COST OF A HEALTHY DIET
(NOVEMBER 2023)

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Data Sources: National Bureau of Statistics (NBS)

CONTENT

INTRODUCTION

HIGHLIGHTS

♦ The Cost of a Healthy Diet (CoHD) is the least expensive combination of locally available items that meets globally consistent food-based dietary guidelines, used as a measure of physical and economic access to healthy diets. This is a lower bound (or floor) of the cost per adult per day excluding the cost of transportation and meal preparation.

♦ The National average Cost of a Healthy Diet was N742 in November 2023.

♦ In November 2023, the average CoHD was highest in the South East at N920 per adult per day, compared to N616 per adult per day in North East.

♦ In recent months, the CoHD has risen faster than general inflation and food inflation. However, the CoHD and the food CPI are not directly comparable; the CoHD includes fewer items and is measured in Naira per day, while the food CPI is a weighted index.

Food environments determine a household's physical and economic access to sufficient, safe, and nutritious food for an active and healthy life. A suite of indicators known as the Cost and Affordability of a Healthy Diet (CoAHD) have been developed to improve the measurement of food access and are now monitored globally by the United Nations and the World Bank as a metric of food security. The Cost of a Healthy Diet (CoHD) metric uses the availability, price, and nutritional composition of retail food items to identify the *least expensive* combination of items that meet requirements for a healthy diet.

To compute the Cost of a Healthy Diet indicator, the following data are required: (a) Retail Food Prices, (b) Food Composition Data, and (c) a Healthy Diet Standard.

Retail Food Prices

The retail food price data used in this analysis is collected by the National Bureau of Statistics (NBS) monthly from 10,534 informants spread across the country, from urban and rural outlets for each state. NBS collects these prices routinely for monitoring inflation, including prices of over 200 retail food items. Nearly 150 of these food items are potentially included in a healthy diet and the price data for these items are used for the computation of the CoHD.

Healthy diet standard

In Nigeria, CoHD is the minimum cost of foods needed to meet international recommendations defined in the Healthy Diet Basket (HDB), a globally relevant set of criteria that captures similarities across most national food-based dietary guidelines (FBDG) (Table 1). The HDB was created as a comparable standard to calculate and compare the cost and affordability of healthy diets across countries; the HDB is most relevant for countries where there is not yet a quantified national FBDG, like Nigeria.

Table 1. Description of the Healthy Diet Basket (HDB)

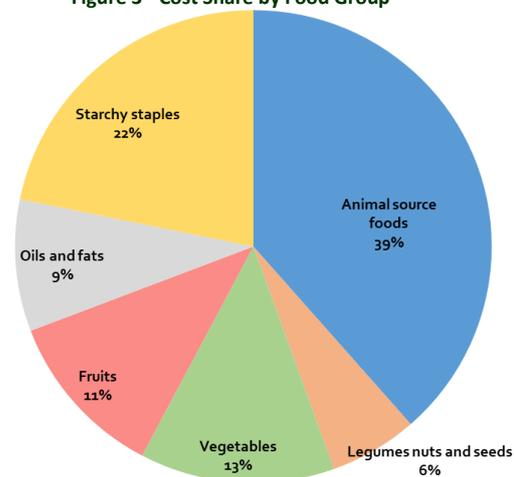| Food Group	Number of food items selected	Energy content (kilocalories)	Share of total calories (%)	Typical weights of example foods (g)
Starchy Staples	2	1,160	50	322 g dry rice
Oils and Fats	1	300	13	34 g oil
Fruits	2	160	7	230-300 g
Vegetables	3	110	5	270-400 g
Legumes Nuts and Seeds	1	300	13	85 g dry bean
Animal Source Foods	2	300	13	210 g egg
Total	**11**	**2,330**	**100**	

RESULT

Average Cost of a Healthy Diet (National, State & Zonal Levels)

The National average Cost of a Healthy Diet was N742 per adult per day in November 2023. At the State level, Anambra, Ogun, and Ebonyi States recorded the highest cost at N965, N939, and N937, respectively, while the lowest total diet costs were recorded in Bauchi, Adamawa and Niger at N550, N562, and N572, respectively. Lastly, at the Zonal level, the average CoHD was highest in the South East zone at N920 per day, followed by South West zone at N877 per day. The lowest average Cost of a Healthy diet was recorded in North East zone at N616 per day. *(Please see Appendix for full graphic representation)*

Figure 3 - Cost Share by Food Group

Cost Share by Food Group

Animal Source foods were the most expensive food group recommendation to meet in November, accounting for 39% of the total CoHD, to provide 13% of the total calories. Fruits and vegetables were the most expensive food groups in terms of price per calorie; they accounted for 11% and 13%, respectively, of total cost while providing only 7% and 5% of total calories in the Healthy Diet Basket. The least-expensive food group on average was Legumes, Nuts, and Seeds, at 6% of the total cost.

General and Food Inflation Relative to the Cost of a Healthy Diet

The Consumer Price Index (CPI) is a measure of inflation, the average change over time in the prices of goods and services consumed by people for day-to-day living, while the food index is a subset of the CPI which reflects changes in prices that households pay for food. It records the development of market prices of agricultural commodities and foodstuffs. Figure 4a (*see Appendix*) compares the general CPI and the food CPI (indices with 2009 as the base year) with the nominal Naira value of the Cost of a Healthy Diet, to understand whether the least-cost items needed for a healthy diet are rising in cost at a rate like that of the rest of the goods and services in Nigeria. Food prices and the Cost of a Healthy Diet are both expected to rise over time; here we focus on the relative rate of that inflation. The food CPI includes a larger number of items, and more packaged and value-added items than the Cost of a Healthy Diet, as least-cost items are often unprocessed.

In the past year, the CoHD and the cost of all other goods and services increased at roughly the same rate, until July 2023, when CoHD increased at a faster rate than all goods and services (general CPI) and more than all foods for which retail prices are collected.

Least-Cost Diets and Frequently Selected Least-Cost Items

Table 2, *(Please see Appendix)* highlights a complete least-cost diet in the least and most expensive locations in November 2023. In   November 2023, Adamawa (Rural) had the lowest Cost of a Healthy Diet at N481 per adult per day, while the most expensive location was Anambra (Urban) with CoHD at N993. While there were similarities in the least-cost items in November (e.g., Palm Oil, Avocado Pear, Bitter Leaf, and Dried Okra), the cost per food item was different in these locations because of underlying price differences. Some food groups had different least-cost items as well, for example, Millet Whole grain was the least-expensive Starchy Staple in Adamawa (Rural) compared with White Garri in Anambra (Urban).

Finally, Table 3 *(Please see Appendix)* shows frequently selected least-cost items in each food group across all state-sector combinations. This table demonstrates that some items are commonly the least-cost across different locations. For example, Palm Oil was the least-expensive food in the Oils and Fats Food Group in 80% of all State-Sectors in November 2023, and Soya Beans were selected as the least-cost item in the Legumes, Nuts and Seeds Food Group in 66% of State-Sectors. There is more variation in the Vegetables category, because three (3) vegetables are recommended in each least-cost healthy diet – Bitter Leaf, Dried Okra, and Dried Kuka were the most frequently selected least-cost Vegetables in November 2023.

POLICY IMPLICATIONS

The Cost of a Healthy Diet provides important information about food access, a key aspect of food security, which is useful for government, civil society and development partners, private sector, and researchers.

For instance, where the Cost of a Healthy Diet is high, it is possible to identify which least-cost items and food groups are driving the high cost. Stakeholders can identify supply challenges in specific foods or food groups to be addressed, for example with improved production, distribution, or market access.

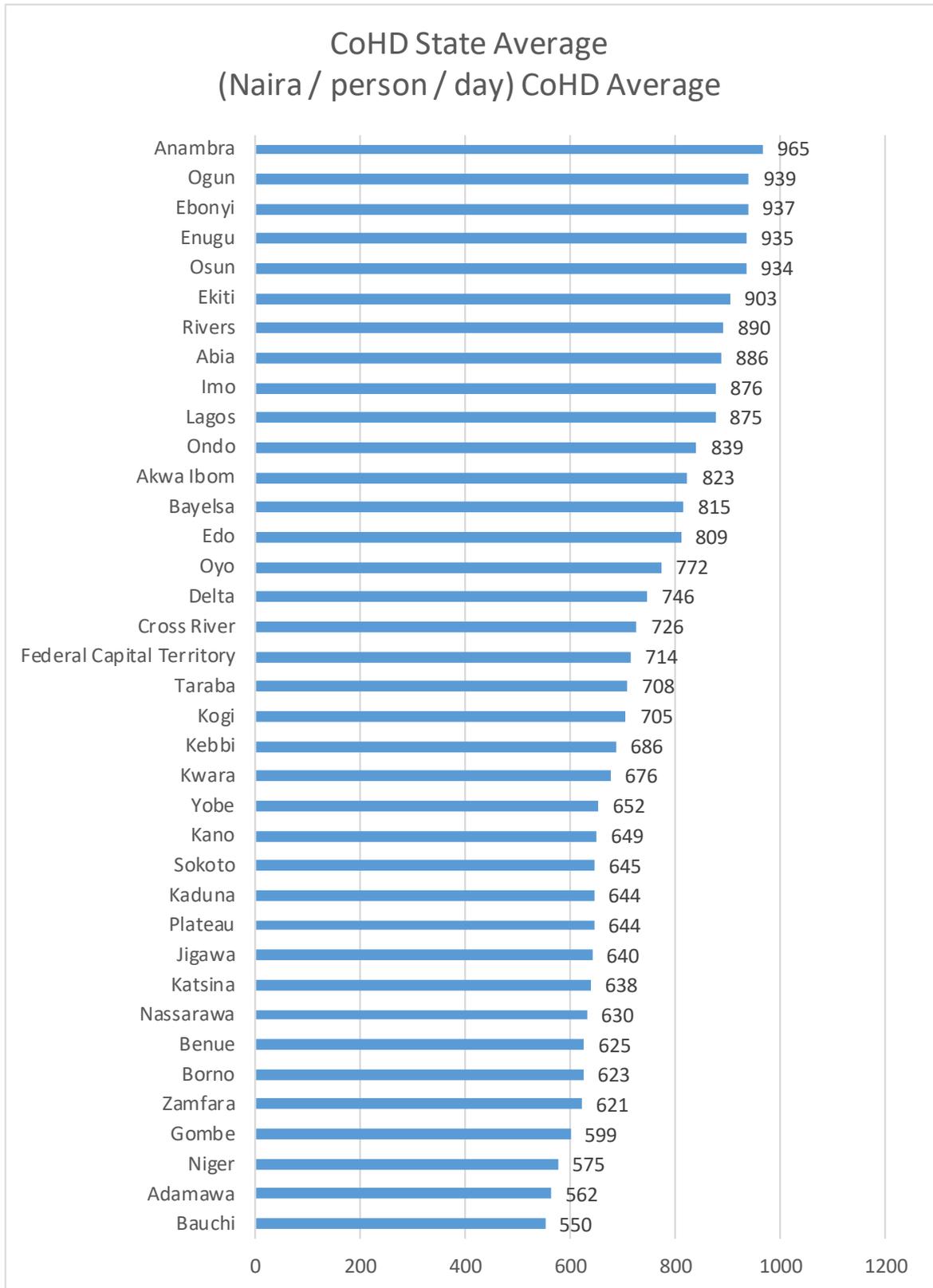The Cost of a Healthy Diet can also inform:

- The minimum income needed by households to access a healthy diet, and social protection and transfer amounts for vulnerable populations.
- Prioritization of commodities for agricultural production and trade policy interventions.
- Targeting interventions, including nutrition education, to populations with the most potential to benefit; nutrition education is only effective when people can afford to comply with the recommendations.
- Research on the relationship between food access and other food system factors and outcomes.

These results can also foster collaboration among a wide range of stakeholders, such as policymakers, researchers and civil society actors that focus on food security, to devise strategies that tackle access, availability, and affordability of healthy diet effectively. Future research incorporating income can also be used to determine the proportion and number of the population that are unable to afford a healthy diet.

Figure 1. Average Cost of a Healthy Diet by State

CoHD State Average
(Naira / person / day) CoHD Average

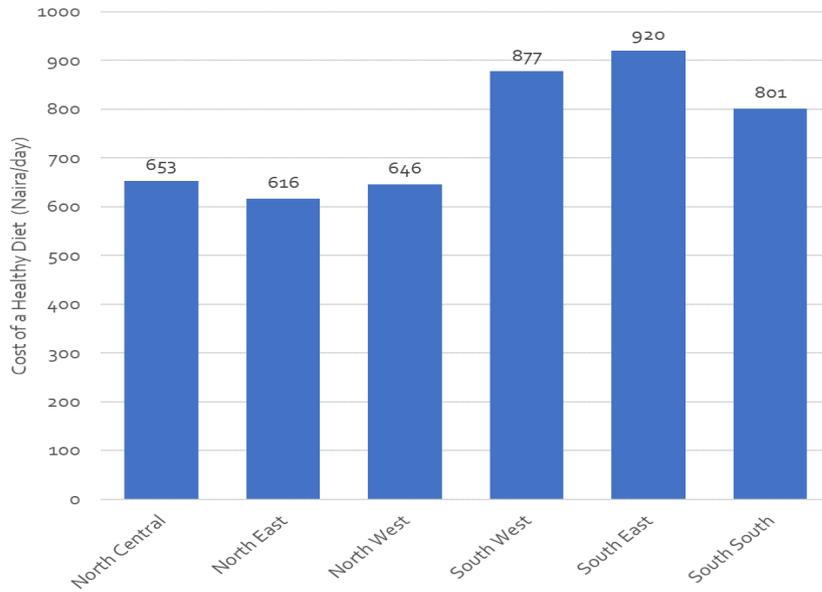| State	Value
Anambra	965
Ogun	939
Ebonyi	937
Enugu	935
Osun	934
Ekiti	903
Rivers	890
Abia	886
Imo	876
Lagos	875
Ondo	839
Akwa Ibom	823
Bayelsa	815
Edo	809
Oyo	772
Delta	746
Cross River	726
Federal Capital Territory	714
Taraba	708
Kogi	705
Kebbi	686
Kwara	676
Yobe	652
Kano	649
Sokoto	645
Kaduna	644
Plateau	644
Jigawa	640
Katsina	638
Nassarawa	630
Benue	625
Borno	623
Zamfara	621
Gombe	599
Niger	575
Adamawa	562
Bauchi	550

Figure 2. Zonal Average CoHD

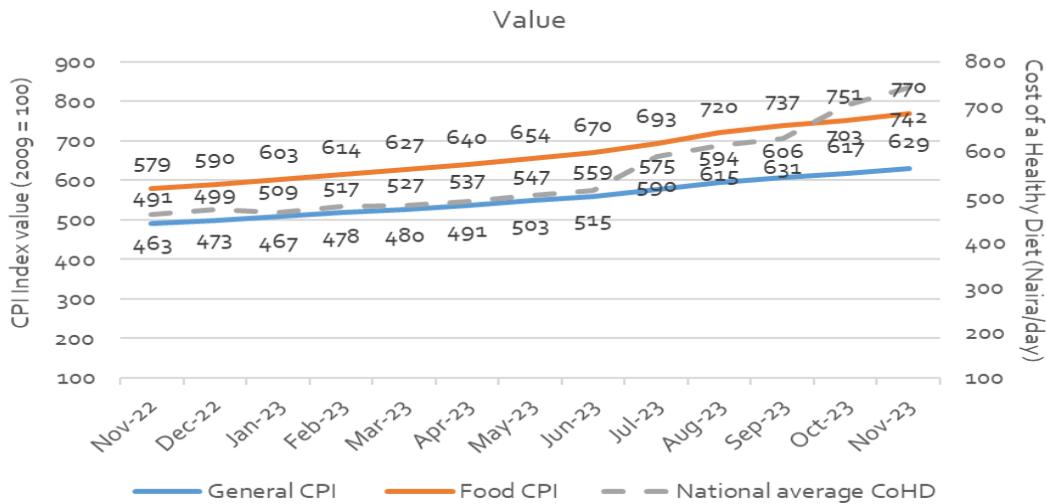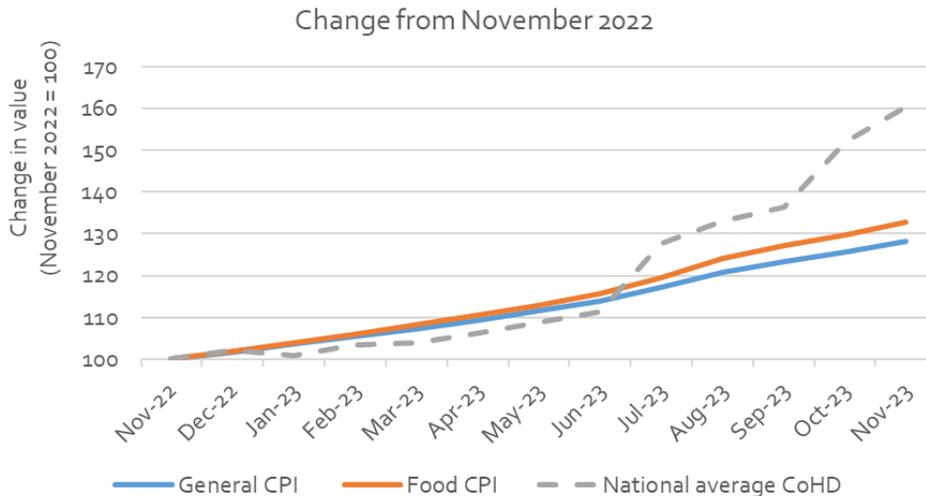**Figure 4a. National Average CoHD (Naira/day) and Consumer Price Indexes (2009=100)**

Figure 4b. National Average CoHD and Consumer Price Indexes (Nov 2022= 100)

Table 2. States with Least and Most expensive cost of items

November-2023	Least expensive: Adamawa Rural		Most expensive: Anambra Urban	
	Least-cost item	Cost	Least-cost item	Cost
Starchy staples	Garri Yellow	53	Garri White	101
	Millet Whole grain	48	Maize Grains White	119
Oils and fats	Palm Oil	67	Palm Oil	66
Fruits	Pawpaw	21	Avocado Pear	68
	Avocado Pear	30	Coconut	42
Vegetables	Kuka Dried	8	Bitter Leaf	39
	Bitter Leaf	25	Dried Okra	37
	Dried Okra	19	Green Leaf (tete)	52
Legumes nuts seeds	Groundnut (shelled)	35	Soya Beans	71
Animal source foods	Fresh Milk (Nono)	92	Sour Milk	212
	Mudfish Dried	83	Agric Eggs	187
Total (CoHD)		**481**		**993**

Table 3. Top 3 most frequently selected least-cost items by Food Group

Food Group	Item Name	Selected as least-cost % of possible selection
Starchy staples	Millet Whole grain	20%
	Maize Grains White	20%
	Garri White	17%
	Garri Yellow	9%
Oils and fats	Palm Oil	80%
	Vegetable Oil	18%
	Margarine Blue Band	1%
Fruits	Coconut	30%
	Avocado Pear	26%
	Date Palm fruit (Debenu)	23%
Vegetables	Bitter Leaf	26%
	Dried Okra	23%
	Kuka Dried	16%
Legumes nuts and seeds	Soya Beans	66%
	Groundnut (shelled)	31%
	Beans Cake (Akara)	3%
Animal source foods	Fresh Milk (Nono)	16%
	Crayfish (small white)	15%
	Agric Eggs	13%

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