REPUBLIC OF KENYA

MINISTRY OF HEALTH

# KENYA NUTRIENT PROFILE MODEL

## FIRST EDITION 2025

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MINISTRY OF HEALTH 2025

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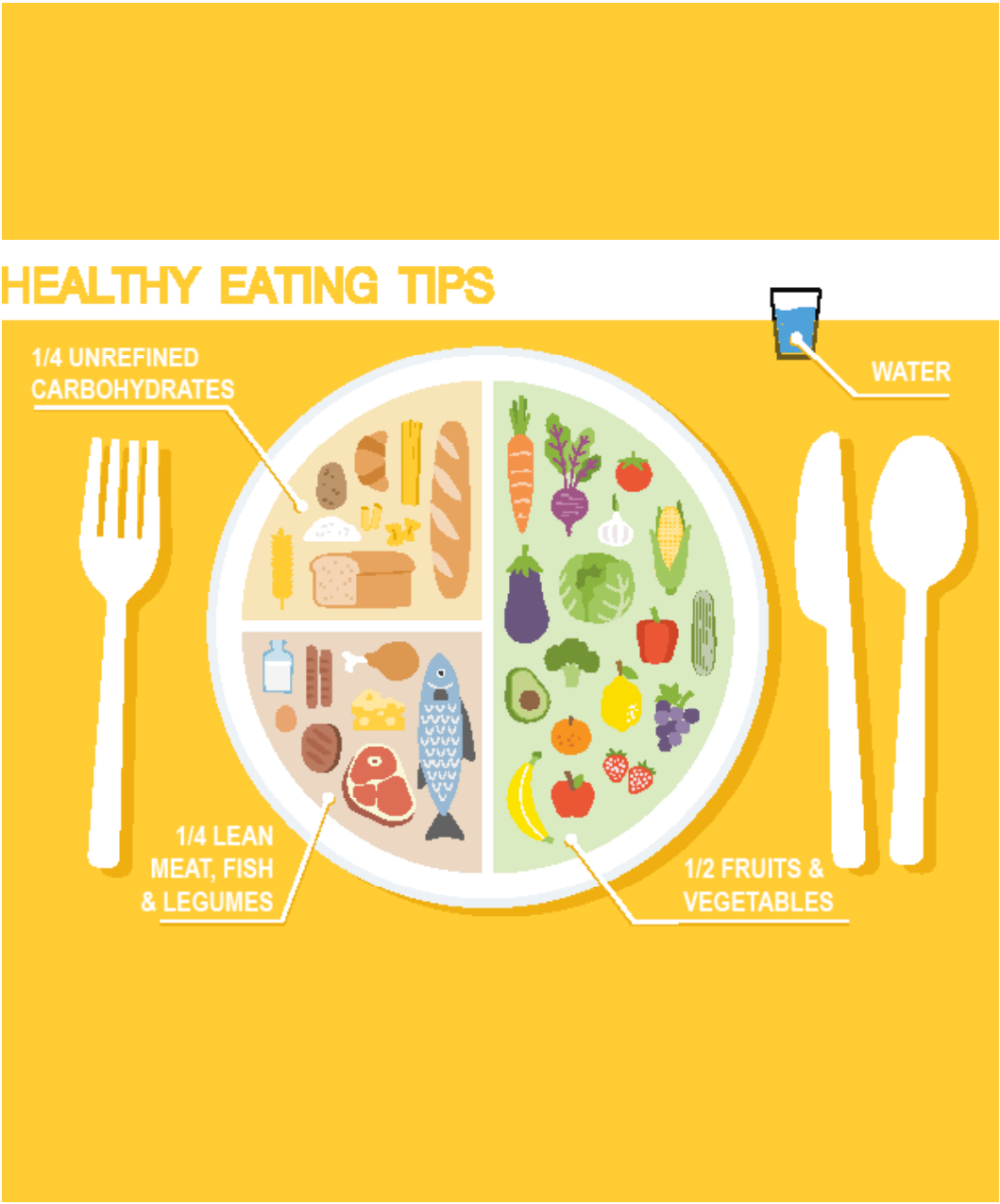
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# FOREWORD

The Constitution of Kenya 2010 under article 43, 1(a) and 1(c) provides every person the right to the highest attainable standard of health and to have adequate food of acceptable quality. Further, article 46 provides consumers the right to goods and services of reasonable quality; to information necessary for consumers to gain full benefit from goods and services; and the protection of their health.

In providing policy directions geared towards the realization of these rights, the Kenya Health Policy 2014-2030 has prioritized halting and reversing the rising burden of non-communicable diseases as one of the priority objectives. However, despite the constitutional rights and the implementation of various public health interventions, non-communicable diseases (NCDs) such as cardiovascular diseases, diabetes, obesity, overweight and cancers represent an increasingly significant burden of ill health and deaths in Kenya. The NCDs account for half of the total hospital admissions and over 55% of hospital deaths, while NCDs alone are responsible for 39% of all the total mortalities in Kenya. One of the major modifiable risk factors for NCDs is unhealthy diets which constitues consuming foods and beverages high in fat, salt (sodium) and/or sugar.

Excess consumption of foods high in calories, fats and sugar and inadequate physical activity is associated with increased risk of overweight and obesity. At least one in four adults (18-69 years) and 4% of children under five years are overweight or obese. According to the Global Nutrition Report 2022, the prevalence of overweight and obesity is higher among Kenyan women aged 18 years and above at 36.9% and 13.4% respectively. On the other hand, 17.3% and 3.6% of men are either overweight and obese respectively.

This data corroborates with the Kenya Demographic Health Survey 2022 indicating that women are more affected than men with 45% of women and 19% of men are obese or overweight respectively. Additionally, overweight and obesity among children and adolescents (5-19 years) is on an upward trend from 9.8% in 2000 to 25.9% in 2019, with girls more affected.

The Kenya Nutrition Action Plan (KNAP) 2023-2027, has prioritized the promotion of healthy diets to prevent, control, and manage diet-related non-communicable diseases in Key result area two (KRA 2). This result area has outlined both policy and community based interventions that will promote consumption of healthy diets in Kenya.

To address the rising burden of diet-related NCDs, there is a need to institute additional public health measures and interventions. Therefore, the Kenya Nutrient Profile Model (KNPM) has been developed to provide guidance aimed at addressing the consumption of foods and beverages high in nutrients of concern {sugar, sodium, and fats (saturated fat and total fat)}. The KNPM has categorized foods according to their nutrient composition based on the FAO/WHO Codex Alimentarius Commission food categorization system. It provides recommended thresholds for nutrients of concern in foods and beverages. It also provides guidance on the implementation of Front of Pack Nutrition Labelling, restriction of marketing of unhealthy food products, and consumer education and awareness.

It will also guide policy development across various ministries, including the Ministry of Health, Ministry of Information, Communication and the Digital Economy, Ministry of Investments, Trade and Industry, Ministry of Education, Ministry of Agriculture and Livestock Development, Ministry of Labour and Social Protection, and The National Treasury and Economic Planning.

It is my sincere hope that the Kenya Nutrient Profile Model (KNPM) will provide a framework for the implementation of robust and well-coordinated multi-sectoral interventions toward the reduction of NCDs in Kenya.

**Dr. Deborah M. Barasa**
Cabinet Secretary
**Ministry of Health, Kenya**

# PREFACE

Kenya, like many other countries, faces a growing challenge of diet related non-communicable diseases (DR-NCDs), driven by changing dietary patterns and lifestyle factors. The consumption of foods high in fats, sugars, and salt has led to an increased prevalence of conditions such as cardiovascular diseases, diabetes, and various cancers. These dietary shifts, alongside decreased physical activity, have contributed to rising rates of overweight and obesity across all demographics, with the impacts especially pronounced among youth, women and urban populations.

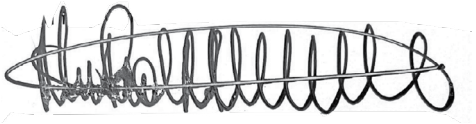
The Kenya STEPwise survey on non-communicable disease risk factors (2015), revealed that a significant portion of the population (94%) does not meet the recommended intake of fruits and vegetables, which are vital sources of micro-nutrients. Additionally, nearly 25% of the population consistently add salt to their food before or during meals, 4% frequently consume processed foods high in salt, and 84% regularly add sugar when preparing beverages at home.

The Ministry of Health, in collaboration with key international and national partners, has developed the Kenya Nutrient Profile Model (KNPM) as a crucial tool to promote consumption of healthy diets in the country. It is designed to set thresholds of pre-packaged foods and beverages based on their levels of nutrients of concern namely total sugar, sodium, total fat and saturated fats to guide public health interventions. This tool will serve as a foundation for policies focused on improving the food environment and will aid in the implementation of front-of-pack labeling, nutrition education, and restriction of marketing of unhealthy foods to children.

The development of the Kenya Nutrient Profile Model (KNPM) involved experts from diverse fields, including nutrition, public health, agriculture, food standards, and civil society, with technical guidance from World Health Organization and UNICEF.

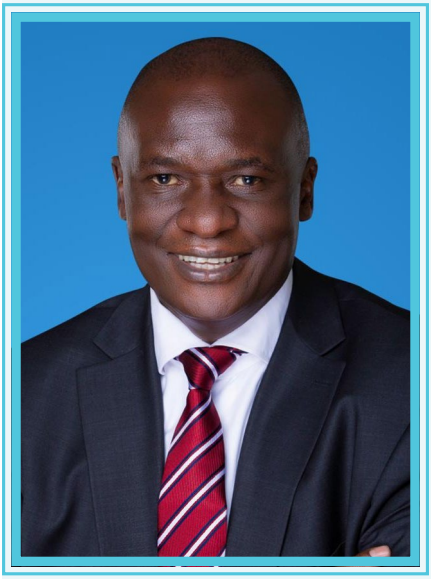
This collaborative effort reflects Kenya's commitment to evidence-based policies and coordinated action to reduce diet related NCDs and promote public health. Through this model, the Ministry of Health aim to empower individuals to make informed dietary choices that benefit their health and well-being, while creating an environment that supports sustainable, healthier food systems for all Kenyans.

The need to promote healthier food choices has never been more pressing and it is my sincere hope that successful implementation of the proposed polices and interventions in the KNPM will shape the food environment in Kenya.



**Mary Muthoni Muriuki, CBS**
Principal Secretary
State Department for Public Health and Professional Standards
**Ministry of Health, Kenya**

# ACKNOWLEDGEMENT



The development of the Kenya Nutrient Profile Model was coordinated by the Ministry of Health through the Division of Nutrition and Dietetics in collaboration with the Division of Non-Communicable Diseases. Overall guidance was provided by the Director General for Health and directors from Directorates of Primary Health Care and Family Health.

The Kenya Nutrient Profile Model is an output of the RECAP programme implemented by the Ministry of Health in collaboration with the World Health Organization (WHO), the International Development Law Organization (IDLO) and the International Development Research Centre (IDRC). Overall technical guidance and financial support was provided by the World Health Organization (WHO); United Nations Children Fund (UNICEF), International Institute of Legislative Affairs (IILA), Kenya Legal and Ethical Issues Network (KELIN), Global Alliance for Improved Nutrition (GAIN), African Population and Health Research Centre (APHRC), NCD Alliance Kenya (NCDAK) and Nutrition International.

I acknowledge the technical support in nutrition labeling and setting of nutrient thresholds provided by Kenya Bureau of Standards (KEBS). I also acknowledge the contribution from county departments of health, Jomo Kenyatta University of Agriculture and Technology (JKUAT) and Nutrition Association of Kenya.

Special recognition goes to the county nutrition teams from eight selected counties for their significant role in collecting pre-packaged foods and beverage samples, which formed the foundation of the food listing during the early development stages of the Kenya Nutrient Profile Model.

During this process (food listing) one county was selected to represent each region which included North Eastern, North Rift, South Rift, Upper Eastern, Lower Eastern, Nyanza, Nairobi, and Coast regions.

I acknowledge the dedication and commitment of the technical team from the Ministry of Health (MOH) and Ministry of Agriculture and Livestock Development (MOALD). Special recognition goes to the following officers: Veronica Kirogo (Director and Head of Divsion of Nutrition and Dietetics) and Dr. Gladwell Gathecha (Head, Division of Cancer and Non-communicable Diseases) for their exemplary leadership during the development process. I also wish to acknowledge the valuable contributions and technical leadership of program officers Leila Odhiambo, Zacharia Ndegwa, and John Mwai from the Division of Nutrition and Dietetics; Peris Mbugua from the Division of Cancer and Non-Communicable Diseases; and Dr. Mary Mwale, Head of the Food Security Unit at MOALD.Their commitment towards the development of this first edition of the KNPM will always be remembered in shaping the food environment policies in Kenya.

**Dr. Patrick Amoth, EBS**
DIRECTOR GENERAL FOR HEALTH
**Ministry of Health, Kenya**

# ABBREVIATIONS

| | |
|---|---|
| APHRC | African Population and Health Research Center |
| CVDs | Cardiovascular Diseases |
| DALYs | Disability-Adjusted Life Years |
| DR-NCDs | Diet-Related Non-Communicable Diseases |
| FOPNL | Front of Pack Nutrition Labelling |
| GAIN | Global Alliance for Improved Nutrition |
| IDLO | International Development Law Organization |
| IDRC | International Development Research Center |
| IEC | Information, Education and Communication |
| JKUAT | Jomo Kenyatta University of Agriculture and Technology |
| Kcal | Kilocalories |
| KDHS | Kenya Demographic Health Survey |
| KEBS | Kenya Bureau of Standards |
| KFCT | Kenya Food Composition Tables |
| KNAP | Kenya Nutrition Action Plan |
| KNPM | Kenya Nutrient Profile Model |
| NCDs | Non-communicable Diseases |
| NPM | Nutrient Profile Model |
| PAHO | Pan American Health Organization |
| RECAP | Global Regulatory & Fiscal Capacity Building Program |
| SBCC | Social and Behaviour Change Communication |
| SEAR | South-East Asia Region |
| SSA | Sub-Saharan Africa |
| SSB | Sugar-Sweetened Beverages |
| WHO- AFRO | WHO-Regional Office for Africa |
| WHO | World Health Organization |

# DEFINITION OF TERMS

**Added sugars:** Sugars added to foods and beverages by the manufacturer during processing or preparation.

**Comminuted:** Reduced in size, including without limitation, by chopping, flaking, grinding or mincing.

**Composite food:** Pre-packaged food products that are made by combining different food groups or combining multiple ingredients.

**Food categorization:** Grouping of food products with similar nutrient composition, ingredients and intended use.

**Food listing:** The process in which pre-packaged food items were collected from markets in Kenya for the purpose of analysing the declared nutrients on the product label.

**Free sugars:** Include monosaccharides and disaccharides added to foods and beverages by the manufacturer and sugars naturally present in honey, syrups, fruit juices and fruit juice concentrates.

**Fruit drink:** A manufactured beverage intended for direct human consumption that contains fruit juice, fruit pulp or other edible parts of the fruits. It may be made from a single (single-strength fruit juice) or a mixture of two or more fruits. It may be sweetened with nutritive and/or non-nutritive (intense) sweeteners with or without added carbon dioxide and other permitted food additives.

**Fruit juice:** liquid obtained from the edible part of sound, appropriately mature and fresh fruit or of fruit maintained in sound condition by suitable means- directly expressed by mechanical extraction processes

**Non-communicable diseases:** a group of conditions that are not mainly caused by an acute infection but result from physiological, behavioural and metabolic factors such as raised blood pressure, overweight/obesity, hyperglycemia and hyperlipidemia. These conditions share common risk factors that are related to excessive consumption of sodium, sugar and fat.

**Nutrients of concern:** Specific nutrients that have significant public health implications if taken in excess of recommended levels. In this case refers to Total Sugar, Sodium, Total Fat, and Saturated fat.

# DEFINITION OF TERMS

**Pre-packaged food:** Products packaged or manufactured in advance in a container, ready for offer to the consumer for direct consumption or catering purposes.

**Processed food:** Foods that have been modified from their original or whole state and it includes minimally to ultra-processed foods.

**Saturated fat:** Saturated fatty acids are fat molecules with no double bonds between carbon atoms, meaning all carbon bonds are saturated with hydrogen. In the diet, they commonly include myristic (C14:0), palmitic (C16:0), and stearic acid (C18:0). However, in certain foods like milk fat and coconut oil, saturated fatty acids can range from short-chain (C4:0) to long-chain (C18:0) fatty acids.

**Threshold:** Limit or boundary that defines a set point. It is used to determine whether a food item is considered higher or below the set threshold in a particular nutrient of concern.

**Total fat:** The total fat of a food product composed of an ester of fatty acids which are differentiated based on their chemical formula and structure (saturated fatty acids, mono-unsaturated fatty acids, and poly-unsaturated fatty acids).

**Total sugars:** Sugar content of the food product, which may be composed of intrinsic sugars incorporated within the structure of intact fruit and vegetables(fructose); sugars from milk (lactose); and all additional monosaccharides and disaccharides added to foods by the manufacturer, cook, or consumer, plus sugars naturally present in honey, syrups and fruit juices.

**Trans-fatty acids:** Unsaturated fatty acids that contain at least one non-conjugated double bond in the trans configuration resulting in a straighter shape. They can come from either industrial or natural sources.

**Ultra-processed food products:** Are industrial formulations made entirely or mostly from substances extracted from foods (oils, fats, sugar, starch, and proteins), derived from food constituents (hydrogenated fats and modified starch), or synthesized in laboratories from food substrates or other organic sources (flavour enhancers, colors, and several food additives used to make the product hyper-palatable).

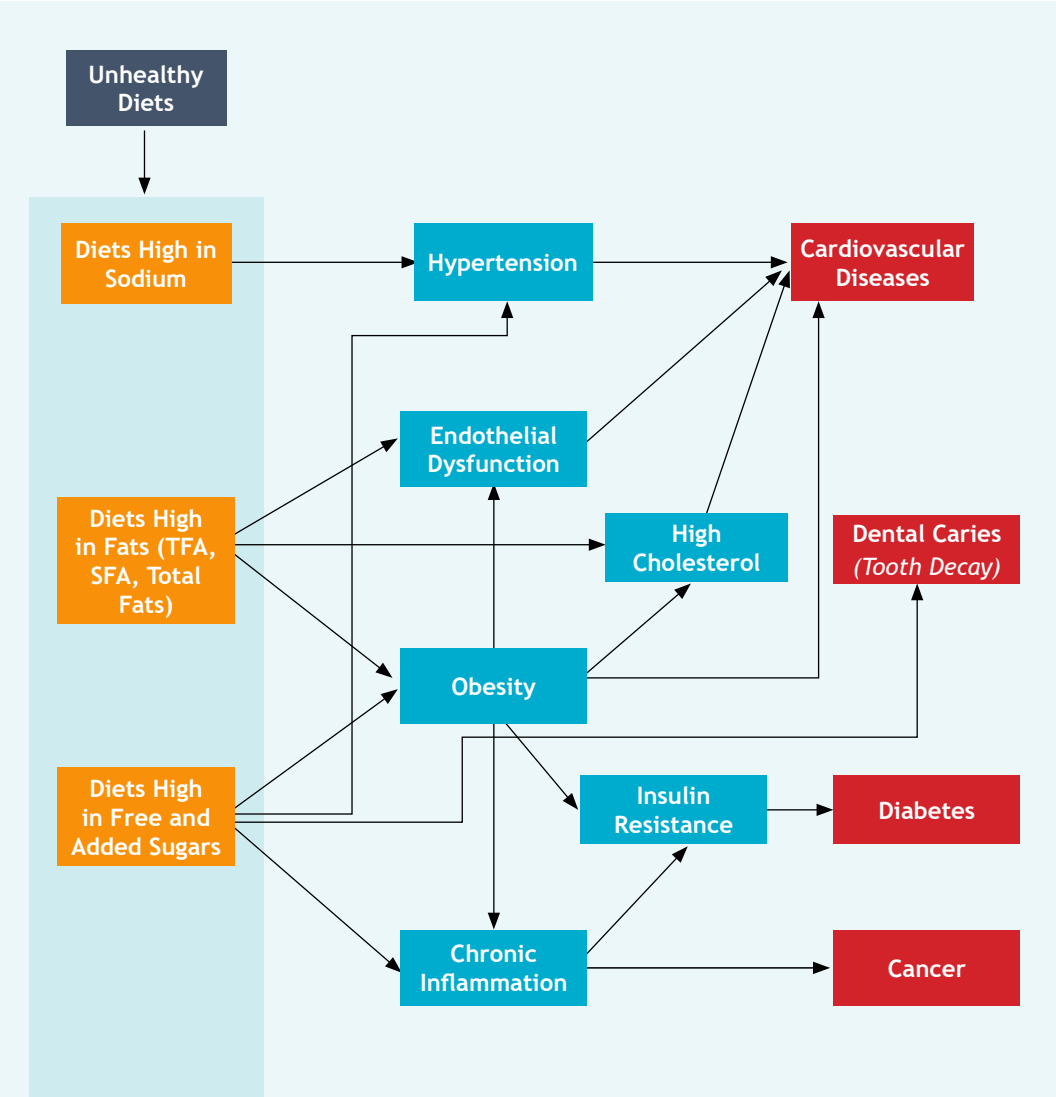



Figure 1: The relationship between unhealthy diets and Non-communicable Diseases *(https://www.frontiersin.org)*

# CHAPTER 1

## 1.1 INTRODUCTION

Kenya, like most of the low- and middle-income countries (LMICs) is still grappling with double burden of diseases - combating infectious diseases amidst a growing prevalence of non-communicable diseases (NCDs). The rise in the burden of non-communicable diseases in Kenya such as obesity, diabetes, and cardiovascular diseases is significantly fuelled by the widespread availability and consumption of processed foods and beverages that are high in sugar, fat and sodium. This is further compounded by aggressive marketing strategies that promote these products to portray them as healthy and a quick alternative to consuming healthy food products. Consequently, this makes it difficult for consumers to make healthy dietary choices, thus, exacerbating the prevalence of NCDs.

**To halt and reverse the rising burden of NCDs, there is an urgent need to implement policies that focus on regulating the nutritional quality of foods and beverages at the same time restricting the marketing of unhealthy foods.**

To halt and reverse the rising burden of NCDs, there is an urgent need to develop and implement policies that focus on regulating the nutritional quality of foods and beverages at the same time restricting the marketing of unhealthy foods. A comprehensive and evidence-based approach such as a nutrient profile model is essential to create an environment that supports healthier eating habits and reduces the risk and burden of DR-NCDs. The Nutrient profile model is a useful tool in classifying processed, ultra-processed food and non- alcoholic beverages based on nutrients of concern such as sugar, sodium, total fat, transfat and added sugar. It guides policy makers to identify unhealthy products and use public policies to discourage their consumption.

The Kenya Nutrient Profile Model (KNPM) provides clear criteria for identifying healthier food options based on the nutrients of concern (Total sugar, total fat, saturated fats and sodium). It also provides guidance on development of strategies that will empower consumers with accessible nutritional information and to make quick and easy food choice at a glance. In addition, it will guide policymakers in developing effective regulations on front of pack labelling, restriction of marketing of unhealthy food products, developing of consumer awareness and education programs and fiscal policies to promote consumption of healthy foods in Kenya. The successful implementation of the KNPM, will be a significant step towards combating diet-related NCDs and promoting a healthier future population in Kenya.

## 1.2 GLOBAL BURDEN OF NON-COMMUNICABLE DISEASES

Non-Communicable Diseases (NCDs) are the leading cause of premature deaths worldwide. Every year, 41 million people die from heart attacks, stroke, cancers, chronic respiratory diseases, diabetes, or mental disorders (1). This represents approximately 74% of all global deaths, significantly impacting economies (2). A substantial proportion of these deaths—17 million—occur prematurely among individuals aged 30-70 years, and 77% of these deaths occur in LMICs (1).

Additionally, excessive consumption of foods and beverages high in sugar, has contributed the rising burden of dental caries with more than 2 billion people suffering from caries of the permanent teeth and approximately 514 million children suffering from caries or primary teeth (Global Oral Health Status Report, 2022).

In terms of attributable deaths due to risk factors, 19% of global deaths annually are caused by elevated blood pressure, followed by overweight and obesity and raised blood glucose (2). A further 4.1 million annual deaths have been attributed to excess salt intake.

**(In 2022, the prevalence of diabetes was at 10.5% (537 million adults 20–79 years) resulting in 6.7 million deaths globally [4].)**

Changes in dietary and physical activity patterns have also resulted in a sharp increase in the global burden of overweight and obesity. The worldwide prevalence of obesity nearly tripled between 1975 and 2016 (3). In 2022, an estimated 2.5 billion adults were overweight, with 890 million living with obesity. Additionally, 37 million children under the age of five and 390 million children between the age of 5-19 were overweight (1). In 2022, the prevalence of diabetes was at 10.5 % (537 million adults between the age of 20- 79 years) and resulted in 6.7 million deaths (4).

## 1.3 BURDEN OF NON-COMMUNICABLE DISEASES IN AFRICA

Sub-Saharan Africa (SSA) is experiencing an epidemiological transition of disease patterns from communicable to non-communicable diseases causing a significant increase in chronic diseases (7). Specifically, NCDs have caused a substantial growing burden of death and disability in SSA, between 2010 and 2015. The prevalence of overweight and obesity increased from 4.5% to 11.1%, diabetes from 11.9% to 15.6%, and hypertension from 18.2% to 26.5%. It is projected that by 2025, the prevalence of obesity, diabetes, and hypertension will increase to 25%, 24%, and 42% respectively (8).

The prevalence of overweight in the Africa region is 35% with females more likely to be overweight than males. Obesity has similar trends, with a median of 12% among the adult population. This implies that NCDs will soon be a leading cause of ill health, disability, and premature death in the region, and will have an adverse impact on socioeconomic development (9).

## 1.4 THE BURDEN AND TRENDS OF NCDS IN KENYA

In Kenya, non-communicable diseases have emerged as conditions of great public health concern (10). Approximately, 39% of all deaths in the country are attributable to NCDs. The four major NCDs: Cardiovascular Diseases (CVDs), cancers, diabetes and chronic respiratory diseases comprise 57% of all the NCD deaths. Additionally, it is noteworthy that 53% of NCDs and 72% of injury disability-adjusted life years (DALYs) occur among persons aged 40 years and below (11).

**Non-communicable diseases contributed to an economic loss of KES 230 billion from medical expenditures and indirect loss of productivity in 2016.**

According to the Kenya Demographic Health Survey, 2022, the prevalence of overweight and obesity among adults aged 20-49 has increased over time, with 45% of women and 19% of men being obese or overweight (12). There was however a disparity among women aged 20-49 living in urban and rural areas, where 53% of women aged 20-49 in urban areas were overweight or obese compared with 39% in rural areas. Among men of the same group, 25% of men aged 20-49 in urban areas were overweight or obese compared with 14% in rural areas. The rise in the prevalence of overweight and obesity may be due to dietary and behavioural risk factors. The STEPwise Survey (13) reported a relatively high consumption of salt, sugar, fats, and sugar-sweetened beverages. About 25% of the adult population add salt or salty sauces to their food before eating or while eating, 84% always add sugar when cooking or preparing foods and beverages at home and 40% use saturated fats when preparing foods at home (9).

According to the Kenya National Oral Health Survey Report (2015), the prevalence of dental caries among children of 5,12 and 15 years old was 23.9% and it was higher among five year-old children at 46.3% when compared to the other age groups (14).

According to the NCD Investment case 2015, non-communicable diseases contributed to an economic loss of KES 230 billion from medical expenditures and indirect loss of productivity in 2016. Further, this is projected to rise to 607 billion in 2030. NCDs also reduce household income by 28.6% and were associated with a 23.1% reduction in household income relative to a household affected by communicable diseases (15).

## 1.5 NUTRIENT PROFILE MODEL

Nutrient Profile Models (NPM) are algorithms for classifying or ranking processed and ultra-processed foods and beverages. It provides a method of differentiating between foods and non-alcoholic beverages based on nutrients of concern (sodium, sugar, fats, and saturated fats content). The nutrients profiled are selected based on the health-related outcomes associated with excess consumption. Sodium, sugar, saturated fat and trans-fat have been a focus of WHO nutrient profiling because of their association with overweight, obesity, hypertension, diabetes and cardiovascular diseases (15).

**Nutrient Profile Models vary in complexity and detail, but are classified based on two main approaches:**

i. **A threshold approach:** Employs thresholds of specified nutrients of concern whereby each nutrient is analysed individually in relation to its threshold. If one or more of the target nutrients is either above or below the threshold, the product is considered to have failed or passed.

ii. **A scoring system:** a score is derived from a combination of thresholds for different nutrients assigned. The decision on the application will depend on the value or cut-offs of the score and may vary from one model to another.

**The Kenya Nutrient Profile Model, applies the threshold approach.**

## 1.6 GENERAL PRINCIPLES IN DEVELOPING NUTRIENT PROFILE MODELS

**The Nutrient Profile Model should be:**

- Clear and relevant to the intended purpose
- Appropriate for the identified purpose
- Systematically developed in a way that involves all relevant stakeholders
- Based on sound scientific evidence
- Rational and logical

## 1.7 OBJECTIVES OF THE KENYA NUTRIENT PROFILE MODEL

**The primary objectives are:**

a) To establish thresholds for nutrients of concern exposing the population to increased risk of developing DR-NCD.
b) To serve as a basis or reference of the development of guiding documents to assist consumers in the identification of levels of nutrients of concern in pre-packaged foods.
c) To provide a basis for consumer education in relation to nutrients of concerns
d) To guide any other public health interventions in relation to nutrients of concern.

NPM can be used to formulate public policies, strategies, and interventions to promote the consumption of healthy diets and to regulate marketing and promotion, procurement, food labeling, health claims and influence fiscal policies on foods and non-alcoholic beverages.

## 1.8 JUSTIFICATION FOR KENYA NUTRIENT PROFILE MODEL

The production, consumption and growing availability of attractive, palatable, low-cost ultra-processed foods are steadily increasing globally, a trend that is undermining the promotion of consumption of natural or minimally processed and freshly prepared foods (5). The consumption of unhealthy foods that are high in calories, fat, salt and sugar are risk factors for the onset of DR-NCDs (16,17). Unhealthy diets are estimated to make a greater contribution to the NCD burden than alcohol, smoking and physical inactivity combined.

A systematic review of dietary behaviours in sub-Saharan countries including Kenya, revealed relatively low consumption of healthy foods, such as fruits and vegetables and widespread consumption of unhealthy foods such as sugar-sweetened beverages (18). Inadequate knowledge and lack of consumer awareness of the risk factors associated with excess consumption of the nutrients of concern have contributed to the rising burden of NCDs in Kenya. The current food labeling system (back-of-pack label) does not assist the consumer to easily identify pre-packaged products containing excessive nutrients of concern.

Kenya adopted the WHO ranges of population dietary intake goals for foods and non-alcoholic drinks for the prevention of diet-related non-communicable diseases that provides the acceptable levels of consumption of specific nutrients as a percentage of daily energy requirements (Table 1) in the development of the Kenya Nutrient Profile Model. These goals guided the calculations of thresholds of nutrients of concern (salt, total sugar, fat, and saturated fatty acids content) across all the food categories. For purposes of the KNPM, average daily energy requirements (2,100 kcals) for a healthy general population, are considered as the basis for setting the thresholds.

The Kenya Nutrient Profile Model will guide in classifying pre-packaged food and beverages that are in excess of nutrients of concern. It will be a useful guide in the implementation of the priority interventions such as front-of-pack nutrition labeling, consumer awareness and regulation of marketing of unhealthy foods and beverages.

**THE KENYA NUTRIENT PROFILE MODEL WILL GUIDE IN CLASSIFYING PRE-PACKAGED FOOD AND BEVERAGES THAT ARE IN EXCESS OF NUTRIENTS OF CONCERN.**

# CHAPTER 2

## Kenya Nutrient Profile Model Development Process and Scope

### 2.1 DEVELOPMENT PROCESS

The Kenya Nutrient Profile Model was developed through a multi-stakeholder engagement process. This included a team of experts drawn from the Ministry of Health (Division of Nutrition and Dietetics and Division of Cancer and Non-Communicable Diseases), Ministry of Agriculture and Livestock Development, Kenya Bureau of Standards, County Governments, UN agencies, development partners, food and beverage industries, Consumer Organizations, Academia, and research institutions.

Technical support was provided by the World Health Organization (WHO), both from Kenya Country Office and WHO Geneva. Additional insights were drawn from experts in countries that have developed or are in the process of developing Nutrient Profile Models (NPM), including Australia, South Africa, and Zambia. In addition, Nutrient Profile Models from WHO AFRO, Southeast Asia Region (SEAR) and Pan American Health Organisation (PAHO) were reviewed and used as reference material.

To facilitate the development of the food categories, a market survey was conducted in eight selected counties representing food consumption patterns. These eight counties to some extent represented agro-ecological regions in the country. The purpose of the survey was to collect data on the nutrient information in pre-packaged foods that are locally available in the markets.

### 2.2 FOOD LISTING

The purpose of the food listing was to collect information on the current nutritional information declared on pre-packaged foods consumed in Kenya. The food listing took the following steps:

#### i Selection of the Counties

The sampling exercise was conducted in eight regions representing all the 47 counties. The specific counties included Nairobi, Machakos, Marsabit, Kajiado, Turkana, Kisii, Mombasa, and Garissa. These were selected based on their centrality in food access, geographical location, unique produce and value-added products, and their proximity to neighbouring countries, which facilitates access to cross-border food supplies. Within the regions, an assumption was made that the food consumption patterns were similar and were clustered based on the cultural practices, food consumption patterns and types of foods available.

### ii Selection of the Field Team

The selected field team comprised of eight members (1 per region). The selection process considered the following factors: regional distribution, technical expertise in nutrition and geographical understanding of the region.

### iii Training of the Field Team

Field teams were trained virtually on the objectives of the Kenya food listing, the foods and beverages to be collected and the importance of the exercise. The team was taken through data collection and entry process using a guide adapted from the WHO pretested food-listing tool. The team was trained on how to identify all the nutrients declared on the food label, with special emphasis on the commonly consumed foods and beverages in the region. Photos of food labels were used to demonstrate how to identify and list the nutrients of concern.

### iv Allocation and Sampling of Food Products

The allocation of different food categories per region was determined by the availability and access of particular food and beverage items. Different regions were allocated specific food categories to minimize duplication. Foods were sampled from small, medium and large retail outlets. In selecting foods within a given food category, various brands with adequate nutrition labeling information were sampled.

### v Data Entry and analysis

Data entry and cleaning of nutritional information relating to the nutrients of concern of the foods and beverages was done at the county level using an Excel-based tool. Lists of foods from all the regions were then compiled into the Kenya food list. This data was analysed according to the 11 food categories developed in Kenya. For a comprehensive analysis of foods listed per category and those declaring all the nutrients of concern in Kenya, see Annex 3 (Food Listing Analysis).

## 2.3 SCOPE OF KENYA NUTRIENT PROFILE MODEL

The Kenya Nutrient Profile Model applies to pre-packaged foods and beverages and provides thresholds for nutrients of concern (total sugars, sodium, total fat and saturated fat).

The Kenya Nutrient Profile Model also recommends that all processed foods should not contain more than 2g of industrially produced trans fats (iTFAs) per 100g of the total fat. Further, food and beverage products with non-nutritive sweeteners should not be marketed to children. This is in line with the WHO recommendations.

It excludes food products specifically manufactured for infants and young children below 36 months, which are regulated under the Kenya Breast Milk Substitutes Act (BMS) and other Kenya standards.

It also excludes food products for special medical purposes, and food products for special dietary uses, food products with very low nutritional contributions, such as natural herbs and spices, plain tea, plain coffee and alcoholic beverages.

## 2.4 FOOD CATEGORIES IN KENYA NUTRIENT PROFILE MODEL

The Kenya Nutrient Profile Model establishes 11 broad food categories (Confectionaries; Bakery products; Cereals and cereal products; Ready to eat snacks; Beverages; Composite foods; Butter, fat spreads and oil emulsions; Processed meat, fish, and poultry products; fruits and vegetables; Sauces, dips, other seasonings, soups and dressings; and Dairy products, dairy analogues and ices). The categories were based on the Codex general standards for food additives categorization concept and WHO AFRO Nutrient Profile Model and customized to incorporate foods and beverages that are commonly consumed in Kenya. Minor adjustments were also made on the names and definitions of the food categories to align with the food names and terminologies used in Kenya's food policy documents, regulations and standards.

The 11 broad food categories were based on the nature and presentation of the products with a nutrient threshold applying to each food category. The food categories aim at grouping products with the same or similar ingredients and whose intended use is similar. This grouping makes it possible to have a nutrient threshold applicable to all the individual products. Some of the categories have sub-categories to allow distinction in thresholds for products that may not be the same or used in the same manner. The KNPM food categories are shown in table 1 below:

**THE KENYA NUTRIENT PROFILE MODEL ESTABLISHED 11 BROAD FOOD CATEGORIES**

1. Confectionaries;
2. Bakery products;
3. Cereals and cereal products;
4. Ready to eat snacks;
5. Beverages;
6. Composite foods;
7. Butter, fat spreads and oil emulsions;
8. Processed meat, fish, and poultry products;
9. Fruits and vegetables
10. Sauces, dips, other seasonings, soups and dressings;
11. Dairy products, dairy analogues and ices.

*Table 1: The Kenya Nutrient Profile Model Food Categories*

| CATEGORY NUMBER | FOOD CATEGORIES | EXAMPLES |
|---|---|---|
| 1 | CONFECTIONARIES | Chocolates, sugar confectionaries and energy bars |
| 2 | BAKERY PRODUCTS | Fine bakery products, breads and ordinary bakery products |
| 3 | CEREALS AND CEREAL PRODUCTS | Breakfast cereals, pasta, noodles and similar products, rice, and grain |
| 4 | READY TO EAT SNACK FOODS | Ready to eat savoury snacks, processed nuts and edible seeds |
| 5 | BEVERAGES | Includes soft beverages excluding milk and milk products<br>• *Fruit and vegetable drinks*<br>• *Water based flavoured/unflavoured drinks*<br>• *Ready to drink coffee, tea and cocoa premixes*<br>• *Cereal, legumes, grain, tree nut-based beverages (ready to drink)* |
| 6 | COMPOSITE FOODS | Includes foods made from a combination of various ingredients (ready-made and convenience foods and composite dishes) |
| 7 | BUTTER, FAT SPREADS AND OIL EMULSIONS | Includes butter, margarine, fat spreads and similar products. |
| 8 | PROCESSED MEAT, FISH AND POULTRY PRODUCTS | Includes non-heat- and heat-treated whole pieces or cuts or comminuted meat, poultry and game.<br>• *Processed meat and poultry products*<br>• *Processed fish and seafood products* |

*Table 1: The Kenya Nutrient Profile Model Food Categories*

| CATEGORY NUMBER | FOOD CATEGORIES | EXAMPLES |
|---|---|---|
| 9 | FRUITS AND VEGETABLES | Includes dried fruits, canned or bottled, jam, jellies, marmalades, packed in vinegar, oil or brine, pickled, candied, pulp, purees, topping, fermented, fillings, cooked forms of fruits and vegetables including mushrooms and fungi, roots and tubers and aloe vera. |
| 10 | SAUCES, DIPS, OTHER SEASONINGS, SOUPS AND DRESSINGS | Emulsified and non-emulsified mixed as concentrated, clear sauces and like products, soybean-based products and condiments |
| 11 | DAIRY PRODUCTS, DAIRY ANALOGUES, AND ICES | Includes all types of dairy products that are derived from animal milk and water-based frozen desserts, confections and novelties, such as fruit sorbet, "Italian"-style ice, and flavoured ice.<br>• *Milk and dairy based drinks*<br>• *Frozen dairy-based desserts and edible ices other dairy based desserts*<br>• *Cheese and analogues* |

## 2.5 RATIONALE FOR SETTING NUTRIENT THRESHOLDS

The thresholds are based on average daily energy requirements of 2,100 kcal per person. The daily energy intake is distributed in three meals per day, each contributing 30% of the daily energy requirement. The remaining 10% is distributed in two snacks (5% per snack), assuming 3 main meals and 2 snacks/day.

The sugar threshold is calculated as 10% of the product's total energy divided by 4kcal to convert it into grams (g), unless otherwise stated.

The fat threshold is calculated as 30% of the product's total energy divided by 9 kcal to convert it into grams (g), unless otherwise stated.

The saturated fat threshold is calculated as 10% of the product's total energy divided by 9 kcal to convert it into grams (g), unless otherwise stated.

In the case of sodium, the threshold is based on a ratio of 1mg:1kcal for energy declared on a product to sodium then converted into grams.

**THRESHOLDS ARE CALCULATED**

per 100g or per 100ml

**Based on the average daily energy requirement of**

2,100 Kcal

| 30% | 10% |
|---|---|
| of energy requirement is from each main meal | of energy requirement is from snacks |

## 2.6 CONSIDERATIONS FOR THE KENYA NUTRIENT PROFILE MODEL

The Nutrient Profile model is based on 8 considerations. These considerations include nutrients of concern, food categorization, thresholds for foods naturally high in nutrients of concern, pre-packaged foods, calculation of thresholds, and main assumptions on setting thresholds.

**The principles are detailed below.**

1

### Nutrients of concern

Inclusion of nutrients of concern (sugar, sodium, total fat and saturated fat) for Kenya is based on the nutrients of public health interest that increase the risk of DR-NCDs.

2

### Food categorization

Foods are organized into distinguishable categories based on nutrient composition, similarity of ingredients and intended use

3

### Thresholds for foods naturally high in nutrients of concern

For food products that naturally have high levels of a particular nutrient of concern, the threshold is set only for the undesirable nutrient (e.g. in fats and oils the nutrient of concern is saturated fat)

4

### Pre-packaged foods

The Model is applied to prepackaged foods that are packaged or made up in advance in a container, ready for offer to the consumer, or for catering purposes. This includes all prepackaged, processed and ultra-processed products

5

### Calculation of thresholds.

Thresholds are calculated per 100g/100ml, irrespective of the serving portions. An exception is made for category 10 (sauces, dips, other seasonings, soups and dressings) where portion size is considered since serving sizes tend to be small, usually in the range of 10g–20g.

6

### Presentation of thresholds

The thresholds are rounded off as follows.

- Fats and sugars are rounded off to one decimal point
- Sodium to two decimal points

7

### Main Assumptions on setting thresholds

Threshold criteria for nutrients in the model are based on three main assumptions.

- Targeted for the general population excluding children below 36 months of age. The daily energy requirement is approximately 2100 kcal and used as the energy intake for calculation of thresholds.
- Approximately 30% of the energy requirement is from each main meal (3 meals/ day) and 10% from snacks.
- The threshold for beverages is determined as ready to drink irrespective of whether the product is marketed as a powder or concentrated form.

8

### Adopted WHO ranges of population dietary intake goals

The WHO ranges of population intake goals per day has been adopted from the WHO-Afro region Nutrient Profile Model as a basis for the calculation of the thresholds for the KNPM. The goals are shown in Table 2 below.

*Table 2: WHO ranges of population intake goals per day*

| Dietary factor Goal | (% of total energy, unless otherwise stated) |
|---|---|
| Total fat | 30% |
| Saturated fatty acids | <10% |
| Total sugars | <10% |
| Sodium chloride (sodium) | <5 g per day (<2 g) |

*(Source: Nutrient Profile Model for the WHO African Region)*

*Table 3: The Kenya Nutrient Profile Model Thresholds*

| Food category number | Food category | Examples of food items | Nutrient thresholds limit for pre-packaged foods per 100g or 100ml | | | |
|---|---|---|---|---|---|---|
| | | | Total fat (g) | Saturated fat (g) | Total sugar (g) | Sodium (g) |
| *Category 1: Confectionaries -Chocolate and sugar confectionary, energy bars, sweet toppings and desserts* | | | | | | |
| 1.1 | **Chocolates** | Cocoa/Chocolate bars (including milk, dark and white chocolate) chocolate spread, imitations and chocolate substitutes | 7.0 | 2.3 | 5.3[a] | 0.21 |
| 1.2 | **Sugar confectioneries** | Hard soft and chewy candy, caramels, soft jellied candies, marshmallow, sweet sauces, sweet desserts, creamy desserts, hard-boiled sweets (such as lollipop). | No threshold provided | No threshold provided | 5.3[a] | 0.21 |
| 1.3 | **Energy bars** | Granola, Muesli bars | 7.0 | 2.3 | 5.3[a] | 0.21 |
| *Category 2: Bakery products- Includes bread and ordinary products and for sweet, salty and savoury fine bakery products* | | | | | | |
| 2.1 | **Fine bakery products** | Pastries: croissants, pies, doughnuts, breakfast biscuits (such as chocolate-covered biscuits), sweet pancake (ready-to-eat form), buns with sweet fillings, mandazi, chocolate pudding, plum pudding, bread pudding. Cakes, cookies, sweet rolls, muffins, macaroons | 8.3 | 2.8 | 6.3 | 0.25 |

| Food category number | Food category | Examples of food items | Nutrient thresholds limit for pre-packaged foods per 100g or 100ml | | | |
|---|---|---|---|---|---|---|
| | | | Total fat (g) | Saturated fat (g) | Total sugar (g) | Sodium (g) |
| 2.2 | **Breads and ordinary bakery products** | Bread and rolls, crackers, mixes for making bread and ordinary bakery wares, mixes for making pizza, savoury pancakes, wraps/ tortillas, bread with raisins, buns, bread with cereal, and rusks. | 8.3 | 2.8 | 6.3 | 0.25 |
| *Category 3: Cereals and Cereal Products- Includes all ready-to-eat, instant, and regular hot breakfast cereal products and pasta, noodle, and similar products.* | | | | | | |
| 3.1 | **Breakfast cereals** | Whole, broken or flaked grains of rice and other cereals, rice-based, wheat-based or maize-based breakfast cereals of all flavours, oatmeal, mueslis, rice cakes, porridge. | 11.0 | 3.7 | 8.3 | 0.33 |
| 3.2 | **Instant pasta and noodles and like products, rice and grains** | Fresh, pre-cooked, or dried noodles and pasta and like products, rice paper, rice noodles, spaghetti made from wheat, tapioca, sago, brick paper etc (sold as ready-to-eat). | 1.5 | No threshold provided | No threshold provided | 0.32 |

| Food category number | Food category | Examples of food items | Nutrient thresholds limit for pre-packaged foods per 100g or 100ml | | | |
|---|---|---|---|---|---|---|
| | | | Total fat (g) | Saturated fat (g) | Total sugar (g) | Sodium (g) |
| *Category 4: Ready-to-eat snack foods- Includes all types of savoury snack foods, processed edible nuts, animal protein snacks as well as any other snack that has been sweetened or flavoured with free sugars, honey or salt* | | | | | | |
| 4.1 | **Ready to eat savoury snacks** | Popcorn, other snacks made from rice, maize, wheat, potato, sweet potatoes, yam, arrowroots, cassava, plantain (i.e. chips, crisps). | 7.0 | 2.3 | 0.0 | 0.21 |
| 4.2 | **Processed nuts and edible seeds** | Nuts, and mixed nuts (including with fruit content), edible seeds. | No threshold provided | No threshold provided | 0.0 | 0.21 |
| *Categroy 5: Beverages- Includes soft beverages excluding milk and milk products.* | | | | | | |
| 5.1 | **Fruit and vegetable drinks** | Beverages produced from purees, juices and concentrates of either, blended with water and sugar, honey, syrup and/or sweeteners. | No threshold provided | No threshold provided | 5.3[a] | 0.21 |
| 5.2 | **Water based Flavoured/ Unflavoured drinks** | Sport, energy drinks, electrolyte drinks, carbonated and non-carbonated water-based flavoured drinks. | No threshold provided | No threshold provided | 5.3[a] | 0.02 |

| Food category number | Food category | Examples of food items | Nutrient thresholds limit for pre-packaged foods per 100g or 100ml | | | |
|---|---|---|---|---|---|---|
| | | | Total fat (g) | Saturated fat (g) | Total sugar (g) | Sodium (g) |
| 5.3 | **Coffee premixes, Tea premixes and Cocoa premixes - ready to drink** | Instant and premixed coffee, coffee substitute, instant and premixed tea, herbal infusion to be prepared or in ready-to- drink form. | No threshold provided | No threshold provided | 5.3[a] | 0.05 |
| 5.4 | **Cereal, legumes, grain, tree nut-based beverage-ready to drink** | Cereal grains and tree nut-based beverages produced from the extracts of cereals, pulses and tree nuts. | No threshold provided | No threshold provided | 5.3[a] | 0.05 |
| *Category 6: Composite foods* | | | | | | |
| 6.0 | **Composite Foods** | Composite foods (ready-made and convenience foods and composite dishes) mixtures of multiple components (e.g. meat, sauce, grain, cheese, vegetables). These include foods that require minimal preparation (heating, thawing, rehydrating) or ready-to-serve meal from restaurants. Examples: frozen and chilled ready meals, pizzas, lasagne, ready-made sandwiches. | 11.6 | 3.9 | 8.8 | 0.35 |

| Food category number | Food category | Examples of food items | Nutrient thresholds limit for pre-packaged foods per 100g or 100ml | | | |
|---|---|---|---|---|---|---|
| | | | Total fat (g) | Saturated fat (g) | Total sugar (g) | Sodium (g) |
| *Category 7: Butter, fat spreads and oil emulsions -milk-based butter, margarine, low and medium-fat spreads* | | | | | | |
| 7.1 | **Butter** | Exclusively milk fat-based products | No threshold provided | No threshold provided | 0.0 | 0.21 |
| 7.2 | **Margarine, Fat spreads and oil emulsions** | Blended or modified milk of non-milk fat, Blended spreads, nut spreads e.g peanut butter | No threshold provided | 35.0 | 0.0 | 0.21 |
| *Category 8: Processed Meat, fish and poultry products- Include Non-heat and heat-treated whole pieces or cuts or comminuted meat, poultry and game that have been cured and dried or fermented.* | | | | | | |
| 8.1 | **Processed meat and poultry products** | Non-heat and heat-treated whole pieces or cuts or commuted meat, poultry and game that have been cured and dried or fermented. Examples: smoked ham, salted dried meat, salami, sausage, bacon, corned beef, smoked duck, canned meats, chicken nuggets, beef or chicken patty, pork rind, liver pate | 9.5 | 3.2 | 0.0 | 0.30 |
| 8.2 | **Processed fish and seafood products** | Canned tuna, canned sardines | 8.1 | 2.7 | No threshold provided | 0.24 |

| Food category number | Food category | Examples of food items | Nutrient thresholds limit for pre-packaged foods per 100g or 100ml | | | |
|---|---|---|---|---|---|---|
| | | | Total fat (g) | Saturated fat (g) | Total sugar (g) | Sodium (g) |
| *Category 9: Fruits and Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes)* | | | | | | |
| 9.1 | **Processed fruits, vegetables, and legume excluding juices and drinks** | Dried fruits, canned or bottled jam, jellies, marmalades); Examples: fruits and vegetables in vinegar, oil or brine, dried coconut, coconut cream, marmalade, jams, canned fruits Pickled, candied, pulp, purees, topping, fermented, fillings, cooked forms of fruits and vegetables. Examples: vegetables and legumes, dried mushrooms, preserved or pickled fruits and vegetables, fermented vegetables | 5.0 | 1.7 | 6.0 | 0.40 |

| Food category number | Food category | Examples of food items | Nutrient thresholds limit for pre-packaged foods per 100g or 100ml | | | |
|---|---|---|---|---|---|---|
| | | | Total fat (g) | Saturated fat (g) | Total sugar (g) | Sodium (g) |
| 9.2 | **Solid-form soybean products** | Soybean-based products, soybean curd (tofu), semi dehydrated tofu, dehydrated tofu (kori tofu), fermented soybeans (natto), other soybean protein products (soya nuggets and textured vegetable protein), soya basd chunks and mince | 8.0 | No threshold provided | No thresh-old provided | 0.13 |
| *Category 10: Sauces, dips, other seasonings, soups and dressingsc* | | | | | | |
| 10 | **Sauces, dips, other seasonings, soups and dressings**[c] | Emulsified, non-emulsified, mixes as concentrated, clear sauces and like and products, soybean-based seasonings and condiments. Examples: mayonnaise, salad dressing, onion dips, tomato ketchup, gravy, cheese sauce, cream sauce, bouillon cubes, seasoning powder, fermented and unfermented soy sauces, fish sauce, sweet chili sauce, spaghetti sauce, BBQ sauces. | 8.8 | 2.9 | 7.0[a] | 0.35 |

| Food category number | Food category | Examples of food items | Nutrient thresholds limit for pre-packaged foods per 100g or 100ml | | | |
|---|---|---|---|---|---|---|
| | | | Total fat (g) | Saturated fat (g) | Total sugar (g) | Sodium (g) |
| *Category 11: Dairy Products and Analogues- includes all types of dairy products that are derived from the milk of any milking animal and water-based frozen desserts, confections and novelties, such as fruit sorbet, "Italian"-style ice, and flavoured ice.* | | | | | | |
| 11.1 | **Milk and dairy based drinks** | Are obtained from the processing of milk and may contain food additives and other ingredients functionally necessary for processing. Milk means milk from animals such as cows, goats, camels etc. | 4.0 | 1.3 | 7.2 | 0.05 |
| 11.2 | **Frozen dairy-based desserts and edible ices** | Ice cream, ice milk, frozen yoghurt, ice lollies and sorbets. | 4.0 | 1.3 | 7.2 | 0.10 |
| 11.3 | **Other dairy-based desserts** | Dairy-based products that have been curdled by fermentation, acid, enzyme, heat, etc. and flavoured with sugar and other ingredients. Examples are flavoured cream-type yoghurt, jellied milk, butterscotch, chocolate mousse, puddings (including rice pudding, milk pudding), flan, custard. | 4.0 | 1.3 | 7.2 | 0.21 |

| Food category number | Food category | Examples of food items | Nutrient thresholds limit for pre-packaged foods per 100g or 100ml | | | |
|---|---|---|---|---|---|---|
| | | | Total fat (g) | Saturated fat (g) | Total sugar (g) | Sodium (g) |
| 11.4 | **Cheese and analogues** | Unripe or ripened cheese, processed cheese, cheese analogues, that can be classified based on physical characteristics as hard (e.g. Parmesan), semi-hard (e.g. cheddar, edam), semi-soft and soft (e.g. mozzarella, ricotta) as well as serving style as sliced cheese, cream cheeses, grated or powdered cheeses, spreadable cheeses, cottage cheese, processed cheese | 22.0 | 7.3 | No thresh-old provided | 0.50 |

[a]*The threshold of Total sugars for categories 1.1 to 1.3, 5.1 to 5.4 and Category 10 are set at 0.0gm/100gms/mls in-line with WHO-AFRO NPM for marketing restrictions to children.*

# CHAPTER 3

## Application and Implementation of the Kenya Nutrient Profile Model

The Kenya Nutrient Profile Model (KNPM) aims to guide the development and implementation of food environment policies such as front-of-pack labeling, fiscal policies and the restriction of marketing of unhealthy foods to children. It also guides the development of policies that promotes procurement of healthy foods for vulnerable groups such as schools and correctional institutions to encourage consumption of healthy diet.

The KNPM can also guide the development of public education and awareness programs to inform consumers on the nutrients of concern thus guiding them in making informed food purchases and healthier eating choices. The successful implementation of the KNPM will require a multi-faceted approach involving the Kenyan government and other actors including civil society, the media and collaboration with the food industry and the general population. The KNPM implementation shall involve:

1. **Establishment of key regulations and policies -** Front-of-pack labeling and restrictions of marketing regulations. Public food procurement of healthy foods and fiscal policies.

2. **Stakeholder engagement-** this will require wider consultations between and among the stakeholders of the food environment to promote buy-in and collaboration amongst stakeholders and create a food system that promotes the consumption of healthy diets.

3. **Capacity building** of the implementers and enforcement officers to promote the realization of the KNPM goals.

4. **Sensitization of members** of the public to enhance their ability to identify foods and beverages guided by a front-of-pack nutrition labeling system. This can trigger product reformulation to meet market needs.

5. **Monitoring and evaluation -** Continuous monitoring and evaluation will ensure compliance through regular audits to meet KNPM goals and assess public health outcomes, including addressing diet-related non-communicable diseases.

**The KNPM will be applied and implemented in the following scenarios.**

| Application | Implementation |
|---|---|
| ***Labeling regulation and standards to inform the consumers to make informed choices when purchasing foods*** | Develop front-of-pack labeling system to inform consumers about foods high in the nutrients of concern, and declaring if they contain non-nutritive sweeteners, as guided by CAP 254(Food, Drugs and Chemical Substances). |
| ***Marketing restrictions*** | Develop regulations restricting the marketing of foods and non-alcoholic drinks to children if they exceed the set thresholds of the nutrients of concern. |
| ***Fiscal policies and subsidies.*** | Develop fiscal policies to discourage consumption of foods high in nutrients of concern and provide subsidies to promote production and consumption of healthy foods. |
| ***Public health nutrition policies in schools and other public institutions.*** | The KNPM can be used to set nutritional benchmarks for foods and beverages offered in these settings, promoting healthier eating habits among students and the general public. |
| ***Nutrition education*** | To develop public awareness strategies including Social Behavioural Change (SBC) strategies and Information, Education and Communication materials to promote the consumption of healthy food and beverages among the population. |
| ***Stakeholder engagement*** | To provide a ground of engaging with key opinion leaders (including food and nutrition experts and the media) and consumers |

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# ANNEX 1

## Justification/explanations of the nutrient thresholds

| CATEGORY NUMBER | FOOD CATEGORY | EXAMPLES OF FOOD ITEMS | RATIONALE |
|---|---|---|---|
| *Category 1.0: Chocolates, sugar confectionery and energy bars* | | | |
| 1.1 | **Chocolates** | Cocoa/Chocolate bars (including milk, dark and white chocolate) chocolate spread, imitations and chocolate substitutes, | Chocolates are considered to as snacks and should provide a maximum of 210kcal<br>• Total Fat =210x30/100 = 63, 63/9 = 7g/100g<br>• Total Sugar 210*10/100=21, 21/4=5.3g/100g<br>• Saturated fatty acid per serving shall be a maximum of SFA 210x10/100 = 21, 21/9 = 2.3g/100g<br>• Sodium = 0.21g calculated (Sodium ratio of 1mg :1kcal) =0.21g/100g) |
| 1.2 | **Sugar based Confectionaries** | Hard soft and chewy candy, caramels, soft jellied candies, marshmallow, sweet sauces, sweet desserts, creamy desserts, hard-boiled sweets (such as lollipops) | Sugar confectionaries shall provide a maximum of 210kcal per serving<br>• Total Fat - No threshold provided<br>• Saturated fatty acid - No threshold provided<br>• Total Sugar = 210*10/100=21, 21/4=5.3g/100g<br>• Sodium = (ratio of 1mg :1kcal) =0.21g/100g |
| 1.3 | **Energy bars** | Granola and muesli bars | • Total Fat = 210x30/100=63kcal. 63kcal/9cal=7g/100g<br>• Total Sugar = 210*10/100=21, 21/4=5.3<br>• Saturated fatty acid = 210x10/100 = 21, 21/9 = 2.3g/100g<br>• Sodium (ratio of 1mg :1kcal) =0.21g/100g |

| | | | |
|---|---|---|---|
| *Catogory 2.0: Bakery products- Includes bread and ordinary bakery products and sweet, salty and savory fine bakery products* | | | |
| 2.1 | **Fine bakery products** | Pastries: croissants, pies, doughnuts, breakfast biscuits (such as chocolate-covered biscuits), sweet pancake (ready-to-eat form), buns with sweet fillings, mandazi, chocolate pudding, plum pudding, bread pudding. | Energy from bread (on average) =250kcals (Ref Kenya Food Composition table (2018).<br>• Total Fat = 250x30/100=75kcal 75/9=8.3g/100g<br>• Saturated Fatty acid = 250x10/100=25kcal, 29/9=2.8g/100g<br>• Total Sugar = 250x10/100=25kcal 25/4=6.3g/100g<br>• Sodium (ratio of 1mg :1kcal) =0.25g/100g |
| 2.2 | **Breads and ordinary bakery products** | Bread and rolls, crackers, mixes for making bread and ordinary bakery wares, mixes for making pizza, savoury pancakes, wraps/tortillas, bread with raisins, buns, bread with cereal, rusks | • Energy from bread (on average) =250kcals (Ref Kenya Food Composition table (2018).<br>• Total Fat = 250x30/100=75kcal 75/9=8.3g/100g<br>• Saturated Fatty acid = 250x10/100=25kcal, 25/9=2.8g/100g<br>• Total Sugar = 250x10/100=25kcal 25/4=6.3g/100g<br>• Sodium (ratio of 1mg :1kcal) =0.25g/100g |
| *Category 3.0: Cereals and Cereal Products- Includes all ready-to-eat, instant, and regular hot breakfast, cereal products and pasta, noodle, and similar products.* | | | |
| 3.1 | **Breakfast cereals** | Whole, broken or flaked grains of rice and other cereals, rice-based, wheat-based or maize-based breakfast cereals of all flavours, oatmeal, mueslis, rice cakes, porridge. | Energy contribution =370kcals/100g (Ref Kenya Food Composition table (2018) (19)<br>The national objective is to gradually reduce consumption of nutrients of concern by 10% as a public health intervention.<br>Therefore, the energy contribution is set at<br>• 330kcals<br>• Total Fat =330x30/100 =99 kcal 99/9 =11g/100g<br>• Total Sugar = 330x10/100=33kcals 33/4=8.25g/100g<br>• Saturated Fatty acid = 330x10/100 = 33kcal, 33/9 = 3.7g/100g<br>• Sodium (ratio 1:1) = 0.33g/100g |

| CATEGORY NUMBER | FOOD CATEGORY | EXAMPLES OF FOOD ITEMS | RATIONALE |
|---|---|---|---|
| 3.2 | **Instant Pasta and noodles and like products, rice and grains** | Fresh, pre-cooked, or dried noodles and pastas and like products, rice paper, rice noodles, vermicelli made from wheat, tapioca, sago, brick paper etc. (sold as ready-to-eat) | Since pasta and noodles are usually consumed in combination with other foods as a meal, it is assumed that half the energy (315kcals) is from 100g of pasta/noodle, and the other half would be possibly from a sauce, vegetable or meat preparation which would also contribute sodium in the meal.<br>Pastas and noodle-like products mainly consist of starch, but the pre-cooking process may also include deep-frying where the fat content can be as high as 20g fat/100gproduct. Therefore, the fat threshold is set to discourage the production/marketing of deep-fried products.<br>• Total fat - 1.5g/100g from the pasta available in the market as per from the KFCT 2018<br>• Sodium- 0.32g/100g. The threshold for sodium from pasta is limited at about 315mg/100g (1mg of Sodium:1kcal) and rounded up.<br>• Total sugar - No threshold provided |
| *Category 4.0: Ready-to-eat snack foods- Includes all types of savoury snack foods, processed edible nuts, animal protein snacks as well as any other snack that has been sweetened or flavoured with Total sugars, honey or salt* | | | |
| 4.1 | **Ready to eat savory snacks** | Popcorn, other snacks made from rice, maize, wheat, potato, cassava, plantain (i.e. chips, crisps) | Contribution:10% total Energy 2100=210kcals<br>• Total Fat = 210x30/100=63kcals 63/9 =7g/100g<br>• Saturated fatty acid = 210x10/100=21kcal/9= 2.3g/100g<br>• Total Sugar - 0.0, Set at 0.0 to discourage the addition of sugar<br>• Sodium (ratio 1:1) = 0.21g/100g |
| 4.2 | **Processed nuts and edible seeds** | Nuts, and mixed nuts (including with fruit content), edible seeds | There was no fat threshold provided in nuts as nut are high in fats that are naturally occurring.<br>• Contribution 10% of total Energy: 2100=210kcal<br>• Total Sugar=0.0 to discourage the addition of sugar<br>• Total Fat: No threshold provided<br>• Saturated Fatty Acid: No threshold provided<br>• Sodium - 0.21g |

| CATEGORY NUMBER | FOOD CATEGORY | EXAMPLES OF FOOD ITEMS | RATIONALE |
|---|---|---|---|
| *Category 5.0: Beverages- Includes soft beverages excluding milk and milk products.* | | | |
| 5.1 | **Fruit and vegetable drinks** | Are beverages produced from purees, juices and concentrates of either, blended with water and sugar, honey, syrup and/or sweeteners | Since this product is consumed as a snack, the calculation of the threshold is based on 210kcal<br>• Sugar is 10% of the total kcal, thus 210*10/100 = 21 kcal/4 =5.3 g/100g<br>• To discourage the marketing of this product to children, the threshold of Total sugars is set at 0.0gm/100mls in-line with WHO-AFRO NPM.<br>• Sodium - 0.21g/100g (the threshold is set using a ratio of 1:1)<br>• Total Fat: No threshold provided<br>• Saturated Fatty Acid: No threshold provided |
| 5.2 | **Water based Flavoured/ Unflavoured** | Sport, energy drinks, electrolyte drinks, carbonated and non-carbonated water-based flavoured drinks | • Sugar is 10% of the total kcal, thus 210*10/100 = 21 kcal/4 =5.3 g/100g<br>• To discourage the marketing of this product to children, the threshold of Total sugars is set at 0.0gm/100mls in-line with WHO-AFRO NPM.<br>• Sodium - 0.02g/100ml the threshold is provided for sodium considering the sodium specifications for potable water (Kenya Standards).<br>• Total Fat: No threshold prodided<br>• Saturated Fatty Acid: No threshold provided |
| 5.3 | **Coffee premixes, Tea premixes and Cocoa premixes - ready to drink** | Instant and premixed coffee, coffee substitute, instant and premixed tea, herbal infusion to be prepared or in ready-to-drink form | • Sugar is 10% of the total kcal, thus 210*10/100 = 21 kcal/4 =5.3 g/100g<br>• To discourage the marketing of this product to children, the threshold of Total sugars is set at 0.0gm/100mls in-line with WHO-AFRO NPM.<br>• Sodium - 0.05g/100g considering sodium occuring in natural milk<br>• Total Fat: No threshold provided<br>• Saturated Fatty Acid: No threshold provided |
| 5.4 | **Cereal, legumes, grain, tree nut-based beverage** | Cereal, grain and tree nut-based beverages produced from the extracts of cereals, pulses and tree nuts | • Sugar is 10% of the total kcal, thus 210*10/100 = 21 kcal/4 =5.3 g/100g<br>• To discourage the marketing of this product to children, the threshold of Total sugars is set at 0.0gm/100mls in-line with WHO-AFRO NPM.<br>• Sodium: 0.05g/100g<br>• Total Fat: No threshold set<br>• Saturated Fatty Acid: No threshold set |

| CATEGORY NUMBER | FOOD CATEGORY | EXAMPLES OF FOOD ITEMS | RATIONALE |
|---|---|---|---|
| *Category 6.0: Composite foods* | | | |
| 6.0 | **Composite foods** | Composite foods (Prepared foods, ready-made and convenience foods and composite dishes) Mixtures of multiple components (e.g. meat, sauce, grain, cheese, vegetables). These include foods that require minimal preparation (heating, thawing, rehydrating) or ready-to-serve meal from restaurants. Examples: frozen and chilled ready meals, pizzas, lasagna, ready-made sandwiches, | The thresholds for composite foods are based on average energy levels of ranges from 250-450 kcal/100g, which is approximately an average of 350 kcal/100 g. (WHO Nutrient Profile Model for African Region (2019))<br>• Total Fat = 350x30/100=105kcal 105/9=11.6g/100g<br>• Saturated Fatty acid = 10/100*350=35, 35/9=3.9g/100g<br>• Total Sugar = 350x10/100=35 35/4=8.8g/100g<br>• Sodium (Ratio of 1:1) = 0.35g/100g |
| *Category 7.0: Butter, fat spreads and oil emulsion-milk based butter, margarine, low and medium fat spreads* | | | |
| 7.1 | **Butter** | Exclusively milk fat-based products | Fat and oil are good sources of energy. The concern relates to the saturated fat ratio, which should not be more than 1/3 of the consumed fat or oil. As mentioned in the population nutrient intakes, total energy contribution from fat and saturated fat should be less than 30% and 10%, respectively, of which saturated fat should be 1/3 of the total fat (weight for weight).<br>• Total fat - no threshold provided<br>• Total Sugar - no threshold provided for butter, however a threshold of 0.0g is set for margarines, fat spreads and oil emulsions to discourage the addition of sugar.<br>• Saturated fats= 35g/100g margarines, fat spreads and oil emulsions.<br>• Sodium (Ratio of 1:1) 10/100*2100= 210mg 210/1000=0.21g |
| 7.2 | **Margarine, fat spreads and oil emulsions** | Blended or modified milk of non-milk fat or blended spreads | |

| CATEGORY NUMBER | FOOD CATEGORY | EXAMPLES OF FOOD ITEMS | RATIONALE |
|---|---|---|---|
| *Category 8.0: Processed Meat, fish and poultry products- Include Non-heat- and heat-treated whole pieces or cuts or comminuted meat, poultry and game that have been cured and dried or fermented.* | | | |
| 8.1 | **Processed meat and poultry products** | Non-heat- and heat-treated whole pieces or cuts or communited meat, poultry and game that have been cured and dried or fermented. Examples: smoked ham, salted dried meat, salami, sausage, bacon, corned beef, smoked duck, canned meats, chicken nuggets, beef or chicken patty, pork rind, liver pate | Cured meat products are also sources of protein and fat and used in situations where fresh meats may be unavailable. Some products however contain high fat, especially saturated fat (from added animal fat) as well as sodium from salt that is used for processing and flavouring.<br>Fat is normally added to provide soft and chewy texture to meats such as sausages and sodium chloride is necessary for the flavouring and salting-in process of meat protein that acts as an emulsifier or binder. It is feasible to produce processed meat with a lower fat and sodium content and the thresholds are set considering manufactured products with a lower range of fat and sodium value<br>The calculation of the threshold for total fat is based on the average of 284/30*100= 85.2/9= 9.5g (KFCT, 2018)<br>• Saturated fatty acids - 3.2g/100g<br>• Sodium - 0.3g/100g<br>• Total Sugar - 0.0 (Sugar set at 0 to prevent manufacturers from adding sugar). |
| 8.2 | **Processed fish and seafood products** | Canned tuna, canned sardines | Fish and seafood are locally available and are preserved by using salt or by canning, battering, or frying. Some forms of preservation can cause overconsumption of saturated fat and salt.<br>To calculate the threshold for total fat and saturated fat, we considered an average of 244kcal from the available tuna fish products in the KFCT.<br>The calculation of the threshold for total fat is based on the average of 244/30*100= 73.2/9= 8.1g (KFCT, 2018)<br>• Total fat - 8.1g/100g<br>• Saturated fatty acids - 2.7g/100g<br>• Sodium - 0.24g/100g<br>• Total Sugar - No threshold set (there is no set threshold for total sugar, for it is assumed that the food category should not contain sugar) |

| CATEGORY NUMBER | FOOD CATEGORY | EXAMPLES OF FOOD ITEMS | RATIONALE |
|---|---|---|---|
| *Category 9.0: Fruits and Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes and aloe vera)* | | | |
| 9.1 | **Processed fruits, vegetables, and legume excluding juices and drinks** | Dried fruits, canned or bottled, jam, jellies, marmalades, pickled, candied, pulp, purees, topping, fermented, fillings, cooked forms of fruits and vegetables. Examples: fruits and vegetables in vinegar, oil or brine, dried coconut, coconut cream, marmalade, jams, canned fruits, vegetables and legumes, dried mushrooms, preserved or pickled fruits and vegetables, fermented vegetables | Processing of fruits and vegetables aims to preserve fruits and vegetables for a longer shelf life. However, processing tends to change the natural nutrient content due to concentration or addition of sugar or sodium.<br>Calculation: Based on the assumption that fresh fruits and vegetables have a moisture content of approximately 93% and 7% of solids, and dried fruits and vegetables have a moisture content of approximately 10% and 90% of solids, 50g of dried fruits and vegetables = 0.93x50g/0.07=would be approximately equivalent in weight and volume to 664g of fresh fruit or vegetable approximately. Some foods products are often prepared with fats. Accordingly, it was considered important to set a threshold for total fat in this category to restrict products with high fats.<br>The value of 5g total fat/100g product was based on the estimated average of food products found for this category in the African Region during the pilot test (average of 4.5g), rounded to 5.0g.<br>• Total fat – 5g/100g<br>• Saturated fatty acids - threshold is 1/3*5=1.7g/100g<br>• Sodium – (ratio 1:1) 400mg/100g= 0.4g/100g<br>• Total Sugar=6.0g/100g (Sugar threshold is set at 6g/100g in the event that sugar is used in the preservation). |

| CATEGORY NUMBER | FOOD CATEGORY | EXAMPLES OF FOOD ITEMS | RATIONALE |
|---|---|---|---|
| 9.2 | **Solid-form soybean products** | Soybean-based products, soybean curd (tofu), semi dehydrated tofu, dehydrated tofu (kori tofu), fermented soybeans (natto), other soybean protein products (soya nuggets and textured vegetable protein), soya basd chunks and mince | Soybean is a good source of protein, calcium and polyunsaturated fatty acids. Different solid forms of soybean products are consumed in Africa.<br><br>The fat threshold is set at 7.0g/100g based on the average fat content in food products in this category found during the pilot test in the Region, which was approximately 6.5g/100g. We rounded to set threshold at 7g total fat/100g.<br><br>The sodium threshold is set at 0.13 based on the naturally occuring sodium in soya beans (KFCT, 2018) |
| *Category 10: Sauces, dips, other seasonings, soups and dressings* | | | |
| 10.0 | **Sauces, dips, other seasonings, soups and dressings** | Emulsified, non-emulsified mixes as concentrated, clear sauces and like products, soybean-based seasoning and condiments. Examples: mayonnaise, salad dressing, onion dips, tomato ketchup, gravy, cheese sauce, cream sauce, bouillon cubes, seasoning powder, fermented and unfermented soy sauces, fish sauce, sweet chili sauce, spaghetti sauce, BBQ sauces, | These products are usually eaten in small portion sizes of 10g-20g. In 100g of product, the content of sodium is approximately 400- 20000 mg/100g, fat content ranges from 0.1g-80g/100g fat, and sugar content is 0.2-73/100g, according to the WHO Nutrient Profile Model for African Region (2019).<br><br>For sodium, a limit of 0.35g/100g, the lower threshold found in tomato sauce is set, which would make only a small contribution to sodium intake, considering the small portion size consumed.<br><br>For fat, a threshold of 8.8g/100g is set using the average of the “Processed fish and seafood products “and “Processed meat, poultry and game products” categories.<br>• To discourage the marketing of this product to children, the threshold of Total sugars is set at 0.0gm/100mls in-line with WHO-AFRO NPM.<br>• Total Fat – 8.8g/100g<br>• Saturated fat - 1/3*8g= 2.9g/100g<br>• Sodium – 0.35g/100g |

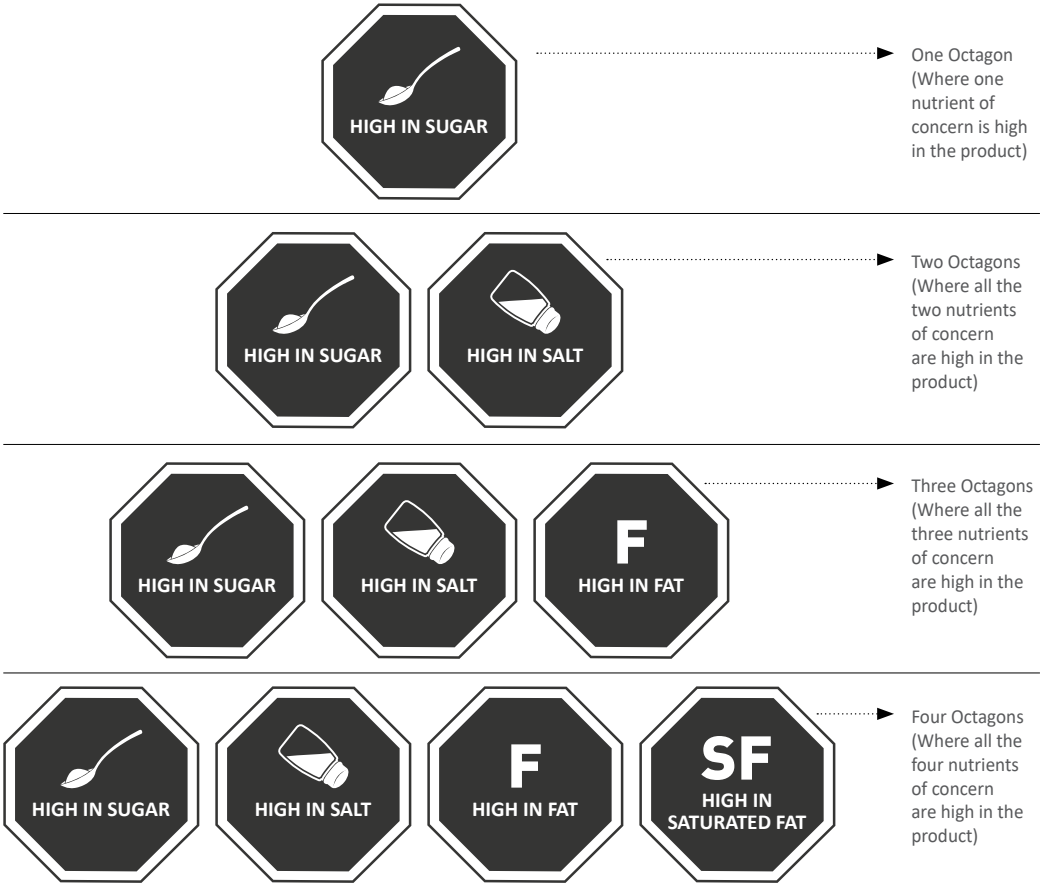
| CATEGORY NUMBER | FOOD CATEGORY | EXAMPLES OF FOOD ITEMS | RATIONALE |
|---|---|---|---|
| *Category 11.0: Dairy Products and Analogues- includes all types of dairy products that are derived from the milk of any milking animal and water-based frozen desserts, confections and novelties, such as fruit sorbet, "Italian"-style ice, and flavoured ice.* | | | |
| 11.1 | **Milk and dairy based drinks** | Are obtained from the processing of milk and may contain food additives and other ingredients functionally necessary for processing. Milk means milk from animals such as cows, goats, camels etc | Threshold of total fat is set at 4.0 based on the fat content of whole cow milk.<br>• Total fat – 4.0g/100g<br>• Saturated fatty acids - 1.3g/100g<br>• Sodium - 0.05g/100g considering sodium occuring in natural milk<br>• Total Sugar - 7.2g/100g or ml (amount of naturally occurring in the cow's milk (referenced KFCT 2018) being the highest among other types of milk).<br>• No added sugar |

| CATEGORY NUMBER | FOOD CATEGORY | EXAMPLES OF FOOD ITEMS | RATIONALE |
|---|---|---|---|
| 11.2 | **Frozen dairy-based desserts and edible ices** | Ice cream, ice milk, frozen yoghurt, ice lollies and sorbets | Ice cream is high in fat and sugar on a 2100 kcal diet, based on the assumption that one snack would contribute 10% of total energy intake/day, the energy contribution from a snack is approximately 230kcal or less. Thus, 210 kcal or more per 100g snack could be classified as an energy-dense snack. Therefore, 210 kcal/100g is set as a threshold for energy and also used for the calculation of thresholds for fat and sugar. Fat and sugar thresholds are based on WHO/FAO population nutrient intake goals that fats and simple sugars should contribute to 30% and 10% of total energy, respectively.<br><br>A wide range of fat content was found in these groups of products during the pilot test (range 2.6-19g/100g).<br><br>We set the threshold for total fat at 4.0g fat/100g confectionary Based on fat content of whole cow milk According to calculations, sugar threshold should be at 7.2 g/100g as a reference to the maximum naturally occurring sugar in cow's milk (reference KFCT)<br>• Sodium content is based on what is generally found in manufactured products. Sodium intake is calculated as lower than 1mg/1kcal and set at 0.1g/100g<br>• Total fat – 4.0g/100g<br>• Saturated fatty acids - 1.3g/100g<br>• Sodium - 0.10g/100g<br>• Total Sugar - 7.2g/100g or ml |

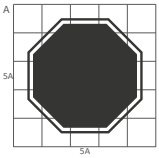
| CATEGORY NUMBER | FOOD CATEGORY | EXAMPLES OF FOOD ITEMS | RATIONALE |
|---|---|---|---|
| 11.3 | **Other dairy based desserts** | Dairy-based products that have been curdled by fermentation, acid, enzyme, heat, etc. and flavoured with sugar and other ingredients. Examples are flavoured cream-type yoghurt, jellied milk, butterscotch, chocolate mousse, puddings (including rice pudding, milk pudding), flan, custard | On a 2100 kcal diet, based on the assumption that one snack would contribute 10% of total energy intake/day, the energy contribution from a snack is approximately 210 kcal. Therefore, 210 kcal/100g is set as a threshold for energy and also used for the calculation of thresholds for fat and sugar.<br>The threshold for sugar threshold should be at 7.2 g/100g as a reference to the maximum naturally occurring sugar in cow's milk (reference KFCT)<br>The threshold for Total Fat is set at =4.0g/100g based on natural fat occurring in milk<br>• Total fat – 4.0g/100g<br>• Saturated fats - 1.3g/100g<br>• Sodium - 0.21g/100g<br>• Total Sugar - 7.2g/100g or ml |
| 11.4 | **Cheese and analogues** | Unripe or ripened cheese, processed cheese, cheese analogues, that can be classified based on physical characteristics as hard (e.g. Parmesan), semi-hard (e.g. cheddar, edam), semi-soft and soft (e.g. mozzarella, ricotta) as well as serving style as sliced cheese, cream cheeses, grated or powdered cheeses, spreadable cheeses, cottage cheese, processed cheese | On a 2100 kcal diet, based on the assumption that one snack would contribute 10% of total energy intake/day, the energy contribution from a snack is approximately 210 kcal. Therefore, 210 kcal/100g is set as a threshold for energy and also used for the calculation of thresholds for fat and sugar.<br>Fat thresholds are based on WHO/FAO population nutrient intake goals that fats and simple sugars should contribute to 30% and 10% of total energy respectively.<br>A wide range of fat content was found in these groups of products during the pilot test (range 2.6-19g/100g). We set the threshold for total fat at 22g fat/100g based on the minimum Kenyan standard requirement. Saturated fatty acid is 7.3g/100g and Sodium intake is calculated as lower than 1mg/1kcal thus the threshold is set at 0.5g/100g<br>• Total sugar = No threshold provided<br>• Total fat – 22g/100g<br>• Saturated fatty acids - 7.3g/100g<br>• Sodium - 0.5g/100g |

# ANNEX 2

## Front of Pack Nutrition Labelling Symbol (Warning Symbol)




### REFERENCE KEY




The symbol is to be resized depending on the product package size, without affecting the original design.

The logo is created digitally and is available in a variety of file formats for different applications. It should never be redrawn, altered or recreated.

### COLOUR

**Note:** The symbol should be of **JET BLACK** colour.

Each Octagon will carry the nutrient of concern as shown in the reference key below

**JET BLACK**

HEX: #343434
RGB: 52, 52, 52
CMYK: 0, 0, 0, 80

# ANNEX 3

## Food Listing Analysis

| CATEGORY NUMBER | FOOD CATEGORY | NUMBER OF FOODS LISTED PER CATEGORY | FOODS DECLARING ALL THE NUTRIENTS OF CONCERN | PERCENTAGE OF FOODS DECLARING THE NUTRIENTS OF CONCERN |
|---|---|---|---|---|
| *Category1: Confectioneries* | | | | |
| 1 | Confectionaries | 53 | 39 | 73.6 |
| | | | | |
| *Category 2: Bakery products- Includes bread and ordinary bakery products and for sweet, salty and savoury fine bakery wares* | | | | |
| 2.1 | Fine bakery products | 147 | 36 | 24.5 |
| 2.2 | Bread and ordinary bakery products | 9 | 7 | 77.8 |
| | | | | |
| *Category 3: Cereals and Cereal Products- Includes all ready-to-eat, instant, and regular hot breakfast cereal products and pasta, noodles, and similar products.* | | | | |
| 3.1 | Breakfast cereals | 66 | 44 | 66.7 |
| 3.2 | Pasta and noodles and like products, rice and grains | 36 | 21 | 58.3 |
| | | | | |
| *Category 4: Ready-to-eat snack foods- Includes all types of savoury snack foods, processed edible nuts, animal protein snacks as well as any other snack that has been sweetened or flavoured with free sugars, honey or salt* | | | | |
| 4.1 | Ready-to-eat savoury snacks Potato, cereal or starch-based | 102 | 58 | 56.9 |
| 4.2 | Processed nuts and edible seeds | 24 | 19 | 79.2 |

| CATEGORY NUMBER | FOOD CATEGORY | NUMBER OF FOODS LISTED PER CATEGORY | FOODS DECLARING ALL THE NUTRIENTS OF CONCERN | PERCENTAGE OF FOODS DECLARING THE NUTRIENTS OF CONCERN |
|---|---|---|---|---|
| *Categroy 5: Beverages- Includes soft beverages excluding milk and milk products* | | | | |
| 5.1 | Fruits and vegetables Juices | 64 | 32 | 50.0 |
| 5.2 | Water-based flavoured and unflavoured drink | 87 | 59 | 67.8 |
| 5.3 | Coffee premixes, Tea premixes and Cocoa premixes | 8 | 5 | 62.5 |
| *Category 6: Composite foods* | | | | |
| 6 | Composite foods | 20 | 19 | 95.0 |
| | | | | |
| *Category 7: Butter, fat spreads and oil emulsions* | | | | |
| 7 | Butter, fat spreads and oil emulsions | 39 | 21 | 53.8 |
| *Category 8: Processed Meat, fish and poultry products- Include Non-heat- and heat-treated whole pieces or cuts or comminuted meat, poultry and game that have been cured and dried or fermented.* | | | | |
| 8.1 | Processed meat and poultry products | 28 | 28 | 100.0 |
| 8.2 | Processed fish and seafood products | 8 | 5 | 62.5 |
| | | | | |
| *Category 9: Fruits and Vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes and aloe vera)* | | | | |
| 9.1 | Processed fruits, vegetables, and legumes excluding juices and drinks | 43 | 37 | 86.0 |
| 9.2 | Solid-form soybean products | 12 | 12 | 100.0 |

| CATEGORY NUMBER | FOOD CATEGORY | NUMBER OF FOODS LISTED PER CATEGORY | FOODS DECLARING ALL THE NUTRIENTS OF CONCERN | PERCENTAGE OF FOODS DECLARING THE NUTRIENTS OF CONCERN |
|---|---|---|---|---|
| *Category 10: Sauces, dips, other seasonings, soups and dressings* | | | | |
| 10 | Sauces, dips, other seasonings, soups and dressings | 27 | 13 | 48.1 |
| | | | | |
| *Category 11: Dairy Products and Analogues- includes all types of dairy products that are derived from the milk of any milking animal and water-based frozen desserts, confections and novelties, such as fruit sorbet, "Italian"-style ice, and flavoured ice.* | | | | |
| 11.1 | Milk and dairy-based drinks | 70 | 23 | 32.9 |
| 11.2 | Frozen dairy-based desserts and edible ices | 4 | 4 | 100.0 |
| 11.3 | Other dairy-based desserts | 38 | 1 | 2.6 |
| 11.4 | Cheese and analogues | 8 | 7 | 87.5 |
| | | **893** | **490** | **54.9** |

# ANNEX 4

## List of Contributors

| No. | Name | Organization/Designation |
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| 23. | Dr. Martin C Joseph | World Health Organization |
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| No. | Name | Organization/Designation |
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| 56. | Geoffrey Kinyua | Nutrition International |
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