

# THE COST OF EATING HEALTHY IN KENYA

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# The Cost of Eating Healthy in Kenya



This policy brief highlights the key findings and policy recommendations from the “Cost of Eating Healthy” study, implemented by the African Population and Health Research Center.

## Key highlights



- **Over 80% of households only met four or less of the nine healthy diet recommendations.**
- More than 50% of Kenyan households met healthy diet recommendations for only two components, i.e. total fats (87%) and dietary fibre (71%).
- **No household met all of the nine dietary recommendations.** Households that **met six out of the nine healthy dietary recommendations** spent on **average KES 58,346 (approx. US\$576) per person per year or on average KES 160 (approx. US\$1.60) per person a day** to eat healthy.
- Healthy eating was **more concentrated among wealthier households.**
- Households were more likely to eat healthy if they were of a **higher socioeconomic status; lived in rural areas; had children under five years old; the household head was female; and the head of the household had secondary and higher education and; household head was in a union** (i.e. married/cohabiting).
- Some foods were **sensitive to changes in price** while others were not. **An increase in price** for items such as meat, fish, seafood, milk, cheese, eggs, and fruits **led to reduced demand**. On the other hand, **increasing the price** for oils, fats, roots and tubers, salt and non-essential condiments, sugar and confectionery, and beverages such as coffee and tea **had marginal reductions on demand.**

## Introduction

Low-and-middle-income countries (LMICs) are experiencing a reduction in infectious diseases but an increasing burden of chronic and degenerative diseases such as diabetes and heart disease <sup>1</sup>.

As LMICs transition towards stronger economies, the disease burden of diet-related non-communicable diseases (NCDs) are also rising rapidly, and if left unchecked, it may present a huge and challenging economic burden to the healthcare system <sup>2</sup>.

Sugar-sweetened beverages (SSB) such as carbonated soft drinks and fruit juices, foods high in salt such as salty snacks, processed foods, and foods high in saturated and trans fats are increasingly forming a significant proportion of diets for many people living in LMICs, thus increasing the risk of NCDs including obesity, diabetes and cardiovascular diseases <sup>3</sup>.

The burden of NCDs in Kenya has been increasing, with unhealthy diets being one of the key risk factors <sup>4</sup>. The rapid growth and urbanization of Kenya's population has important implications on its dietary behaviour. Therefore, there is need to understand and address the prevailing and increasing risk factors for NCDs including unhealthy diets. In this study, we assessed patterns, costs, determinants, and inequalities in eating healthy. We also explored price and expenditure elasticities of commonly consumed foods.

## Data Source

Nationally representative data from the 2015/2016 Kenya Integrated Household Budget Survey (KIHBS) was used. The KIHBS provides detailed information on the social and economic aspects of the welfare of the population including household consumption and expenditure information. There were 21, 512 households across the 47 counties that were included for analysis.



## How healthy eating was defined in this study

A Healthy Diet Index (HDI) was generated as a measure of healthy-eating based on the foods consumed by households. The WHO/FAO (2003 & 2018) guidelines were used to provide the healthy diet cut-off values. The table below presents the nine WHO/FAO dietary components and their recommended healthy diet cut-off values.

**Table 1. WHO/FAO dietary recommendations for HDI nutritional components**

	Dietary Component	Recommendations
1	Total Fats	15% - 30% of total energy
2	Saturated fats	<10% of total energy
3	Polyunsaturated fats	6% - 10% of total energy
4	Trans fats	1% - 2% of total energy
5	Total carbohydrates	55% - 75% of total energy
6	Total proteins	10% - 15% of total energy
7	Fruits and vegetables	≥400 g/day
8	Total dietary fibre	≥25 g/day
9	Salt intake	<5 g/day

## Results

### Patterns of eating healthy in Kenya

- More than half of Kenyan households are not meeting recommendations for most of the dietary components except for total fats (86.7%) and dietary fibre (71.0%) where more than 50% of households met the recommendations.
- Compared to urban households, rural households met more of the healthy dietary recommendations for dietary fibre, total protein and total carbohydrates. In regards to fruits and vegetables, saturated and polyunsaturated fats, urban households met more of the healthy dietary recommendations compared to their rural counterparts.

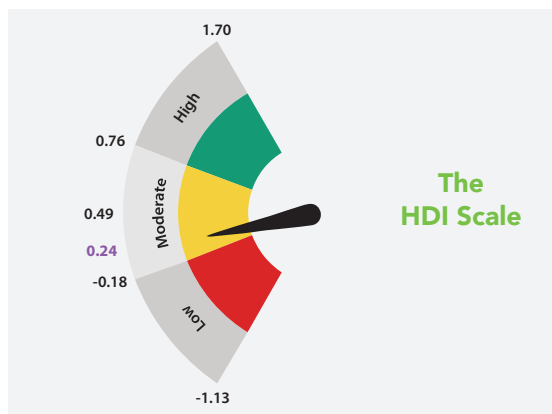
**Table 2: Distribution of households meeting dietary recommendations (by gender & residence)**

HDI Components	Overall (%)	Gender (%)		Residence (%)	
		Female	Male	Urban	Rural
Fruits and vegetables >400g per day	45.2	49.9	43.0	52.0	40.0
Total fat 15-30% of total energy	86.7	88.2	86.0	85.6	87.6
Total carbohydrates 55-75% of total energy	25.3	30.1	23.0	20.8	28.7
Total Protein 10-15% of total energy	20.9	24.6	19.2	14.3	26.1
Saturated Fats <10% of total energy	32.9	33.6	32.6	39.7	27.7
Polyunsaturated Fats 6-10% of total energy	5.0	4.4	5.3	6.5	3.9
Trans Fats <1% of total energy	2.9	2.3	3.2	2.6	3.2
Dietary fibre	71.0	76.8	68.2	56.5	82.1
Salt Intake	45.6	38.7	48.9	47.2	44.4

The generated HDI score ranged between -1.13 and 1.70. Higher HDI scores indicate households that were eating healthier, while the lower HDI scores were households that were eating less healthy.

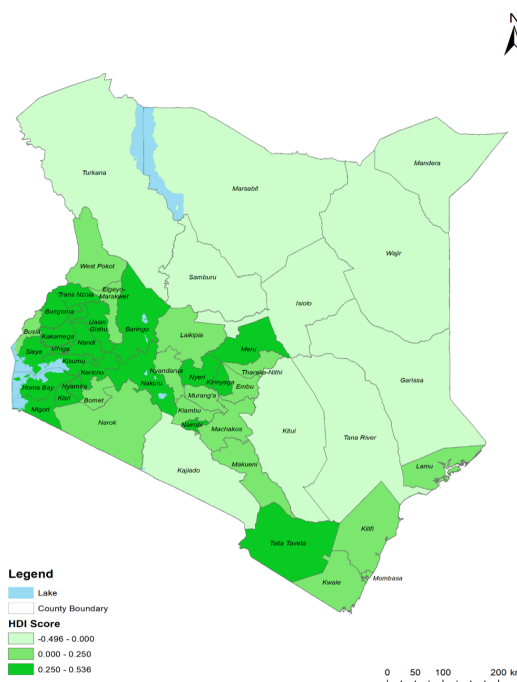
**Table 3. Summary of HDI, Overall, by gender and residence**

Category	Mean HDI Score
<b>Overall</b>	0.24
<b>Gender</b>	
Female	0.25
Male	0.24
<b>Residence</b>	
Urban	0.25
Rural	0.23



- The overall HDI score of Kenyan households was moderate (0.24) indicating that a considerable number of households were not meeting the recommended healthy dietary requirements.
- Overall, the average HDI score was higher for households in the urban areas than those in the rural areas. Female - headed households had a slightly higher HDI score compared to the male - headed households.
- The counties with the highest HDI scores were in Western Kenya.
- Counties neighboring the higher HDI counties had moderate HDI values.
- Counties in the arid and semi-arid lands (ASALS) of Kenya had low HDI values.

**Summary of healthy diet index score in Kenya**



- Majority (84%) of households met four or less of the 9 dietary recommendations.

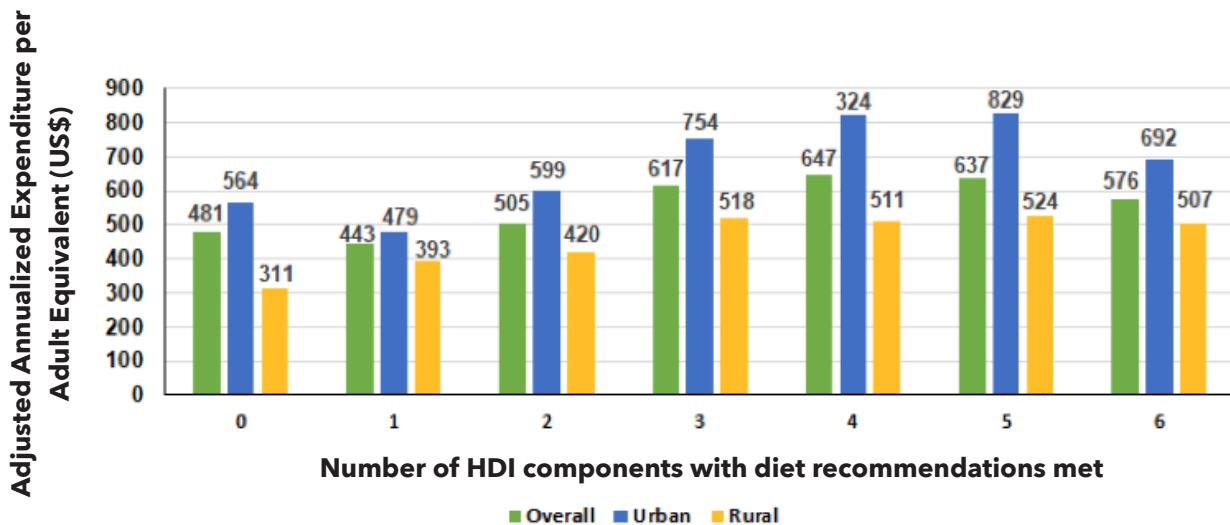
Proportion of households meeting dietary recommendations in Kenya



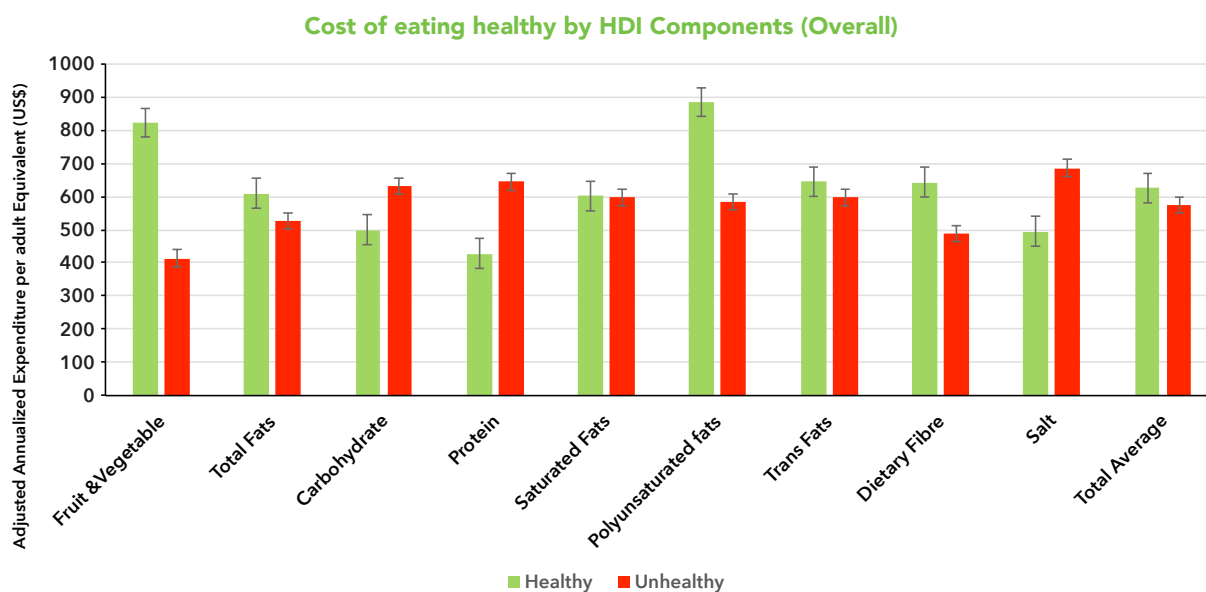
## Cost of eating healthy in Kenya

- Expenditure on food consumption increases with increase in the number of components for which healthy diet recommendations are met.
- Households that met six of the nine healthy diet recommendations spent on average **KES 58,346 (US\$576)** per person per year while those that did not meet any of the recommended dietary requirements spent on average **KES 48,720 (US\$481)** per person per year.
- Households that met six of the nine healthy diet recommendations spent approximately **KES 9,622 (US\$95)** more per person annually compared to those who did not meet the healthy dietary recommendations.

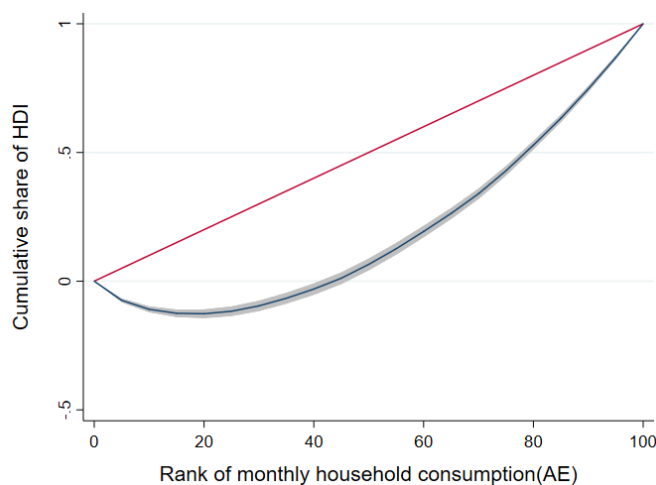
Cost of eating healthy (Overall, urban, rural)



- Households that met the healthy diet recommendations for fruits and vegetables, total fats, polyunsaturated fats, and dietary fibre spent more on average as compared to those that did not meet the recommendations.
- Households that did not meet healthy dietary recommendations for carbohydrates, proteins and salt spent more on average as compared to those that met the recommendations.



## Socioeconomic inequalities in eating healthy in Kenya



- The concentration curve is used to assess inequalities in a population. In this study, the curve plots the HDI scores against the rank of socioeconomic status (SES) of Kenyan households. Regardless of socioeconomic status, if every household in a population had the same HDI scores the concentration curve would be a 45-degree line, suggesting perfect equality (red line/straight line).
- From our analysis, the concentration curve was below the line of perfect equality, which indicated that eating healthy was concentrated more among the households with a higher socioeconomic status.

## Price elasticities of commonly consumed foods in Kenya

- Some foods were sensitive to changes in price while others were not. Increasing the price of (meat, fish and seafood; milk, cheese and eggs; as well as fruits) reduced the demand. Whereas, increasing the price for (oils, fats, roots and tubers, salt and non-essential condiments, sugar and confectioneries, and beverages such as coffee and tea) had marginal reductions on demand.



## Key Recommendations

1. All stakeholders need to work together to create greater awareness on the healthy foods that are available locally and increase people's knowledge while giving them options on the various types of affordable, healthy foods that they can consume.
2. The government should consider approaches that could improve access to healthy foods such as reducing or removing taxes imposed directly or indirectly on foods like milk, cheese and eggs, fruits, fish and seafood.
3. The government needs to implement agricultural programs in ASAL areas to mitigate against food scarcity and related high costs of food in a bid to ensure that residents can access diverse and nutritious food-items.



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