

KNOW WHAT YOU EAT

A Simple Guide to the Kenya Nutrient Profile Model



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KNOW WHAT YOU EAT: A SIMPLE GUIDE TO THE KENYA NUTRIENT PROFILE MODEL

What is the Kenya Nutrient Profile Model (KNPM)?

The KNPM is a tool developed by the Ministry of Health to identify pre-packaged foods and drinks that contain high levels of nutrients of concern, such as sugar, salt (sodium), total fat and saturated fat. Eating too much of these nutrients can increase the risk of diet-related health problems, including heart disease, diabetes, overweight and obesity. The model can be used to support measures that make it easier for Kenyans to identify healthier food choices and create a healthier food environment.



1. WHY THIS MATTERS TO YOU

Non-Communicable Diseases (NCDs) are long-term health conditions such as heart disease, cancer, diabetes and chronic respiratory diseases. Unhealthy diets are an important risk factor for many of these conditions.

A growing global and African challenge

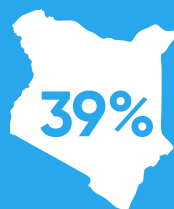
- NCDs are a major cause of illness and death worldwide. At the same time, overweight and obesity are increasing rapidly.
- In 2022, about 2.5 billion adults worldwide were overweight, including more than 890 million living with obesity.



2.5B
adults worldwide
are overweight

The situation in Kenya

- NCDs account for approximately 39% of all deaths. Heart disease, cancer, diabetes and chronic respiratory diseases account for more than half of NCD-related deaths.
- Among adults aged 20–49 years, 45% of women and 19% of men are overweight or living with obesity, with higher levels among women living in urban areas.
- NCDs cost Kenya KES 230 billion in 2016 through healthcare costs and lost productivity, with this cost projected to rise to KES 607 billion by 2030.



**NCDs account
for 39% of all
deaths in kenya**



Most diet related NCDs can be prevented by the choices we make everyday.



Why healthier food environments matter

- Regularly consuming too much sugar, sodium, total fat and saturated fat can increase the risk of non-communicable diseases (NCDs), including high blood pressure, diabetes, heart disease, stroke and some cancers
- Creating food environments that make healthier choices easier is therefore an important part of preventing NCDs in Kenya.
- Kenya aims to cut down on diet-related diseases and build a much healthier future generation. The KNPM provides one of the tools for supporting this effort.



2. NUTRIENT PROFILE MODEL

A **Nutrient Profile Model (NPM)** is a tool used to assess foods and drinks based on their nutrient content.

- Kenya developed the **Kenya Nutrient Profile Model (KNPM)** to provide a consistent way of identifying pre-packaged foods and drinks that contain high levels of nutrients of concern.
- The model sets nutrient thresholds for different food categories.
- In calculating the thresholds, the KNPM uses an estimated daily energy intake of 2,100 kcal for the general population, together with WHO dietary intake recommendations.

The 4 main goals of Kenya's model

			
Set nutrient thresholds: Set clear thresholds for nutrients of concern, including total sugars, sodium, total fat and saturated fat.	Help consumers understand food Products: Provide a basis for information that helps people identify levels of nutrients of concern in pre-packaged foods and drinks.	Support nutrition education: Provide reliable information that can be used to educate consumers about nutrients of concern and healthier food choices.	Guide public health action: Provide a scientific basis for policies and other public health measures aimed at promoting healthier food environments.



3. KENYA NUTRIENT PROFILE MODEL DEVELOPMENT PROCESS AND SCOPE

Making the food list

Before scientists could set any health rules, they had to create a master list of pre-packaged foods sold in Kenya. The main goal of this food listing was to read and record the nutritional labels (the “Nutrition Facts” panels) on everyday grocery items.

To build this database, the research team followed these key steps:



Selection of counties

Eight diverse counties were selected to represent food access, geography, local produce, cultural practices, and cross-border food supply



Selection of field team

An eight-member team was selected for regional expertise, local food system knowledge, and geographical familiarity to ensure accurate data collection.



Training of field team

Field team training covered food identification, data accuracy, nutrient labeling, practical demonstrations, and WHO food-listing protocols for reliable data collection.



Allocation and sampling of food products

Foods were allocated by region, sampled from retail outlets to represent local diets, ensuring diverse, nutrient-rich foods and comprehensive labels.



Data entry and analysis

Food label data was entered, cleaned, integrated into Kenya’s food list, analyzed by categories for nutrient accuracy, and insights detailed



What Foods Does the Model Look At?

The Kenya Nutrient Profile Model is designed to check processed foods and drinks, anything you buy in a wrapper, box, bottle, or can.

It also includes two important considerations:

- **Industrial trans fats:** Processed foods should contain no more than 2g of industrially produced trans fats for every 100g of total fat.
- **Non-nutritive sweeteners:** Foods and drinks containing non-nutritive sweeteners should not be marketed to children.

What is NOT included?

The KNPM does not apply to all foods and drinks. It excludes:



The Eleven (11) Food Categories

The KNPM groups pre-packaged foods and drinks into 11 broad categories. Foods with similar ingredients and uses are grouped together so that appropriate nutrient thresholds can be applied to each category.

Table 1 - The Kenya Nutrient Profile Model Food Categories

Category Number	Food Categories	Examples
1	Confectionaries	Chocolates, sugar confectionaries, energy bars
2	Bakery Products	Fine bakery products, breads, ordinary bakery products
3	Cereals and Cereal Products	Breakfast cereals, pasta, noodles, rice, grain
4	Ready to Eat Snack Foods	Savory snacks, processed nuts, edible seeds
5	Beverages	Soft drinks, fruit/vegetable drinks, flavored/unflavored drinks, coffee/tea/cocoa premixes, nut-based beverages
6	Composite Foods	Foods made from various ingredients, convenience foods
7	Butter, Fat Spreads, Oil Emulsions	Butter, margarine, fat spreads
8	Processed Meat, Fish, Poultry Products	Processed meat, poultry, seafood products
9	Fruits and Vegetables	Dried fruits, canned, pickled, jams, purees, roots, fungi
10	Sauces, Dips, Seasonings, Soups, Dressings	Emulsified and non-emulsified sauces, condiments
11	Dairy Products, Dairy Analogues, Ices	Milk, cheese, frozen desserts, ice creams



4. CONSIDERATIONS FOR THE KENYA NUTRIENT PROFILE MODEL

When scientists and policymakers built the **Kenya Nutrient Profile Model**, they based everything on **8 key considerations (rules)**. These rules make sure the model is fair, accurate, and easy to use.

- i. **Nutrients of Concern** - The model focuses strictly on four nutrients: **sugar, salt (sodium), total fat, and saturated fat**. These are called “nutrients of concern” because eating too much of them directly causes chronic, long-term health problems.
- ii. **Food Categorization** - Foods with similar nutrient composition, ingredients and uses are grouped together so that appropriate thresholds can be applied to each category.
- iii. **Handling Foods Naturally High in One Ingredient** - Some foods are naturally made entirely of one nutrient (like cooking oil, which is 100% fat). The model does not punish cooking oil for being fat. Instead, for these specific foods, the model only looks at the *unhealthy* version of that nutrient—such as the amount of saturated fat in the oil.
- iv. **Focusing on Pre-packaged Foods** - The model applies to pre-packaged foods and beverages, including processed and ultra-processed products.
- v. **How Limits are Calculated (The 100g/100ml Rule)** - To keep things fair, food limits are calculated based on a standard weight of **100 grams** (for solid food) or **100 millilitres** (for liquids), no matter how big or small the official “serving size” is.
 - *The Only Exception: **Sauces, soups, and dressings** (Category 10 – check page 8). Because people only eat tiny amounts of these at a time (like 1 or 2 spoonfuls), the model adjusts the math to look at their actual small serving sizes.*

- vi. **Rounding Off the Numbers** - For consistency, thresholds for fats and sugars are rounded to one decimal place, while sodium is rounded to two decimal places.
- vii. **The Core Assumptions (The Daily Math)** - To calculate the food limits, scientists had to make three major assumptions about how the average Kenyan eats:
 - **The Average Person:** *The model is built for the general population (excluding babies under 3 years old) and assumes the average person needs about 2,100 calories per day.*
 - **Daily Meals:** *It assumes you get 30% of your daily energy from breakfast, 30% from lunch, 30% from dinner, and the remaining 10% from snacks.*
 - **Drinks:** *For powdered juices or concentrated drinks, the math is always based on how the drink looks after you mix it with water and it is ready to drink.*
- viii. **Adopting Global Health Goals** - The KNPM uses WHO African Region population dietary intake goals as a basis for calculating its nutrient thresholds.

Table 2 - The Kenya Nutrient Profile Model Thresholds

No.	Food category	Nutrient thresholds limit for pre-packaged foods per 100g or 100ml			
		Total fat (g)	Saturated fat (g)	Total sugar (g)	Sodium (g)
1.1	Chocolates	7.0	2.3	5.3a	0.21
1.2	Sugar confectioneries	No threshold provided	No threshold provided	5.3a	0.21
1.3	Energy bars	7.0	2.3	5.3a	0.21
2.1	Fine bakery products	8.3	2.8	6.3	0.25
2.2	Breads and ordinary bakery products	8.3	2.8	6.3	0.25
3.1	Breakfast cereals	11.0	3.7	8.3	0.33

3.2	Instant pasta and noodles and like products, rice and grains	1.5	No threshold provided	No threshold provided	0.32
4.1	Ready to eat savoury snacks	7.0	2.3	0.0	0.21
4.2	Processed nuts and edible seeds	No threshold provided	No threshold provided	0.0	0.21
5.1	Fruit and vegetable drinks	No threshold provided	No threshold provided	5.3a	0.21
5.2	Water based Flavoured/ Unflavoured drinks	No threshold provided	No threshold provided	5.3a	0.02
5.3	Coffee premixes, Tea premixes and Cocoa premixes – ready to drink	No threshold provided	No threshold provided	5.3a	0.05
5.4	Cereal, legumes, grain, tree nut-based beverage-ready to drink	No threshold provided	No threshold provided	5.3a	0.05
6.0	Composite Foods	11.6	3.9	8.8	0.35
7.1	Butter	No threshold provided	No threshold provided	0.0	0.21
7.2	Margarine, Fat spreads and oil emulsions	No threshold provided	35.0	0.0	0.21
8.1	Processed meat and poultry products	9.5	3.2	0.0	0.30

8.2	Processed fish and seafood products	8.1	2.7	No threshold provided	0.24
9.1	Processed fruits, vegetables, and legume excluding juices and drinks	5.0	1.7	6.0	0.40
9.2	Solid-form soybean products	8.0	No threshold provided	No threshold provided	0.13
10	Sauces, dips, other seasonings, soups and dressings	8.8	2.9	7.0a	0.35
11.1	Milk and dairy based drinks	4.0	1.3	7.2	0.05
11.2	Frozen dairy - based Desserts and edible ices	4.0	1.3	7.2	0.10
11.3	Other dairy-based desserts	4.0	1.3	7.2	0.21
11.4	Cheese and analogues	22.0	7.3	No threshold provided	0.50



5.APPLICATION AND IMPLEMENTATION OF THE KENYA NUTRIENT PROFILE MODEL

The KNPM provides a scientific basis for developing policies and program that promote healthier food environments in Kenya.

How can you use the KNPM?

The KNPM does not apply to all foods and drinks. It excludes:

Read a label in 4 steps

Look on the back or side of the pack

Nutrition information		
Nutrient	per 100 ml	per serving
Energy		45 kcal
Fat		0 g
Saturated fat		0 g
Carbohydrate		11 g
Sugars		10 g
Sodium		0.01 g
Ingredients: water, sugar, mango pulp (10%), acidity regulator, flavouring		
Example label: mango juice drink		

1 Find the nutrition table

2 Use the per 100 g / 100 ml column

3 Check sugar, sodium, fat, saturated fat

4 Is sugar, salt or oil in the first 3 ingredients?

Result: 10 g sugar is more than the 5.3 g limit for juice drinks → **HIGH IN SUGAR**

Other names for sugar: glucose, fructose, sucrose, syrup, honey, molasses · **Salt:** sodium, MSG, baking soda · **Sodium × 2.5 = salt**

Quick check: common foods

A food is **HIGH** if the label shows **more than** this amount per 100 g or 100 ml



Soda & energy drinks

Sugar 5.3 g • Sodium 0.02 g



Juice drinks

Sugar 5.3 g • Sodium 0.21 g



Crisps & snacks

Sodium 0.21 g • Fat 7 g
Total sugar threshold 0 g



Instant noodles

Sodium 0.32 g • Fat 1.5 g



Bread, biscuits, mandazi

Sugar 6.3 g • Fat 8.3 g • Sodium 0.25 g



Breakfast cereal & porridge

Sugar 8.3 g • Fat 11 g • Sodium 0.33 g



Sausages & smokies

Sodium 0.30 g • Fat 9.5 g
Total sugar threshold 0 g



Yoghurt & milk drinks

Sugar 7.2 g • Fat 4 g



For children: sweets, chocolates, soda, juice drinks and sauces with **any** sugar should not be advertised to them.

How Can the Government Use the KNPM?

The KNPM does not apply to all foods and drinks. It excludes:

Application	Implementation
Food Labels and Rules (Regulations & Standards)	Develop a front-of-pack labelling system that helps consumers at a glance identify foods and drinks that are high in nutrients of concern and indicates when a product contains non-nutritive sweeteners.
Marketing Restrictions	Develop regulations to restrict the marketing to children of foods and non-alcoholic drinks that exceed KNPM nutrient thresholds.
Fiscal policies and subsidies	Develop fiscal measures that discourage consumption of foods high in nutrients of concern and support the production and consumption of healthier foods.

Healthy Meals in Public Spaces (Institutional Policies)	Use the KNPM to set nutrition benchmarks for foods and drinks provided in schools and other public institutions.
Nutrition Education	Develop public awareness and behaviour-change communication to help people understand nutrition information and make healthier food choices.

6. TURNING THE KNPM INTO ACTION: EVERYONE HAS A ROLE

i. Supporting Policy and Regulatory Development

Government will lead the development of policies, regulations and standards that apply the KNPM. CSOs, professional bodies, researchers and consumer groups can contribute evidence, participate in public consultation and advocate for strong measures such as front-of-pack nutrition labelling, restrictions on unhealthy food marketing to children, healthier public food procurement and appropriate fiscal policies.

ii. Stakeholder Engagement and Public Participation

Implementation should involve a wide range of stakeholders, including communities, consumers, health professionals, researchers, CSOs, the media and the food industry. Public participation and dialogue can help ensure that policies respond to public-health needs, are well understood and can be effectively implemented.

iii. Capacity Building

Different groups need the knowledge and skills to understand and use the KNPM. Training can support government officials responsible for implementation and enforcement, while also equipping CSOs, journalists, health professionals, community organisations and consumer groups to interpret the model, communicate it accurately and support public awareness and accountability.

iv. Public Education and Awareness

CSOs, health professionals, community groups, schools, the media and other non-governmental actors can play an important role in helping the public understand the KNPM and related measures such as front-of-pack nutrition labels. Clear and accessible information can help consumers understand nutrients of concern and make more informed food choices.

v. Monitoring, Accountability and Learning

Government, researchers, CSOs and consumer organisations can contribute to monitoring how KNPM-related policies are being implemented. This may include tracking compliance, documenting implementation challenges, gathering public feedback and assessing changes in the food environment over time. The findings can be used to strengthen implementation and inform future policy decisions.



7. GLOSSARY

Policy and Regulation Terms

- **Kenya Nutrient Profile Model (KNPM):** A system that rates packaged foods based on how much sugar, salt, and fat they contain. Kenya uses this model to create health policies, set rules for food labels, and stop companies from marketing unhealthy snacks.
- **Nutrient thresholds:** The maximum amount of sugar, salt, or fat allowed in a food product before it is legally considered unhealthy. These are based on global health guidelines and local eating habits.
- **Warning Labels:** Bold symbols or alerts printed on the front of food packages. They quickly warn shoppers if a product has too much sugar, salt, or fat, making it easy to choose healthier options.
- **Marketing restrictions:** Laws that block companies from advertising unhealthy foods and drinks. These laws especially protect children from being influenced by junk food advertisements.
- **Fiscal Policies:** Measures such as taxes or subsidies that governments can use to encourage healthier food production and consumption.
- **Public Food Procurement:** The rules and standards used when public institutions, such as schools and other government institutions, purchase or provide food.
- **Breast Milk Substitutes (Regulation and Control) Act:** A Kenyan law that regulates the marketing and distribution of breast-milk substitutes and related products and supports appropriate infant and young-child feeding.

Science and Nutrition Terms

- **Non-Communicable Diseases (NCDs):** Long-term, chronic illnesses that you cannot catch from another person. Examples include heart disease, diabetes, cancer, and stroke. They are usually caused by a mix of genetics and lifestyle choices like poor diet and lack of exercise.
- **Nutrients of Concern:** Nutrients that can increase the risk of diet-related health problems when consumed in excess. The KNPM focuses on total sugars, sodium, total fat and saturated fat.
- **Processed Foods:** Foods that have been altered from their natural state in a factory and packaged for stores. They usually have added preservatives, artificial flavors, and high amounts of sugar, salt, or fat.
- **Pre-packaged Food:** Food that is packaged before it is offered for sale and is ready to be presented to the consumer in that packaging.
- **Non-Nutritive Sweeteners:** Man-made chemical sugar substitutes that make food taste sweet without adding extra calories.
- **Total fats:** Are the sum of all healthy and unhealthy fats in food, providing concentrated energy and absorbing vital vitamins.

KNPM Classification Terms

- **Threshold Approach:** A method that compares the amount of a nutrient in a food or drink against a set threshold. If the product exceeds the threshold, it is considered high in that particular nutrient.
- **Nutrition Information Panel:** The section of a food label that provides information about the energy and nutrients contained in the product, usually expressed per serving, per 100 g or per 100 ml.
- **Per 100 g / Per 100 ml:** A standard way of expressing nutrient content so that foods and drinks can be assessed consistently. Solid foods are generally assessed per 100 g, while drinks are assessed per 100 ml.

