Maternal, Newborn, Child Health and Nutrition Market Assessment: Nigeria

SUMMARY FINDINGS

RESULTS FOR DEVELOPMENT

July 2025

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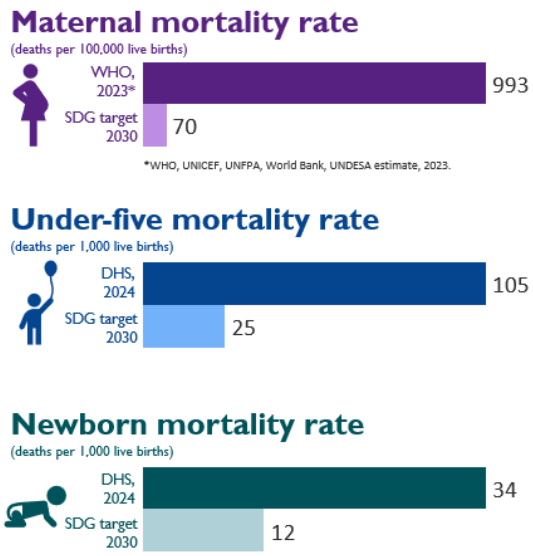
Introduction

Figure 1. Maternal, under-five and newborn mortality rates.



Every year, about 5 million children die before their fifth birthday[1] and 300,000 mothers die due to pregnancy or childbirth related causes.[2] Several priority countries – including Nigeria – are not on track to achieve Sustainable Development Goals for reducing preventable maternal, newborn, and under-five mortality by 2030 (Figure 1).[3] The Maternal Newborn and Child Health and Nutrition (MNCH-N) Market Assessment provides insights to what extent – and why – healthy market characteristics do or do not exist for MNCH-N products. Findings from this assessment may be utilized to inform investments to improve access to life-saving products, and thus reduce maternal, newborn, and child mortality. Nigeria's government is currently undertaking several key initiatives to improve the health sector and specifically improve MNCH-N outcomes, such as the Nigerian Sector-Wide Approach (SWAp) and the Maternal and Neonatal Mortality Reduction Innovaation and Initiatives (MAMII). The goal of this market assessment is to provide evidence and data-informed insights on the MNCH-N market to support the govenrment and key partners to achieve their program goals to crash maternal, child, and newborn mortality in Nigeria.

Approach

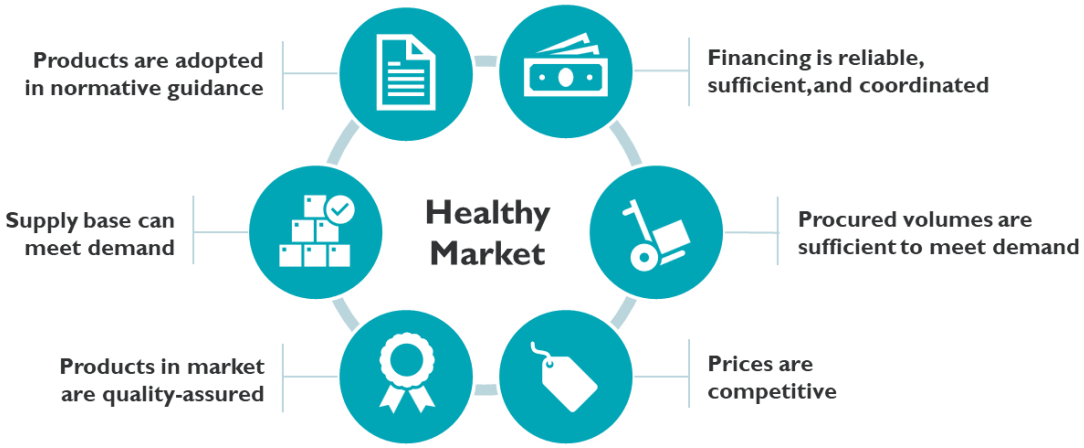
The MNCH-N Market Assessment took an iterative, hypothesis-driven approach to understand if – and to what extent – healthy market characteristics existed in the Nigerian market for 15 emerging and established MNCH-N products (Figure 2).

Figure 2. Products included in the MNCH-N Market Assessment

	Newborn & Child	Maternal
Emerging: new product which needs to gain market share from incumbent product (if one exists)		• Calibrated drapes • Ferric carboxymaltose (inj) • Heat stable carbetocin (inj) • Multiple micronutrient supplement (UNIMMAP formulation)
Established: mature product which faces stockouts or quality challenges	• Amoxicillin (DT/OS) • Gentamicin (inj) • Dexamethasone (inj)	• Azithromycin (solid oral)* • Iron folic acid (solid oral) • Ferrous salt (solid oral or OS) • Folic acid (solid oral) • Magnesium sulphate (inj) • Misoprostol (solid oral) • Oxytocin (inj) • Tranexamic acid (inj)*

**established in market but new MNCH-N use-case*

Figure 3. Healthy Market Characteristics



Healthy market characteristics were investigated for the public sector in Nigerian states in terms of production adoption in normative guidance, financing, sufficient procurement, competitive prices, quality-assured products, and sufficient supply (Figure 3). The approach was grounded in primary data collection, which included national policies and guidelines, procurement volumes and prices, financing values, supplier registration data, and key informant interviews. Given the importance of Nigeria's mixed health system in providing care, a sampling of private retailers and facilities was also included to provide illustrative insights on the degree to which these priority products were available in the private sector as a point of comparison. Data was collected in 2024 and included retrospective data across 2019-2023.

Figure 4. Map of focus states in Nigeria

In Nigeria, due to the decentralized health system, 10 states were selected for an in-depth dive review and inclusion in this market assessment: Bauchi, Borno, Gombe, Kaduna, Kano, Lagos, Nasarawa, Niger, Sokoto, and Yobe (Figure 4). State selection was intended to provide a diverse viewpoint of the MNCH-N product market across different contexts in Nigeria, as well as in alignment with programmatic priorities of the donor.

Data Limitations

Given that in Nigeria, MNCH-N commodity financing and procurement is managed at the state-level, procurement and financing data was collected directly from each state government. Specifically, primary data was sourced from priority state's Drug Management Authorities (DMA) or Logistics Management Coordination Units (LMCU), and State Ministry of Health (SMOH).

Across states, access to complete data sets were limited. The availability of procurement and financing data varied by state due to factors like delayed digitization, fragmented ownership across government agencies collecting data, and inconsistent coordination with donors. As a result, R4D convened a data validation meeting in October 2024 where representatives from the 10 states (DMA/LMCU and SMOH focal persons) were able to confirm data reliability and completeness (Table 1). This convening also served as an opportunity for the state representatives to validate the initial findings.

Table 1. Data completeness according to government focal person(s) in each state

State	Percentage Completeness	Notes
Bauchi	95%	-
Borno	35%	The DMA was established in 2023, previous records were unavailable
Gombe[1]	20%	The DMA was established in 2024, previous records were unavailable
Kaduna	95%	Drug Revolving Fund (DRF) data from 2019-2021 was not available due to a software change.
Kano	85%	Procurement data from 2019-2022 has gaps due to a software change.
Lagos	90%	-
Nasarawa	40%	The DMA was established in 2022, previous records were unavailable.
Niger	85%	-
Sokoto	50%	Staff turnover resulted in inaccessible data.
Yobe	75%	Certain portions of DRF and Free MNCH data were unavailable.

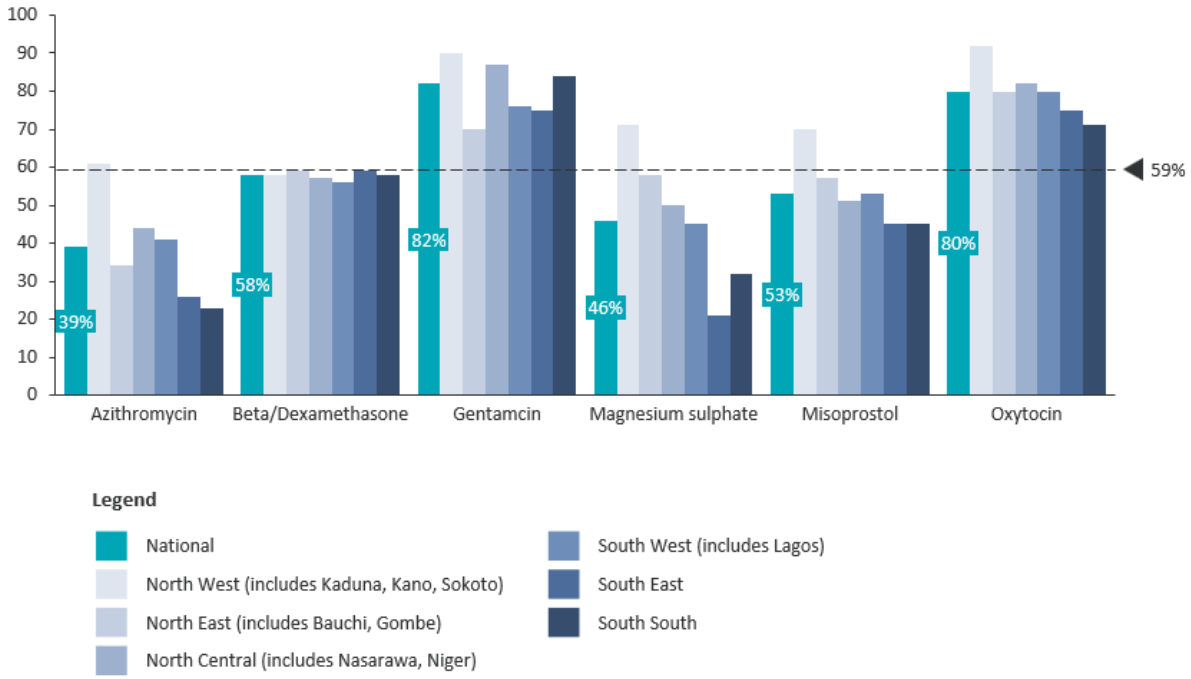
Low data availability	0%-49%
Medium data availability	50%-74%
High data availability	75%-100%

[1] For cross-state analysis, Gombe's data was not included. As there is only one year of data available, comparative trend analyses are not possible.

MNCH-N Market Key Findings

The MNCH-N Market Assessment supports Nigeria as it seeks to further reduce maternal, newborn, and child mortality by providing the critical evidence required to understand challenges inhibiting access to live-saving products needed to prevent or treat leading causes of mortality. Nigeria has a decentralized health system, where ownership of financing, procurement, and distribution processes of MNCH-N products lies within State Ministries of Health (SMOHs). Despite a strong commitment to improving maternal, newborn, and child health, availability of MNCH-N products remains low. Figure 5 provides availability measurements of tracer MNCH-N products in public facilities.[4] On average, products have 59% availability, but there is high variability across geographies, indicating a need for targeted interventions.

Figure 5. MNCH-N product availability in public health facilities, 2019



Market challenges and opportunities differ between emerging and established MNCH-N products

As part of the market assessment, R4D conducted a comprehensive analysis of emerging MNCH-N products and use cases to evaluate the readiness and pathways for introduction in the Nigerian market. Typically, governments decide whether to introduce a new product into their country based on global guidance – namely WHO – and local research. Once approved for adoption, key steps to formally introduce the product into the market include: updating national guidelines, securing funding, attracting suppliers, setting up quantification and procurement processes, establishing or integrating into a supply chain system, and generating demand and awareness (not necessarily in this order). For emerging products, the MNCH-N Market Assessment was scoped to understand to what extent these product introduction steps have been completed for some of these critical federal-level and state-level steps (see Table 2).

Table 2. Emerging products introduction and healthy market characteristics

Product	MNCH-N Use Case	Global recommendation	Local research	Adoption in guidelines	Financing	Supply base	Quantification & procurement
Multiple micronutrient supplements (UNIMMAP formulation)	Prevention of micronutrient deficiencies and anemia among pregnant women	Yes, WHO[5]	Yes	MMS is adapted in treatment guidelines, but the UNIMMAP formulation is not specified	Donor-financed, with some government financing for non-UNIMMAP formulations	No registered UNIMMAP suppliers	High product selection fragmentation for ANC supplements
Tranexamic acid injection*	PPH management	Yes, WHO[6]	Yes	In PPH guidelines	Fragmented financing, and not necessarily for an MNCH-N use case	Limited supply base, only 2 registered	Several states have procured, but fragmented and not necessarily for an MNCH-N use case
Heat stable carbetocin injection	PPH management	Yes, WHO[7]	Yes	In federal and state EML In PPH guidelines	Donor dependent	1 supplier registered (under patent)	Donor support for introduction in several states
Calibrated drapes	PPH management	Yes, WHO[8]	Yes	In PPH guidelines	Donor support for introduction	N/A; registration not required	Donor support for introduction in several states
Ferric carboxy-maltose injection	Treatment for severe anemia in pregnant women	No; however clinical studies show promising findings[9]	None	Not done	None, though reportedly some facilities are procuring from the open market	None registered	Not done
Azithromycin tablets/capsules*	Prophylaxis for maternal sepsis in pregnant women	No; however clinical studies show promising findings[10]	None	Only included in the Niger and Sokoto EMLs Not adopted for maternal sepsis in guidelines	Very limited financing through DRF, not necessarily for an MNCH-N use case	Highly saturated supply base	Procured by state governments, but fragmented and in small volumes

*Established products in the Nigeria market for other use cases, however an emerging MNCH-N use case is being considered

With regards to new product introduction, the Federal Ministry of Health (FMOH) currently supports the adoption and piloting of new, innovative products where there is a clear global recommendation. Examples of these products include calibrated drapes, heat stable carbetocin, tranexamic acid (for PPH), and multiple micronutrient supplements (UNIMMAP formulation), which are being introduced across various states. Partners are actively supporting the introduction of these products, but there are critical challenges that need to be addressed as part of ongoing market shaping efforts.

Introducing new products often needs strong donor support early on, especially for funding and procurement. Because the market is decentralized, efforts have become fragmented across states. Solving these issues could help lower the high cost of new products compared to existing ones. When new product price is a barrier, financial support to state governments can help encourage adoption. For example, UNIMMAP-certified MMS faces challenges in Nigeria where its higher cost makes it less appealing to decision-makers, who currently prefer cheaper, non-certified alternatives.

Lastly, the government is not currently pursuing the adoption of products where there is not a strong global recommendation. Examples include azithromycin for broad-spectrum maternal sepsis prevention and ferric carboxymaltose for severe anemia in pregnant women. Further advocacy efforts will be required to articulate the evidence-base for introducing these products for their proposed MNCH-N use case before any additional product introduction activities should proceed.

Normative guidance is largely aligned to global recommendations for established products, however emerging products require further product introduction regulatory efforts.

The FMOH generally follows global recommendations for product inclusion in the federal Essential Medicines List (EML) and clinical guidelines. These recommendations are then considered for adoption by SMOH in state EML and clinical guidelines.

For most established MNCH-N commodities in this market assessment, a helpful indicator to assess the regulatory landscape is to assess whether EML and guideline inclusion is harmonized from global to federal to state levels. There are only two exceptions where global recommendations, federal EML and guidelines, and state EML and guidelines are not fully aligned. First, azithromycin is not included on the federal EML and in multiple state EMLs, despite being an established and procured commodity for non-MNCH-N use cases. The lack of EML inclusion was flagged by stakeholders as a recent response to concerns of antimicrobial resistance – it used to be

Table 3: EML and GL inclusion by commodity

	API	Adoption in EML and GLs
	amoxicillin DT/OS	
	gentamicin inj.	
	dexamethasone inj.	
	iron folic acid, iron, folic acid	
	magnesium sulphate	
	misoprostol	
	oxytocin	
New MNCH use-case	azithromycin solid oral	Not included in national and many state EMLs; not specified for maternal sepsis in GLs
New MNCH use-case	tranexamic acid	Not included in Sokoto and Niger EMLs

included on the federal EML and most state EMLs but has since been removed from all but two focus state EMLs. Second, tranexamic acid is not included in two state EMLs despite being an established product in the market for non-MNCH-N use cases. There was no explanation for the lack of inclusion in these states. Despite these exceptions, overall, consistent rates of commodity inclusion indicates that the state, national and global guidance are mostly aligned, a healthy market characteristic for Nigeria's MNCN-H regulatory landscape.

Most MNCH-N commodity funding in Nigeria's public sector is through government – rather than donor – resources, but it is fragmented and insufficient.

Government mechanisms mobilize an estimated 97%[11] of the MNCH-N product financing that flows through state procurement mechanisms. However, state stewarding for MNCH-N financing can vary significantly due to a confluence of factors. Firstly, there appears to be a disconnect between burden and funding allocation for MNCH-N product procurement across states. Using newborn mortality rates (NMR) and maternal mortality rates (MMR) as proxies for burden, one would anticipate seeing a trend between higher levels of burden and higher allocation of spend (Figures 6, 7 and 8). However, most states – except for Kaduna and Lagos with their significantly larger populations – spend nearly the same on MNCH-N product procurement as Nasarawa, despite differing NMR[12] and MMR[13] levels across states. Additionally, within states, government funding for MNCH-N products has fluctuated significantly across years, with total state government funding for MNCH-N products, varying by up to 37% between years.[14] This highlights challenges in consistent MNCH-N prioritization in funding decisions.

Variation in MNCH-N financing both over time and when compared to state-specific NMR and MMR burden could be explained by double clicking on how fragmented the financing mechanisms are, making it difficult for a state to coordinate and prioritize its financing commitments. The decentralized nature of Nigeria's public sector means that MNCH-N commodity financing is fragmented through several channels. With the fragmentation in financing mechanisms also introduced a multitude of financing decision-makers across the state- and local-level, who conduct their own health sector budgeting and therefore shape the state-level public sector markets for MNCH-N commodities.

As part of the market assessment, R4D mapped how funding flows at the federal, state, and local levels. Federal funding is disbursed to state and local-level actors who then shape state budgets and determine the fiscal envelope for MNCH-N commodities. The federal government also directly finances tertiary facilities, which are not a large part of the market for these focus commodities. Each state has a complex financing system involving many different government bodies, such as the State Ministries of Finance, the SMOHs, and the DMAs or the LMCUs or both, depending on DMA policy implementation, who operate in parallel to the State Primary Healthcare Board or Agency. This makes it difficult for decision-makers to know which funding sources are available and should be utilized for MNCH-N product procurement at the state and local levels. Nationally, it is also difficult to generate a clear picture of funding gaps and trends. Figure 9 gives a simplified view of 10 states, but in reality, each state has its own mix of stakeholders and decision-makers, so the full complexity across states is not captured.[15]

Figure 6. NMR by state, 2021

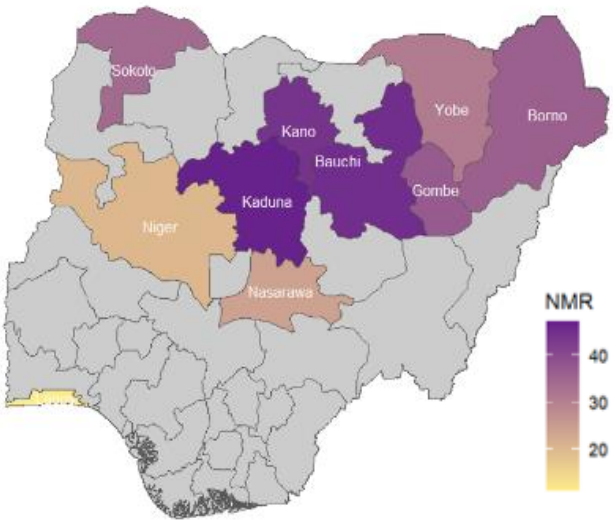


Figure 6. MMR by state

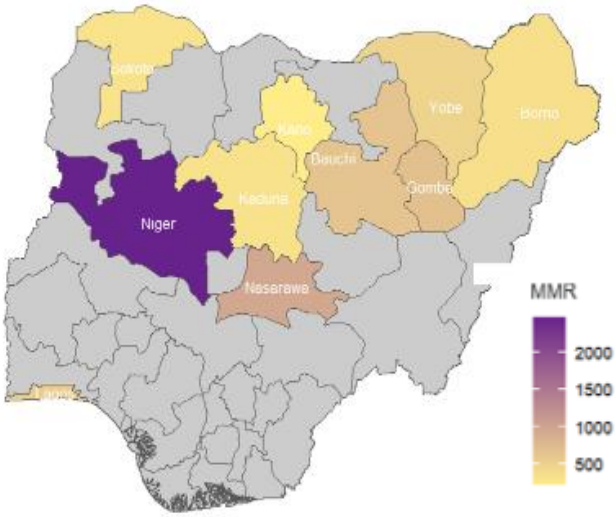


Figure 8. Average annual total funding for MNCH-N priority products per state, 2019-2023

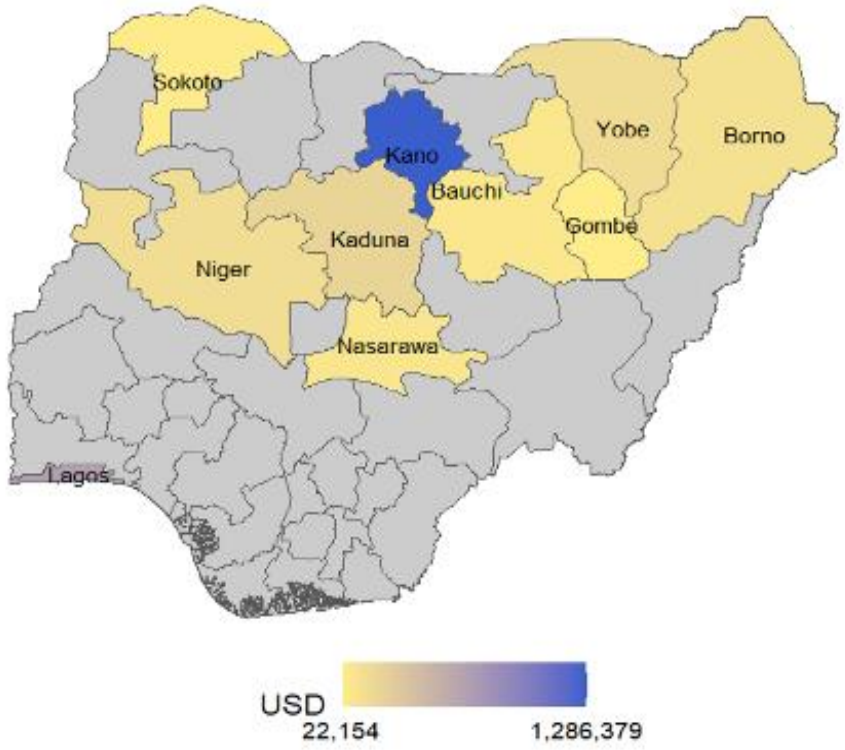
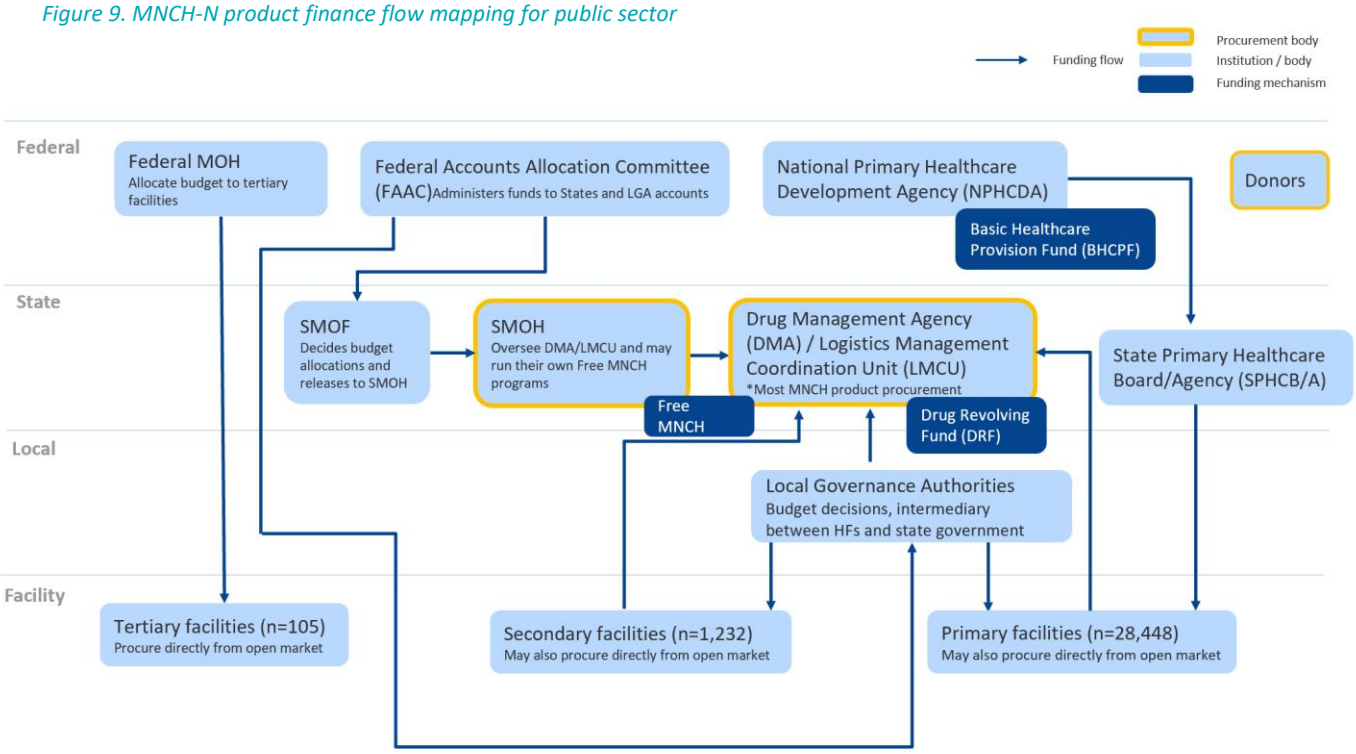


Figure 9. MNCH-N product finance flow mapping for public sector



There are several discrete financing mechanisms of specific relevance to the MNCN-H commodities, either due to specific prioritization of MNCH-N commodities, such as the Free MNCH-N program, or trends in MNCH-N commodity financing identified during the assessment, such as the state-based Drug Revolving Funds (DRF). A double click on these mechanisms shows that states can use these mechanisms to increase the MNCH-N financing envelope. However, these mechanisms are inconsistently utilized across and even within states, further demonstrating how financing fragmentation is preventing optimization of resources for MNCH-N commodities.

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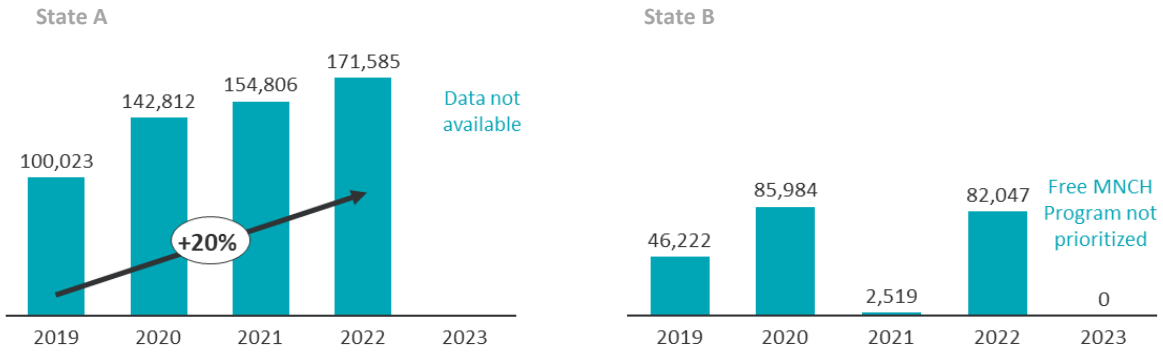
The Free MNCH program allows states to directly fund and distribute MNCH-N products at no cost to users – it is essentially a government donation to the public health sector. Each SMOH (or sometimes DMA) manages its own program, so funding depends on political will and coordination. As a result, only five out of the 10 focus states used this program between 2019 and 2023. Furthermore, usage among the states who have opted to support a Free MNCH program is inconsistent across years. Figure 10 pulls out two example states. While some states (i.e., State A) have successfully leveraged the program multiple times over the time span of the assessment, ensuring a year-by-year increase of the fiscal landscape for MNCH-N, others (i.e., State B) saw highly variable utilization year-by-year. State A is an

archetypal model of how the Free MNCH program can be leveraged successfully by states to bridge the funding gap for these essential MNCH-N commodities, but other states demonstrate that leveraging this opportunity is not so straightforward and may require more technical assistance or awareness building.

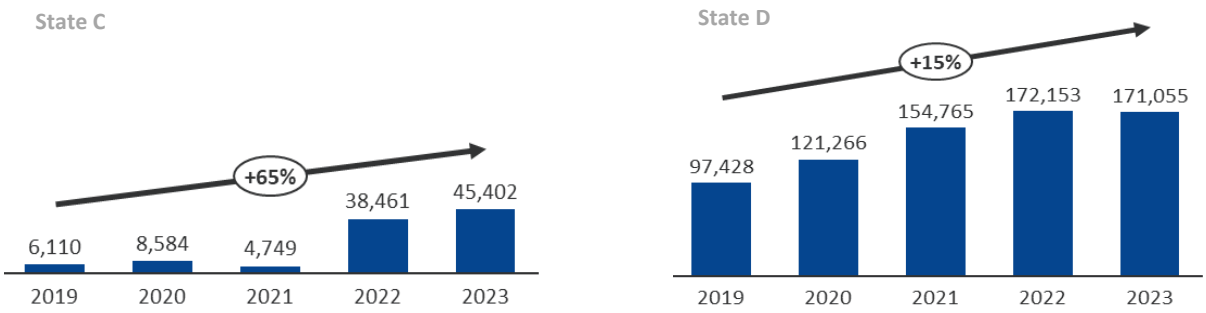
Figure 10: Annual Free MNCH financing in two states, 2019-2023



Additionally, analysis of MNCH-N commodity financing sources indicated that DRFs are a major source of funding. In this program model, users pay for products, and the funds are used to restock supplies. Among the 10 states studied, half shared more than two years of data. Of those, four showed increased allocation of DRFs for procurement of MNCH-N products, as seen in the example states pulled in Figure 11. Only one state showed a drop in funding—about 17% between 2019 and 2023. The positive trends across states suggest that strengthening DRFs could significantly boost government funding for MNCH-N commodities.

Overall, the decentralized health system and complex ecosystem of financing mechanisms that fund the primarily government-financed MNCH-N commodity's public market demonstrates that there is not a one-size-fits-all approach to improving the public financing for MNCH-N commodities. There are however a few strong examples of specific states which are successfully leveraging existing mechanisms to steadily increase their financial envelope and may serve as a blueprint for other efforts to improve consistent financing aligned to state-specific need.

Figure 11: Annual DRF financing in two states, 2019-2023



Quantification and procurement of MNCH-N products is highly fragmented across states, reducing economies of scale.

Financing is not the only market enabler that is fragmented for the MNCH-N market in Nigeria. Several key functions of the demand-side, particularly quantification and procurement, are also fragmented in several different ways, which leads to market inefficiencies. This then leads to challenges for decision-makers when trying to supply plan and assess the public sector market size.

Quantification and supply planning exercises for MNCH-N products are often conducted by state DMAs or LMCUs, but the frequency, methodology, and completeness is inconsistent across states as seen in Figure 11, although an important caveat is that there may be instances where states had quantifications that due to government or data system changes are no longer accessible. Nonetheless, only one state demonstrates consistent quantification for all key commodities for 3-5 years during the 2019-2023 period, and most states could only provide 1-2 years of quantification for priority MNCH-N commodities.[16] Without consistent quantification, it is difficult for SMOHs and DMAs to assess whether their understanding of the need for these essential commodities is both accurate and being met by the current availability of these commodities.

Figure 12: Percent of products with complete, partial or no quantification, by state

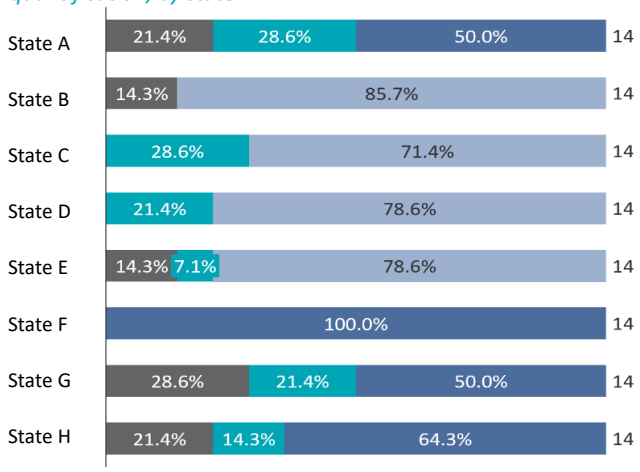
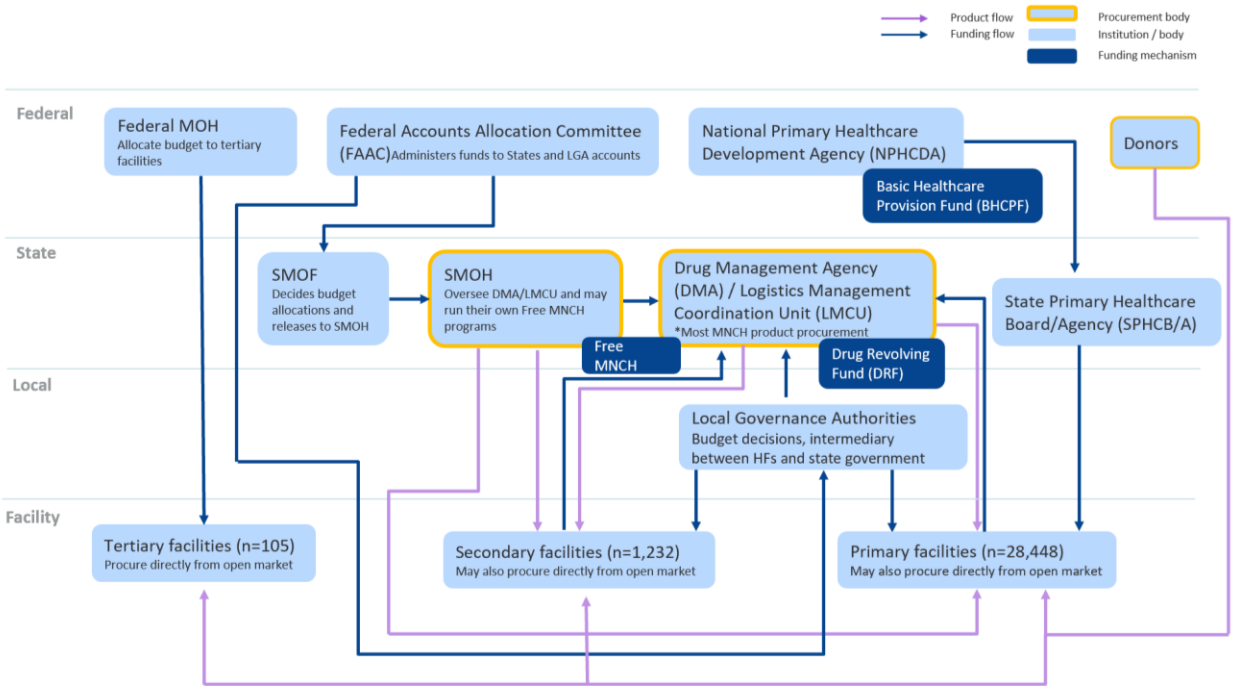


Figure 13: Financing and procurement flow mapping for Nigeria's public sector health system

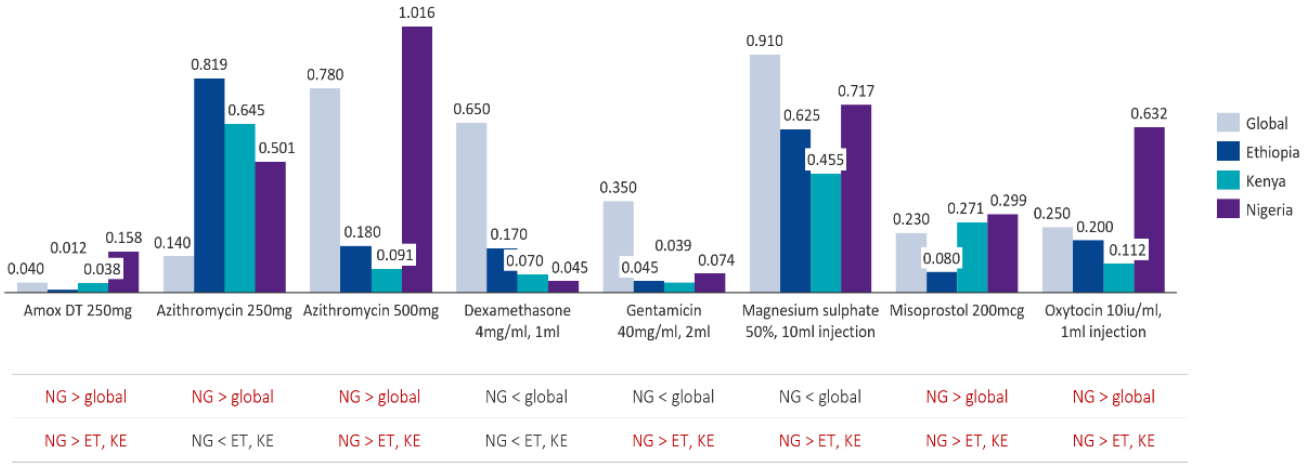


Geographic fragmentation of quantification is not the only demand-side fragmentation; there is state-by-state and channel-by-channel fragmentation of procurement itself. When overlaying procurement channels over Figure 8's mapping of financing flows, procurement channels themselves are also fragmented. For example, in some states the DMAs are now separate institutions managed by SMOH whereas the LMCU is often a unit within the SMOH, due to a series of government reforms. In states where the Free MNCH program is being implemented, SMOHs may run the Free MNCH program separately, leading to MNCH-N procurement fragmentation between the SMOH and the DMA-run DRF (which procures a majority of MNCH-N products) making approval processes and coordination for MNCH-N procurement challenging. This procurement fragmentation, alongside the previously discussed fragmentation of quantification and financing, lead to fragmented market intelligence which therefore leads to highly variable procurement volumes, which leads to other market inefficiencies.

Reduced economies of scale contribute to highly variable procurement prices across state DMAs/LMCUs and – on average – more expensive prices relative to other countries.

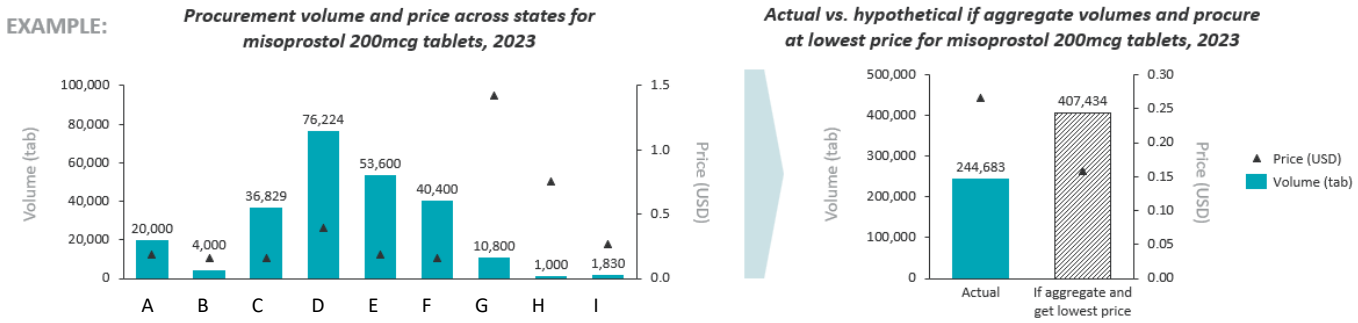
The twice-fragmented procurement landscape (fragmented between states and within states) appears to contribute to higher costs compared to national, centralized procurers in other LMICs and global implementing partners, such as UNICEF or UNFPA. Figure 12 shows that prices for commonly used products—amoxicillin DT (250mg), azithromycin (500mg), misoprostol (200mcg), and oxytocin (10iu/ml)—are higher in Nigerian states than global benchmarks and prices in other countries, specifically Ethiopia and Kenya. This points to inefficiencies in Nigeria's decentralized procurement system, particularly given the global benchmark is anticipated to be at a higher price due to the stringent quality assurance requirements by UNICEF and UNFPA. There are other commodities, such as gentamicin 40mg/ml, 2mg and magnesium sulphate 50%, 10ml inj., where even though the weighted average price in Nigeria is lower than the global benchmark, it is still higher than in Ethiopia and Kenya. This disparity likely stems from the previously discussed market fragmentation, which diminishes economies of scale and weakens the bargaining power of state procurement entities, ultimately limiting their ability to secure more competitive pricing.

Figure 14: Weighted average procurement prices across Ethiopia, Kenya, and Nigeria compared to global prices per smallest unit of measure, 2019-2023 (USD)



In addition to high prices relative to other countries and global benchmarks, within Nigeria, there is high price variability as well. This variability very clearly diminishes the purchasing power of the state procurers, as demonstrated in the hypothetical modeled in Figure 13. Figure 13 demonstrates that in 2023, Misoprostol prices vary widely across states, from $0.15 to $0.76 per tablet, and these differences do not correlate to volumes ordered. Therefore, in a hypothetical best-case scenario where all 9 states were able to leverage the lowest misoprostol price, these nine states would be able to double the volumes of misoprostol they could procure with the exact same financial envelope that year. This best-case hypothetical may not be easily or simply implemented but serves as a valuable counterfactual to demonstrate the impact of the fragmentation-driven market inefficiencies in the MNCH-N market in Nigeria.

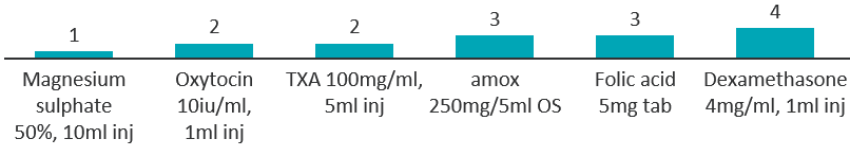
Figure 15: State-by-state analysis of misoprostol 200mcg tablet procurement and price



While the supply base in Nigeria is sufficiently competitive and saturated, it is not leading to optimal market outcomes, because federal-level supplier registration does not translate to an efficient supply-side market on the state level.

A valuable proxy for national-level supply base health is the number of suppliers registered with the National Agency for Food and Drug Administration and Control (NAFDAC). From the most recent publicly available NAFDAC data, only six products had four or less suppliers registered in the market, indicating a robust supply base (Figure 14).[17] A robust registered supply base ensures that public procurers have enough suppliers for competitive tendering processes.

Figure 14: Products with fewer than four or less suppliers registered, 2024



However, in Nigeria, a strong national supply base is not leading to optimal market outcomes on the state level. A double click on state-level suppliers indicates high fragmentation at the distributor and wholesaler level in states, where they are only participating in a subset of states, indicating reduced economies of scales and possibly a lack of consistent subnational market intelligence.

Figure 15: Presence and frequency of suppliers of AZM 500mg and magnesium sulphate 10ml in states

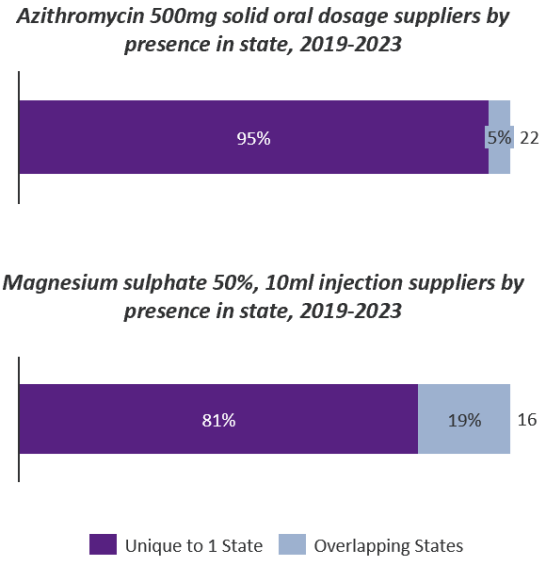
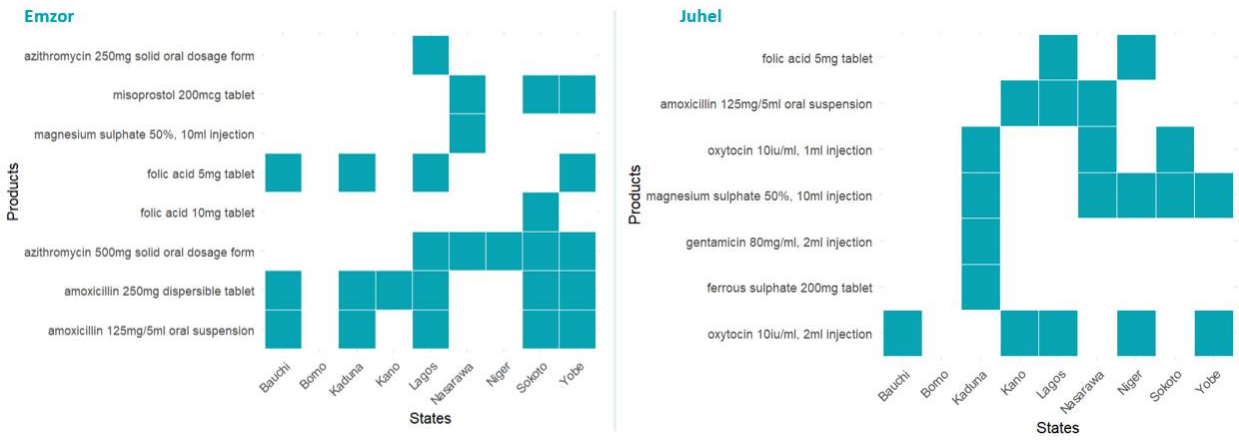


Figure 15 shows that for azithromycin 500mg solid oral dosage, the nine states procured from 22 different suppliers from 2019-2023. Of those, 21 were procured by only one state.[18] The sole exception is Emzor, a local Nigerian manufacturer who was procured from in Lagos, Nasarawa, Niger, Sokoto and Yobe. Similarly, despite only having one marketer registered with NAFDAC, magnesium sulphate saw procurement from 16 suppliers during the same period. Of these, 13 suppliers were procured from by only one state, reinforcing the trend of limited cross-state market activity.[19]

As indicated by Emzor's presence across multiple states, local manufacturing is emerging as a potential solution to supply-side challenges in Nigeria's MNCH-N commodity sector. Unlike many other Sub-Saharan African nations, Nigeria boasts a strong manufacturing sector with several suppliers producing MNCH-N commodities that are procured across multiple states. Specifically, two companies analyzed in this assessment, Emzor and Juhel, had five priority SKUs procured across two or more states during the timeframe of the market assessment, suggesting increased recognition of local manufacturers as a viable procurement option (as seen in Figure 16). [20]

Figure 16: Local manufacturing presence in selected states, 2019-2023

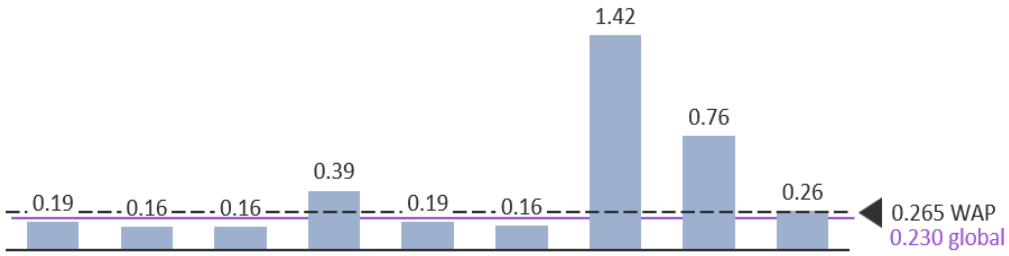


Local manufacturing is also a government priority, with initiatives like the Presidential Initiative for Unlocking Value Chain in Health Care (PVAC) demonstrating support. However, the extent to which local manufacturing can improve access to high-quality, competitively priced products remains uncertain. A deeper dive into the pricing and quality dynamics of MNCH-N products from Emzor and Juhel could help determine whether lower prices come with a significant quality tradeoff and how procurers navigate this balance.

Subnational supply-side fragmentation causes market inefficiencies, most notably significant price variation.

High levels of supplier registration do not consistently translate into more competitive pricing, as evidenced by specific formulations with substantial market saturation. One example forumulation that highlights this phenomenon is misoprostol 200mcg, which has 9 suppliers registered with NAFDAC at the federal-level, indicating market saturation. Despite this federal saturation, Figure 17 demonstrates that there is considerable variation in the weighted average price persists across states. The overall weighted average price for 200mcg misoprostol across focus-states is $0.265/tablet, exceeding the global price benchmark (calculated from UNICEF and UNFPA catalogues) of $0.300/tablet. This higher weighted average price indicates market inefficiencies, as global procurers tend to have more stringent quality assurance requirements, driving the global benchmark price up when compared to country price averages.[21] Price per tablet ranges from a high of $1.42 to a low of $0.16, indicating that some state procurers are likely not able to leverage the same supply base to guarantee a significantly lower price.

Figure 17: Weighted average price per state and across states for misoprostol 200mcg, 2023 (USD per tab)



A key driver of subnational supply-side fragmentation is that procurement agencies are purchasing significantly from wholesaler and distributors, which comes with significant quality concerns.

As previously mentioned, the number of market authorization holders registered with NAFDAC does not map to the breadth of wholesalers and distributors participating at the sub-national level. This is because products imported by market authorization holders are purchased and resold by wholesalers and distributors. Figure 18 demonstrates that states (and their multiple procurement channels) often will prefer to purchase from wholesalers, distributors or retailers, when compared with the importer (who often has market authorization with NAFDAC). In other countries – such as Kenya and Ethiopia – public procurers are often procuring directly from importers. The frequent purchasing from this class of suppliers aligns with Figure 15's finding on the number of magnesium sulphate suppliers (16 suppliers)

at the subnational level far exceed the number of registered magnesium sulphate suppliers in Figure 13, where only 1 supplier is registered with NAFDAC.

States choosing to purchase from wholesaler, distributors and retailers heightens the risk of poor-quality products, as it becomes more difficult to regulate quality moving down the supply chain. Evidence of these quallty challenges were identified in a survey of 201 private-sector retailers. Most retailers are stocking MNCH-N products from suppliers that could not be confirmed as registered with NAFDAC, and 97.5% of manufacturers procured by these retailers are not quality assured. Since these private sector retailers are a frequent source of state procurement from the open market, it reinforces concerns about the quality of commodities purchased on the open market.

Figure 18: State-by-state supplier types, 2019-2023

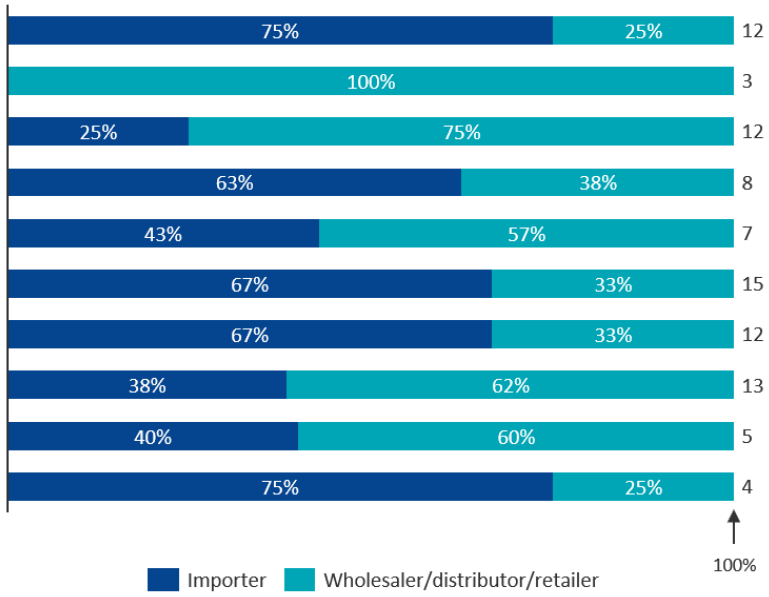
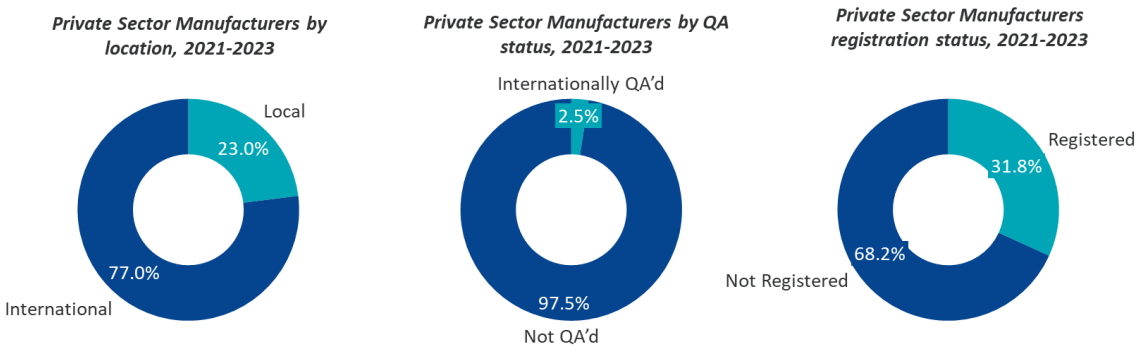


Figure 18: Private sector manufacturers by location, QA status, and registration status, 2021-2023

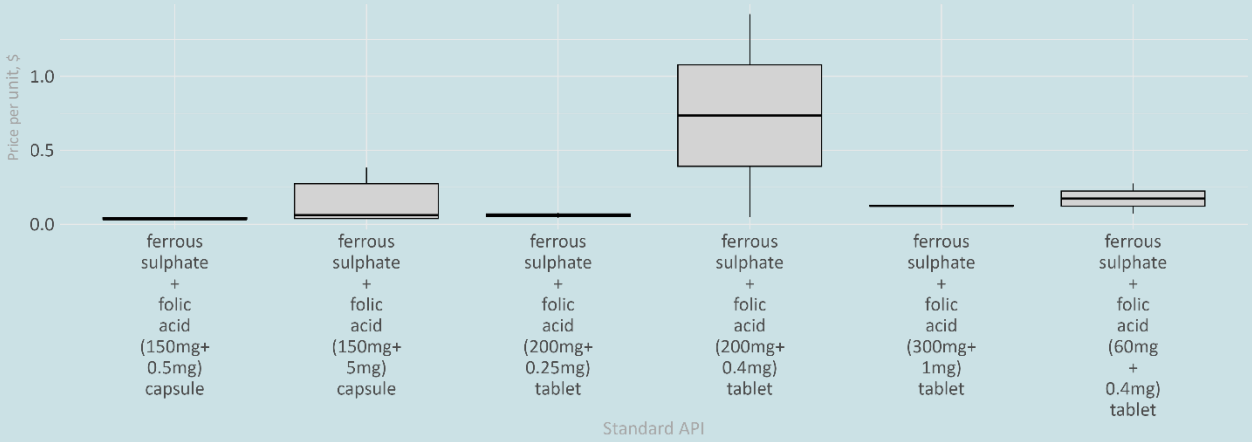


However, state procurement and public facility purchasing moved away from purchasing from wholesalers, distributors and retailers to upstream NAFDAC-registered market authorization holders would not fully address quality assurance concerns. Only five of the 131 manufacturers registered with NAFDAC for priority products were quality-assured. This suggests that there are not sufficient incentives or QA-certified suppliers to enter the Nigeria market, likely due to both a lack of prioritization of the registration processes and unclear opportunities for QA'd suppliers in Nigeria's MNCH-N market, indicating further interventions should be considered to improve supply-side quality incentives.

A Glimpse into Nigeria's Private Sector

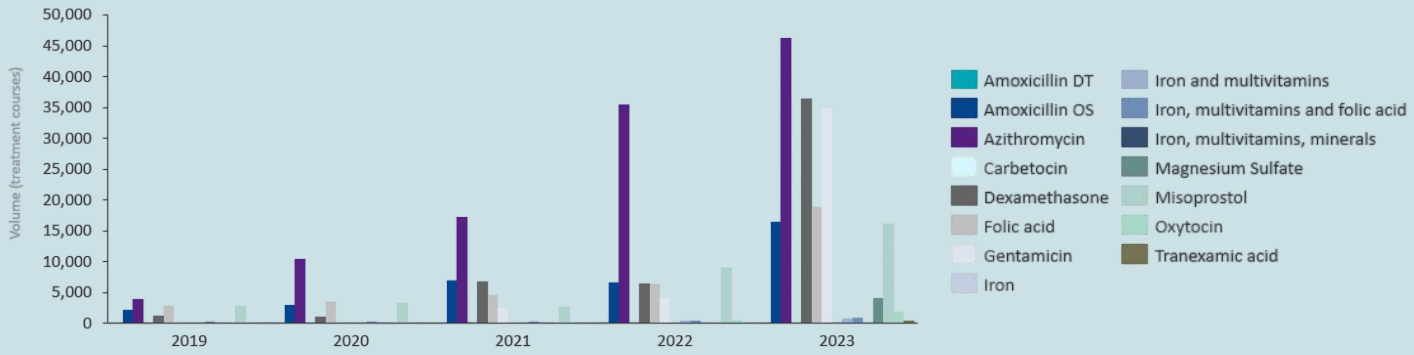
In Nigeria, both individual consumers and public facilities purchase products through the private sector and open market. While estimates suggest that the private sector accounts for approximately 60% of MNCH-N care-seeking, accurately measuring the full scope of the market remains challenging.[22] An analysis of private sector retailers sampled across the 10 states found significant price variations by product and product class. Private sector prices are generally higher than those in the public sector and change greatly across retailers, ranging from a 35% gap in maximum and minimum prices for tranexamic acid ($0.99/unit to $1.53/unit) to a 99% difference for azithromycin ($0.01/unit to $2.54/unit).[23] The difference in price within the private sector is especially pronounced within IFA products available in the market. Excluding outliers, some IFA products were reported to cost as low as $0.03 per unit and as high as $1.42 per unit in 2023 (Figure 19). *Note: outliers were removed to ensure the integrity of the analysis, but some data limitations still exist.*

Figure 19: Private sector IFA price distribution across states, 2023[21]



Preliminary analysis indicates demand for products in the private sector is also defined by product type. Consumers use Nigeria's private sector primarily for ANC supplements, particularly folic acid and iron products, as seen in Figure 20. Demand of supplements and occasionally antibiotics far outpace demand for injections like oxytocin. Understanding the differentiated demands of the private sector is vital to understanding Nigeria's MNCH-N market.

Figure 20: Sample of private sector treatment course volumes sold across sampled states, 2019-2023[22]



Conclusion and Recommendations

The MNCH-N Market Assessment in Nigeria provides a comprehensive analysis of the country's maternal, newborn, and child health product market, highlighting both its strengths and areas for improvement.

Nigeria's market has key strengths: the normative guidance is largely aligned with global recommendations and across the decentralized system and the DRF financing scheme is resulting in government-led funding increases.

However, market fragmentation remains a significant challenge, affecting financing structures, stakeholder coordination, and supply chain efficiency. Although the MNCH-N market is primarily government financed, financing is inconsistent across states and is not always driven by the burden of need. The existence of multiple government financing mechanisms contributes to this inconsistency, with some states leveraging programs like the Free MNCH Program and DRFs more effectively than others. Financing systems are complex, variable, and asymmetrical across states, making coordination difficult. Quantification and procurement practices are also highly frag mented, reducing economies of scale and leading to higher procurement prices compared to centralized procurers in other countries.

Despite a robust supply base, supply-side fragmentation and low engagement from globally quality-assured suppliers in both the public and private sectors results in sub-optimal market outcomes. Addressing these challenges through better coordination, leveraging local manufacturing, and ensuring quality assurance could improve access to MNCH-N products in Nigeria.

Recommendations:

- Assess and identify bottlenecks in domestic resource mobilization to help states consistently and adequately fund Free MNCH programs.
- Increase state cooperation in sharing market intelligence, specifically on prices, suppliers, and order sizes to improve bargaining power and efficiency.
- Explore opportunities for state procurement coordination to aggregate orders, reducing fragmentation and price competition.
- Collaborate with federal government initiatives to encourage local manufacturing, particularly surrounding product quality.
- Invest in understanding Nigeria's complex mixed health system and identify areas to leverage the strengths of both the public and private sectors.

The findings from this assessment aim to inform investments and interventions to improve access to life-saving MNCH-N products, and thus further efforts to reduce preventable maternal, newborn, and child mortality in Nigeria. Further insights into specific products can be found in the Annex of this report.

For additional information or questions related to the MNCH-N Market Assessment in Kenya, please contact Samantha Durdock, Project Lead (sdurdock@r4d.org).

Works Cited

[1] UNICEF, "Under-five mortality", January 2023.

[2] WHO, "A woman dies every two minutes due to pregnancy or childbirth: UN agencies", February 2023.

[3] MMR sourced from Babajide, O., et. al. Subnational estimates of maternal mortality in Nigeria: Secondary Data Analysis, African Journal of Reproductive Health: 27 (10) 145, October 2023.
[4] Availability of Essential Medicines in Healthcare Facilities Offering Maternal and Reproductive Healthcare Services in Nigeria survey carried out between May and July 2019, published in September 2023.
[5] WHO, Nutrition interventions update: multiple micronutrient supplements during pregnancy. 2020.
[6] WHO. WHO recommendations on the assessment of postpartum blood loss and use of a treatment bundle for postpartum hemorrhage. 2023
[7] WHO. WHO recommendations: uterotonics for the prevention of postpartum haemorrhage. 2018
[8] WHO. WHO recommendations on the assessment of postpartum blood loss and use of a treatment bundle for postpartum hemorrhage. 2023
[9] Afolabi, B.B., Babah, O.A., Akinajo, O.R. *et al.* Intravenous versus oral iron for iron deficiency anaemia in pregnant Nigerian women (IVON): study protocol for a randomised hybrid effectiveness-implementation trial. *Trials* **23**, 763 (2022).
[10] Carlo et al. Effectiveness of intrapartum azithromycin to prevent infections in planned vaginal births in low-income and middle-income countries: a post-hoc analysis of data from a multicentre, randomized, double-blind, placebo-controlled trial. The Lancet.
[11] 9 states: Bauchi, Borno, Kaduna, Kano, Lagos, Nasarawa, Nigeria, Sokoto, Yobe. Excluded azithromycin and TXA because these were not used for MNCH-N purposes during the 2019-2023 period. Gombe only provided data for 2024. Average annual total funding calculated using data collected during the market assessment and refers to products procured through donors and state DMAs/LMCUs from 2019 to 2023; here MNCH-N priority products does not include funding for Azithromycin or TXA, as neither were being used for MNCH-N purposes during this period.
[7] NMR sourced from National Bureau of Statistics (NBS) and United Nations Children's Fund (UNICEF). August, 2022. Multiple Indicator Cluster Survey 2021, Survey Findings Report. Abuja, Nigeria: National Bureau of Statistics and United Nations Children's Fund.
[13] MMR sourced from Babajide, O., et. al. *Subnational estimates of maternal mortality in Nigeria: Secondary Data Analysis, African Journal of Reproductive Health: 27 (10) 145, October 2023.*
[14] 5 states: Bauchi, Kaduna, Niger, Yobe and Lagos. Excluded other states due to incomplete data across years. Excluded azithromycin and TXA because these were not used for MNCH-N purposes throughout the 2019-2023 period.
[15] Funding and procurement flows were put together during the market assessment based on key informant interviews and an assessment of different financing sources based on available quantitative data collected.
[16] Quantification data collected from State DMAs, LMCUs or MOH depending on where quantification exercises are housed. Gombe's data was not included for this analysis.
[17] Data on supplier registration collected from the NAFDAC database in 2024
[18] Data on supplier registration collected from the NAFDAC database in 2024. State-level supplier data was collected from DMAs/LMCUs.
[19] Ibid.
[20] State-level supplier data was collected from DMAs/LMCUs.
[21] Weighted average price in Nigeria was calculated using order price and volumes data for each SKU across all focus states except Gombe.
[22] Lattof SR, Maliqi B, Yaqub N, et al Engaging the private sector to deliver quality maternal and newborn health services for universal health coverage: lessons from policy dialogues BMJ Global Health 2023;8:e008939.
[23] Outlier prices, as defined as values that exist outside of the upper and lower bounds, are removed from these calculations. To calculate outliers, we first calculated the interquartile range (IQR), which is the difference between

the first and third quartiles. The bounds are calculated by subtracting or adding 1.5 times the IQR from the first or third quartiles. The sample only covered 298 retail pharmacies out of 3,011 total in the surveyed states, or about 9.89% of pharmacies. Because of this, the quality of the data is limited.

[21] Ibid.

[22] Treatment courses are assumed to be as follows: 20 tabs of amox DT, 1 bottle of amox OS, 3 tabs of azithromycin, 1 ampule of heat stable carbetocin, 1 ampule of dexamethasone, 180 tabs of folic acid, 1 ampule of gentamicin, 180 tabs of ferrous sulphate, 180 tabs of IFA supplements, 1 ampule of magnesium sulphate, 4 tabs of misoprostol, 1 ampule of oxytocin, 1 ampule of tranexamic acid.

Acknowledgements

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RESULTS FOR DEVELOPMENT