

Cost of a Healthy Diet in Ghana

2023 Annual Report

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Statistics Research and Information Directorate

Ministry of Food and Agriculture



MINISTRY OF
FOOD & AGRICULTURE
REPUBLIC OF GHANA

Highlights

- The Cost of Healthy Diet (CoHD) is the least-expensive combination of available foods that meet the recommendations in Ghana's food-based dietary guidelines. CoHD is an indicator of physical and economic access to healthy diets.
- The national average CoHD was Gh¢10.7 in 2023, with the highest cost recorded in November at Gh¢11.4, and lowest cost in April at Gh¢9.9.
- Vegetables and animal source foods take up the largest share of the total diet cost, accounting for 31% and 27% of the total CoHD respectively.

Data Collection and Methodology

In Ghana, the CoHD is the minimum cost of foods needed to meet daily nutritional goals recommended in Ghana's food-based dietary guidelines, which categorizes food into six groups: starchy staples, oils and fats, vegetables, fruits, legumes, nuts, and seeds, and animal source foods.

The retail price data of agricultural produce used for this analysis was collected by the Statistics, Research and Information Directorate (SRID) of the Ministry of Food and Agriculture (MoFA). The data was obtained from 200 markets from the 16 regions of Ghana. The data collection was done on a weekly basis, and regional averages were aggregated at the end of each month. The total number of food commodities monitored by MoFA is 76 as indicated in Table 1.

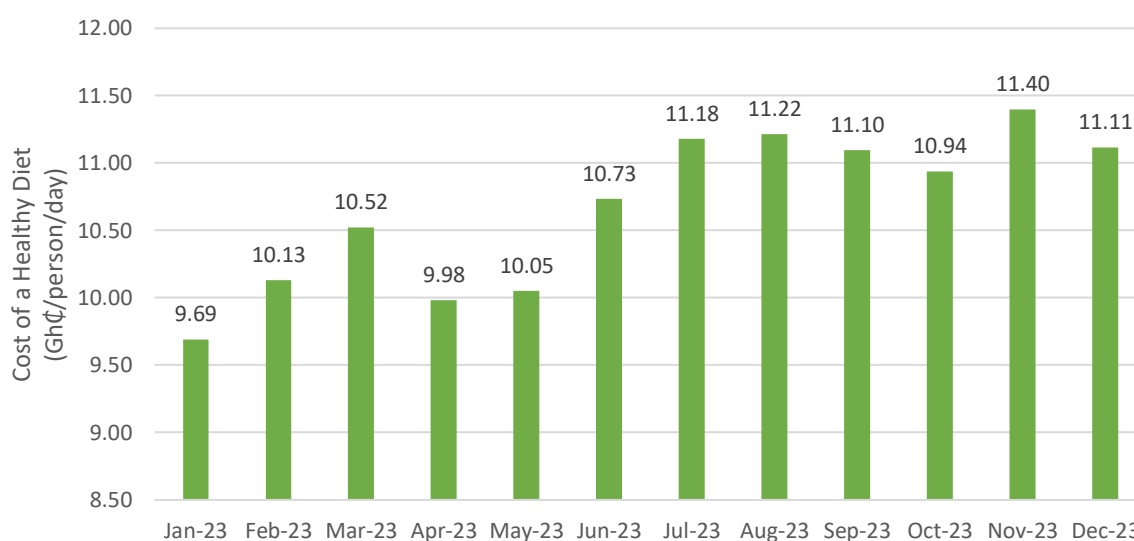
Table 1. Quantified food-based dietary guidelines for Ghana

Food Group	No. of Foods Recommended	Calories Needed (kcal/day)	Share of calories (%)	No. of Items in MoFA Food List
Starchy staples	2	1191	51	21
Oils and fats	1	50	2	3
Vegetables	3	109	5	16
Fruits	2	147	6	10
Legumes nuts and seeds	2	591	25	11
Animal source foods	2	243	10	15
Total	12	2,330	100	76

Cost of a Healthy Diet

The national average Cost of a Healthy Diet (CoHD) was Gh¢10.67 per person per day in 2023, rising by 14.6% within the year from Gh¢9.7 in January 2023 to Gh¢11.1 in December. The Cost of a Healthy Diet lowered in April (Gh¢9.98) and May (Gh¢10.05), compared to the cost of Gh¢10.52 in March (Figure 1).

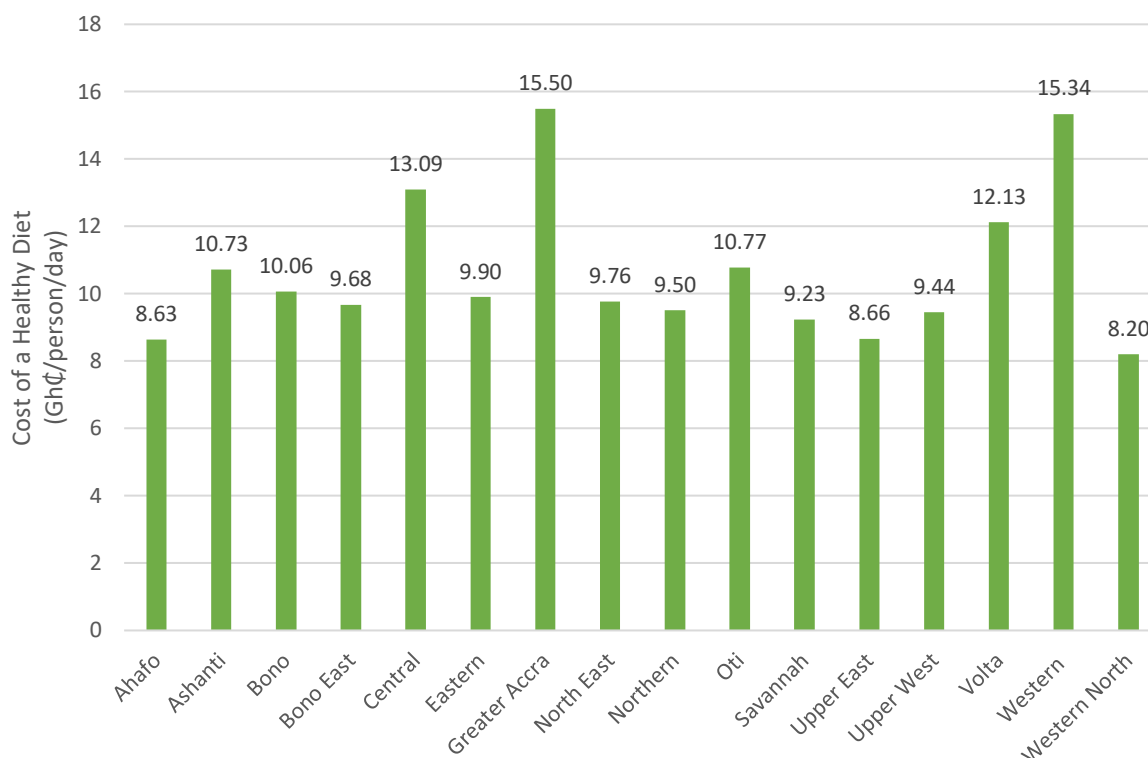
Figure 1. Monthly average Cost of a Healthy Diet



Regional Average Cost of a Healthy Diet

Comparative analysis of the regional CoHD as shown in Figure 2, reveals that the Greater Accra region recorded the highest CoHD at Gh¢15.5, followed by the Western region (Gh¢15.3) and the Central region (Gh¢13.1). The lowest costs were recorded in Western North at Gh¢8.2, Ahafo (Gh¢8.6), and Upper East (Gh¢8.7).

Figure 2. Cost of a Healthy Diet in 2023, by region

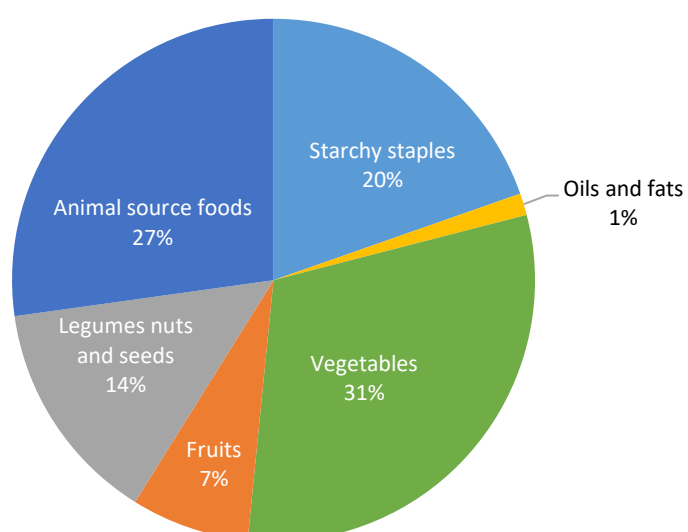


Cost Share by Food Group

The cost share by food group seeks to ascertain the average cost of each food group and to determine which food group cost the highest. The cost share per food group and the shared calories can vary depending on various factors such as geographical location, season, and market conditions.

Vegetables were ranked as the food group with the highest daily cost, accounting for 31% of the total Cost of a Healthy Diet (Figure 3), despite making up only 5% of the recommended calorie share. Animal-source foods, representing 10% of the recommended calories, were the second most expensive food group on average, accounting for 27% of the total diet cost. Fruits accounted for only 7% of the daily cost.

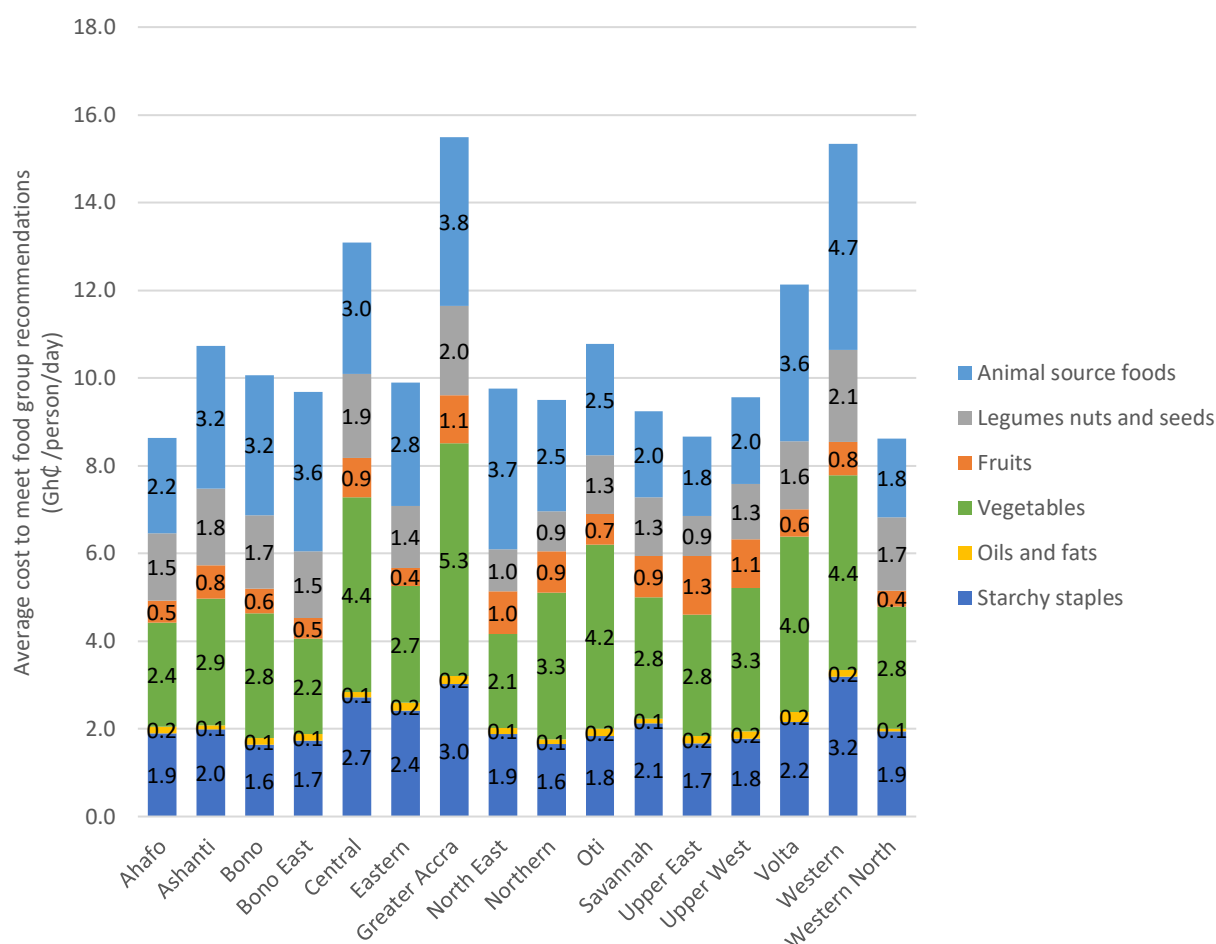
Figure 3: National average food group cost shares



Regional Distribution of Cost Share by Food Group

At the regional level, as seen in Figure 4, Greater Accra was ranked as the region with the highest daily cost of vegetables (Gh¢5.3) whilst Northeast reported the least expensive daily cost of vegetables (Gh¢2.1). Western region had the highest cost for animal source foods at Gh¢4.7, while Upper East and Upper West both had the highest cost for fruits at Gh¢1.3 and Gh¢1.1 respectively. Western Region also had the highest daily cost of starchy staples alongside Greater Accra, at Gh¢3.2.

Figure 4. Food group cost, by region



Frequently Selected Commodities in Each Food Group

The least-cost items selected for the Cost of a Healthy Diet may vary across regions and months of the year. Among vegetables in 2023, alefu was included in 22% of least-cost diets, while carrot appeared in 18% of least-cost diets. For starchy staples, maize was the least-cost starchy staple in 41% of all diets, primarily white maize. Food items in the oils and fats category showed the least diversity, with palm oil and groundnut oil included in 46% and 34% of least-cost diets respectively, and coconut oil included in the remaining 20% of diets.

In the animal source foods category, beef was included in only 7% of the least-cost diet diets, four times less frequent than fish sources such as salted dried tilapia (koobi), which was selected in 28% of the least-cost diets, and anchovy which was selected in 22% of the least-cost diets. In the fruit category, fresh coconut was the most frequently included fruit, found in 44% of least-cost diets, followed by avocado at 32%.

Table 2. Frequently selected least-cost items

Food group	Commodity	No. of least-cost diets that include food as a least-cost items	% of least-cost diets that include food as a least-cost items
Starchy staples	Maize (white)	156	41%
	Dried cassava chips (kokonte)	131	35%
	Maize (yellow)	28	7%
Oils and fats	Palm oil	86	46%
	Groundnut oil	64	34%
	Coconut oil	37	20%
Vegetables	Alefu (amaranthus)	125	22%
	Carrot	101	18%
	Nkontomire	98	17%
Fruits	Coconut (fresh)	165	44%
	Avocado pear	118	32%
	Mango (local)	28	7%
Legumes nuts and seeds	Soya bean	163	44%
	Unshelled groundnut	82	22%
	Groundnut (red)	41	11%
Animal source foods	Salted dried tilapia (koobi)	105	28%
	Anchovy	83	22%
	Kako	36	10%

Notes: Each food item selection is for every unique combination of month and region. The denominator in each % calculation is the number of region-month combinations times the number of items recommended in each food group. For starchy staples, the denominator is 384 (=16 regions x 12months x 2 starchy staples per basket). Only the top three frequently selected items within each food group are shown.

Availability

Prices for some of the 76 food items being monitored were missing in a few regions or months in 2023. Missing prices may be due to a lack of availability at the market level. In 2023, tiger nut was only available in 44% of the region-months (85 out of 192 appearances), while kako was available in 30% of the region-months, and fresh cow milk in only 25% of the region-months. Staples like maize, yam, rice, and millet; and fruits like local banana, orange and watermelon, were available in more than 95% of the region-months in 2023.

Cultural preferences and tastes also have an impact on the demand for specific commodities in certain regions. For example, there is less motivation to distribute snails in certain regions where they are not typically eaten, hence snail was missing in 35% of the region-months.

Relative Changes in the Consumer Price Indices and CoHD

The Consumer Price Index (CPI) is a tool used to measure inflation, which is the average change over time in the prices of goods and services that are consumed by people for their daily needs, while the food index is a subset of the CPI which reflects changes in prices that households pay for food. 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.

Figures 5 and 6 compare the general consumer price index (CPI) and the food CPI calculated by the Ghana Statistical Service, with the Cost of a Healthy Diet. Figure 5 compares the general CPI and the

food CPI (with 2009 as the base year) with the nominal Gh¢ value of the Cost of a Healthy Diet. Figure 6 shows the relative change over the past year. Although all three indicators continued to show a steady increase, the rate of increase of the CoHD was lower than that of the general and food CPI.

Figure 5: Relative Changes in CPI and CoHD (Value)

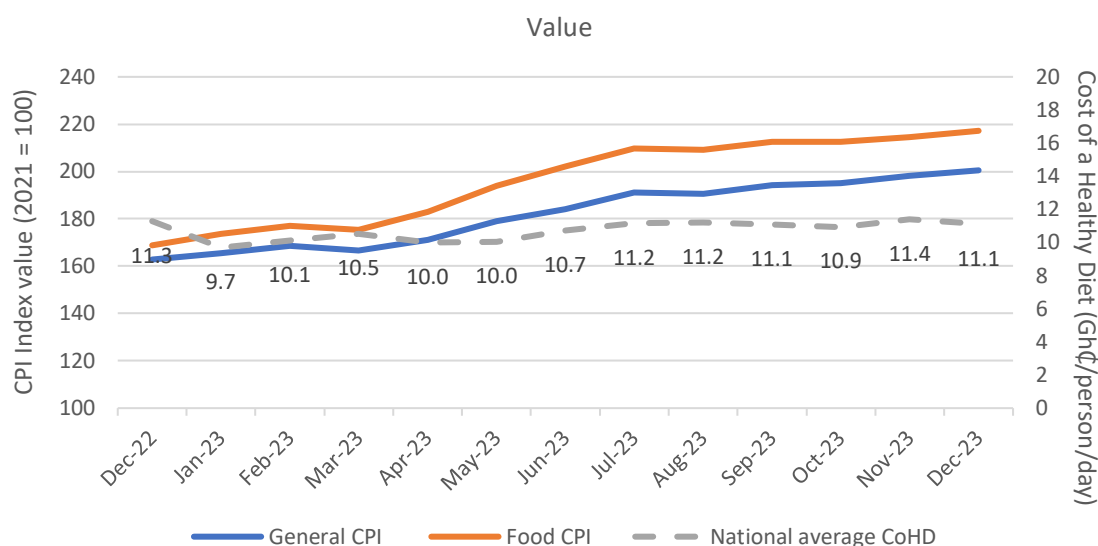
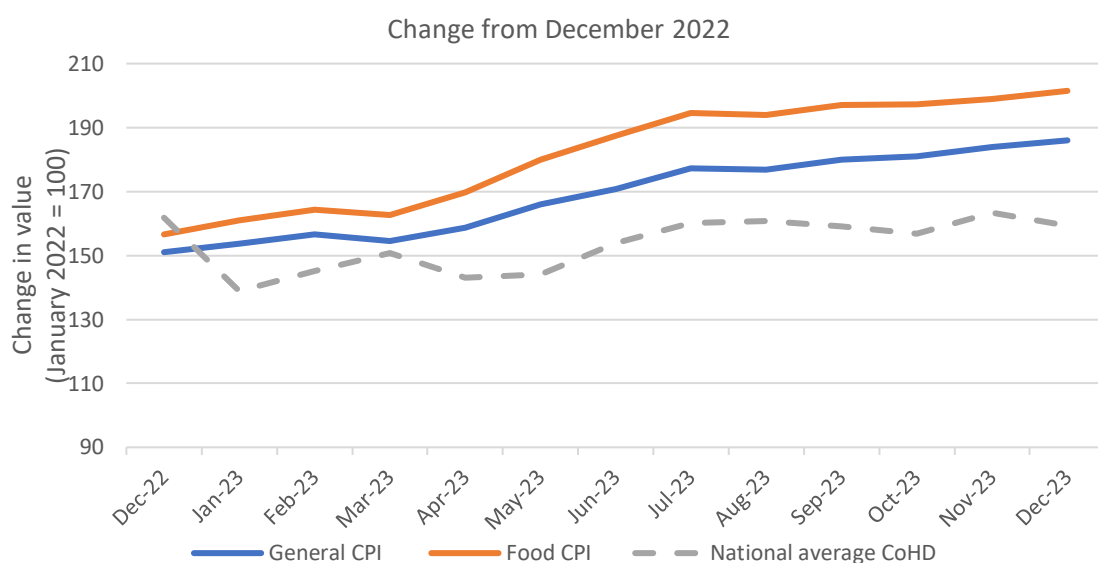


Figure 6: Relative Changes in CPI and CoHD (%)



Policy Implications

The Cost of a Healthy Diet (CoHD) affects an individual's ability to have access to quality food. Analysing the CoHD have positive implications for addressing food security challenges in Ghana. Here are some potential strategies based on policy:

- High costs of vegetables and animal source foods may hinder adherence to recommendations in Ghana's food-based dietary guidelines. Vegetables account for a large portion of the total least-cost diet while contributing a very small share of calories.
- The Cost of a Healthy Diet is higher than the national average in the Western, Greater Accra, and Central regions. Future analysis incorporating incomes can help determine whether diets in those areas are less affordable than in lower cost regions.

- The CoHD lowered in April and May, before rising by 7% in June. More analysis is needed to know what items are driving or lowering costs over different seasons or months.

The Ministry of Food and Agriculture's goals are targeted to mitigate the high cost of healthy diets and to ensure that quality diet is accessible to all. This cannot be effectively achieved without estimating the CoHD. Among the objectives of the National Medium-Term Development Policy Framework (NMTDPF) that are relevant to the ministry are:

- Improve public-private investments in the agricultural sector,
- Modernize and enhance agricultural production systems,
- Improve post-harvest losses and promote agriculture as a viable business among the youth,
- and promote livestock and poultry development.

Again, one way to improve food systems is by allocating resources to commodities for agricultural production and implementing trade and other policy interventions. Strengthening programs like the Outgrower and Value Chain Fund (OVCF) is essential for providing medium to long-term financing to agricultural value chain players, including commercial farmers. Currently, OVCF focus has been on rubber, oil palm, rice, pineapple, maize-soya-sorghum, cassava-gari, cocoa, and poultry-maize schemes. Extending funding to vegetables such as tomato, onion and pepper will bring some relief as these vegetables are important ingredients in most diets in Ghana. This support can facilitate investment in productivity-enhancing measures and infrastructure, ultimately improving food availability.

Support for the bulletin

This bulletin is produced by SRID-MoFA, with technical support from Food Prices for Nutrition project at Tufts University. For questions or comments, please email james.ayithey@mofa.gov.gh or eunice.arhin@mofa.gov.gh.