34	145,764.34	145,764.34	**833,147.29**

Milestone #	Strategic Area, Activities	Budget Year 2021-US$	Budget Year 2022-US$	Budget Year 2023 US$	Budget Year 2024-US$	Budget Year 2025-US$	Total Budget
8	State owned and Operated Inventory Management Systems Completed	-	-	-	774,883.72	-	**774,883.72**
9	State owned level Pharma grade CMS infrastructure –Completed	1,239,734.37	7,350,901.46	13,474,635.31	1,897,990.18	348,222.74	**24,311,484.07**
10	State owned QA based selection for Procurement Completed	4,238,407.74	84,596.90	-	-	-	**4,323,004.64**
11	State owned and operated PV system	753,493.02	292,811.37	398,594.83	292,811.37	204,470.28	**1,942,180.88**
12	State owned and operated Waste Management System	-	147,315.25	-	28,142.12	-	**175,457.36**
	Grand Total	**15,576,523.88**	**15,416,440.58**	**22,488,791.91**	**8,515,706.96**	**5,955,809.40**	**67,953,272.73**

To achieve the Government vision, the strategic plan stipulates the activities listed in the activity plan (details in the Annexes) should be undertaken. Several of these activities will be completed beyond this strategic period, as they require precedent activities to be completed before they can begin. An example of such activities are the development of warehousing infrastructure in each State.

10.3 Activity Plan

No.	Strategic Area/Milestone/Activities	LOE (Days)	2021				2022				2023				2024				2025			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	**Leadership, Governance and Coordination (step-by-step in Annex LGC)** Milestone #1 NPSCMP Organogram re-structured with Key Units for Leadership, Governance & Coordination, Advocacy & Communication, Strategic Information and Operations Research and Strategic Human Resources Management Completed	**502**																				
1.1	Sensitization at the federal Ministry of Health on the need to have an organizational capacity optimisation (OCO) of NPSCMP	10																				
1.2	Develop Capability map and define relationships with States and LGAs	10																				
1.3	Define the roles and responsibilities of all supply chain actors / stakeholders and disseminate the information among relevant stakeholders for stronger collaboration and working relationships between stakeholders and to avoid ambiguity or duplication of	15																				
1.4	Document supply chain business processes and procedures, and consolidate performance management framework for NPSCMP LMCUs and LLMCUs.	90																				
1.5	Re-structure NPSCMP from current to revised organizational structure to provide for new/optimised performance of Leadership, Governance & Coordination, Strategic Information Management, Advocacy and Communication and Strategic Human Resource Management	90																				
1.6	Carry out pharmaceutical sector and supply chain policy reviews (Consultant hire, Reviews, policy revisions, printing and publication, dissemination)	137																				
1.7	Printing and distribution of Strategic documents, SOPs and guidelines	60																				
1.8	Implement LGA coordination framework (Review of the coordination framework; Support LMCUs to conduct advocacy to LGA gate keepers; Monitoring of implementation of the coordination framework by leveraging on quarterly iMSVs/ quarterly performance assessment of LMCU and LLMCU assessment visit)	10																				
1.9	Explore use of available stakeholder forums to ensure dissemination of supply chain strategies, roadmaps and milestones to internal/external stakeholders	60																				
1.10	Undertake organizational performance improvements and reviews	20																				

No.	Strategic Area/Milestone/Activities	Duration (Days)	2021				2022				2023				2024				2025			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2	**Advocacy and Communication (step-by-step in Annex AC)** Milestone #2 Advocacy and Communication Functions of NPSCMP Established Completed with advocacy activities and communication started	360																				
2.1	Formulate Advocacy Concept and Strategy: Based on the business model and objectives, develop the NPSCMP supply chain concept, define key advocacy message themes	90																				
2.2	Design and Develop Collateral: Develop the NPSCMP brochure, Two Pager, State and LGA Booklet, Donor fund raising and marketing materials	90																				
2.3	Launch Advocacy Campaign: Using the newly created communication materials, plan and conduct communication around the new NMSCMP and supply chain and future vision	180																				

No.	Strategic Area/Milestone/Activities	Duration (Days)	2021				2022				2023				2024				2025			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
3	**Strategic Information Management and Operations Research (step-by-step in Annex SIM)** Milestone #3 NPSCMP Strategic Information and Operations Research Functions establishment Completed	1150																				
3.1	Advocacy visit to stakeholders for the inclusion of all Health Program Medicines/Commodities into the NHLMIS	10																				
3.2	Meeting to review current LMIS systems across all Programmes	15																				
3.3	NPSCMP to meet with relevant stakeholders to develop plan for e-linkage	15																				
3.4	Link all existing program LMIS reporting tools to NHLMIS (step by step and scope in Annex LMIS)	90																				
3.5	Establish an operations research protocol	90																				
3.6	Employ qualified staff to conduct operational research	90																				
3.7	Integrate the NHLMIS with the National Traceability Master Date Repository	90																				
3.8	Procurement of data management equipment	180																				
3.9	Capacity building for SI personnel	180																				
3.10	Provide online and real time access to library on existing health SC materials, SOPs, tools, policy to support research and development, knowledge acquisition from local and international organisations	90																				
3.11	Public lessons and applications from research	180																				
3.12	Train, program officers, NPSCMP staff, state LMCU and warehouse staff	90																				
3.13	Conduct an MSV to ensure adherence	30																				

No.	Strategic Area/Milestone/Activities	Duration (Days)	2021				2022				2023				2024				2025			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
4	**Strategic Human Resource Management (step-by-step in Annex HRM)** Milestone #4 NPSCMP HR Management Function Optimisation Completed	940																				
4.1	Advocacy to the Directorate of Food and Drugs Administration, FMoH and National PSM TWG to provide infrastructure, funds and skilled HR in NPSCMP	10																				
4.2	Review Policies, Guidelines and SOPs that are due to align with emerging practices and sign off all SOPs according to the mandated authority as stipulated in the Civil Service Rules to increase credibility and acceptance at all levels	30																				
4.3	Conduct an assessment of current human resource capacity for SC to identify best practices and gaps	60																				
4.4	Review job descriptions of all the positions across the three tiers	60																				
4.5	Develop staff handbook containing job description of the various positions and KPI	90																				
4.6	Develop Supply Chain HR Capacity improvement plan	30																				
4.7	Employ/deploy appropriately qualified staff for the PSS Performance management at all levels of Government (Involve Public Health Supply Chain Expertise in the conceptual Stages of All Public Health Programs across All Levels)	180																				
4.8	Conduct training of HR leadership across the National, State and LGA levels	180																				
4.9	Set-up and define positions, functions and monitoring and evaluation structures for performance management	60																				
4.10	Review in-service training curriculum to incorporate Supply Chain modules	60																				
4.11	Conduct training of Supply Chain HR	180																				

No.	Strategic Area/Milestone/Activities	Duration (Days)	2021				2022				2023				2024				2025			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
5	**Integration of Supply Chains (step-by-step and scope in Annex I)** Milestone #5 Supply chain Integration of Public Health and Essential Medicines Completed	410																				
5.1	Conduct advocacy relevant stakeholders for Integration of SDSS and Public health	10																				
5.2	Conduct sensitization meetings with key stakeholders on integration	10																				
5.3	Develop the framework for the required infrastructure, management, stakeholder coordination, accountability, etc.	60																				
5.4	Clearly define roles and responsibilities across all levels	30																				
5.5	Establish effective cross-level collaboration among the three tiers of government	30																				
5.6	Develop service level agreements between State governments and supporting partners on integration of commodities, storage at various cross-docking facilities and or for last-mile delivery, including third party LMD/3PL agreements	30																				
5.7	Develop agreements on cross-docking points, and LMD route mapping for commodities	30																				
5.8	Pilot Integration of SDSS/DRF and Public health commodities in 10 States with Robust DRF system	180																				
5.9	Conduct iMSVs (integrated monitoring and supervisory visit) across all programs including essential medicines	30																				

No.	Strategic Area/Milestone/Activities	Duration (Days)	2021				2022				2023				2024				2025			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
6	**Drug Revolving Fund/SDSS (step-by-step in Annex DRF)** Milestone #6 DRF/SDSS establishment with Private sector participation completed	690																				
6.1	Conduct advocacy to Governors of States yet to come on board	30																				
6.2	Conduct desk review to identify States operating DRF/SDSS Scheme	30																				
6.3	Conduct formative/baseline assessment in States that are running DRF Successfully to serve as Benchmark for advocacy to other States.	60																				
6.4	Identify at least 6 States for DRF/SDSS/SAMS pilot by Geo-political zones	30																				
6.5	Develop robust Generic DRF/SDSS model to address States specific needs	30																				
6.6	Conduct sensitization meetings for state DRF key stake holders for buy-in	60																				
6.7	Identify funding Sources for DRF Capitalization per State (Government/Partners)	60																				
6.8	Develop and Sign MOUs/SLA for DRF operations	30																				
6.9	Develop guidelines and SOPs for the committee	30																				
6.10	Put in place the Governance to oversee the mechanism	30																				
6.11	Train and Set up State DRF/SDSS In-State Teams	90																				
6.12	Set Up DRF/SDSS system in piloted States	60																				
6.13	Set up DRF/SDSS In the Health facilities	90																				
6.14	Troubleshoot 2 weeks after set up	30																				
6.15	Monitor DRF/SDSS Progress (monthly, Quarterly and biannually)	30																				

No.	Strategic Area/Milestone/Activities	Duration (Days)	2021				2022				2023				2024				2025			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
7	**Forecasting and Quantification Milestone #7 State Owned and operated F&Q implementation for all medicines completed**	**295**																				
7.1	Hold stakeholders meeting for a buy in to suit the local context	10																				
7.2	Review the existing EML or other reverent guidelines based on WHO guidelines	30																				
7.3	Dissemination of updated and existing guideline /policy	60																				
7.4	Develop a tool for state-disaggregated quantification Process	30																				
7.5	Conduct zonal and state-level trainings on quantification and tool harmonization	60																				
7.6	Hold meetings to review demographic, epidemiological, consumption and logistics data to inform state-level quantities	30																				
7.7	Create calendar of planned state-level quantification for essential medicines	30																				
7.8	Conduct state-disaggregated quantification exercise	15																				
7.9	Develop quantification reports	30																				

No.	Strategic Area/Milestone/Activities	Duration (Days)	2021				2022				2023				2024				2025			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
8	**Inventory Management (step-by-step, Annex IM)** Milestone #8 State owned and Operated Inventory Management Systems Completed	340																				
8.1	Conduct Landscape analysis of Existing Tools	30																				
8.2	Develop/revise Inventory Management Policies	30																				
8.3	Document and communicate policies (Publish/Release Policies)	60																				
8.4	Define Inventory Management Data Collection Process	30																				
8.5	Define Reporting Process (Type of reports to be generated)	30																				
8.6	Identify, Prioritize and Aggregate Product and Delivery Requirements	10																				
8.7	Establish Sourcing and Delivery Plans	30																				
8.8	Conduct training of supply chain personnel on inventory management at all Levels	90																				
8.9	Monitor and Review Performance and identify performance gaps	30																				

No.	Strategic Area/Milestone/Activities	Duration (Days)	2021				2022				2023				2024				2025			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
9	**State Central Medical Stores Infrastructure Improvements** Milestone #9 State level Pharma grade CMS infrastructure Completed	580																				
9.1	Undertake Sensitization visits to the states	30																				
9.2	Conduct Rapid assessment of state CMS	30																				
9.3	Upgrade state CMS in line with WHO requirements	300																				
9.4	Stakeholders meeting to adopt the WHO guidelines and provide draft of SOPs (including inbound, outbound, cleaning, etc.) to warehouse managers to suit different warehouse needs.	30																				
9.5	Facilitate government support for PPP arrangement which includes defined roles of Train warehouse managers on adapting and operationalizing SOPs for CMS	60																				
9.6	Quality Assurance Audit of State CMS	30																				
9.7	Assess and implement improvements in the long haul and last mile distribution of medicines and health products	70																				
9.8	Review/institute PPP arrangement at the state CMS	30																				

No.	Strategic Area/Milestone/Activities	Duration (Days)	2021				2022				2023				2024				2025			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
10	**Procurement and Selection** Milestone #10 State owned QA based selection for Procurement Completed	360																				
10.1	Update/revise procurement policies	30																				
10.2	Develop procurement guidelines and manuals (step-by-step process and scope defined in annex x)	60																				
10.3	Disseminate the guidelines and manuals to stakeholders	60																				
10.4	Conduct training on procurement guidelines and manuals	90																				
10.5	Provide a period of technical assistance and hand-holding in procurement implementation	90																				
10.6	Monitor implementation and compliance	30																				

No.	Strategic Area/Milestone/Activities	Duration (Days)	2021				2022				2023				2024				2025			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
11	**Quality Assurance, (Step-by-step, Annex QA)** Milestone #11 State Owned Supply Chain Quality Assurance System Completed	510																				
11.1	Develop QA Guidelines and Product Monitoring SOPs	60																				
11.2	Disseminate the integrated QA guidelines for product monitoring	60																				
11.3	Develop Traceability Technical Infrastructure Gap Analysis and costing Analysis	60																				
11.4	Define Data to be collected	30																				
11.5	Equip NAFDAC State Offices with TruScan devices for rapid product quality screening	180																				
11.6	Conduct training of stakeholders (material, facilitators, sites etc)	60																				
11.7	Define Structured Team Meetings Framework	30																				
11.8	Monitor Implementation of Quality Assurance and Monitoring SOPs	30																				

No.	Strategic Area/Milestone/Activities	Duration (Days)	2021				2022				2023				2024				2025			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
12	**Pharmacovigilance** Milestone #12 State owned and operated PV system completed	750																				
12.1	Carry out a Stakeholders' mapping of PV champions and continuous improvement initiatives	30																				
12.2	Train 1 each per state as State Pharmacovigilance Officers	30																				
12.3	Train at least 40,000 Health Providers annually and establish functional Pharmacovigilance unit across all health facilities with the collaboration of NAFDAC and State MOH	180																				
12.4	Procure and Maintain electronic ADR monitoring System	60																				
12.5	Conduct Pharmacovigilance Review Meetings at the State and National Levels bi-annually	180																				
12.6	Produce Annual Pharmacovigilance Report, Job aids and IEC Materials	30																				
12.7	Identify level of functionalities of DTC and PV units across HFs	30																				
12.8	Advocacy to strengthen and or establish DTC and PV units at HFs	30																				
12.9	Improve prescriptions compliance with the standard treatment guidelines (STG) and other relevant guidelines	90																				
12.10	Reduce medication errors and use PV data generated for decision making	90																				

No.	Strategic Area/Milestone/Activities	Duration (Days)	2021				2022				2023				2024				2025			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
13	**Waste Management** Milestone #13 State owned and operated Waste Management system Completed	270																				
13.1	Establish a Training Program to Increase HR Capacity for Waste Prevention and Management at all levels of Governments	60																				
13.2	Support Compliance with Rational Max-min Inventory Management System	60																				
13.3	Establish Protocol and Procedures for Collaboration with State Waste Management and Environmental Protection Agencies to improve Pharmaceutical Waste Management	30																				
13.4	Establish Real-time or Near Real Time Reporting on Inventory to Enable Adjustment of Orders/Supply Delivery to Health Facilities	60																				
13.5	Establish Procedures for Medicines Selection and Procurement that Is Based on Disease Incidence and Evidence Based Diagnostic and Treatment Protocols	30																				
13.6	Develop and Implement A National Waste Management Database	30																				

Annexes

Annex 1
Detailed Step-by-Step Implementation Plan

1.1 Annex LGC: Leadership, Governance and Coordination Step-by-step

1. Sensitization at the federal Ministry of Health on the need to have an organizational capacity optimisation (OCA) of NPSCMP
2. Develop Capability map defined and relationships with States and LGAs
3. Define the roles and responsibilities of all supply chain actors / stakeholders and disseminate the information among relevant stakeholders for stronger collaboration and working relationships between stakeholders and to avoid ambiguity or duplication of efforts (For each capability defined, develop a level 2 process design, clearly defining the ownership, outputs and dependencies of each process setup) - Step-by-step in Annex LGC
4. Document supply chain business processes and procedures, and consolidate performance management framework for NPSCMP LMCUs and LLMCUs.
5. Re-structure NPSCMP from current to revised organizational structure to provide for new/optmimised performance of Leadership, Governance & Coordination, Strategic Information Management, Advocacy and Communication and Strategic Human Resource Management
6. Sign MOUs and other binding agreements documenting Terms of Reference for NPSCMP, LMCU, and LLMCU and other stakeholder responsibilities
7. Explore use of available stakeholder forums to ensure dissemination of supply chain strategies, roadmaps and milestones to internal/external stakeholders
8. Development of a transition plan
9. Undertake organizational performance review
10. Prepare briefs for presentation at annual National Council on Health (NCH) meeting.
11. Support NPSCMP in office operational cost
12. Support NPSCMP in Human resources
13. Support NPSCMP with office equipment
14. Define and document the roles and responsibilities of LMCU staff and partners' consultants to avoid duplication of efforts in the LMCU
15. Print Strategic documents, SOPs and guidelines and disseminate both electronic (website) and hard copies to all stakeholders (warehouses, LMCUs, LLMCUs, health facilities, 3PLs, Donors, IPs, etc.) and institute a policy feedback mechanism in anticipation of future reviews.
16. Build capacity of LMCU staff to improve their capabilities, to conduct training of trainers and to cascade trainings to LLMCUs via formal sessions and on-the-job training/ mentoring. Utilize cost effective means of carrying out trainings, e.g. online training platforms.
17. Establish a SC MEL sub-committee to promote peer review and data integration
18. Develop and Disseminate roles and responsiblities to MEL committee
19. Hold quarterly MEL meetings

20. Conduct capacity assessment to identify training needs
21. Identify training institutions
22. Develop MEL modules to address needs identified from the assessment
23. Train SC M&E officers(federal and state) for data analytics, visualization and use (data management)
24. Create a performance rating feature on the NHLMS platform for all levels of reporting
25. LGA coordination framework implementation
26. Conduct a situtaion analysis of current SC MEL system in order to identify gaps and weaknesses
27. Communicate findings of analysis to stakeholders
28. Conduct Review of SC MEL implementation plan with an indicator reference sheet for all SC KPIs"
29. Identify Focal persons that will be responsible for follow up and recommendations from IMSSV at federal, state and LGAs.
30. Develop a standardized harmonised tool to document feedback from MSSVs.
31. Conduct training on the use of standardized feedback tool
32. Print and disseminate the standardized tool to states for use.
33. Focal Persons to track implementation of follow up actions and provide updates to relevant stakeholders, IMSSV teams at federal, state and LGAs for necessary action(s)
34. Commision audit and compliance audit committee
35. Conduct audit to ascertain level of compliance to the use of SC SOPs
36. Implement audit recommendations
37. Conduct desk review to Link TORs to specific KPI
38. Disseminate linked TORs to relevant stakeholders
39. Review checklists for performance assessment at all levels
40. Conduct annual performance assessment (NPSCMP)
41. Conduct quarterly performance assessment (LMCU, LLMCU)
42. Conduct half annual assessment of stakeholders (partners alignment)
43. Dissemintae findings of assessment to key meetings (PSM TWG, Partners forum etc)
44. Conduct bi-annual National PSM Steering Committee meeting.
45. Conduct quarterly PSM-TWG meeting at National
46. Conduct quarterly PSM-TWG meeting at States
47. quarterly PSM-TWG meeting at LGAs
48. Conduct quarterly National Task Team meeting.
49. Conduct quarterly National Warehousing & Distribution(NWAC) meeting.
50. Conduct quarterly Integrated National Stock Status Review (INSSR) meeting.
51. Conduct quarterly Partners forum meeting at te States level.
52. Conduct Regional PSM-TWG meeting
53. Conduct National PSM Mid-year review meeting
54. Conduct National PSM end of year retreat.

1.2 Annex HRM: Strategic Huma Resource Management, Step-by-step

1. Advocacy to the Directorate of Food and Drugs Administration, FMoH and National PSM TWG to provide infrastructure, funds and skilled HR in NPSCMP

2. Review Policies, Guidelines and SOPs that are due to align with emerging practices and sign off all SOPs according to the mandated authority as stipulated in the Civil Service Rules to increase credibility and acceptance at all levels.
3. Conduct a desk review of existing procedures from countries with established suply chain human resources cadre
4. Conduct an assesment of current human resource capacity for SC to identify best practices and gaps
5. Review job descriptions of all the postions across the three tiers
6. Conduct desk review to Link job descriptions to specific KPI
7. Develop staff handbook containing job desription of the various postions and KPI
8. Develop Capacity improvement plan
9. Disseminate linked job descriptions to relevant SC personnel
10. Conduct stakeholder meeting to discuss results of staff assesment
11. Employ/deploy appropriately qualified staff for the PSS Performance management at all levels of Government (Involve Public Health Supply Chain Expertise in the conceptual Stages of All Public Health Programme across All Levels)
12. Build capacity of relevant state stakeholders on the Policies, Guidelines and SOPs on a zonal at national and state level, and mandate a step-down workshop by state LMCUs on the SOPs across LLMCUs and health facilities.
13. Conduct training of HR leadership across the National, State and LGA levels
14. Advocacy to the Directorate of Food and Drugs to minimize re-posting of trained and qualified HR
15. High-powered advocacy to state governments to mitigate unplanned exit/ rotation of LMCU staff which results in longer learning curves.
16. Conduct advocacy to relevant authorities for the inclusion of a budget line under MOH (FDS/DPS) for supply chain training and deployment
17. Set-up and define positions, functions and monitoring and evaluation structures for performance management
18. Review existing Government establishment training procedures
19. Review in-service training curriculum to incorporate Supply Chain modules
20. Conduct advocacy to regulatory institutions to create supply chain curriculum for courses, graduate and post graduate programme
21. Conduct training of HR
22. Partner with higher educations institutions to offer programme in health supply chain (SC) management
23. Support conduct of workshops to develop curriculum
24. Develop onboarding materials for new staff
25. Conduct onboarding for new staff
26. Conduct a performance based appraisal/assesment for staff
27. Develop and implement reward system to recognize efforts of deserving staff
28. Capacity building for HR at national level as motivation to strengthen HR retention and commitment

1.3 Annex SI: Strategic Information, Step by Step

1. Link all existing programme LMIS reporting tools to NHLMIS
2. Engage TA for e-tools linkage
3. Develop e-POD system and link it to NHLMIS
4. Train delivery team on e-POD use
5. Deploy and appraise e-POD use
6. Meeting to review current LMIS systems across all Programme
7. LMIS training to build capacity of personnel to identify EWS and interpret red flags
8. Build capacity of LMCU to identify EWS (early warning signals)
9. Operationalize the existing knowledge management plan
10. Training of NPSCMP, PROGRAMME, LMCU, LLMCU staff on knowledge management
11. Provide an archiving system for knowledge management periodic review of the plan
12. Build capacity of personnel
13. Provide online and real time access to library on existing health SC materials, SOPs, tools, policy to support research and development, knowledge acquisition from local and international orgnisations
14. Procurement of data management equipment
15. Build capacity of LMCU to conduct FAC
16. Mentoring Visit by LGA LMCU to facilities for capacity building and Data Verification for performance improvement
17. Review and printing of existing MSV checklist
18. Conduct Bi-annual Zonal LMIS reconciliation meeting to review Reports and Track commodity movements from manufacturers to the end users across the pipeline
19. Advocacy visit to stakeholders for the inclusion of all Health Programme Medicines/Commodities into the NHLMIS
20. Advocacy visit to the National assembly and budget office for the inclusion of NHLMIS in the budget and releases
21. Meeting with all Health programme to agree on a harmonized reporting period and transition timelines
22. Meeting to harmonize programme LMIS tools for quarterly reporting
23. Task the NSSR workshop to evaluate the current inventory for each programme
24. Operationalize the NWAC members to carry out supervisory roles on programme in ensuring they maintain their min-max levels
25. Develop a performance and monitoring, supervisory tool to evaluate progress
26. Strengthen the existing Quantification-monitoring committee
27. Facilitate the linkage of the WMIS to the NHLMIS for real-time visibility and monitoring by NPSCMP, LMCU
28. Operationalize the existing knowledge management plan
29. Training of NPSCMP, PROGRAMME, LMCU, LLMCU staff on knowledge management
30. Provide an archiving system for knowledge managemnt
31. periodic review of the plan
32. Build capapcity of LMCU to conduct FAC
33. Mentoring Visits by LGA LMCU to facilities for capacity building and Data Verification for performance improvement
34. Review and printing of existing MSV checklist

35. Bi-annual Zonal LMIS reconcilation meeting to review Reports and Track commodity movements from manufacturers to the end users across the pipeline
36. Meeting to harmonize programme LMIS tools for quarterly reporting
37. Meeting with all Health programme to agree on a harmonized reporting period and transition timelines
38. Support technology acquisition
39. Deploy a data assisted system in the Strategic Information Unit for performance management and decision making
40. Organize semesterly update meetings to assess performance, update stakeholders and monitor concerns of stakeholders.
41. Develop a comprehensive framework and repository for documenting and sharing strategic informationfor SCM findings and applications at all level
42. Conduct protocols development workshop
43. Engagement of Consultant
44. Procurement of necessary IT equipment /Communication gadget. (Conferencing equipment, Laptops, internet facility, Android phones, photocopiers) and/or use those ones where available.
45. Establish an operations reaserch protocol
46. Employ qualified staff to conduct operational research
47. Public lessons and applications from research
48. Integrate the NHLMIS with the Natonal Traceability Master Date Repository
49. Establish an information flow chat for effective (and timely) two-way feedback mechanism for unhindered information flow between the supply chain actors and the decision makers at all levels.
50. Develop automated reminder for report submission and feedback via email or text message
51. Develop SOP on data entry into NHLMIS
52. Disseminate SOP on data entry into NHLMIS
53. Create an e-learning feature on the NHMIS
54. Develop e-learning materials to upload on the NHLMIS
55. Conduct training on data entry to data officers in NHLMIS
56. Develop DQA checklist
57. Develop DQA workplan
58. Condut DQA

1.4 Annex AC: Adovacy and Communication, Step-by-step

1. Formulate Advocacy Concept and Strategy: Based on the business model and objectives, develop the NPSCMP supply chain concept, define key advocacy message themes
2. Design and Develop Collateral: Develop the NPSCMP brochure, Two Pager, State and LGA Booklet, Donor fund raising and marketing materials
3. Launch Advocacy Campaign: Using the newly created communication materials, plan and conduct communication around the new NMSCMP and supply chain and future vision
4. Develop an advocacy and communications policy/framework
5. Develop communication plan
6. Develop terms of reference for the communication specialist
7. Advertise and recruit a communication specialst
8. Identify the communication channels and platform for dissemination
9. Implementation of Communication framework at tertiary and secondary health facilities
10. Advocate to government to commit to funding supply chain activities
11. Advocate for the development of Laws establishing Drugs and medical Consumables Managemants Agencies (DMA) in States
12. Sensitize the law makers to pass the DMA law
13. Support states to Draft Law establishing the DMAs
14. Sensitized the law makers to pass the DMA law
15. Advocate the state Leadership for the signing of the DMA Law
16. Advocacy on DRF Legislative frame work
17. Advocate for Signing of the DRF legislative frame work
18. Identify infleuncers
19. Develop advocacy tools
20. Development of targeted Advocacy kits
21. Develop radio jingles to aid DRF partronage and Sustainability
22. Create Bill boards/awereness compaigns on SDSS
23. Conduct SDSS Specific health promotions Campaigns through printing of IEC materials
24. Set up facility Health committees FHC/Ward Development Committese
25. Advocate for PPP in to the State CMS management
26. Conduct sensitization meetings on PPP with key stake holders
27. advocate for Integration of SDSS and Public health commodities
28. Advocacy to Governors Forum
29. Conduct Advocacy visit to identified Influencers
30. Conduct advocacy to relevant authorities for the release of budget allocation under MOH (FDS/DPS) for internet data subscription

1.5 Annex DRF/SDSS: DRF/SDSS Step by Step

1. Conduct advocacy to Governors of States yet to come on board
2. Conduct desk review to identify States operating DRF/SDSS Scheme
3. Conduct formative/baseline assessment in States that are running DRF Successfully to serve as Benchmark for advocacy to other States.
4. Identify at least 6 States for DRF/SDSS/SAMS pilot by Geo-political zones
5. Develop reboust Generic DRF/SDSS model to address States specific needs
6. Conduct sensitization meetings for state DRF key stake holders for buy-in
7. Identify funding Sources for DRF Capitalization per State (Govrnment/Partners)
8. Develop and Sign MOUs/SLA for DRF operations
9. Develop guidelines and SOPs for the committee
10. Put in place the Governance to oversee the mechanism
11. Train and Set up State DRF/SDSS IN STATE Teams
12. Form variuos DRF implementation committees for easy monitoring and Scale up
13. Assess and advocate for Infrastructural upgrade of the CMS where needed
14. Develop DRF SOPs base on the state specific challenges
15. Establish reboust Financial Management System for the DRF operations
16. develop/adopt legislative instrument to aids DRF operations by states s
17. Incorporate rewards and sactions approaches to DRF legislative
18. Set Up DRF/SDSS system in piloted States
19. Set up DRF/SDSS In the Health facilities
20. Institutionalized Monitoring and Evaluation components of the DRF
21. Troubleshoot 2 weeks after set up
22. Monitor DRF/SDSS Progress (monthly, Quartely and biannually)
23. Develop good financial management system
24. Create community engagement teams in all state
25. Advocate to partners to commit to pool funding
26. Key into existing stakeholder forums to carry out sensitization and continuous advocacy visits

1.6 Annex I: Integration, Step by Step

1. Conduct advocacy relevant stakeholders for Integration of SDSS and Public health
2. Conduct sensitization meetings with key stakeholders on integration
3. Develop the framework for the required infrastructure, management, stakeholder coordination, accountability, etc.
4. Develop terms of reference for integration
5. Develop service level agreements between State governments and supporting partners on integration of commodities, storage at various cross-docking facilities and or for last-mile delivery, including third party LMD/3PL agreements
6. Develop agreements on cross-docking points, and LMD route mapping for commodities
7. Pilot Integration of SDSS/DRF and Public health commodities in 10 States with Robust DRF system
8. Establish effective cross-level collaboration among the three tiers of government
9. Develop Advocacy Strategy Plan and Awareness Drive with Other Supply Chain Stakeholders for Optimizing and Operationalizing Integrated Zonal Hubs.
10. Engage States Government and Other Stakeholders for the Integration of Warehousing and Distribution Networks.
11. Engage A Private Sector Firm to Coordinate Operationalization of Zonal Hubs for Improved Efficiency
12. Finalize and Execute All the Framework Agreements, Service Level Agreement, MoUs And Contracts Between Private Sector Firm and The Government.
13. Develop and Implement Integrated Last Mile Distribution (LMD) Of the State-managed Essential Medicines and Public Health Programme Medicines / Commodities from The Federal-managed Zonal Stores to Health Facilities.
14. Develop and Manage 3PL Contracts Including Public Private Partnerships (PPP)
15. Identify and operationalize cross docking space within the CMS for integrated distribution of DRF and public health commodities
16. Capacitate LMCU and CMS staff to manage PPP contracts, monitor and coordinate warehousing needs and space utilization management
17. Support states to constitute and institutionalize State Warehousing and Distribution Advisory Committee (SWADAC) to oversee all warehousing and distribution contracts and prescribe sanctions.
18. Advocate for incooperation of the National programme such as NHIS, BHCPF and Free MNCH in to the SDSS programme
19. Explore a pulled/basket fund for capacity building focused on supply chain integration which will be driven by national and states headed by donors or explore an integrated budget with clear areas of contribution by Donors/partners.
20. Advocate to partners to commit to pool funding
21. Develop the frame work for the required infrastructure, management, stakeholder coordination, accountability, etc
22. Conduct a sensitization meetings with key stakeholders on integration
23. Develop Service level agreements between state governments and supporting partners on integration of commodities/ Cross- docking and or LMD/3PL agreements
24. Strenghen Cross level collaboration between national, States and LGAs on integration of Commodities management
25. Clearly define roles and responsibilities across all levels.

26. Pilot Integration of SDSS/DRF and Public health commodities in 10 States with Reboust DRF system
27. Institutionalise LMD monitoring
28. Conduct iMSVs (integrated monitoring and supervisory visit) accross all programme including essential medicines
29. Establish feed back mechanisms across all levels

1.7 Annex IM: Inventory Management, Step by Step

1. Review Existing and Updated Policies
2. Hold meeting to review harmonize the tools
3. Assess state's inventory control management status
4. Collate findings for assessment and analysis by NPSCMP
5. Develop intervention & implementation plans based on gap analysis
6. Train all LMCUs on the NICT tool
7. Sensitize stakeholders on use and adoption of National Inventory Control Tower tool,
8. Print tools
9. Distribute tools
10. Train warehouse staff, health facility logistics staff, LGA and State LMCUs, Secondary and Tertiary Hospitals (Conduct training of supply chain personnel on inventory management at all Levels)
11. Reduce inventory levels to not more than 11MoS and increase re-supply to at least 4 times a year
12. Ensure the roll out of NICT in all states
13. maximize its productivity Define Performance Gap Tracker and Develop Corrective Actions Framework
14. Conduct Integrated Monitoring and Supportive Supervisory Visits (MSSV) For Improved Inventory Management Functions
15. Monitor and Review Performance and identify performance gaps
    a. Regulatory Compliance
    b. Identify Regulatory Deficiencies
    c. Define Remediation Process
    d. Conduct Skill Gap Analysis
    e. Identify Skills/Resource Requirement
    f. Identify Available Skills/Resources
    g. Develop Training Programme
    h. Develop Training Plan
    i. Approve Training Programme and Plan

1.8 Annex Q: Quality Assurance, Step by Step

1. Disseminate the integrated QA guidelines for product monitoring (Ensuring that only Pharmaceuticals which are safe, effective and of assured quality and conforms to Acceptable Quality Standards for Safety, efficacy and Use are in the supply chain)
2. Equip NAFDAC State Offices with TruScan devices for rapid product quality screening (2 per State office) and 2 per all Port of Entry (A total of 91 TruScan machine).
3. Strengthen existing NAFDAC ISO-17025 Labs to conduct comprehensive analysis and BA/BE profiles of Pharmaceuticals.
4. Support State DMAs to acquire TruScan devices for internal QA Product screening
5. Conduct traceability Technical Infrastructure Gap analysis
6. Conduct Phase-wise Traceability Pilots (Local Manufacturers to Distributors' to Retailers); (Port of Entry to Distributors); (Distributors to Retailers)
7. Institute critical elements of QA into procurement practices for all medicines and other healthcare products/ laboratory commodities. E.g. develop procurement guideline with QA elements incorporated.
8. Implement Quality Management System (QMS) at all levels of the supply chain
9. Roll out traceability Implementation through wide Stakeholder Engagement across All States
10. Strengthen the zonal and state warehouses to capture event data related to movement of products
11. Procure traceability equipment for use at all ports of entry
12. Develop and Disseminate Traceability Regulations and Guidelines
13. Develop National product master data repository
14. Provide the private sector with guidance on standards and equipment to implement traceability
15. Review the FAC and SCAC tools to ensure it conforms with the objectives of the strategy
16. Training at National, State LMCUs and LLMCUs
17. Strengthen the National Task Force to carry out the respective audits using the tools.
18. Strengthen all the levels to use audit report to address all non-conformances (institute CAPA)
19. Use audit reports for operational research purposes

Annex 2
List of contributors

S/N	Names	Designation	Organization
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S/N	Names	Designation	Organization
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27	Hadiza Abdullahi	CP	NPHCDA
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29	Ibrahim O. Danjuma	Executive	FMWR
30	Isioma Ntaka	PAR	UNFPA
31	Jiru Bako	Director, Donor Integration	Chemonics
32	Joachim Chijide	FP/RH Specialist	UNFP
33	Jolaosho Olayinka	Zonal Consultant	NPSCMP/FMOH
34	Joseph Gbenga	HEPR	Nigeria Center for Disease Control
35	Juliet Okafor	PSM Associate	Management Sciences for Health
36	Kabiru Salisu	HR WVGP	FDS/FMOH
37	Karimu Oluwatoyin	Assistant Director	FDS/FMOH
38	Kassim Y. Talatu	Deputy Director	
39	Kayode John Olusola	ACRO Desk Officer	NAFDAC
40	Kemi Aladenola	Director, Supply Chain Department	ONDO SMOH
41	Kemi Onabanjo	Partner	MCKINSEY
42	Kenneth Agu	Consultant	HUGIN
43	Kenny Otto	Deputy Country Director	GHSC-PSM
44	Keri Maimuna	Supply Chain Officer	National Malaria Eradication Programme
45	Lawal Moshood	Director	FDS/FMOH
46	Linus Odoemene	National Coordinator (Immediate Past)	NPSCMP/FMOH
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48	Malcolm Clark	PSM Lead	Management Sciences For Health-Home Office
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53	Mercy Ibrahim Boyis	LMCU Coordinator	KADHSMA
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55	Nasiru H. Alhassan	LMCU Coordinator	JIGAWA STATE MINISTRY OF HEALTH

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62	Omotayo Hamzat	NPO-Health Tech and Innovation	World Health Organization
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65	Ramatu Abdulkadri	Executive Secretary	Kaduna State Health Supply Management Agency
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67	Ukwuaba Martin	FSLC	NPSCMP/FMOH
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69	Williams Eigege	Snr Analyst	Clinton Health Access Initiative
70	Wokil Yagana Mohammed	Pharmacist	FDS/FMOH
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Annex 3: Terms of Reference

Background

The Nigeria national supply chain and pharmaceutical logistics management faces numerous challenges as a result of weak human resource capacity, poor funding, coordination, inadequate data availability to inform robust quantification and procurement process, infrastructural and parallel systems and implementers, infrastructural decay, dry pipeline and frequent wastages due to expiries and damages. In response to this, the Federal Government established the National Product Supply Chain Programme (NPSCMP) in the department of Food and Drugs Services in 2012 whose key mandate includes collaborating with all programme and projects within and outside Federal Ministry of Health to ensure effective management of supply chain systems and championing efficient supply chain system. As an offshoot of this, a project arm, Nigeria Supply Chain Integration Project (NSCJP) was established in 2014 to implement these objectives. The project has recorded success in operations and streamlining activities from the national level to the health facilities. As a result of these rapid changes, there is a need to revisit the strategic framework to identify further challenges and opportunities to develop a 5 year strategic blueprint to articulate the vision and reorder the objective of NPSCMP.

The Global Fund grant under the MSH-Resilient and Sustainable Systems for Health (RSSH) aims at building self -sustaining systems that integrate community responses to end HIV, TB and Malaria of which Nigeria assumed a disproportionate burden of the diseases. In line with this, important sub-objectives of RSSI-1 relating to PSM includes strengthening global and in-country procurement and supply chain systems, leverage critical investments in human resources for health, strengthening data systems for health and countries' capacities for analysis and use among others.
A well-structured strategic and operational plan will deliver the needed organizational capacity needed to help Nigeria PSM optimally allocate time, human capital and financial resources. The strategic PSM and operationalization plan is needed to streamline PSM operations which includes forecasting and quantification, procurement process, supply planning, quality assurance, allocation of budget and human resources, LMIS, Pharmacovigilance and rational use of the commodities. This strategic plan will also form the basis for global investments into supply chain in Nigeria.

Description of Services to be performed

Undertake a situation analysis of Nigeria Health Supply Chain operations to date vs recommendations identify strengths and challenges. Review the institutional capacity, structure, and organizational set-up, financial and administrative systems against the NPSCMP mandate and make

recommendations for renewed focus.
Facilitate discussion over the vision and mission to inform the new strategic plan.
Through a consultative process and application of an appropriate tool of analysis, identify/select the final focus areas and develop strategic objectives and key result areas for the same.
Propose a strategy for achieving the strategic objectives and key results.
Develop a Results and Resources Framework for the plan period and hold stakeholders' meeting to validate the draft Strategic Plan, Finalize Strategic plan and develop operationalization SOP and plan for implementation.

Deliverables

Deliverable/Milestone Expected date of delivery/completion

1. Draft outline of strategy and activity plan including format and work plan presented to sub- committee members and agree on it
2. First Draft of Strategic Plan to be presented to key stakeholders
3. A final draft of the strategic plan covering 2021-2025
4. A standardized operationalization procedure to implement the strategic plan.
5. Final Report of activities carried out in development of the strategic plan.
6. Quantitative data collated and incorporated
7. Costed implementation plan
8. Developed Monitoring and Evaluation Framework
9. Facilitate In-country stakeholder workshop to review and make input into final draft
10. Clean up of final Strategy
11. Presentation of final copy to NPSMP
12. Submission of final activity report to MSH