



## Sierra Leone

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**TABLE 1: 17 KEY NUTRITION INDICATORS**

		WHA target	Nutrition status	Drivers
Children	U5 stunting			
	U5 wasting			
	U5 overweight			
	Low birthweight			
	Exclusive breastfeeding			
	Early initiation of breastfeeding			
	U5 anaemia			
	Minimum acceptable diet			
	Minimum dietary diversity			
Women of reproductive age	Anaemia			
	Wasting			
	Obesity			
	Minimum dietary diversity			
Adult	Sodium intake			
	Hypertension			
	Diabetes			
	Overweight and obesity			

### Research objective

To enable data users to identify the best available data source for a set of 17 key nutrition indicators (see Table 1) according to priorities for the specific data use.

### The purpose of this data profile is:

- 1 To summarize all available primary data sources and secondary data aggregation platforms<sup>1</sup> for key nutrition indicators representative at the national level in Sierra Leone.
- 2 To assess the identified data sources for each indicator across four dimensions (see details in key to Table 2): (i) validity and comparability, (ii) timeliness, (iii) accessibility, and (iv) representativeness.
- 3 To identify data gaps in the national data system to effectively track progress on nutrition and/or inform policy and program decisions for improving nutrition in Sierra Leone.

<sup>1</sup> All types of data aggregation platforms were included such as scorecards and data visualization tools that reported on at least one of the target indicators for this assessment in a West African country.

<sup>2</sup> *Global Nutrition Monitoring Framework: Operational Guidance for Tracking Progress in Meeting Targets for 2025*, Geneva: WHO, 2017. Licence: CC BY-NC-SA 3.0 IGO.

<sup>3</sup> World Health Organization NCD monitoring framework

<sup>4</sup> *Transform Nutrition West Africa* inception report. 2018

The indicators included in this assessment cover maternal, infant and young child nutrition (MIYCN) status, underlying behaviours that drive nutritional status, and diet-related non-communicable diseases (NCDs). Several of the indicators track Sierra Leone's progress on global nutrition targets.<sup>2,3</sup> In addition, the selected indicators represent important regional nutrition challenges and priority issues.<sup>4</sup>

**TABLE 2: ASSESSMENT OF PRIMARY DATA SOURCES**

Indicators		U5 stunting	U5 wasting	U5 overweight	Low birthweight	Exclusive breastfeeding	Early initiation of breastfeeding	U5 anaemia	Minimum acceptable diet	Minimum dietary diversity	Anaemia	Wasting/thinness	Obesity	Minimum dietary diversity	Sodium intake	Hypertension	Diabetes	Overweight and obesity
Population		Children									Women of reproductive age				Adults			
Primary source <sup>5</sup>	Quality																	
Demographic and Health Survey (DHS) (2013)*	V	++	++	++	++	++	++	++	++	++	++	++	++		-			
	T	++	++	++	-	++	++	++	++	++	++	++	++		-			
	A	+	+	+	+	+	+	+	+	+	+	+	+		+			
	R	++	++	++	++	++	++	++	++	++	++	++	++		++			
Multiple Indicator Cluster Surveys (MICS) (2017)	V	++	++	++	++	++	++		++	++					-			
	T	++	++	++	+	++	++		++	++					+			
	A	+	+	+	+	+	+		+	+					+			
	R	++	++	++	++	++	++		++	++					++			
National Nutrition Survey (NNS) (2017)	V	++	++	++		++	++			?		++	++	++				
	T	++	++	++		++	++			++		++	++	++				
	A	++	++	++		++	++			++		++	++	++				
	R	++	++	++		++	++			++		++	++	++				
Sierra Leone Micronutrient Survey (SLMS) (2013)	V				++	++	++	++	++	++	++			+	-			
	T				-	-	-	-	-	-	-			-	-			
	A				-	-	-	-	-	-	-			-	-			
	R				++	++	++	++	++	++	++			++	++			
Malaria Indicator Survey (MIS) (2015)	V							++										
	T							++										
	A							+										
	R							++										
STEPS Survey (2003)	V															+		++
	T															-		-
	A															-		-
	R															?		?

\*2018 DHS is ongoing.

### KEY TO TABLE 2


Dimension	List of items	Rating	
V Validity/ comparability	Does the data source use the specified global measurement method for the indicator or can it be calculated from other indicators in the dataset?	++	Uses the standard measure and specifies the method of measurement/calculation
		+	Uses the standard measure, but no information is given on the method of measurement/calculation
		-	Uses a different measure than the standard & the standard measure cannot be calculated from other indicators in the dataset
		?	The measure is not specified in any way
T Timeliness	Does the data collection respect the recommended frequency for the indicator?	++	Data collected according to the recommended frequency and last data collection within the window
		+	Data not collected according to the recommended frequency, but last data collection within the window
		-	Data not collected according to the recommended frequency and last data collection not in the window
		?	No information on the year of collection
A Accessibility	Are the results of the survey published?	++	Report and datasets publicly available
		+	Report publicly available and datasets available after authorization
		-	Report publicly available but datasets not available
		?	No information on the survey retrieved
R Representativeness	Is the survey representative at national and first-level administrative divisions?	++	Representative at national and first-level administrative divisions
		+	Representative at national level but not at first-level subdivision
		-	Subnational survey
		?	Representative at national level but no information on representativeness at first-level administrative divisions

<sup>5</sup> [https://westafrica.transformnutrition.org/wp-content/uploads/2019/06/DA\\_database\\_primary\\_sources\\_Final.xlsx](https://westafrica.transformnutrition.org/wp-content/uploads/2019/06/DA_database_primary_sources_Final.xlsx)

Search for all primary sources and data platforms completed in November 2018 and data quality validation completed in December 2018. See technical note for further details on search strategy and assessment approach: <https://westafrica.transformnutrition.org/output/data-integration-assessment-technical-note/>

**TABLE 3: SECONDARY DATA PLATFORMS**

Indicators	U5 stunting	U5 wasting	U5 overweight	Low birthweight	Exclusive breastfeeding	Early initiation of breastfeeding	U5 anaemia	Minimum acceptable diet	Minimum dietary diversity	Anaemia	Wasting/thinness	Obesity	Minimum dietary diversity	Sodium intake	Hypertension	Diabetes	Overweight and obesity
Population	Children								Women of reproductive age				Adults				
<b>Data platforms</b>																	
UNICEF/WHO/World Bank Group Joint Child Malnutrition estimates																	
Global health data exchange (IHME)																	
WHO data																	
Scaling Up Nutrition																	
World Bank Development Indicators																	
Our World in Data																	
Index Mundi																	
Global Nutrition Report																	
Countdown to 2030																	
Nutrition in the WHO African Region																	
Atlas of the African Health Statistics																	
Alive & Thrive/UNICEF country nutrition profile																	
UNICEF Global database on Infant and Young Child Feeding																	
UNICEF Global database on Iodized salt																	
UNICEF Global Low Birthweight database																	
Iodine Global Network																	
NCD Risk Factor Collaboration																	
Diabetes Atlas																	

 Data platform reports on indicator.

## 1 Primary data sources (Table 2) and data platforms (Table 3)

- Six nationally representative primary data sources were identified. The Demographic and Health Survey (DHS) covers the greatest number of indicators (13) followed by the Multiple Indicator Cluster Survey (MICS), the National Nutrition Survey (NNS), and the Sierra Leone Micronutrient Survey (SLMS) which each cover 9 indicators.
- Eighteen data platforms were identified. Most platforms (10) use data directly from primary sources, mainly the DHS and MICS, although some use data from other platforms. The Global Nutrition Report covers the most indicators (16) followed by Countdown to 2030 (10).
- Minimum dietary diversity among women of reproductive age (WRA) is not reported by any platform.
- All indicators covering the World Health Assembly (WHA) targets are reported on.
- Diabetes among the general adult population is not covered by any data source, Nonetheless, several platforms report on this indicator using data from modelled estimates from the Lancet<sup>6</sup> or other platforms.
- Indicators of child nutrition are covered by as many data sources and platforms as indicators of adult nutrition.
- Indicators of nutrition status are covered by more data sources and platforms compared to indicators of nutrition drivers.

## 2 Assessment of primary data sources

- One data source (the National Nutrition Survey – NNS) meets the highest standard across almost all four data source quality dimensions, except for the validity of child minimum dietary diversity which is not specified.
- All primary sources use the specified global measurement method for all indicators except sodium intake.
- There is only one data source (STEPS) reporting on hypertension and overweight/obesity among the general adult population, which is not publicly accessible, or timely.
- Two data sources are out of date and are not within the recommended frequency window for all reported indicators (SLMS and STEPS). The remaining sources cover up-to-date data collected according to the recommended frequency, except for indicators on low birthweight and sodium intake, which are out of date in the DHS and not within the recommended frequency window in the MICS. The most recent data are from the MICS (2017) and the NNS (2017).
- A publicly accessible report is available for all data sources, however, only one data source (NNS) is publicly accessible, three (DHS, MICS, the Malaria Indicator Survey) are available after receiving authorization and two (the SLMS and STEPS) do not grant access to the datasets.
- All data sources are representative at national level and at first-level administrative division except for the STEPS, which is representative at national level but does not specify whether it is representative at the first-level administrative division.

## 3 Identification of data gaps

- No data platform reports on minimum dietary diversity for WRA as a measure of diet quality for this population.
- No data are available on diabetes among the general adult population.
- Data are lacking on key indicators of diet-related NCDs in Sierra Leone to report on NCD targets informatively.
- For wider use of available data, primary data sources should be made publicly accessible.

<sup>6</sup> NCD Risk Factor Collaboration (NCD-RisC) (2016). Worldwide trends in diabetes since 1980: a pooled analysis of 751 population-based studies with 4.4 million participants. *The Lancet*, 387(10027), 1513-1530.

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