Food prices, diet costs and the affordability crisis: Needs and opportunities for social protection

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Project site: https://sites.tufts.edu/foodpricesfornutrition

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The ongoing world food crisis is as bad as previous spikes in the cost of food

Average rise in retail food prices relative to all goods and services over previous 12 months worldwide, Jan. 2000 - Dec 2022

Recent world food crises:
- 2008-09
- 2011-12
- 2020-21 (onset of COVID)
- 2022-23 (recovery from COVID)

Food and non-food inflation is now easing in most countries, but real costs remain high

Note: Author’s calculations, from IMF data. The values shown are the global average for up to 138 countries reporting monthly consumer price indexes (CPI) for food and for all goods and services, from January 2000 through December 2022. Each observation is the average monthly rise over the previous 12 months, multiplied by 12 to obtain an annualized value. Number of countries rises from 51 in Jan 2000 to 95 in 2005 and then 138 from 2015 onwards.
Food prices can now be used for targeting of social assistance and guiding food system change

• Food security was initially seen in terms of *calories for survival*
  – Since the 1960s, the FAO has used its “Prevalence of Undernourishment” metric for the number of hungry people in the world, based on total food consumption relative to target levels of *dietary energy*

• Food security was later seen in terms of *access to desired foods*
  – More recently, the FAO and others use “Experience of Food Insecurity” scores for the number of people who went to bed hungry, skipped meals, ate less or fewer items, due to lack of money to buy their *usual foods*

• Now we can monitor nutrition security, as *affordability of healthy diets*
  – Since 2020, the FAO, IFAD, UNICEF, WFP and WHO flagship annual reports on the State of Food Security and Nutrition in the World (SOFI 2020, 2021 and 2022) use retail prices of the least-cost locally available foods for a *balanced diet* that would meet dietary guidelines in each country of the world
  – Methods and results are at [https://WorldBank.org/FoodPricesforNutrition](https://WorldBank.org/FoodPricesforNutrition), and on [FAOSTAT](https://FAOSTAT)

• Using least-cost locally available foods to track affordability of a healthy diet provides a diagnosis to distinguish between causes of malnutrition, guiding action in each country
  – Where and when foods are unusually expensive, need better farm production and food distribution to lower prices
  – For people with insufficient income, need higher earnings or assistance
Policies and programs pursue what is measured

Since 2020, the FAO has published the cost of each country’s least expensive foods needed for health

-- a first step up from calories is vitamins & minerals, like the WFP’s “Fill the Nutrient Gap” programs in humanitarian settings

-- the next step up meets food group targets to meet nutrient needs and also avoid hypertension, diabetes etc., as specified in national dietary guidelines

By 2020, global average minimum cost of a healthy diet had risen to $3.54 (SOFI 2023 will update this)

Global average cost in 2017:

$0.83 Daily energy 
Meets only calorie needs, for short-term survival and physical work

$2.46 Nutrient adequacy
Avoids deficiency or excess of essential macro- and micronutrients

$3.31 Healthy diets
Meets national dietary guidelines by food group

Actual food spending was $5.64

Food preferences, convenience and other goals

For SOFI 2020, we used ten countries’ national dietary guidelines for an average Cost of Recommended Diets (CoRD)

For SOFI 2022, we developed a single global Healthy Diet Basket of 11 items in 6 food groups for a simpler Cost of a Healthy Diet (CoHD)

Methods and options to monitor the cost and affordability of a healthy diet globally

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What foods are included in a least-cost healthy diet?

Foods selected are the least expensive items being sold at the time and place of measurement.

Note: Data shown are each food group’s share of cost per day using ICP 2017 items and prices. Source: Food Prices for Nutrition (2022). https://sites.tufts.edu/foodpricesfornutrition
What have we discovered about the cost and affordability of healthy diets?

Food costs differ but are not lower in low-income countries when measured in real terms, compared to other goods & services.

Least-cost healthy diets are unaffordable for the very poor, about 3 billion people.

Based on overall food price inflation relative to incomes, real costs rose to $3.54 in 2020, higher in 2021 and 2022.

Global average costs in 2017:
- Cost of a healthy diet [CoHD] $3.31 (meets dietary guidelines for overall health)
- Cost of a nutrient adequate diet [CoNA] $2.46 (within upper & lower bounds for nutrients)
- Cost of an energy sufficient diet [CoCA] $0.83 (sufficient calories for work each day)

Diet cost data are from FAO and the Food Prices for Nutrition project, using item prices reported by national statistical organizations through the International Comparison Program (ICP), downloaded from https://databank.worldbank.org/source/food-prices-for-nutrition, and national income (GNI) is from the World Development Indicators https://databank.worldbank.org/source/world-development-indicators. Guidelines are linear in the logarithm of income shown on the horizontal axis.
How does actual spending on food compare to the cost of healthy diets?

Diet cost data are from FAO and the Food Prices for Nutrition project, using item prices reported by national statistical organizations through the International Comparison Program (ICP), downloaded from https://databank.worldbank.org/source/food-prices-for-nutrition. Food expenditures are derived from those data, and national income (GNI) is from the World Development Indicators https://databank.worldbank.org/source/world-development-indicators. Guidelines are linear in the logarithm of income shown on the horizontal axis.

Global average costs in 2017

- Food expenditures (FoodExp) $5.64 (pursues many goals other than health)
- Cost of a healthy diet (CoHD) $3.31 (meets dietary guidelines for overall health)
- Cost of a nutrient adequate diet (CoNA) $2.46 (within upper & lower bounds for nutrients)
- Cost of an energy sufficient diet (CoCA) $0.83 (sufficient calories for work each day)

Average food spending is much greater than least-cost healthy diets in middle- and high-income countries...but that is the national average, many households in these countries cannot afford healthy diets, especially now.

Actual food spending is less than healthy diet costs in low-income countries.

Cost per day at PPP prices in 2017

GNI per capita at PPP prices in 2017 dollars (log scale)
How does affordability of healthy diets relate to food insecurity?

Here, “food insecurity” is a person’s answers to whether they ate less, skipped meals, went hungry etc. for lack of money to buy food. Unaffordability is much more prevalent than food insecurity in LMICs. Food insecurity measures access to a person’s usual foods, which are similar from week to week so what it measures is financial precarity.

Diet costs could be used for targeting and adequacy of social assistance.

- **Food spending per person per day**
  (in local currency or US$ at PPP exchange rates)

- **Min. cost of caloric adequacy**
  (from starchy staples only)

- **Min. cost of nutrient adequacy**
  (typically 4-5 food groups)

- **Min. cost of healthy diets**
  (typically 6-8 food groups)

- **Example assistance program targeted to the lowest-income 25% of people, at an adequacy level sufficient for some to afford a healthy diet**

- **Targeting and coverage could be based on needs to reach nutritional standards for health**

Source: Adapted from graphic introduced by Saskia de Pee (WFP).
Thank you!

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