

West Africa's Data Story

The Availability of Actionable Nutrition Data



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Purpose

The past decade has seen a growing global and regional momentum to prioritize nutrition and to develop actionable programs for improved nutrition and more effective food systems. This momentum is reflected in various initiatives at the global level such as the six World Health Assembly (WHA) global nutrition targets, the 2030 Agenda, and the Sustainable Development Goals. These agendas, however, can only be achieved by a comprehensive and coherent set of actions, programs, and policies

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that address both the immediate and underlying causes of malnutrition. The availability of high quality, timely, and reliable data is key to the efficient monitoring and tracking of progress toward these global- and national-level targets; it supports the effective prioritization of actions and improves the ability to track implementation strategies and investments for reducing malnutrition and measuring their impact. The 2014 Global Nutrition Report promulgated the idea of a data revolution at a point when many countries did not have such data available. Since then, multiple data efforts have been undertaken, including Countdown to 2030, the formation of various technical experts groups, and the constitution of a global nutrition data partnership group.

To identify existing data gaps to bolster data systems and support improved assessment and reporting of progress on maternal, infant, and young child nutrition (MIYCN), Transform Nutrition West Africa assessed the availability of actionable nutrition data in each West African country. Results were compiled into two sets of country data profiles, one for key nutrition outcomes and one for coverage indicators to inform national-level data users on the current data landscape and its gaps.

Approach to Assessing Availability of Actionable Nutrition Data

We assessed the existing nutrition data to determine its availability for tracking progress on key nutrition outcomes and monitoring the implementation of

strategies to reduce malnutrition. The indicators included in this assessment covered MIYCN status, diet-related noncommunicable diseases (NCDs), underlying behaviors that drive nutrition status, and coverage indicators for nutrition interventions. These indicators were selected in response to regional stakeholders' prioritization of nutrition challenges.¹

Nutrition outcomes and underlying behaviors

We examined both primary data sources and secondary data platforms to determine what data was available on key nutrition outcomes and underlying behaviors (**Table I**); we then visualized availability through country data profiles. Indicators were categorized by three populations: children under five years of age (U5s), women of reproductive age (WRA), and the general adult population. The quality of primary data sources was assessed across four dimensions for each indicator: (1) validity and comparability, (2) timeliness (data collected within the recommended frequency window) (3) accessibility, and (4) representativeness. Outputs include a database and a technical note on methods for researchers, easy visualization of results for implementers or other decisionmakers, and a country profile for government stakeholders. Further details on the methods can be found [online](#).

Table I. Key nutrition indicators

CHILDREN	U5 stunting
	U5 wasting
	U5 overweight
	Low birthweight
	Exclusive breastfeeding
	Early initiation of breastfeeding
	U5 anaemia
	Minimum acceptable diet
WOMEN OF REPRODUCTIVE AGE	Minimum dietary diversity
	Anaemia
	Wasting
	Obesity
ADULT	Minimum dietary diversity
	Sodium intake
	Hypertension
	Diabetes
	Overweight and obesity

SOURCE: Transform Nutrition West Africa

¹ Stakeholders involved were the Regional Nutrition Working Group in West Africa (including various implementing and technical partners and donors), UNICEF, and DataDENT.



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Coverage indicators

We also assessed the potential of each country to report on national-level coverage for a set of nutrition interventions. We reviewed the availability of coverage data for 16 nutrition interventions (**Table 2**); these were grouped along the maternal, newborn, child, and adolescent continuum of care. Interventions were prioritized by regional stakeholders.² We visualized the population-based and administrative data sources that report coverage data for each nutrition intervention and recommended key actions for strengthening coverage measurement for each West African country. Outputs are compiled [online](#); they include a technical note describing the assessment methodology, a detailed database, and country profiles.

² Stakeholders involved were the Regional Nutrition Working Group in West Africa (including various implementing and technical partners and donors), UNICEF, and DataDENT.

Table 2. Prioritized nutrition interventions

Lifecycle stage	Intervention
ADOLESCENCE	Food supplementation
	Counseling on health and nutrition
PRECONCEPTION	Iron supplementation
	Folic acid supplementation
PREGNANCY	Nutrition counselling during pregnancy (specific content)
	Iron-folic acid supplementation (IFA)
	Calcium supplementation for pregnant women with low calcium intakes
DELIVERY AND POSTNATAL PERIOD	Support for early initiation of breastfeeding (support/observation within an hour/within two days)
	Delayed cord clamping
CHILDHOOD	Counseling for complementary feeding
	Counseling for exclusive and continued breastfeeding
	Support for exclusive and continued breastfeeding
	Food supplementation for complementary feeding in food insecure populations
	Vitamin A supplementation
	Management of severe acute malnutrition (SAM)
Management of moderate acute malnutrition (MAM)	

Availability of Data on Key Nutrition Outcomes and Drivers: Key Findings (Table 3)

1. There are considerable data gaps in West Africa. The most noticeable of these is the significant lack of data sources reporting on adult diabetes and on minimum dietary diversity among WRA.

Only Burkina Faso and Ghana have data available for all 17 indicators. In most countries, at least one diet-related NCD is missing and data on diabetes is missing in five countries (Gambia, Guinea-Bissau, Mali, Nigeria, and Sierra Leone). Only four countries (Burkina Faso, Ghana, Mali, and Sierra Leone) have data sources that report on minimum dietary diversity among WRA. Guinea-Bissau is missing data on the greatest number of indicators (6 out of 17), including anemia among WRA and U5s and diet-related NCDs in the general adult population. All WHA target indicators are reported by at least one data source in all countries except Guinea-Bissau and Nigeria, where data on anemia among WRA is missing.

2. Child nutrition indicators are more reported on than are indicators of nutrition in the general adult population and among WRA.

Child nutrition indicators are reported on by the greatest number of data sources; this is especially true for U5 wasting and U5 stunting (with at least two data sources in each country) and exclusive breastfeeding, early initiation of breastfeeding, and low birthweight (with at least one source in each country). Only two countries (Cabo Verde and Guinea-Bissau) are missing data on child nutrition indicators; Cabo Verde lacks data on U5 overweight and diet-quality indicators including minimum dietary diversity and minimum acceptable diet for children, while U5 anemia is not reported by any primary source in Guinea-Bissau. Indicators for WRA are covered by fewer data sources, with wasting/thinness and obesity among WRA being covered by at least one primary source in all countries.

3. The primary data sources that cover the most countries are Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), Malaria Indicator Surveys (MIS), surveys using SMART methodology (Specific, Measurable, Achievable, Realistic, and Timely), and the STEPwise Approach to Surveillance (STEPS).

Multiple primary data sources are available for most indicators, with wide variation across countries; the countries average five data sources per indicator, but range from 2 to 10 sources (**Table 3**). With the exception of Guinea-Bissau, a DHS reporting on indicators of interest was found in all 16 countries. The DHS mostly reports on outcomes related to child nutrition and WRA. The MICS reports on selected indicators in 12 countries, and does not include Cabo Verde, Liberia, Senegal, or Niger. Both surveys cover between 7 and 10 indicators in each country. The MIS is available in eight countries and reports either on just U5 anemia (Burkina Faso, Ghana, Liberia, Nigeria, and Sierra Leone) or on U5 anemia and WRA anemia (Mali, Senegal, and Togo). Seven countries have national surveys that use SMART methodology with indicators of interest (Mauritania, Mali, Guinea, Burkina Faso, Senegal, Togo, and Niger). STEPS collected data on diet-related NCDs in 14 countries, not including Guinea-Bissau and Ghana, and covers 2 to 4 indicators.

4. Secondary data platforms report on all indicators except minimum dietary diversity among WRA.

There is less variation in the distribution of data platforms across countries, with the number of platforms varying between 15 in Liberia and 20 in Nigeria, with an overall average of 18. At least two data platforms were identified for each key indicator, excluding minimum dietary diversity among WRA which is not covered in any of the identified platforms. Sixteen out of 20 platforms are available for all 16 West African countries; they report on between 1 (Diabetes Atlas) and 16 indicators (Global Nutrition Report). In general, data platforms report on a set list of indicators across all countries, depending on the availability of data in that country. Global Health Data Exchange is the only exception, as it reports only on exclusive breastfeeding in Nigeria.

5. The quality of primary data sources is significantly lower for indicators on WRA and the adult population than it is for children under five.

Almost all indicators are reported according to the specified global measurement; exceptions are sodium intake (for which a method other than the standard method is used across all surveys) and, in Ghana, diabetes. Data on nearly all diet-related NCDs (hypertension, diabetes, and overweight/obesity) is out of date across West Africa, with the exception of data on hypertension in Benin. Indicators on sodium intake are out of date and not timely in half of the countries that report it. In nearly half the countries, nutrition indicators among WRA (with the exception of minimum dietary diversity) are out of date. Among child nutrition indicators, indicators for low birthweight are consistently out of date and not timely. Overall, most data sources (in 13 countries) are not timely (not within the recommended frequency window) and over half of the data sources are out of date; however, at the time of the exercise, new Demographic and Health Surveys were ongoing in many countries. Most data sources are nationally representative, with a few subnational surveys such as, for example, STEPS reports which focus mostly on NCDs. Even though publicly accessible reports are drawn up by all data sources, almost half of the data gathering agencies do not grant access to datasets.

Availability of Data on Nutrition Intervention Coverage: Key Findings (Table 4)

1. In both population-based surveys and administrative data sources, there is systematic reporting on coverage of implementation of vitamin A supplementation among U5s and on iron and folic acid (IFA) supplementation during pregnancy.

In all but Cabo Verde, vitamin A supplementation is systematically reported through both population-based surveys and administrative data sources; in 10 countries, IFA supplementation during pregnancy is reported through both these sources. Counseling on exclusive and continued breastfeeding is reported in six countries (Gambia, Ghana, Guinea-Bissau, Mauritania, Nigeria, and Sierra Leone); food supplementation for complementary feeding is reported in population-based surveys and administrative surveys for only Guinea and Mali.

2. Data elements for seven coverage indicators are collected in recent national surveys but not reported in survey reports.

For nine West African countries, coverage indicators on counseling and support for exclusive and continued breastfeeding were collected in recent national surveys but are not reported. In four countries (Benin, Guinea, Mali, and Senegal), data on management of moderate and severe malnutrition is not reported despite having been collected. The remaining indicators that were collected but are not reported are: vitamin A supplementation (Mali, Mauritania, and Nigeria), food supplementation for complementary feeding (Guinea and Senegal), IFA supplementation during pregnancy (Mali and Senegal), and nutrition counseling during pregnancy (Benin).

3. There is limited access to administrative data sources.

A proper assessment of the availability of administrative data was restricted by the absence of, or limited access to, this type of coverage data. This was particularly the case for Senegal, Mauritania, Guinea-Bissau, Nigeria, and Gambia; in these five countries, no input from country experts was received. Across all West African countries, there is an urgent need to make publicly available the reports, registers and reporting forms, and datasets for administrative data.

4. There is limited or no data on coverage of interventions during adolescence, preconception, and delivery.

Data on coverage indicators mostly covers childhood and pregnancy interventions; there is limited or no data on coverage of interventions during adolescence, preconception, and delivery. In all 16 countries, no data sources were found with indicators on calcium supplementation during pregnancy and delayed umbilical cord clamping. Only one data source in a single country (Burkina Faso) was found to have data on food supplementation during adolescence; only Ghana had a data source with indicators on counseling on health and nutrition during adolescence; only Sierra Leone had a data source with indicators on IFA supplementation during preconception; and only in Liberia was there a data source with indicators on support for early initiation of breastfeeding.

5. A number of interventions are implemented at national level but no data sources were found for coverage indicators on these interventions.

Although implemented at the national level, indicators on food supplementation during adolescence, nutrition counseling during pregnancy, and counseling for complementary feeding were not collected by population-based surveys; also, in most countries, we could not identify these indicators due to poor access to administrative data. Despite programs having been implemented, data on counseling/support for exclusive and continued breastfeeding is not collected in five countries (Burkina Faso, Cabo Verde, Cote d'Ivoire, Liberia, Niger), and in four countries (Burkina Faso, Cabo Verde, Cote d'Ivoire, Nigeria) data on management of moderate acute malnutrition is not collected.

Table 3. Number of primary data sources and secondary data platforms by indicator and country

West African countries	Children										Women of reproductive age						Adults																			
	U5 stunting		U5 wasting		U5 overweight		Low birthweight		Exclusive breastfeeding		Early initiation of breastfeeding		U5 anemia		Minimum acceptable diet		Minimum dietary diversity		Anemia		Wasting/thinness		Obesity		Minimum dietary diversity		Sodium intake		Hypertension		Diabetes		Overweight and obesity		All	
Benin	2	12	2	12	2	9	2	9	2	9	2	4	1	4	2	4	2	4	2	9	2	5	2	6	0	0	3	5	2	4	1	8	1	6	3	19
Burkina Faso	7	12	8	12	3	9	4	10	5	9	5	4	2	3	3	3	3	4	1	9	2	5	2	6	2	0	2	5	1	4	1	5	1	6	10	19
Capo Verde	3	10	3	10	0	3	1	8	1	7	1	4	2	5	0	0	0	0	1	8	1	2	1	6	0	0	0	5	1	4	1	7	1	5	5	17
Côte d'Ivoire	3	11	3	11	3	9	2	9	2	8	2	3	1	4	2	2	2	3	1	8	1	3	1	6	2	0	2	5	1	4	1	8	1	6	4	17
Gambia	3	12	3	12	2	8	2	10	2	9	2	4	1	4	1	3	1	4	1	9	1	3	1	6	0	0	2	5	1	4	0	8	1	6	4	18
Ghana	6	12	6	12	3	9	3	9	2	8	2	3	4	5	3	2	3	3	2	8	2	3	2	6	1	0	2	5	1	4	1	8	1	6	7	19
Guinea	5	12	5	12	3	9	2	10	4	9	4	4	2	4	2	3	2	4	1	9	1	4	1	6	0	0	3	5	1	4	1	8	1	6	6	18
Guinea-Bissau	2	12	2	12	1	8	1	10	2	8	2	4	0	4	2	2	2	4	0	7	1	2	1	4	0	0	2	5	0	4	0	8	0	6	2	18
Liberia	2	12	2	12	1	9	1	10	2	9	2	4	2	4	2	3	2	4	1	8	2	4	2	6	0	0	2	5	1	4	1	8	1	6	5	18
Mali	3	12	3	12	3	9	2	10	3	9	3	4	2	10	3	3	3	4	2	10	2	4	2	5	1	0	3	5	1	4	0	8	1	6	5	18
Mauritania	4	11	4	11	1	8	2	9	2	8	2	3	1	4	1	2	1	3	1	7	1	3	1	6	0	0	2	5	1	4	1	8	1	6	5	17
Niger	2	12	2	12	1	9	1	10	2	8	2	4	1	4	1	3	1	4	1	9	1	4	1	6	0	0	2	5	1	4	1	8	1	6	4	18
Nigeria	5	14	5	14	3	9	2	10	3	9	3	4	1	4	3	3	3	4	0	8	2	4	2	6	0	0	1	5	1	4	0	8	1	6	7	19
Senegal	3	12	3	12	2	9	2	10	2	9	2	4	3	5	2	3	2	4	3	10	2	4	2	6	0	0	2	5	2	4	2	8	2	6	5	19
Sierra Leone	3	12	3	12	3	9	3	10	4	9	4	4	3	4	3	3	4	4	2	9	2	4	2	6	2	0	3	5	1	4	0	8	1	6	6	18
Togo	3	12	3	12	3	9	2	10	3	9	3	4	2	4	2	2	2	4	2	9	2	4	1	6	0	0	2	5	1	4	1	8	1	6	5	18

SOURCE: Country data profiles on the assessment of nutrition outcomes

- Primary data source
- Secondary data source
- No data source found

Table 4. Availability of coverage indicators by country and type of data source

Lifecycle stage	Interventions	Benin	Burkina Faso	Cabo Verde	Cote d'Ivoire	Gambia	Ghana	Guinea	Guinea-Bissau	Liberia	Mali	Mauritania	Niger	Nigeria	Senegal	Sierra Leone	Togo	
Adolescence	Food supplementation		P															
	Counseling on health and nutrition						A											
Preconception	Iron supplementation															P		
	Folic acid supplementation						P									P		
Pregnancy	Nutrition counseling during pregnancy	P + A	A							A			A	A				
	Iron-folic acid supplementation (IFA)	P + A	P	P + A	P + A	P	P	P		A	P + A	P	P	P	P	P + A	P + A	
	Calcium supplementation																	
Delivery and postnatal period	Support for early initiation of breastfeeding									A								
	Delayed cord clamping																	
Childhood	Counseling for complementary feeding	P								A						A		
	Counseling for exclusive and continued breastfeeding	P + A				P	P	P	P	A	P	P		P + A	P	P + A	P	
	Support for exclusive and continued breastfeeding	P + A				P	P	P	P	A	P			P + A	P	P	P	
	Food supplementation for complementary feeding		A				P	P + A			P + A		P + A		P	P		
	Vitamin A supplementation	P + A	P + A	A	P + A	P	P	P + A	P	P + A	P + A	P	A	P + A	P	P + A	P + A	
	Management of severe acute malnutrition	P + A	A	A	A		P	P		A	P + A				P	P + A		
	Management of moderate acute malnutrition	P + A	A					P			P				P	P		

SOURCE: Country data profiles on the assessment of coverage indicators

	Intervention is implemented
P	Population-based survey
A	Administrative data source

Conclusions

In order to improve nutrition, countries must have access to nutrition indicators that allow them to effectively track progress, set priorities, inform policy and program decisions, and guide implementation and monitoring. To identify gaps and opportunities in national data systems, we assessed the availability of data for key country-level nutrition indicators.

Across West Africa, there is good inclusion of data on childhood, child nutrition outcomes, and pregnancy, and data sources meet the specified quality dimensions. Nutrition outcomes for WRA and the general adult population, however, are not as widely covered in surveys and do not meet the standards of quality used in this assessment; data is also lacking on coverage of interventions during adolescence, preconception, and delivery. Limited access to administrative data sources hampered the assessment of data availability and its usability.

The country profiles provide national governments and the wider nutrition community with insights and data initiatives to:

- Identify and assess gaps in the availability of data across outcomes, underlying behaviors, and coverage of implemented interventions. Countries can consider their nutrition priorities and corresponding data needs; they can determine where further investment is needed in order to most effectively prioritize problems, track progress, and refine policies and programs;
- Develop a prioritized action agenda for strengthening the use of nutrition data to enhance accountability and guide action;
- Consider improving availability of data on the WHA and NCD targets as well as on maternal and adult population indicators; where relevant, enable reporting on the progress that has been made toward these global nutrition targets;
- Harmonize indicator definitions and reference age groups across the different surveys.

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