

B R I E F

Background

Government and development partner actors require access to relevant, accurate, complete, and timely data to understand the nature, causes, and scale of nutrition problems, to design effective policy and programmes, and to evaluate progress towards targets. The information needs of these stakeholders should guide investments in data collection and reporting.

Nigeria is an example of a country investing in a multi-sector Nutrition Information System (NIS). In 2017, nutrition stakeholders in Nigeria identified the development of a national NIS as one of three data-focused priorities shared by government and development partners.^{1,2} Subsequently, the Federal Ministry of Health (FMOH) Nutrition Division committed to advance NIS development within the health sector.

WHO-UNICEF guidance defines a NIS as “an integrated set of principles, practices and processes which guides the prioritization, collection, analysis and dissemination of nutrition-related data.”³ Building a NIS begins with a clear understanding of its purpose. The global guidance identifies four core NIS components: 1) people; 2) data; 3) processes and procedures; and 4) technology.

Starting in 2018, [Data for Decisions in Nutrition \(DataDENT\)](#), an initiative funded by the Bill & Melinda Gates Foundation, engaged with the Nigeria FMOH Nutrition Division to support their NIS efforts. The collaboration continued through leadership transitions and COVID-19 disruptions, culminating with the August 2022 release of [Health Sector Recommendations for Nutrition Indicators Collected Nationally in Nigeria](#). The document identifies the priority data needs of nutrition actors in the health sector and makes practical recommendations for improved coordination and quality of nutrition data collected across national periodic surveys and administrative data systems. The document's release marks a key step towards building an effective NIS.

This brief describes the process of developing these recommendations through a multi-stakeholder NIS Task Team that was convened by the FMOH Nutrition Division and supported by DataDENT with collaborators from the University of Ibadan and the Nutrition, Agriculture and Health Initiative (NAHI). Specifically, this brief focuses on three aspects of the work: 1) defining the challenges that the recommendations aim to address; 2) describing the process used to develop the recommendations and a costing framework used to prioritize them; and 3) offering examples of cross-cutting recommendations that respond to common nutrition data coordination and collection issues.

There are few examples of functional national NIS across low- and middle-income countries. This experience in Nigeria provides an example of how countries can use a collaborative approach to identify, prioritize, and address nutrition data needs. This exercise focused on the needs of health sector actors, but the process can be applied to other sectors and stakeholder groups.

The Challenge

Nutrition data come from diverse sources, including periodic household and facility surveys and administrative data systems. These data sources engage different sectors and institutional stakeholders in their design, implementation, and oversight. Competing content priorities, data quality concerns, and budget constraints often limit any one stakeholder group's ability to add or modify content in a source. Therefore, nutrition actors must proactively advocate for their data priorities to be reflected within and across data sources.

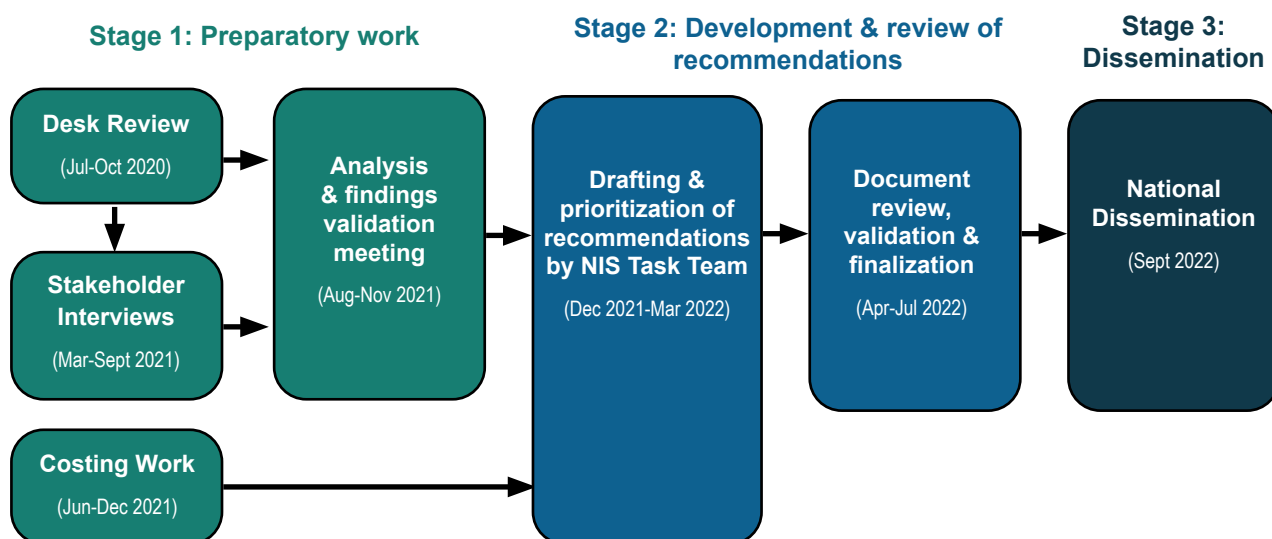
There have been gaps in the scope of nutrition indicators collected across existing data sources in Nigeria. Some sources, such as those tracking health services availability and readiness to implement, have not included nutrition indicators. Nutrition stakeholders in Nigeria have also expressed concerns about the quality and accessibility of nutrition data collected from national periodic surveys and administrative systems. Timing of national surveys was another common issue with concerns about both “too frequent” and “too infrequent” data collection for various indicators. Nigeria has also faced the challenge of inconsistent indicator definitions across surveys.

These challenges point to the need for a clearly defined set of nutrition data priorities that can be consistently advocated for by Nigeria’s nutrition sector. The recommendations described here contribute to addressing this need and focus on the data component of the NIS; more specifically on the nationally coordinated periodic surveys and administrative data systems that provide core data to a NIS.

The Process

The recommendations were developed using a three-stage process: 1) preparatory work by DataDENT and partners; 2) convening of NIS Task Team and other stakeholders to discuss preparatory findings and draft and review the recommendations; and 3) FMOH approval and dissemination. **Figure 1** provides an overview of the process and timeline.

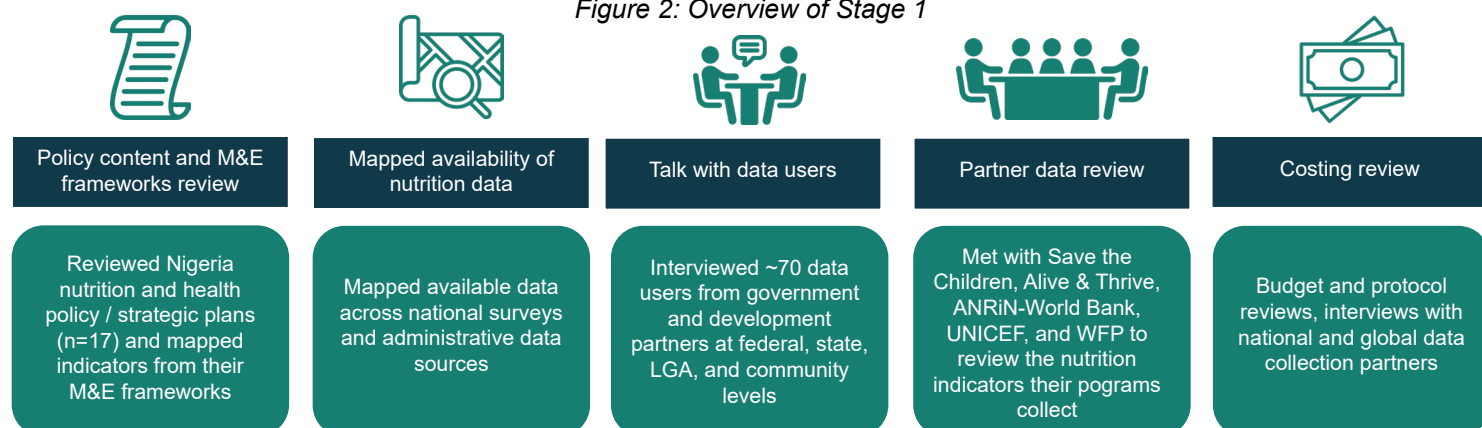
Figure 1: Overview of the recommendation development process



Stage 1: Preparatory work

The recommendations were grounded in formative work conducted by DataDENT, University of Ibadan and NAHI that provided essential information on nutrition data priorities from the perspective of the health sector. As summarized in **Figure 2**, this work included a) a desk review of national-level nutrition and health policies including implementation plans and monitoring and evaluation (M&E) frameworks; b) mapping of the nutrition data landscape; c) interviews with nutrition stakeholders across administrative levels (federal to community levels); d) review of implementing partner data systems; and e) a nutrition data costing exercise.

Figure 2: Overview of Stage 1



Nutrition policy and M&E frameworks review: Building off previous efforts by the [Transform Nutrition West Africa](#) project, we reviewed federal nutrition and health policies and strategic plans to identify priority nutrition problems, populations, and interventions/actions as well as relevant outcomes or indicators included in M&E sections or frameworks.

Data mapping: Building off a 2017 data landscaping commissioned by the Bill & Melinda Gates Foundation and conducted by RTI¹, we updated the mapping of nutrition indicators included in Nigeria's national periodic household and facility surveys and health sector administrative data systems.

Stakeholder interviews and focus group discussions: We conducted key informant interviews with a diverse sample of nutrition stakeholders within and adjacent to the health sector at federal (n=24), state (n=17), and LGA and health facility level (n=30). Participants included Ministry of Health staff, LGA leadership, NGO technical staff, and donor representatives. Focus group discussions (n=8) were held with community-level front line workers. We included LGA, facility, and community-level actors because in addition to using data, they are responsible for collecting and reporting administrative data to higher levels. Aims of the interviews and focus groups included 1) to characterize the types of decisions regularly made by different stakeholder types; 2) to identify the extent to which data are currently being used to support these decisions; and 3) to capture what stakeholders perceive as data gaps and other challenges to data use. For state-level interviews, we purposively selected Kaduna and Lagos states as "best case scenarios" given ongoing investments in nutrition data strengthening. We then selected two LGAs in each state. We validated the preliminary findings with the interview participants prior to sharing summaries of the findings with the NIS Task Team.

Partner data review: We engaged five international NGOs and UN agencies to review the data they regularly use and/or collect to monitor their nutrition programmes. The government of Nigeria does not have a standard list of core nutrition indicators to guide partner reporting; rather, individual partners define their own sets of nutrition indicators that reflect institutional priorities and donor requirements. The primary aim of the review was to identify indicators and data collection approaches that could be considered for national public sector data systems.

Costing review: DataDENT developed a costing framework to help the NIS Task Team identify and weigh the monetary and non-monetary costs associated with adding or removing specific indicators across different survey and administrative data sources. Non-monetary costs are largely reflected in data quality (e.g., adding indicators to a survey will increase interview time and may fatigue interviewer or respondent leading to less accurate responses). Development of the costing framework involved reviewing published literature and data source documentation including budgets, when available. The team also interviewed 32 Nigerian and international stakeholders connected to specific periodic survey and administrative data sources.

Stage 2: Development and review of the recommendations

The second stage of the process followed a NIS planning model from Kenya⁴ and included convening a 15-member NIS Task Team. The FMOH Nutrition Division invited a mix of data users and data producers from government ministries, departments, and agencies (MDA), implementing partners, academia, civil society, and donors.

The NIS Task Team met five times over a five-month period. The first and last meetings were in-person events, and the rest were three-hour virtual meetings. During the first day-long meeting, the NIS Task Team agreed on its goal and process. Over the next three meetings, the team systematically reviewed the Stage 1 findings and discussed possible recommendations for five categories of indicators mapped to the [UNICEF Conceptual framework for maternal and child nutrition](#): nutritional status, diet quality, intervention coverage, implementation readiness, and the enabling environment. DataDENT prepared summaries of Stage 1 findings and facilitated a session; NIS Task Team members asked questions, dialogued about the proposed recommendations, and offered additions and modifications.

During the final two-day meeting, DataDENT facilitated a series of participatory exercises to develop cross-cutting recommendations for how often specific indicators are required for high-level monitoring, timing of nutrition-focused surveys, and data quality assurance. The NIS Task Team reviewed all recommendations from previous meetings and used the costing framework to prioritize whether to keep, remove, or add indicators in specific data sources. They also recommended that the FMOH nutrition division develop implementation plans, carry out annual reviews, and take other actions to promote the uptake of the recommendations by MDAs and development partners.

The recommendations agreed to by the NIS Task Team underwent several rounds of external review. In April 2022, the first draft was shared with nutrition stakeholders from the federal and state levels and a meeting was held with participation of 50 of the stakeholders to receive their feedback. In June, the next draft was reviewed by senior FMOH leadership and finally in July 2022 a third draft was presented to the National Nutrition Technical Working Group for validation. Throughout this process, DataDENT and partners assisted the FMOH by developing the full draft and capturing and incorporating rounds of feedback.

The final draft of the recommendations was approved by the Office of the Minister of Health for dissemination in September 2022.

Stage 3: Dissemination

Dissemination plans include to launch the final document at an FMOH event and then to promote it during the forthcoming 2022 National Nutrition Data Conference. Over the long term, the success of the recommendations will be evaluated based on whether they are implemented.

Box 1: Key process takeaways from the Nigeria experience

- The preparatory work was resource intensive but also essential for producing recommendations grounded in the needs and priorities of nutrition stakeholders across MDAs, organizations, and administrative levels. Be mindful to build from previous data and policy landscaping efforts by others, if available, in order to avoid duplication of activities.
- Engage a diverse group of data producers, data users, and funders in an NIS Task Team. Recruit nutrition and data champions who are motivated and empowered to actively contribute to discussions.
- Carefully plan and prepare for Task Team working sessions so that they can be engaging and efficient. Take time to clearly explain underlying technical issues so that all members, regardless of background, can engage in discussions.
- Anticipate a lack of continuity in Task Team participation across meetings; revisit the aims and briefly recap discussions to date at the start of each working session.
- Multiple technical assistance providers may be needed to provide the required combination of nutrition measurement expertise and facilitation and logistics support.
- The Covid-19 pandemic has made virtual meetings more feasible for national stakeholders. However, it was still valuable to hold the first and final Task Team meetings in person to support active engagement and consensus building.

Examples of cross-cutting recommendations

The recommendations address cross-cutting gaps as well as indicator and data source-specific gaps. While the indicator and data source specific recommendations are contextualized to Nigeria, several cross-cutting issues addressed by the NIS Task Team reflect issues that may be present in other contexts. Below we highlight some examples.

Issue: How often are national and state-level estimates of stunting and wasting needed?

Since 2011, Nigeria has collected child height and weight data through national household surveys on a near-annual basis. Overall, the surveys show slow progress in reducing stunting and wasting at national and state level. Data quality has been questioned for specific surveys. In the Stage 1 interviews some stakeholders suggested that less frequent data collection would allow for more resources to be spent on improving anthropometric data quality. Others were concerned that less frequent data would not meet the needs of humanitarian stakeholders involved in wasting treatment. After much discussion, the NIS Task team and reviewers recommended that child height and weight be collected every 2-3 years while mid-upper arm circumference (MUAC), which requires fewer resources to collect, be collected as close to annually as possible and continue to be more frequent in subnational areas with higher risk of wasting.

Issue: How do we improve coordination and avoid duplication of data collection efforts?

The Stage 1 data mapping showed that in some years multiple household surveys were collecting similar nutrition-related indicators. In contrast, there was a 20-year gap between surveys collecting food consumption and

micronutrient status data. Interviews revealed a lack of effective coordination among donors and government in planning for nutrition-focused surveys including the National Nutrition and Health Survey and the National Food Consumption and Micronutrient Survey. Using a 10-year horizon, the NIS Task Team made recommendations about the timing and scope of these nutrition-focused surveys relative to multi-topic surveys (e.g., the Demographic and Health Survey and the Multiple Indicator Cluster Survey) which have less flexible timelines. Timing of administrative data tool reviews were also reflected in the 10-year timeline.

Issue: How do we improve integration of nutrition indicators across administrative data sources?

In recent years, Nigeria has added several nutrition indicators to the facility-level National Health Management Information System (NHMIS) system. Stage 1 identified several other indicators that the NIS Task recommended for inclusion during the next NHMIS tool review. The recommendations also address gaps in administrative data beyond the NHMIS, including highlighting that data from Maternal Newborn and Child Health Week outreach events were not consistently integrated with the NHMIS, resulting in under-reporting. They also addressed the lack of nutrition commodities (e.g., micronutrient supplements) in the Nigeria Health Logistics Management Information System (NHLMIS) and that nutrition professionals are not captured as a distinct cadre in the National Health Workforce Registry Tool. Without the comprehensive approach used in Stage 1, these gaps would not have been identified and included in the recommendations.

Box 2: Key content issues highlighted in the Nigeria experience

- A 10-year planning horizon is needed to capture all relevant data sources and support strategic planning for individual stakeholders who contribute to the NIS.
- Establish a common understanding of how often different indicators are practically needed given the decision needs of most stakeholders and the length of time reasonably required to observe a change in the indicator. Data used for implementation and course correction are needed more often and at lower administrative levels than data used for longer-term planning and evaluation cycles.
- Stakeholders can have conflicting views of the relative value of administrative data compared to household survey data; the Task Team should build consensus on the strengths and ideal uses of each.
- Even though it was not possible to capture the absolute cost of data collection, the costing framework was a valuable tool for developing and prioritizing recommendations.

Conclusion

The design of a national NIS should be rooted in the practical information needs of nutrition decision makers. Our experience in Nigeria illustrates a collaborative multi-stakeholder process that fostered buy-in and consensus building around technically informed nutrition data priorities. The process can be adapted to meet the needs of other countries working to strengthen their NIS.

References

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About this Brief

This work was led by the Institute for International Programs at Johns Hopkins Bloomberg School of Public Health (JHBSPH) and Results for Development (R4D) as part of the Data for Decisions in Nutrition (DataDENT) initiative. DataDENT aims to transform the availability and use of nutrition data by addressing gaps in nutrition measurement and advocating for stronger nutrition data systems. DataDENT is funded by the Bill & Melinda Gates Foundation, and is implemented by three institutions: JHBSPH, the International Food Policy Research Institute (IFPRI), and R4D.

