Federal Ministry of
Health & Social Welfare
Federal Republic of Nigeria

NATIONAL GUIDELINES FOR SODIUM REDUCTION

2024

National Guidelines for Sodium Reduction

For further information on the guideline, please contact:
Food Safety and Quality Programme,
Food & Drug Services Department,
Federal Ministry of Health and Social Welfare, Federal Secretariat, Phase III, Abuja, Nigeria.
E-mail: foodsafety.fmoh@hotmail.com

Forward

Globally, many countries have increased their efforts to actualise sodium reduction in their population following the World Health Organization's call to member countries on the dangers and consequences of excessive sodium consumption.

Many African countries, including Nigeria, face the challenge of limited data to evaluate the impact of countries' efforts at attaining the target of reducing population salt consumption by 30% by the year 2025 from the 2013 base level. Only 3 countries, (Brazil, Chile and The Czech Republic reported a substantial decrease (>2 g/day). In comparison, 9 other countries (Lithuania, Malaysia, Mexico, Saudi Arabia, Spain, Uruguay, Bahrain, Egypt and Iran) reported a moderate decrease (1-2 g/day), and 5 others (Jordan, Kuwait, Lebanon, Morocco and Oman) reported a slight decline (<1 g/day) in the mean salt intake over time. However, none of the countries have met the targeted 30% relative reduction in salt intake from baseline (1, 2). Thus, more efforts are urgently required to accelerate and replicate rigorous monitoring and evaluation of strategies needed to achieve the salt reduction target.

The Sodium target setting in Nigeria represents a significant step forward in safeguarding public health in Nigeria and our march towards global best practices.

In collaboration with other institutions, the Nigeria Sodium Study (NaSS) Team, based at the University of Abuja, provided very useful national data on salt consumption and sodium content in processed packaged foods available in Nigeria.

The policy and legal landscape analysis for front-of-pack labelling and salt target setting for Nigeria, by the Federal Ministry of Health and Social Welfare with support from Resolve to Save Lives, also provided invaluable insight into the development of this guideline. Evidence of the rapidly growing Nigerian food landscape towards an urbanised and Western lifestyle with increasing reliance on processed and packaged foods makes it more compelling for the government at all levels to take appropriate steps to safeguard public health from an unhealthy food environment.

The National Technical Working Group on Sodium Reduction of the Federal Ministry of Health and Social Welfare, through her various sub-committees, contributed insights and perspectives that shaped public health initiatives in this guideline.

The proposed actions by the WHO, adopted in this guideline to achieve the global goal of reducing population-level salt intake, broadly include the reformulation of processed food products to contain less salt by setting mandatory maximum target levels for sodium content in identified processed packaged foods, as well as the adoption of labelling standards, including mandatory front-of-pack labelling. These actions will be supported

by the implementation of nutrition education and counselling, mass media campaigns, and behaviour change initiatives on healthy diets, including social marketing to reduce sodium intake and promote the consumption of healthier foods. A multi-pronged population salt reduction strategy which was previously identified as one of the most cost-effective approaches to reducing the burden of cardiovascular diseases (CVD) in Nigeria has now become crucial for strengthening and reinforcement.

The Federal Ministry of Health and Social Welfare (FMH&SW) is committed to its mandates on promoting the health of all Nigerians through the formulation of national policies, guidelines, strategies, and initiation of legislation aimed at ensuring that foods, medicines, and other health products are safe, efficacious for healthcare delivery and ultimate wellbeing of the citizens. The increase in the incidence and prevalence of cardiovascular diseases and other conditions associated with high sodium intake in the country makes it compelling to adopt a national position on the appropriate strategy for reducing sodium in the Nigerian diet. This strategy aligns with the national multi-sectoral action plan for the prevention and control of non-communicable diseases, ensuring that Nigeria meets the WHO target of a 30% relative reduction in sodium intake by 2030.

This guideline seeks to create a healthier food landscape in Nigeria, empower consumers, promote transparency, and foster collaboration between policymakers, the food industry and other key stakeholders.

Prof. Muhammad Ali Pate CON
Coordinating Minister
Federal Ministry of Health and Social Welfare
December 2024

Preface

Nigeria stands at a pivotal moment in its journey towards improved public health. The National Sodium Reduction Guideline is a groundbreaking initiative that symbolises our commitment to drastically reducing sodium intake across the nation. This guideline is more than a set of strategies, it is a powerful tool designed to enhance the quality of life for all Nigerians by mitigating the risks associated with high sodium consumption.

The need for these guidelines is underscored by alarming data: Currently, the average daily sodium intake for Nigerians far exceeds the recommended limit of 2 g/day; standing at around 2.3–10 g/day. High sodium intake is a significant contributor to hypertension, which affects approximately 30% of adults in Nigeria and is a leading cause of cardiovascular diseases, strokes, and kidney diseases. By setting these guidelines, we aim to reduce these health risks and promote a healthier population.

By setting specific sodium benchmarks for various food categories, we aim to reformulate processed foods and encourage the production of healthier options that align with our national health goals. Creating and sustaining consumer awareness programmes across the country is crucial to our success. Through widespread education and outreach, we will empower Nigerians to make informed dietary choices and understand the health risks associated with high sodium intake.

To track our progress and ensure accountability, we have established achievable targets based on best practices to reduce sodium consumption by 30%. We will monitor this process through collaborative scientific research, using in-country data to compare our current population's sodium consumption baseline with annual data. This will help us assess the levels of sodium reduction in Nigeria. By leveraging data and insights, we can make informed decisions, refine our strategies, and celebrate our achievements.

Our journey towards sodium reduction is supported by creating an enabling environment. This includes fostering collaboration among government agencies, the food industry, academia, and civil society. Together, we will implement policies, provide resources, and create incentives that encourage sodium reduction efforts at all levels.

As we embark on this transformative journey, we are filled with optimism for Nigeria's sodium reduction drive. Our collective efforts will lead to reduced rates of cardiovascular diseases, strokes, and other health conditions associated with high sodium intake. We envision a future where Nigerians enjoy longer, healthier lives, and our nation stands as a model of public health excellence.

Together, let us embrace this guideline with unwavering determination and enthusiasm. By working hand in hand, we will achieve our goal of reducing sodium intake and ensuring a healthier, brighter future for all Nigerians.

Daju Kachollom S. mni
Permanent Secretary
Federal Ministry of Health and Social Welfare
December 2024

Acknowledgement

The development of the National Guideline for Sodium Reduction was an inclusive and participatory process involving over 100 major stakeholders from National and Sub-national Government MDAs, Academia, Industry, Professional Bodies, Research Institutions, International Development Partners, Public Health Experts, and Civil Society Organisations.

The Federal Ministry of Health and Social Welfare, on behalf of the Federal Government of Nigeria, expresses its sincere appreciation to the members of the National Technical Working Group on Sodium Reduction for their relentless efforts and invaluable contributions. Their wealth of knowledge and experience made a significant impact on the development of the guideline.

Special appreciation goes to the project consultants led by Dr Omotola Davis, Dr Adedayo Ojo, Ms Claudia Nieto (WHO), Mrs Tessy-Nongo Maina, and Mr John Tehinse, whose expertise and dedication were instrumental in shaping this document.

We extend our profound gratitude to our partners, including the World Health Organization (WHO), Resolve to Save Lives (RTSL), the Global Health Advocacy Incubator (GHAI), Network for Health Equity and Development (NHED) and Corporate Accountability and Public Participation Africa (CAPPA), for their immense financial and technical support and collaboration throughout this process. Their guidance and resources have been critical to the success of our sodium reduction journey so far.

We also appreciate the University of Abuja – Nigeria Sodium Study (NaSS) team and its partners, led by Prof. Dike Ojji, for their extensive research on retail and population surveys to ascertain sodium consumption levels in Nigeria. We are sincerely grateful for sharing all the required data needed to facilitate the development of the Sodium Benchmarks for Nigeria.

Finally, this guideline benefited immensely from the outstanding leadership of the National Coordinator, Food Safety & Quality Programme, Mr Atanda O. John, the project lead, Mr Oluwafemi Stephen, and the exceptional Food Safety and Quality Programme team in coordinating the formation, development, and finalisation of this document.

We are, therefore, grateful to all.

Pharm. (Mrs) Olubunmi Aribeana,
Director, Food and Drug Service Department
Federal Ministry of Health and Social Welfare
Abuja

Table Of Contents

Acronyms

AAP	American Academy of Paediatrics
CSOs	Civil Society Organizations
CVDs	Cardiovascular Diseases
ESPGHAN	European Society for Paediatric Gastroenterology, Hepatology, and Nutrition
FAS	Fetal Alcohol Syndrome
FMH&SW	Federal Ministry of Health and Social Welfare
FMBEP	Federal Ministry of Budget and Economic Planning
IOM	Institute of Medicine
IUGR	Intrauterine Growth Restriction
LBW	Low Birth Weight
MDAs	Ministries, Departments, and Agencies
NAFDAC	National Agency for Food and Drug Administration and Control
NCDs	Non-communicable diseases
NEC	Necrotizing Enterocolitis
NMSAP	National Multi-sectoral Action Plan
NTWG	National Technical Working Group
NTWG-SR	National Technical Working Group on Sodium Reduction
PEDI	Paediatric Nutrition
PICU	Paediatric Intensive Care Unit
RCT	Randomised Controlled Trial
SGA	Small for Gestational Age
SHAKE	Surveillance, Harness Industry, Adopt standards, Knowledge, Environment
SON	Standards Organisation of Nigeria
UI	Uncertainty Interval
WHO	World Health Organization

Executive Summary

Sodium is an essential nutrient for transmitting nerve signals, maintaining cell function, and regulating plasma volume and acid levels. However, excessive sodium intake is associated with negative health outcomes, particularly cardiovascular diseases like hypertension.

The World Health Organization (WHO) recommends that adults consume less than 2 g (about twice the weight of a small paper clip) of sodium per day (equivalent to 5 g of salt). For children, the recommended intake is lower and varies with age. A global review by the WHO found that most populations consume sodium far above these recommendations, increasing the risk of Non-Communicable Diseases (NCDs) and thus recommended a 30% reduction in population sodium consumption by 2025 for all member countries.

In response to the WHO's call for a population sodium reduction globally, several African countries, including Nigeria, initiated successful sodium reduction programmes. As part of its efforts, Nigeria incorporated a sodium reduction initiative into its 2019-2025 National Multi-sectoral Action Plan for Preventing and Controlling Non-Communicable Diseases.

The Federal Ministry of Health and Social Welfare (FMoHSW) established a National Technical Working Group on Sodium Reduction. This group was tasked with developing a roadmap and guidelines to reduce sodium consumption in Nigeria, in line with global best practices.

These guidelines aim to establish a comprehensive national framework to reduce sodium intake across Nigeria.

The key objectives include:

1. Reduce Sodium Intake: Reduce the average daily sodium intake of Nigerians to less than 2 grams per day by 2030, in alignment with the WHO target of a 30% reduction in population consumption.
2. Reduce NCDs Prevalence: Reduce the prevalence of hypertension and other sodium-related NCDs by 25%, from the current 27.6% to 21% by 2030.
3. Promote Healthier Food Options: Increase the availability and consumption of healthier, lower-sodium food options by 60%, from the current 30% to 48% by 2030.
4. Reformulate Processed Foods: Reformulate targeted processed packaged foods to reduce sodium content without compromising quality or other organoleptic properties over time by 2030.
5. Increase Public Awareness: Raise public awareness of the health risks of high sodium intake and promote consumer behaviour change towards reduced sodium consumption.

6. Strengthen the implementation of marketing and labelling regulations that emphasise clear and accurate nutrition labelling on processed and packaged foods and restrict the marketing of unhealthy food, particularly to children.

7. Capacity Building: Strengthen the skills of food safety regulators, inspectors, and nutritionists at national and sub-national levels in sodium reduction strategies and monitoring techniques.

The strategies to achieve these objectives are based on the WHO's SHAKE technical package, which includes:

a. Surveillance and regular monitoring of the main sources of population sodium intake, sodium levels in foods, and impacts on health.

b. Collaboration with the food industry to limit the amount of salt in processed foods, beverages, and ingredients, including specifying benchmarks and targets set for selected identified food categories to limit sodium levels.

c. Adopting and implementing labelling standards, and restricting the advertising of unhealthy food, especially to children.

d. Promoting healthy diets through community mobilisation and public education campaigns.

e. Improving the food environment by promoting low-sodium options in schools, public institutions, and eateries.

The guidelines outline a framework for surveillance, monitoring, and evaluation to track the progress and achievements of the sodium reduction strategies. Key indicators have been defined, and stakeholders are tasked with regularly reporting on them.

Additionally, the guidelines identify areas of existing regulations and standards that require revision, updating, and re-enactment to align with the government's aspirations and goals for sodium reduction.

The guidelines also contain six annexes that address specific issues in greater detail such as the roles and responsibilities of certain stakeholders, advocacy expectations and framework for selected groups targeted for advocacy, benchmarks and targets for selected processed packaged foods.

This document outlines the roles and responsibilities of key stakeholders in the sodium reduction strategy in Nigeria. It emphasizes the importance of inter-ministerial collaboration, public health campaigns, and legal frameworks to achieve a reduction in sodium consumption.

The successful implementation of this guideline requires collaboration and engagement from all stakeholders involved in the food chain, including policymakers, food manufacturers, healthcare professionals, and

consumers. The vision is to achieve a healthier Nigerian population with reduced sodium intake and a lower prevalence of NCDs.

The NTWG-SR, as constituted, aims to avoid redundancy and ensure cohesive efforts, as a multi-stakeholder task force established to oversee the sodium reduction programme, track progress, and coordinate inter-ministerial initiatives.

This document serves as a call to action for all stakeholders to commit to reducing sodium intake in Nigeria, thereby improving public health outcomes.

1.0 Introduction

1.1 Background

Non-communicable diseases (NCDs) are a major public health concern in Nigeria, with high sodium intake identified as a significant risk factor for cardiovascular diseases (CVDs) and a leading contributor to NCDs by the National Multi-Sectoral Action Plan for the Prevention and Control of Non-Communicable Diseases (2019-2025) [2]. The World Health Organization (WHO) reports that NCDs account for over 70% of deaths globally, with the burden projected to rise in low- and middle-income countries like Nigeria [4]. To address this challenge, the Federal Ministry of Health and Social Welfare (FMoH&SW) is committed to promoting healthier dietary habits by reducing population sodium intake.

The disease burden attributable to excess sodium consumption in Nigeria is significant, with 10% of all deaths from cardiovascular disease due to excess dietary sodium [5]. An estimated 100,000 (95% Uncertainty Interval [UI]: 74,000 to 134,000) deaths from CVD occurred in Nigeria in 2017 [6]. In 2018, the Nigerian government estimated that the mean salt intake was 10 g/day, which is twice the World Health Organization's (WHO) daily recommendation [7]. A wide range of estimates of mean daily dietary sodium intake has been reported among Nigerian adults (dietary sodium range = 2.3–10 g/day; dietary salt range = 5.8–25 g/day) [7].

High blood pressure, a major CVD risk factor, is linked to excess dietary sodium or salt intake [9]. The overall age-standardised prevalence of hypertension in Nigeria is 38.1% [9], with estimated monthly household expenditures of ₦13,575.0 for inpatient care and ₦5,843.1 for outpatient care [6].

In response to the WHO's global sodium reduction strategy, several African countries have implemented successful initiatives, demonstrating the feasibility and effectiveness of such programmes. For example, South Africa has established national sodium reduction targets for key food categories [11]. In 2023, the World Health Organization provided Sodium Country Score parameters to estimate the impact of policy progress on population dietary sodium intake and cardiovascular disease per region. The scores range from 1 (the lowest level) to 4 (the highest level), and each Member State is allocated a score based on the level of implementation of sodium reduction policies and other measures [2]. In the African Region, no Member State, including Nigeria, has reached a score of 4. However, Seychelles is the first Member State to reach a score of 3, due to the implementation of a public food procurement and service policy that mandates standards for sodium content and the mandatory declaration of sodium on pre-packaged food. Additionally, four other Member States have implemented mandatory measures but do not fully qualify for a score of 3: Cabo Verde, Mauritius, and South Africa have mandatory measures with an underlying nutrient profile model that includes sodium, but they do not have a mandatory sodium declaration on all pre-packaged food.

Ten Member States have only voluntary policies to reduce sodium and remain at score 2. These include media campaigns (Algeria, Cabo Verde, Comoros, Eritrea, Gambia, Guinea, Madagascar, Mauritania, and South Africa) and voluntary reformulation targets (Senegal). Twenty-six Member States in Africa have only a policy commitment to reduce sodium intake, making the African Region the one with the highest share of Member States that only have a national policy commitment Table 1

Table 1. Sodium reduction policies and measures implemented in the African

Score 1	Score 2	Score 3	Score 4
A national policy commitment	At least one voluntary policy	At least one mandatory policy + a declaration of sodium on pre-packaged food	At least two mandatory policies and all the WHO sodium-related best buys + a declaration of sodium on pre-packaged food
Benin, Burkina Faso, Burundi, Central African Republic, Chad, Côte d'Ivoire, Eswatini, Ethiopia, Gabon, Ghana, Kenya, Lesotho, Mali, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Sierra Leone, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe	Algeria, Cabo Verde, Comoros, Eritrea, Gambia, Guinea, Madagascar, Mauritania, Senegal, South Africa	Seychelles	Nil
26	**10**	**1**	**0**

Source: WHO 2023 [2]

Nigeria is among the 26 Member States in the Region (55%) with only a score of 1, based on a national policy commitment to reduce sodium intake, with no further measures, and therefore remains at a score of 1. This position and score are expected to change with the articulation of these guidelines and the implementation of the measures and strategies contained herein.

A 2021 study by Charlton et al. evaluated the impact of South Africa's interim mandatory salt reduction programme and found a significant reduction in population salt intake after two years [9]. Furthermore, a broader analysis by Webster et al. underscores the success of South Africa's program, offering valuable insights for other low- and middle-income countries aiming to develop and implement similar strategies [11]. Similarly, a 2018 study by Leyvraz et al. highlighted the need for education campaigns and improved strategies focusing on the health risks of high sodium intake, while encouraging home cooking with less salt to increase knowledge and change attitudes towards salt consumption[12]. These successful efforts showcase the growing momentum for sodium reduction across Africa, paving the way for similar initiatives in Nigeria.

While studies across Sub-Saharan Africa, including Nigeria, have shown that a significant portion of the population expresses a desire to limit salt intake [14], knowledge about recommended levels and the danger of excess consumption seems limited.

The Nigerian government in 2019, published a National Multi-sectoral Action Plan (NMSAP) for the Prevention and Control of NCDs, which includes policies based on the SHAKE package [15] to reduce the growing burden of CVDs, including the reduction of population-level dietary sodium consumption. The NMSAP (2019-2025) identifies an unhealthy diet as a risk factor for non-communicable diseases and notes that anecdotally, food consumption patterns in Nigeria are changing rapidly towards the consumption of processed foods high in sodium and other nutrients of concern such as sugar and saturated fats [15].

The NMSAP's salt reduction components target four key priority actions:

1. Limiting the amount of salt in processed foods and ingredients.
2. Restricting how companies can advertise their products, especially to children, to help improve healthier diets.
3. Community mobilisation and public health campaigns to change how people learn about food, including limiting the marketing of unhealthy food and beverages to children.
4. Providing education on nutrition in schools to ensure children and their families understand how to have a healthy diet [15].

These NMSAP's salt reduction approaches also include standardised front-of-package food labelling as a priority intervention to increase the effectiveness of the priority actions to promote healthier diets in Nigeria.

In 2023, the Federal Ministry of Health and Social Welfare revised the National Policy on Food Safety and Quality and its Implementation Plan (NPFSQIP) to ensure that foods produced, sold, marketed, and consumed in the country are both safe, healthy and nutritious. The policy requires that the government develop and implement a national guideline for sodium reduction that includes setting mandatory salt targets for packaged and processed foods as well as spices [16].

Implementing the provisions of the NMSAP and NPFSQIP requires political commitment, programme leadership, effective partnerships and regulations, community acceptance and manufacturer compliance, as well as the adoption and multipronged actions across various sectors.

Implementation science provides tools to help policymakers and implementers recognise barriers and facilitators to implementation, as well as potential strategies to address barriers or leverage facilitators in the planning and implementation stages of country sodium reduction strategies. The public health goals of reducing salt and increasing iodine intake through salt iodisation are compatible, as the concentration of iodine in salt can be adjusted as needed. Iodisation is the process of fortifying salt for human consumption with iodine and is an effective strategy to increase iodine intake at the population level.

1.2 Purpose of this Guideline

This guideline aims to establish a comprehensive national framework for reducing sodium intake in the Nigerian population. It outlines strategies, targets, and timelines for achieving the goal of reducing population sodium consumption and consequently improving public health outcomes.

1.3 Scope

This guideline applies to all stakeholders and systems involved in the food chain, including:

1. Policymakers (e.g., Federal Ministry of Health and Social Welfare (FMH&SW), Federal Ministry of Budget and Economic Planning (FMBEP): Responsible for developing and implementing national policies, regulations, and strategies related to sodium reduction, including setting targets, allocating resources, and monitoring progress. This includes integrating sodium reduction into broader NCD prevention strategies.

2. Regulators (e.g., National Agency for Food and Drug Administration and Control (NAFDAC), Standards Organisation of Nigeria (SON), Federal Competition and Consumer Protection Commission (FCCPC)): Enforce regulations related to food labelling (including mandatory sodium declaration), food composition (including setting maximum sodium levels in processed foods), advertising (ensuring responsible marketing practices), and consumer protection. They will also be responsible for monitoring compliance and taking appropriate action where necessary.

3. Food Manufacturers and Processors: Responsible for reformulating products to reduce sodium content, accurately labelling sodium levels on packaging, and adhering to regulations regarding sodium content and marketing claims. This includes engaging in research and development to create lower-sodium alternatives.

4. Retailers (e.g., Supermarkets, grocery stores, supply chain stores): Play a key role in making lower-sodium products readily available to consumers, promoting healthier food choices through product placement and labelling, and supporting public health campaigns. This could include offering discounts on healthier options.

5. Food Service Establishments (e.g., Restaurants, hotels, fast food chains, street food vendors, bakers, caterers, government institutions serving food): Responsible for reducing sodium in meals and food products they prepare and serve, providing healthier options to customers, and educating staff on low-sodium cooking practices. This also extends to providing nutritional information to consumers.

6. Academicians and Researchers: Conduct research to monitor sodium intake levels, evaluate the effectiveness of interventions, and provide evidence-based recommendations for policy development and programme implementation. This includes research on consumer behaviour and effective communication strategies.

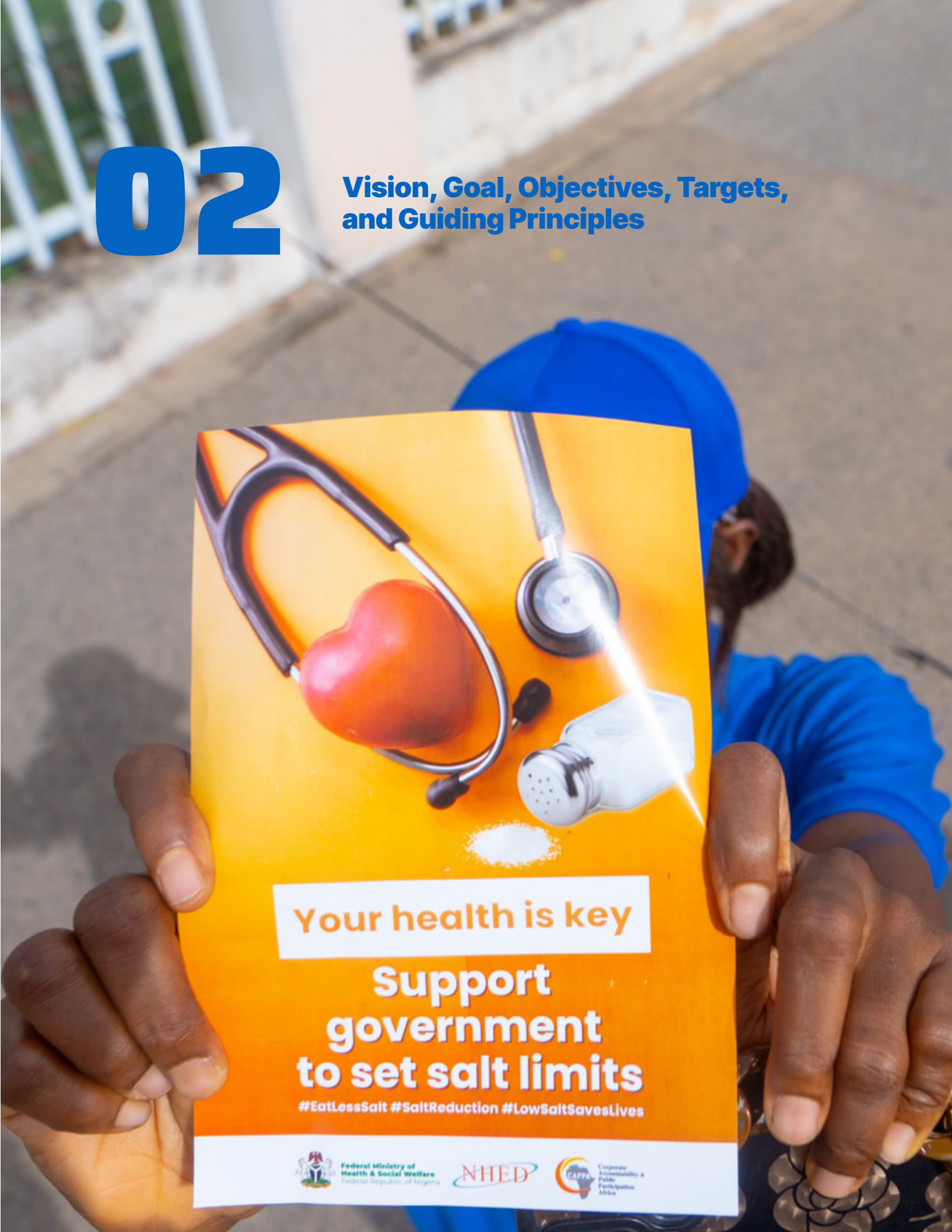
7. Healthcare Professionals (e.g., doctors, nurses, nutritionists, food scientists): Educate patients and the public about the health risks of high sodium intake, promote healthy dietary habits, and provide guidance on reducing sodium consumption. They also play a vital role in identifying and managing hypertension and other related conditions.

8. Consumers and Consumer Groups: Empowered to make informed food choices, advocate for healthier food environments, and hold manufacturers and retailers accountable for providing healthier options. Consumer groups can play a role in raising awareness and advocating for policy changes.

9. Informal Food Sector (e.g., Roadside small businesses, street food vendors, and other similar establishments): Included in the scope to ensure that sodium reduction efforts reach all segments of the food system. This will require tailored approaches to provide education and support to these businesses, enabling them to offer healthier options to their customers.

02

Vision, Goal, Objectives, Targets, and Guiding Principles



2.1 Vision

A healthier Nigerian population with reduced sodium intake and a lower prevalence of non-communicable diseases (NCDs).

Context: High sodium intake is a significant risk factor for hypertension and cardiovascular diseases, which are prevalent in Nigeria. Reducing sodium intake can lead to substantial health improvements.

2.2 Goals

To significantly reduce population-wide sodium intake and contribute to the prevention and control of NCDs in Nigeria, thereby reducing the burden of diseases attributable to high sodium intake.

2.3 Objectives

1. **Reduce Sodium Intake:** Decrease the average daily sodium intake of Nigerians to less than 2 grams per day by 2030, in alignment with the WHO target of a 30% reduction.
2. **Reduce NCDs Prevalence:** Decrease the prevalence of hypertension and other sodium-related NCDs by 25% by 2030.
3. **Promote Healthier Food Options:** Increase the availability and consumption of healthier, lower-sodium food options.
4. **Reformulate Processed Foods:** Reformulate target processed packaged foods to reduce sodium content without compromising quality and other organoleptic properties by 2030.
5. **Increase Public Awareness:** Raise public awareness about the health risks of high sodium intake and promote consumer behaviour change towards reduced sodium consumption.
6. **Strengthen Regulations:** Strengthen the implementation of marketing and labelling regulations that emphasise clear, accurate nutrition labelling on processed and packaged foods and restrict the marketing of unhealthy food, particularly to children.
7. **Capacity Building:** Strengthen the skills of food safety regulators, inspectors, and nutritionists at national and sub-national levels on sodium reduction strategies and monitoring techniques.

2.4 Targets

1. Establish specific, measurable, achievable, relevant, and time-bound (SMART) targets for sodium reduction in key food categories (sub-categories), aiming for a 30% reduction in population sodium intake by 2030. These targets will be based on a nationally representative food consumption survey.
2. Implement regular monitoring and evaluation systems to track progress against these targets.

2.5 Guiding Principles

The guiding principles for the articulation and development of this guideline are rooted in the following:

1. **Collaboration**: Engagement of multiple stakeholders, including government at all levels (MDAs), industry, civil society, development partners, media, academia and consumer groups, for successful implementation including the avoidance of conflicts of interest throughout the engagements. This follows the WHO guidance on interactions with the private sector.
2. **Evidence-Based Approach:** Strategies based on scientific evidence, local data, and best practices recommended by the WHO, adapted to the Nigerian context.
3. **Equity and Affordability:** Guideline strategies are feasible, accessible and affordable for all Nigerians, considering socioeconomic disparities.
4. **Sustainability:** Commit to long-term efforts to achieve and maintain sodium reduction goals.
5. **Transparency and Accountability:** Regular periodic monitoring and evaluation of progress to ensure transparency and accountability for all stakeholders.

2.6 Roles of Stakeholders

1. **Government:** Policy formulation, creation of an enabling environment, regulation, and enforcement.
2. **Industry (including Organised Private Sector):** Reformulation of food products and adherence to regulations.
3. **Civil Society Organisations (including CBOs, FBOs):** Advocacy, education, and public awareness campaigns.
4. **Academia (including professional associations):** Research and evidence generation to inform strategies.
5. **Consumers:** Responsible food choices for healthy low-salt diets.
6. **Media:** Dissemination of information and public awareness campaigns.
7. **Development Partners:** Technical and financial support.

The outlined roles and responsibilities of some identified key stakeholders in the sodium reduction strategy in Nigeria are to emphasise the importance of inter-ministerial collaboration, public health campaigns, and legal frameworks to achieve a reduction in sodium consumption. Stakeholders such as the Federal Ministry of Health, the Ministry of Budget and Economic Planning, the National Agency for Food and Drug Administration, and the Ministry of Education, among others, have been tasked with specific roles to ensure the programme's success.

Annex 1 provides a summary of the roles and responsibilities of some of the key stakeholders in the implementation of this guideline

03 STRATEGIES

3.0 Introduction

Strategic Framework for Sodium Reduction in Nigeria

This chapter outlines the strategic framework adopted by Nigeria to achieve its sodium reduction goals. It details the priority interventions, governance structure, advocacy efforts, education and awareness initiatives, industry engagement strategies, and sodium reduction targets for various food categories.

3.0.1 The SHAKE Technical Package

Nigeria adopted the World Health Organization's (WHO) SHAKE technical package as the foundation for its sodium reduction strategy. This multifaceted framework integrates sodium reduction interventions with other strategies aimed at promoting healthier dietary habits.

The SHAKE package includes five key components:

1. **Surveillance:** Monitoring sodium intake and its health impacts.
2. **Harnessing Industry:** Limiting the amount of salt in processed foods, meals, and ingredients.
3. **Adopting Standards:** Adopting labelling standards and restricting/controlling unhealthy food advertising, especially to children.
4. **Knowledge:** Community mobilisation and public education campaigns to promote healthy diets.
5. **Environment:** Nutrition education in schools and promoting low-sodium options.

3.0.2 Alignment with the NMSAP

These strategies are aligned with the National Multisectoral Action Plan (NMSAP) for the Prevention and Control of Non-Communicable Diseases (2019-2025), which aims for a 30% relative reduction in mean population intake of dietary salt/sodium by 2025 and a further reduction to 5g/2g of salt/sodium per day by 2030.

3.0.3 Priority Interventions

To achieve these goals, the strategic framework focuses on the following priority areas:

1. **Governance and Coordination:** Establishing a clear governance structure and coordinating mechanisms to oversee the implementation of the sodium reduction strategy.
2. **Interventions in Processed Packaged Foods:** Implementing interventions to reduce sodium content in processed packaged foods.
3. **Interventions in Foods Prepared Outside the Home:** Addressing high sodium content in foods prepared in restaurants, food service establishments, and the informal food sector.

4. **Interventions in Foods Prepared at Home:** Encouraging sodium reduction in home cooking practices.
5. **Surveillance System:** Developing and implementing a robust surveillance system for monitoring and evaluating population sodium intake and related health outcomes.
6. **Policy and Regulatory Review:** Reviewing and updating policies and regulations to create an enabling environment for sodium reduction.

3.1 Governance and Coordination

The Food and Drug Services Department of the Federal Ministry of Health and Social Welfare (FMoH&SW) is responsible for coordinating the implementation of the national sodium reduction guideline and supporting the development of relevant regulations and legislations. The Department will focus on high-level policies that promote sodium reduction across all population groups in Nigeria. The National Technical Working Group on Sodium Reduction (NTWG-SR), comprising key stakeholders, will support the Ministry in this effort.

3.1.2 Advocacy

Advocacy efforts will target various groups, including government agencies, food industry stakeholders, civil society organizations, consumers, academia, and the media, to raise awareness about the dangers of excessive sodium consumption and promote sodium reduction.

Key advocacy targets and activities include:

1. **Ministries, Departments, and Agencies (MDAs) of Government:** Collaboration to develop, implement, monitor, and enforce sodium reduction guidelines and support mandatory salt targets.
2. **Food Business Operators:** Adherence to policies, reformulation of products, and accurate labelling of sodium content in line with revised regulations.
3. **Civil Society Organizations (CSOs):** Education of members and the public about the risks of high sodium intake, advocacy efforts, and engagement with policymakers.
4. **Consumers:** Making informed choices, staying updated on health developments, and influencing others on sodium consumption and its health impacts.
5. **Academic Community:** Generating evidence-based data, collaborating on disseminating information, and supporting policy development.
6. **Media:** Creating public awareness about the risks of high sodium intake and collaborating on adhering to sodium reduction guidelines.

Annexe 2 of this guideline provides greater details on the key asks and expectations from the key advocacy groups identified.

3.1.3 Education and Awareness Creation

Education and awareness activities are fundamental to the success of the national sodium reduction strategy. These activities are designed to increase public understanding of the importance of sodium reduction and its direct link to cardiovascular health, encouraging behaviour change towards healthier eating practices and fostering a culture of low-sodium consumption. Ultimately, these efforts aim to empower individuals to make informed dietary choices.

These activities are strategically aligned to achieve key objectives.

1. Increasing Knowledge and Changing Behaviours: This will be achieved through:

a. Health Education and Promotion: Integrating sodium reduction messages into existing health education programmes, emphasizing the connection between sodium intake and cardiovascular health. This includes raising awareness of the health risks of excessive sodium consumption and promoting the benefits of reducing sodium intake.

b. Public Awareness Campaigns: Implementing comprehensive public awareness campaigns using various media (flyers, jingles, digital media, advertisements, community events) to educate the public about the dangers of excessive sodium intake and promote healthier eating habits. These campaigns will aim to reach diverse audiences and use tailored messaging.Community Outreach: Providing information on the health risks of excessive sodium consumption to households, particularly those responsible for meal preparation. This includes educating about alternative seasoning methods and the impact of sodium on family health.

2. Transforming the Food Environment: This will be facilitated by:

a. Food Industry Engagement: Conducting capacity-building workshops and training for food manufacturers, producers, retailers, distributors, and advertisers on sodium reduction strategies, labelling requirements, and the health and economic risks of non-compliance. This includes guidance on product reformulation and compliance with regulations and standards.

b. Education in Schools: Integrating salt reduction messages into the basic education curriculum, targeting school children and teachers. Training school chefs and cooks to reduce salt use in meal preparation and promoting “salt champions” in schools. This includes fostering healthy food environments in schools.

3. Enhancing Institutional Capacity: This will be accomplished through:

a. Targeted Training: Conducting workshops and training for key personnel in public institutions, such as food procurement officers, equipping them to counsel others on sodium reduction and healthy eating. This training will also be extended to healthcare professionals, educators, and community leaders, ensuring a broad network of support for sodium reduction efforts.

Annexe 3 of this guideline provides a detailed framework for the educational component and awareness creation on national sodium reduction actions in Nigeria

3.2 Harnessing Industry Support/ Interventions to address high sodium in packaged foods

This guideline aims to harness industry support by reducing sodium content in processed packaged foods, increasing the availability of low-sodium options, and promoting a culture of sodium reduction. Specific targets and timelines are set for reducing sodium content in various food categories and subcategories over five years.

3.2.1 Food Categories with Sodium Content Benchmarks and Progressive Targets Settings

This guideline establishes specific sodium content targets for various food categories, categorised into three groups:

1. Group 1: Foods exceeding the WHO benchmarks (e.g., nuts, bouillon and soup stock (concentrated), cheese).

2. Group 2: Commonly consumed foods in Nigeria without WHO benchmarks (e.g., frozen seafood).

3. Group 3: Foods meeting the WHO benchmarks but widely consumed (e.g., crackers/savoury biscuits).

The National Sodium Reduction Targets, aligned with the WHO Global Sodium Benchmarks, will be implemented using a stepwise approach over five years.

Examples of Food Categories and Sodium Reduction Targets

Group 1: Packaged Foods Exceeding WHO Benchmarks

1. **Cookies/sweet biscuits:** The current median sodium level is 238 mg/100g; the Nigeria benchmark is 200 mg/100g. The target will be attained gradually, from the current median value to 200 mg/100g in the first two years.

2. **Bread and bread products:** The current median sodium level in leavened packaged bread is 900 mg/100g; Nigeria's benchmark is 370 mg/100g. The target will be attained gradually, starting from the current median value, reaching 765 mg/100g in the first 2 years, and further reducing to 630 mg/100g in the following 3 years.

3. **Processed meat, poultry, game, fish, and similar:** The current median sodium level is 383 mg/100g; Nigeria's benchmark is 270 mg/100g. The reduction will be gradual over five years, starting with a 15% reduction from the current median value and ultimately attaining a 30% reduction.

Annex 4 provides the list of foods in this sub-category that have sodium content higher than the WHO benchmark and the maximum limits approved to be attained in Nigeria.

Group 2: Foods with No WHO Benchmarks

Frozen seafood: Set specific sodium content targets to align with global best practices. Annexe 5 provides the list of foods in this sub-category and the maximum limits approved.

In recognition and compliance with the gradual reduction approach, as well as in compliance with global best practices, the attainment of the recommended mandatory maximum limit will be implemented in phases.

Annexe 5 provides a listing of Nigeria's commonly consumed processed and packaged foods with no WHO benchmarks.

Group 3: Commonly Consumed Packaged Foods Meeting the WHO Benchmarks

Crackers/savoury biscuits: Targeted for further sodium reduction despite meeting the WHO benchmarks. The current median sodium content is 479 mg/100g, below the National Benchmark of 580 mg/100g. The sodium content of these products is expected to remain below the National Benchmark value.

Annex 6 provides the list of foods in this subcategory and the maximum limits approved for the 2 phases of the reduction

Compliance with the 15% reduction will be enforced within the first two years of the approval of the regulation and is expected to be in force from 2027 till the end of 2028. The second phase will run from the beginning of 2029 till the year 2030, ensuring a further sodium content reduction of 30% for the targeted identified foods and beverages, as listed and identified in annexes 4 to 6 of this guideline.

The decision criteria for setting the National targets are enumerated in Annexe 7 of this guideline.

3.2.2 Standards for Labelling and Marketing of packaged products

Labelling and marketing regulated products are governed by regulations and standards set by relevant regulatory authorities. This emphasises clear communication with consumers through labelling and marketing regulations.

3.2.2.1 Front-of-Package Labelling

The National Agency for Food and Drug Administration and Control (NAFDAC) will introduce mandatory front-of-pack labelling for sodium content and other key nutrients of concern on all processed packaged foods. This labelling will utilise a clear and easy-to-understand format to indicate food products with excessive levels. This is part of the ongoing review of labelling standards for processed packaged foods. Additionally, a nutrient profile model that promotes global best practices, as defined by the WHO, will be adopted, using thresholds based on the WHO's population nutrient intake goals.

3.2.2.2 Marketing Restrictions

NAFDAC, in collaboration with other regulatory agencies, will develop regulations to limit or restrict the marketing and promotion of foods relatively high in nutrients of concern, including sodium, particularly to persons under 18 years, by 2025. The regulations will target:

1. **Placement:** Restricting the marketing of foods high in nutrients of concern, including sodium, near schools, playgrounds, or during children's programming on television and radio.
2. **Content:** Prohibiting claims that portray foods high in nutrients of concern, including sodium, as healthy or essential for growth and development.
3. **Packaging:** Refrain the use of cartoon characters or other child-oriented imagery on packaging and advertising of foods high in nutrients of concern, including sodium.
4. **Advertising:** Limit the use of children or other child-oriented imagery on the packaging of foods high in nutrients of concern, including sodium.

3.3 Environmental Settings Interventions to address high sodium content in foods prepared outside the home.

This section outlines the importance of creating an enabling environment to promote healthy eating. Environmental settings are defined as places where people work, live, and play. Standards will be put in place to create environments that promote healthy eating. Salt reduction strategies in public settings such as schools, prisons, workplaces, and hospitals are crucial steps.

These strategies include:

1. **Cross-sectoral guidance:** Developing guidance and regulatory changes to reduce salt in public catering.
2. **Enforcing maximum standards:** Enforcing maximum standards for salt allowed in food sold/served in schools, workplaces, hospitals, etc.
3. **Regulating distribution:** Regulating the distribution of high-sodium foods to vulnerable groups such as prison inmates and internally displaced persons under the guise of charity, aid, or corporate social responsibility.

The National Agency for Food and Drug Administration and Control (NAFDAC), Standards Organisation of Nigeria (SON), Federal Competition and Consumer Protection Commission (FCCPC), and other regulatory agencies will review existing regulations and standards on identified food sub-categories to reduce salt content through the reformulation of food products to conform with set targets for packaged processed foods and meals. An enabling environment will be created through regulatory frameworks to aid consumer choices in identifying or determining the sodium content of foods or prepared meals.

The Bureau for Public Procurement will issue regulations on Public Food Procurement to mandate every public institution, particularly correctional centres, hospitals, schools, workplaces, and nursing homes, to provide lower-sodium options. Federal and state orientation, as well as public enlightenment agencies, should integrate salt reduction activities through behaviour change communication and mass media campaigns, using all available media platforms.

Conclusion

The implementation of this comprehensive strategy requires collaboration among government agencies, the food industry, civil society, and consumers. By working together, Nigeria will achieve significant reductions in sodium intake, improve public health, and align with global health recommendations.

04 Surveillance, Monitoring and Evaluation

4.1. Introduction

This chapter outlines a comprehensive Monitoring and Evaluation (M&E) framework to monitor sodium levels in food/diets, population sodium intake, and assess the effectiveness of public health interventions aimed at reducing sodium consumption. The framework covers various aspects, including data collection methods, evaluation processes, and stakeholder engagement, to ensure a robust approach to reducing sodium intake and improving public health.

Surveillance is a vital strategy for sodium reduction, particularly in governance and coordination. It involves monitoring and tracking progress toward reducing population sodium intake, identifying areas for improvement, and informing policy decisions. Effective surveillance requires a robust monitoring system to track sodium levels in foods/diets, population intake levels, consumer knowledge and behaviours, and the impact of interventions. Mechanisms that mandate the food industry and producers of processed packaged foods to present compliance certificates and reports to aid regulatory monitoring will be adopted.

4.2. Objectives

Overall Objective: To monitor and evaluate population sodium intake levels and assess the effectiveness of interventions aimed at reducing sodium consumption, thereby reducing relative sodium intake by 30% by 2030.

Specific Objectives

1. Establish a baseline for sodium levels in foods by 2025.
2. Establish a baseline for population sodium intake levels by 2025.
3. Track changes in sodium intake levels between 2025 and 2030.
4. Evaluate the effectiveness of public health interventions designed to reduce sodium intake levels between 2025 and 2030.
5. Provide bi-annual data to inform programme adjustments and guideline review.

4.3. Indicators

Input Indicators

1. Amount of funding allocated for the surveillance and monitoring system.
2. Number of personnel trained to collect and analyse sodium levels in food/intake data at national, sub-national, and local government area (LGA) levels.
3. Availability of data collection tools (e.g., dietary surveys, urine collection kits).
4. Proportion of regulatory agencies trained to monitor sodium content in processed foods and beverages.

Process Indicators

1. Number of food samples collected/surveyed.
2. Number of dietary surveys conducted.
3. Percentage of the target population reached in data collection.
4. Frequency of data collection.
5. Timeliness of data collection and reporting.
6. Percentage of allocated funds disbursed and utilised.
7. Number of training sessions conducted for data collection personnel.
8. Number of training sessions conducted for data analysis personnel.
9. Number of data collection tools procured and distributed.
10. Number of training sessions conducted for regulatory agency personnel.
11. Number of inspection or monitoring activities conducted by trained regulatory personnel.

Output Indicators

1. Number of food samples analysed.
2. Number of completed dietary intake surveys collected.
3. Number of valid 24-hour urine samples analysed.
4. Number of reports generated on population sodium status.
5. Percentage of the allocated budget utilised for the surveillance and monitoring system.
6. Number of data collection activities conducted by trained personnel.
7. Number of analysis reports generated by trained personnel.
8. Number of data collection tools distributed and in use.
9. Number of inspections or monitoring activities conducted by trained regulatory personnel.

Outcome Indicators

1. Change in the average sodium content of food.
2. Change in average sodium intake levels in the population.
3. Proportion of the population meeting recommended sodium intake guidelines.
4. Changes in public awareness and knowledge regarding sodium consumption.
5. Improved accuracy and timeliness of sodium intake data collection and analysis.

6. Increased coverage and quality of sodium intake data collected at national, state, and LGA levels.
7. Enhanced capacity to generate actionable insights from sodium intake data.
8. Higher frequency and reliability of sodium intake data.
9. Improved compliance with sodium content regulations in processed foods and beverages.

Impact Indicators

Reduction in the prevalence of sodium-related diseases due to improved surveillance and monitoring.

4.4. Sample/Data Collection Methods

Data will be collected using both quantitative and qualitative methods:

The Food and Drug Services Department of the FMHSW shall determine and regulate the sample and data collection methods that shall be used to determine sodium content in foods and food products sold or consumed in Nigeria, in collaboration with the regulatory authorities.

4. 5. Data Analysis and Interpretation

Data will be collected using both quantitative and qualitative methods. The Food and Drug Services Department of the FMHSW, in collaboration with regulatory authorities, will determine and regulate the sample and data collection methods used to determine sodium content in foods and food products sold or consumed in Nigeria.

4. 6. Reporting and Feedback

The National Technical Working Group on Sodium Reduction (NTWG-SR) will produce regular annual reports detailing the sodium content of foods and intake trends, indicators, compliance with reduced sodium consumption targets, challenges, opportunities, public health impacts, and the effectiveness of interventions. The Federal Ministry of Health and Social Welfare (FMoHSW) will present findings to stakeholders, including the government health sector, NGOs, partners, academia, the organised private sector (OPS), and the public.

4. 7. Guideline Evaluation and Adaptation

Mid-term Evaluation: A mid-term evaluation of guideline implementation will be conducted after two years to assess progress toward targets, identify challenges, opportunities, compliance levels, and behaviour change, and adjust the surveillance strategy as needed.

Final Evaluation: A comprehensive evaluation will be undertaken every five years to determine the overall effectiveness of implemented strategies and their impact on public health

4. 8. Stakeholder Engagement

Regular updates and feedback will be sought to ensure the surveillance system is responsive to programme needs and concerns regarding population sodium reduction and the reduction in NCD incidences over time.

4. 9. Timelines and Milestones

Timelines and milestones will be set for achieving sodium reduction targets, considering the time needed for product reformulation, testing, and relaunch. A gradual reduction over five years will be adopted, targeting a 30% reduction in target processed packaged products. This will begin with a 15% reduction within the first two years, followed by another 15% (of the initial sodium level) in the following three years. The five-year evaluation report will reveal whether the target levels have been met or if further adjustments are needed to ensure WHO benchmark levels are achieved for ALL selected processed packaged foods that have been benchmarked.

Annexe 1: Roles and Responsibilities of Some Identified Key Stakeholders in Sodium/Salt Reduction in Nigeria

Government and Public Institutions

1. Federal Ministry of Health and Social Welfare (FMoH&SW)

a. Lead the implementation of this National Guideline.
b. Lead national awareness campaigns on the risks of excessive sodium intake.
c. Collaborate with food manufacturers to reduce sodium content in processed packaged foods.
d. Collaborate with stakeholders, research institutes, and relevant MDAs, and conduct research and surveillance to monitor salt consumption and related health outcomes.
e. Undertake inter-ministerial collaboration to integrate sodium reduction strategies into various relevant sectors.
f. Ensure that legal frameworks and enforcement mechanisms are in place to achieve sodium reduction goals.
g. Support and build capacity among healthcare workers, policymakers, and food industry stakeholders on achieving a sustainable reduction in population sodium consumption.

2. Federal Ministry of Budget and Economic Planning (FMBEP)

a. Advocate for the inclusion of sodium reduction objectives and strategies as a matter relating to overall national development.
b. Encourage and enhance relevant stakeholders in sodium reduction implementation to play their expected roles effectively.
c. Enhance stakeholders' activities for sodium reduction initiatives across national and sub-national levels to ensure efficient coordination.
d. Conduct economic evaluations to assess the cost-effectiveness of sodium reduction interventions.
e. Support and encourage partnerships to support sodium reduction initiatives, using the instruments of bilateral and multilateral relations.
f. Include sodium reduction indicators or markers in the National Monitoring and Evaluation framework.
g. Utilise the budgetary framework to ensure that domestic resources are available for the National Guideline on Sodium Reduction in Nigeria.

3. Federal Ministry of Education (FME)

a. Integrate sodium reduction strategies and education into school curricula at all levels (primary, secondary, and tertiary).
b. Foster healthy food environments in schools by supporting sodium reduction in school meals and snacks.
c. Coordinate and lead awareness campaigns on sodium reduction in educational institutions.
d. Enhance the capacity of teachers and school staff to support sodium reduction efforts.

e. Support research on the impact of sodium reduction interventions in schools and their role in broader public health strategies.
f. Partner with other ministries and organisations to ensure a coordinated effort in sodium reduction.
g. Foster partnerships with the private sector to promote a healthier food environment in schools.

4. National Agency for Food and Drug Administration and Control (NAFDAC)

a. Draft, review, revise, and enforce regulations that limit sodium content in processed and packaged foods sold in Nigeria.
b. Ensure continuous monitoring and evaluation of sodium reduction interventions in the food industry.
c. Partner with the food industry to reformulate products and reduce sodium content.
d. Support public education campaigns that promote the benefits of sodium reduction and help consumers make healthier food choices.
e. Support research and development of healthier, low-sodium food alternatives. f. Build the capacity of NAFDAC staff and other regulatory agencies to implement and monitor sodium reduction initiatives.

5. Standards Organisation of Nigeria (SON)

a. Draft, review, revise, and enforce regulations that limit sodium content in processed and packaged foods sold in Nigeria.
b. Develop and enforce standards that limit sodium content in food products in Nigeria.
c. Conduct regular audits and inspections within its mandate to ensure compliance with established standards.

6. Federal Competition and Consumer Protection Commission (FCCPC)

a. Monitor and regulate marketing practices related to sodium content in food products.
b. Protect consumers from misleading claims about sodium content.
c. Facilitate consumer complaints and resolve disputes related to sodium reduction.
d. Conduct consumer awareness campaigns on the consumption of low-sodium foods.

7. Institute of Public Analysts of Nigeria (IPAN)

a. Provide training, certification and licencing for public analysts and laboratory personnel for sodium testing.
b. Conduct regular testing of food samples to ensure compliance with sodium regulations.
c. Support educational campaigns to raise awareness about the health impacts of excessive sodium intake.

8. National Orientation Agency (NOA)

a. Conduct public awareness campaigns on the health risks of high sodium intake.
b. Mobilise community support for sodium reduction initiatives.
c. Provide feedback to the government on public perceptions and attitudes towards sodium reduction.

9. United Nations Organisations and Development Partners

a. Advocate for policies and interventions at global, regional, and local levels that protect vulnerable groups from excessive sodium exposure, especially through processed foods.
b. Support monitoring progress and implementing effective measures.
c. Promote sodium reduction as part of a comprehensive approach to healthcare in Nigeria.
d. Support the funding of research on sodium reduction technologies and product reformulation.
e. Support the funding of all sodium reduction initiatives in the guideline. These funds may be used for research, awareness campaigns, regulatory enforcement, etc.

Civil Society Groups

a. Monitor and track progress, report successes and challenges, and advocate for transparency in sodium reduction implementation.
b. Dialogue with policymakers, participate in consultations, and propose evidence-based solutions.
c. Empower consumers to make informed choices by educating them on how to read food labels, understand sodium content, and select healthier food options.
d. Support research by funding and encouraging studies on the relationship between sodium intake and cardiovascular health in Nigeria.

Professional Associations

1. Nutrition Society of Nigeria (NSN)

a. Lead public education and advocacy on healthy eating and nutrition.
b. Advocate for the implementation of sodium reduction policies and support the government in enforcing these guidelines.
c. Educate the public on the health risks of excessive salt intake and promote awareness of healthier alternatives.
d. Train nutritionists and dietitians on sodium reduction strategies to counsel individuals and communities effectively.

2. Nigerian Medical Association (NMA)

a. Educate doctors and healthcare professionals about the risks associated with high sodium intake and how to counsel patients on dietary changes.

b. Support healthcare providers in incorporating sodium reduction into patient care, particularly for those with hypertension, cardiovascular diseases, and kidney disorders.
c. Advocate for the inclusion of sodium reduction strategies in national health programmes, particularly for non-communicable diseases (NCDs).

3. Association of Public Health Physicians of Nigeria (APHPN)

a. Conduct research on sodium consumption patterns in Nigeria and the health impacts of high salt intake, providing evidence for policy development.
b. Partner with government agencies to launch public health campaigns focused on reducing sodium intake.
c. Evaluate the effectiveness of sodium reduction interventions and provide feedback for improvement.

4. Nigerian Institute of Food Science and Technology (NIFST)

a. Support food manufacturers in developing and marketing products with reduced sodium content.
b. Lead research on alternative preservatives, flavourings, and seasonings to reduce sodium content in processed foods without compromising taste.
c. Provide training to food scientists and technologists on the benefits of sodium reduction and the use of alternative ingredients.

5. Pharmaceutical Society of Nigeria (PSN)

a. Train pharmacists to counsel patients on sodium reduction as part of managing hypertension and other related conditions.
b. Use community pharmacies as platforms for disseminating information on the dangers of high sodium intake.
c. Support research on sodium reduction interventions and their effects on the population, particularly as it relates to hypertension management.

6. Institute for Dietitians in Nigeria (IDN) and Dietitians Association of Nigeria (DAN)

a. Educate dietitians on sodium reduction strategies and provide them with the necessary tools to counsel individuals on healthy eating habits.
b. Develop and disseminate culturally appropriate low-sodium recipes to households, restaurants, and food vendors.
c. Organise training programs for dietitians and nutritionists on the health impacts of sodium and how to guide clients in reducing their intake

7. Association of Nigerian Private Medical Practitioners (ANPMP)

a. Train private practitioners to inform their patients about the risks of excessive salt intake and the importance of dietary changes.
b. Promote regular screening for high blood pressure and other sodium-related conditions in private clinics.
c. Encourage private practitioners to offer tailored advice on sodium reduction, particularly for at-risk individuals.

8. National Association of Master Bakers and Caterers of Nigeria (AMBCN)

a. Reformulate baked goods to reduce sodium content while maintaining product quality and consumer acceptability.
b. Ensure adherence to the national sodium/salt targets for bakery products.
c. Build the capacity of bakers and caterers to adopt low-sodium recipes and food preparation techniques.
d. Support public education initiatives to promote the benefits of low-sodium baked goods and raise awareness among consumers.
e. Collaborate with regulatory bodies and government agencies to ensure successful sodium reduction initiatives.
f. Promote innovation in the baking and catering industry to develop new low-sodium products.
g. Ensure that sodium-reduced bakery products remain affordable to consumers.
h. Ensure that small-scale and rural bakeries have access to sodium reduction resources and guidelines.

Annexe 2: Advocacy: Expectations from Some Key Stakeholders

1. Ministries, Departments, and Agencies (MDAs)

a. Align efforts, resources, and strategies toward implementing the sodium reduction guidelines, both within their respective organisations and collectively, in a coordinated manner consistent with this guideline.

b. Incorporate the provisions of the guidelines into policies, programmes, and interventions, avoiding conflicts of interest.

c. Support the effective implementation of mandatory salt targets for identified food categories based on existing sodium content in packaged processed foods in Nigeria.

d. Implement public awareness campaigns on the health risks of excessive salt intake and high salt levels in packaged food.

2. Food and Beverage Industry

a. Adhere to approved policies, standards, regulations, and guidelines for reformulating targeted and selected foods and beverages in line with this guideline.

b. Implement approved national guidelines and regulations on food labelling, including front-of-pack and nutrient labelling, to accurately reflect the sodium and other nutrient content of concern in packaged processed products.

c. Recognise the critical importance of salt reduction targets as a global strategy in safeguarding public health and consumer welfare.

d. Collaborate with the government and relevant agencies to source healthier alternatives and achieve population sodium reduction targets by 2030.

3. Civil Society Organisations (CSOs)

a. Provide comprehensive education to their members about the health risks associated with excessive salt consumption and the importance of supporting salt reduction initiatives.

b. Collaborate with government agencies, health organisations, and industry stakeholders to amplify advocacy efforts.

c. Lead campaigns and advocacy efforts for implementing and enforcing mandatory salt targets and standards.

d. Engage with policymakers, lawmakers, and government officials to promote policies supporting mandatory salt reduction, including advocating for legislation that prioritises public health and holds food manufacturers accountable.

e. Drive public engagement and commitment from the public, government, and other stakeholders to create a groundswell of support for mandatory salt reduction initiatives and policies.

4. Consumers

a. Individual Consumers:

i. Make informed choices, including reading food labels to identify and reject high-sodium content products and choosing lower-sodium alternatives.

ii. Stay informed about health developments and progress on the salt reduction campaign through self-education, make empowered decisions about diet, and influence others by example.

b. Consumer Groups:

i. Play similar complementary roles to CSOs, acting as advocates for public health and consumer rights, driving positive change toward salt reduction in the food and beverage supply chain. Through collective efforts, they can shape policies, raise awareness, and empower consumers to make healthier choices.

5. Academic Community

a. Generate Nigeria-specific evidence-based data to inform decision-making on the policy process for sodium reduction in Nigeria. This should include data on consumption patterns, salt levels, prevalence, morbidity, and mortality associated with excessive salt consumption in pre-packaged foods.

b. Interpret complex health and statistical data for policymakers to enable informed decision-making.

c. Collaborate with relevant stakeholders, civil society groups, and the media to disseminate generated data through various media for awareness creation on the public health impact of excessive sodium consumption in Nigeria.

d. Generate relevant publications in peer-reviewed journals, known journals, and at conferences, seminars, and workshops around the impact of excessive sodium consumption and the need for mandatory sodium reduction targets to curb morbidity and mortality of diet-related NCDs in Nigeria.

6. Media

Empirical evidence has shown that the media is a powerful tool for improving public health outcomes through information delivery. The Federal Ministry of Health and Social Welfare is calling on the media to:

a. Utilise its platforms to create public awareness of the consequences of high salt intake and the benefits of sodium reduction in Nigeria.

b. Deliberately utilise evidence-based data and information received from collaborators to empower the public for informed decisions and demand for effective implementation of this salt reduction guideline.

c. Collaborate with relevant agencies to ensure adherence to sodium reduction guidelines, including restricting the marketing and promotion of foods high in sodium and other unhealthy foods.

d. Allocate a specific amount of airtime, space, and content for a salt reduction campaign.

The mass media discussion will be incomplete without reference to communication channels; thus, this guideline recognises the use of both print and electronic media, as well as social media platforms including the use of traditional communication approaches like advertorials, and branded materials to raise awareness such as T-shirts, skirts, face caps, flyers and leaflets, jingles, digital advertisement, influencer partnership among others.

Annex 3: Education And Awareness Creation Framework for Sodium Reduction

Goal

To create awareness of the dangers of excessive salt consumption and promote sodium reduction among all stakeholders through targeted education and behaviour change strategies, in alignment with global best practices and locally relevant messaging.

Core Messages

Message	Details
Daily Sodium Limit	5g (2000mg) per day (approximately one teaspoon), emphasising local dietary sources
Health Risks	Excess salt intake increases the risk of high blood pressure, heart disease, and stroke; additional emphasis on regional hypertension prevalence
Label Reading	Importance of reading and understanding sodium content on food labels, with simplified local language translations
Behaviour Change	Encouraging the reduction of discretionary salt use, promoting low-sodium alternatives, and highlighting culturally accepted flavour substitutes
Institutional Role	Schools, workplaces, and food service providers should create salt-reduction-friendly environments, reinforcing government policy commitments

Framework Structure and Messaging Approach

The framework sectors are drawn from key sources of sodium consumption, ensuring that interventions target the most significant contributors to excessive salt intake. These sectors include the manufacturing and distribution sector, household consumption, and institutional and food service settings, reflecting the diverse pathways through which sodium enters daily diets. The suggested messages for each target audience are not exhaustive. Implementers are encouraged to tailor their messages to suit specific contexts while ensuring alignment with the National core message guide provided above. By adapting and refining messages to local realities, implementers can enhance the effectiveness of sodium reduction efforts and drive meaningful behaviour change across various stakeholder groups.

1. Manufacturing and Distribution Sector

Current State Analysis

Target Group	Current Behaviours	Current Perceptions	Knowledge Gaps
Producers/Manufacturers, Retailers/Distributors, Advertisers, Quality control personnel, Regulatory agencies	Poor/Low awareness, High salt content for preservation, Misleading labels	Longer shelf-life = more profit, Misconceptions about safety	Lack of awareness of sodium impact, Labelling standards, Policy enforcement gaps

Strategic Interventions and Expected Outcomes

<table>
<tr><th>Education Strategies</th><th>Implementation</th><th>Key Messages</th><th>Expected Outcome</th></tr>
<tr><td>Capacity Building</td><td>Workshops, Training on labelling, Compliance guidance, Product reformulation, Industry peer learning forums</td><td rowspan="2"><table><tr><th>Target Group</th><th>Message</th></tr><tr><td>Manufacturers</td><td>Reformulate products to reduce sodium content while maintaining quality and safety.</td></tr><tr><td>Retailers/Distributors</td><td>Stock and promote low-sodium products. Educate customers on sodium risks.</td></tr><tr><td>Advertisers</td><td>Avoid misleading health claims on high-sodium products. Promote healthier alternatives.</td></tr><tr><td>Regulatory Agencies</td><td>Strengthen enforcement of sodium content regulations and improve food labelling.</td></tr></table></td><td rowspan="2">i. No misleading labels
ii. Clear sodium content information
iii. Increased low-sodium product availability
iv. Compliance with regulations
v. Strengthened regulatory oversight</td></tr>
<tr><td>Awareness Creation</td><td>Highlight compliant products, Salt Awareness Week activities, Industry newsletters, and Consumer advocacy.</td></tr>
</table>

2. Household Consumption Sector

Target Groups: Mothers, Caregivers, Heads of households, Children, Traditional food preparers

Current State Analysis

Group	Behaviours	Perceptions	Knowledge Gaps
Mothers & Caregivers	Overuse of bouillon/salt, Salt at the table, High-sodium restaurant food	Salt enhances joy, Traditional habit	Health risks, Alternative seasoning, Local adaptation strategies
Heads of Households	Demand for high salt, High sodium food preferences	Food without salt is tasteless, Salt as medicine	Sodium impact on health, Household-level solutions
Children	Adding salt at the table, High-sodium snacks	Advertised/Colourful foods are healthy	Dangers of excessive sodium intake

Strategic Interventions

Target	Education Strategies	A	Key Messages	Expected Outcomes
Mothers/Caregivers	Workshops, Religious engagements, Community leaders, Peer networks	i. Mass media ii. Social media iii. SBC materials iv. Beauty parlours v. Faith-based networks	Reduce salt and bouillon in home-cooked meals. Try herbs and spices. Excess salt can harm your health. Support lower-sodium meal choices. Too much salt can cause health problems. Choose fresh, less salty foods.	• Increased awareness of sodium-related health risks. • Reduced discretionary salt use and preference for low-sodium alternatives. (No saltshakers at the table). • Improved purchasing decisions based on sodium content in food labels. • Reduced demand for high-sodium foods, influencing market availability. • Healthier dietary habits, especially among children and caregivers.
Heads of Households	Town halls, Media campaigns, Documentaries, Storytelling			
Children	Animations, School programs, Interactive books, Role-play learning			

3. Institutional and Food Service Sector

Target Groups	Food procurement officers, Schools, NYSC camps, IDP camps, Food vendors, Traditional caterers

Current State Analysis

Group	Current Behaviours	Current Perceptions	Knowledge Gaps
Institutional Food Providers (Schools, NYSC Camps, IDP Camps, Workplaces, Hospitals)	High use of bouillon and salt for large-scale cooking, Limited adherence to sodium guidelines	Salty food satisfies customers, Low demand for reduced-sodium meals	Awareness of sodium reduction policies, Low-sodium cooking techniques, and Alternative seasoning knowledge
Public Food Vendors (Restaurants, Street Food, Traditional Caterers)	Excessive salt and bouillon usage, No sodium disclosure on menus, No portion control	More salt = better taste, Customer preference drives decisions	Impact of sodium on health, Strategies for reducing sodium while maintaining taste

Strategic Interventions

Education Programs	Implementation
Curriculum Development	School integration, Teacher training, Student engagement, Training on Indigenous food modifications
Institutional Training	Procurement guidelines, cooking demos, Health awareness, Policy adherence training

Key Messages

Target Group	Message	Expected Outcomes
Food Vendors & Caterers	Reduce added salt in meals. Use fresh ingredients for better taste.	1. Sodium Reduction Policies Adopted – Schools, workplaces, hospitals, and other institutions will integrate sodium reduction into their procurement policies and meal preparation guidelines. 2. Capacity Building for Food Providers – Institutional cooks, caterers, and procurement officers will gain knowledge and skills in low-sodium cooking techniques and food preparation. 3. Implementation of Labeling and Disclosure Practices – Institutional food service providers will be encouraged to disclose sodium content on menus and product packaging. 4. Reduced Sodium in Public Meals – Institutions such as NYSC camps, IDP camps, and hospitals will implement sodium reduction practices, leading to lower overall sodium intake among beneficiaries. 5. Consumer Demand for Lower-Sodium Meals – Awareness campaigns will shift consumer preferences, leading to increased demand for healthier, low-sodium food options in public settings.
School & Institutional Cooks	Follow sodium reduction guidelines in food preparation.	
Procurement Officers	Purchase and prioritise lower-sodium food options.	
Policy Makers & Supervisors	Support sodium reduction policies in institutional food environments.	

WHO SHAKE Package Alignment

SHAKE Strategy	Application
Surveillance	Sodium intake monitoring, Industry compliance checks, Research on local dietary sodium sources
Harnessing Industry	Reformulation, Adherence to sodium guidelines, Government-industry dialogues
Adopting Standards	Food labelling, Institutional guidelines, Strengthened policy enforcement
Knowledge Expansion	Consumer education initiatives, Inclusion of traditional food system stakeholders
Environment Modification	Reducing salt in public food settings, Incentives for sodium reduction in food businesses

Monitoring and Evaluation

Indicators	Measurement
Process Indicators	Training completion rates, Material distribution, Campaign reach, Institutional adoption, Private sector participation
Outcome Indicators	Behaviour change, Knowledge improvement, Product reformulation, Policy Compliance, Public perception shifts
Impact Assessment	Population sodium intake, Health outcomes, Market transformation, Cultural practice changes, Policy effectiveness reviews

Annexe 4: Packaged foods with sodium content exceeding the WHO-recommended benchmarks along with the recommended Nigeria benchmarks and reduction phase

S/N	WHO Category No.	Category	Subcategory	Subcategory description	National Median (mg/100g)	15% Sodium Reduction (mg/100g) 2027	30% Sodium Reduction (mg/100g) 2029	National Target (mg/100g) 2030	Sample size	Data Source Year
1	1a	**Chocolate and sugar confectionery, energy bars, and sweet toppings and desserts**	**Granola and cereal-type bars**	Granola bars (plain and coated), fruit filled bars.	329	280	230	150	17	2020
2	2a	**Cakes, sweet biscuits and pastries; other sweet bakery wares; and dry-mixes for making such**	**Cookies/sweet biscuits**	Shelf-stable, frozen and refrigerated products. Sweet cookies, biscuits, tea biscuits and dough. Includes filled and coated cookies and biscuits. Excludes crackers/savoury biscuits. Excludes dry-mixes.	238	200	200	200	670	2022
3	2b		**Cakes and sponges**	Shelf-stable, frozen and refrigerated products. Cakes, snack cakes, doughnuts (yeast and cake types), brownies and squares, muffins and pastry dough. Excludes dry-mixes	260	221	182	205	38	2022
4	2g		**Dry-mixes for making cakes, sweet biscuits, pastries and other sweet bakery wares**	Dry-mixes for cookies/sweet biscuits, cakes, sponges, pies, pastries, baked and cooked desserts, pancakes, waffles, French toast, scones and soda bread. Excludes ready-made products.	840	714	588	320	32	2022
5	3b	**Savoury snacks**	**Nuts, seeds and kernels**	Nuts, peanuts and seeds (seasoned with salt or flavour). Excludes unsalted products. Includes seasoned/ flavoured pulses (such as chickpeas, peas, and mung bean snacks), and mixed snacks (e.g. trail mix, gorp, scroggin, nuts and bolts, mezcla de frutos secos, namkeens, bhujas) where nuts, seeds, or kernels are the main component (e.g. nut mixtures with dried fruit). Excludes popcorn.	357	280	280	280	81	2022
6	3c		**Potato, vegetable and grain chips, popcorn and extruded snacks**	Chips made of potato, vegetables and grains (e.g. corn, wheat, multigrain and rice). Includes all flavours (including salt and vinegar flavours). Includes both reformed chips/ crisps and sliced chips. Sheeted, reformed, puffed or pelleted snacks made from starch-rich materials(e.g. corn, maize, wheat, rice or potato flour) or legume flours. Includes all flavours (including salt and vinegar flavours). Excludes pretzels. Includes popcorn (including microwave and stovetop ready popcorn, seasoned or candied ready-to-eat popcorn). Includes snack mixes (e.g. trail mix, gorp, scroggin, nuts and bolts, mezcla de frutos secos, namkeens, bhujas) where extruded snacks (made from starch-rich flours or legume flours) are the main component.	575	470	470	470	113	2022

7	6a	**Breakfast cereals**	**Minimally processed breakfast cereals (includes all types – prepared, ready-made and dry-mixes)**	Prepared, ready-made or dry-mix minimally processed cereals, such as steel-cut, rolled or instant oats for preparing oatmeal, and muesli (i.e. made with oats and a mixture of unsalted nuts and seeds and/or dried fruit). May or may not require cooking. Includes porridge mix and hot instant cereals. Excludes highly processed cereals including granola.	203	173	142	120	61	2020
8	6b		**Highly processed breakfast cereals**	Highly processed, ready-to-eat breakfast cereals including shredded, flaked, puffed or extruded cereals, and cereals with added nutrients such as sodium, fat, sugars (or nonsugar sweeteners), fibre or various vitamins and minerals. Includes granola.	415	353	291	280	101	2022
9	8a	**Cheese**	**Fresh unripened cheese**	Unripened cheese (e.g. cream cheese, mozzarella, ricotta and cottage cheese).	242	190	190	190	5	2022
10	8g		**Processed Cheese**	All processed and melt cheese, cheese spreads, blocks and slices with or without added ingredients, cheese analogues (including plantbased), dairy-free cheese and spreads.	906	770	634	720	25	2022
11	9bii	**Ready-made and convenience foods and composite dishes**	**Pasta, noodles, and rice or grains with sauce or seasoned (dry-mix, concentrated)**	Dry-mixes for shelf-stable pasta, noodles, and rice or grain mixes with sauce or seasonings sold in concentrated form (e.g. macaroni with cheese sauce, noodles in tomato sauce and teriyaki noodles). Includes instant noodle with soup or seasonings.	1515	1287	1060	800	34	2022
12	10a	**Butter and other fats and oils**	**Salted butter, butter blends, margarine and oil-based spreads**	Flavoured butter, butter blends, ghee and margarine. Includes vegetable oil spreads such as olive oil spreads. Excludes unsalted butter.	985	837	690	400	25	2022
13	11b	**Bread and bread products**	**Leavened Bread**	All types of yeast-leavened breads, including sourdough breads. Includes breads made with all types of cereal flours (e.g. white or whole grain wheat, spelt and rye). Includes all types of shapes and baking traditions (e.g. pan baked, hearth baked, large loafs, baguettes, rolls and buns). Includes all types of artisanal, prepackaged sliced breads, par-baked bread and rolls, croissants, bagels, English muffins, pizza crusts, and diet or low-calorie breads. Includes breads with and without additions (e.g. herbs, nuts, olives, onion, tomato, garlic, pieces of ham and cheese). Also includes refrigerated and frozen dough. Excludes dough for cookies, cakes and sponges, pies and pastries and scones and soda bread. Excludes flatbreads that are leavened, such as naan.	900	765	630	370	14	2024

14	11c		**Flatbreads**	All types of leavened and non-leavened flat breads. Fresh baked, refrigerated and shelfstable plain (i.e. flavoured only with salt) or flavoured tortillas, wraps, pita, Greek flatbreads or naan. Includes refrigerated and frozen dough. Excludes pancakes. Excludes dry breads and crisp flatbreads.	500	425	320	320	5	2024
15	14a	**Processed meat, poultry, game, fish and similar**	**Canned fish**	Canned tuna, canned salmon, water and oil packed fish, sauce-packed fish, fish/seafood salad and shellfish (e.g. sardines, mackerel, shrimp, crab, clams and smoked oysters). Includes retort-packed products. Excludes canned anchovies.	383	326	280	280	84	2022
16	14b		**Processed fish and seafood products, raw**	Unprepared fish and seafood products, cakes and burgers; and seasoned (with sauce or seasoning), breaded, battered and stuffed fish. Includes restructured, simulated or imitation seafoods such as surimi. Also includes fish and seafood-based mousse, spread and dips.	383	326	270	270	38	2020
17	14h		**Comminuted meat products, heat treated (cooked)**	Cooked sausages (including hotdogs), cooked meatloaf balls, corned beef, luncheon meats and pate. Includes canned sausages and luncheon meats.	710	604	540	540	31	2022
18	16c	**Processed fruit, vegetables and legumes**	**Olives and sundried tomatoes**	Shelf-stable unstuffed and stuffed olives, tapenade and sundried tomatoes.	1000	900	900	900	28	2022
19	18aii	**Sauces, dips and dressings**	**Bouillon and soup stock (concentrated)**	Bouillon cubes and soup stock powders. Includes gravy stock. Excludes concentrated, dry soups.	22000	18700	15400	13000	61	2020
20	18d		**Emulsion based dips, sauces and dressings**	Cream or cheese dips and sauces, standardized salad dressing (including mayonnaise-based dressing, refrigerated and shelf-stable oil and vinegar-based dressings, and creamy dressings), and mayonnaise. Includes mayo type spreads. Includes low-fat and fat-free versions.	610	500	500	500	65	2022
21	18e		**Condiments**	Tomato ketchup, brown sauce (e.g. BBQ sauce, Worcestershire sauce, steak sauce and curry flavoured sauces), chilli sauce including sriracha chilli sauce, sweet chilli sauce and mustard. Also includes pesto.	840	650	650	650	39	2022
22	18f		**Soy sauce and fish sauce**	Soy sauce, fish sauce and other fermented sauces.	5800	4840	4840	4840	45	2022
23	18g		**Other Asian style sauces**	Asian-style sauces and condiments (e.g. teriyaki, black bean, hoisin, stir-fry, duck and oyster sauces). Excludes sweet sauces and chilli sauce including sriracha chilli sauce and sweet chilli sauce and soy sauce and fish sauce.	3240	2754	2268	680	6	2020
24	18h		**Marinades and thick pastes**	Shelf-stable marinades, and thick pastes such as curry pastes (e.g. Thai and Indian) and other Asian pastes (e.g. miso, doubanjiang and gochujang).	1536	1425	1425	1425	12	2020

Annexe 5: Processed and Packaged Foods Commonly Consumed, with no WHO Benchmark (with the recommended mandatory maximum sodium limit)

S/N	Category	Subcategory	Subcategory description	National Median (mg/100g)	15% Sodium Reduction (mg/100g)	30% Sodium Reduction (mg/100g)	National Target * (mg/100g)	Data Source Year
					2027	2029	2030	
1	Seafood and seafood products	Frozen seafood	Ready seafood meals that are sold in the freezer section of a supermarket that cannot be categorised into any of the 'frozen seafood' categories mentioned. Seafood products sold frozen in the supermarket. Includes all varieties that are coated in batter or crumbed and cannot be categorized into any of the 'coated frozen seafood' categories mentioned. Seafood products sold frozen in the supermarket. Includes all varieties that are not coated in batter or crumbed.	488.5	415	381	381	2020
2	Non Alcoholic Beverages	Beverage mixes	Including fruit-based mixes, ginger-infused drinks, and other unprepared beverage options that require water to be added before consumption.	133	113	93	42.2	2020
3		Breakfast beverages	Beverages that are manufactured with ingredients similar to that of a breakfast cereal that are advertised as being consumed at breakfast. A range of beverages typically enjoyed in the morning as an integral part of the initial meal of the day.	145	119	119	119	2020

*** National target was drawn from the 33rd Percentile based on International Best Practices.**

Annexe 6: Consumed packaged foods meeting the WHO Global Benchmark for the recommended mandatory salt limit

S/N	WHO Category No.	Category	Subcategory	Subcategory description	National Median (mg/100g)	National Target (mg/100g)	Sample size	Data Source Year
1	3a	**Savoury snacks**	**Crackers/savoury biscuits**	Plain (i.e. flavoured only with salt) or flavoured crackers, sandwich crackers, puffed cakes, and graham crackers (e.g. cheese crackers, soda crackers and rice cakes). Includes dry breads such as Melba toast, rusks, breadsticks, pita or baguette chips, croutons and other crisp breads. Includes poppadoms. Excludes unsalted products. Includes snack mixes (e.g. trail mix, gorp, scroggin, nuts and bolts, mezcla de frutos secos, namkeens, bhujas) where crackers/ savoury biscuits are the main component (e.g. mixed rice crackers with nuts).	479	580	138	2022
2	9d	**Ready-made and convenience foods and composite dishes**	**Sandwiches and wraps**	Frozen and refrigerated sandwiches, wraps, burritos, tacos, enchiladas, empanadas, samosas, spring rolls, hamburgers and hot dogs.	140	470	5	2022
3	9gi		**Soups (ready to-serve, canned and refrigerated soups)**	Canned and refrigerated, ready-to-serve broth and broth-based soup. Excludes ready-made noodles with sauce, dry soups, and bouillon and soup stock (not concentrated).	240	230	12	2022
4	14g	**Processed meat, poultry, game, fish and similar**	**Whole muscle meat products, non-heat preservation**	Air-dried, cured, entire meat pieces (e.g. prosciutto, Parma and serrano ham). Brined meat products (e.g. pastrami and bacon).	752	950	16	2022
5	16bii	**Processed fruit, vegetables and legumes**	**Pickled fermented foods**	Shelf-stable, pickled foods prepared by lactic acid fermentation. Vegetable based (e.g. sauerkraut, gherkins, cucumbers, onions) and fruits (e.g. mango), meat/fish. Includes chutneys where brining and fermentation is involved. Excludes regular chutney.	620	900	26	2022
6	16f		**Frozen potatoes and other potato products (ready-to-eat)**	Plain (i.e. flavoured only with salt) and seasoned French fries/chips, sweet potato fries, hash browns, potato patties, green plantain, and tropical tubers such as cassava (yuca).	20	140	10	2022

7	18b	**Sauces, dips and dressings**	**Cooking sauces including pasta sauces and tomato sauces (not concentrated)**	All cooking sauces (e.g. pasta sauce, curry and Mexican). These are major characterizing components of a meal and are designed to be added to foods during preparation, rather than at the table. Also includes gravies and finishing sauce products which are designed to be added to food upon serving or as food finishes cooking. Products in this category do not require reconstitution or the addition of liquids. Excludes tomato pastes, pesto, soy sauce and fish sauce, other Asian-style cooking sauces, and marinades and thick pastes.	374	330	26	2020
8	18i		**Spice blends, seasoning mixes, curry powder (dry-mix, concentrated)**	Dry seasoning/spice mixes and curry powders for side and main dishes (e.g. chilli, stew, fajita, masala, barbeque seasoning). Dry seasoning for meat and fish (e.g. steak spice).	5833	6000	29	2022

Annexe 7:
The Decision Criteria For Interim Targets

1. **Concepts**
   a. Sodium data: Contains sodium estimate values for 2022 and 2020.
   b. WHO Benchmark: Global reference value for sodium values

2. **Explanations**
   a. Year selection: First, should be decided whether to use the 2022 or 2020 data depending on the sample size.
   b. Verification against the benchmark: If the estimate is within 10% of the benchmark.

3. **Decision rules**
   a. If there are two databases:
      i. If the 2022 sample size is adequate (30 products), use this estimate.
      ii. If the 2022 sample size is small (< 30 products), assess whether it is justifiable to use the 2020 data, assuming that it has more than 30 products.
      iii. If the dataset has less than 30 products, consider the variance within subcategories, if too large don´t set interim targets and use WHO Global Benchmarks.
   b. For interim targets: If the estimated value is below the National Benchmark go directly to the benchmark
   c. If the percentile 75 is below the benchmark is not recommended to increase sodium content to reach the benchmark. The median should be taken to set targets.

4. **2027 sodium reduction targets**
   a. A 15% reduction from the median was calculated for each subcategory
   b. If the 15% reduction is **higher** than the benchmark + 10% take the 15% reduction from the median estimate as the sodium reduction interim target for 2027
   c. If the 15% reduction is **lower** than the benchmark + 10% the benchmark can be selected as an interim target for 2027
   d. If data is sparse or unreliable, assign the target to the benchmark value.

References

1. WHO. Sodium reduction. World Health Organization. [Online] September 16 , 2023. https://www.who.int/news-room/fact-sheets/detail/salt-reduction

2. WHO global report on sodium intake reduction. Geneva: World Health Organization; 2023. Licence: CC BY-NC-SA 3.0 IGO. https://iris.who.int/bitstream/handle/10665/366393/9789240069985-eng.pdf?sequence=1

3. Federal Ministry of Health, Nigeria. (2019). National Multi-sectoral Action Plan for the Prevention and Control of Noncommunicable Diseases (NCDs) 2019 – 2025

4. World Health Organization. (2023). Noncommunicable diseases. https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases

5. Wang, Y. J., et al. (2020). Dietary Sodium Intake and Risk of Cardiovascular Diseases: A Systematic Review and Dose-Response Meta-Analysis. Nutrients. 12, 2934: 1 – 14.

6. Odili, A. N., et al. (2020). Prevalence, Awareness, Treatment and Control of Hypertension in Nigeria: Data from a Nationwide Survey 2017. Global Heart, 15(1): 47. DOI: https://doi.org/10.5334/gh.848 2020.

7. Powles, John, et al. (2013). Global, regional and national sodium intakes in 1990 and 2010: A systematic analysis of 24 h urinary sodium excretion and dietary surveys worldwide. BMJ, 3:e003733. doi:10.1136/bmjopen-2013- 003733.

8. Jachimowicz-Rogowska, K. and Winiarska-Mieczan, A. (2023). Initiatives to Reduce the Content of Sodium in Food Products and Meals and Improve the Population's Health. Nutrients, 15:2393. https://doi.org/10.3390/nu15102393.

9. World Health Organization. Noncommunicable Diseases Data Portal. [Online] World Health Organization, 2022. https://ncdportal.org/, https://www.who.int/europe/tools-and-toolkits/noncommunicable-diseases-(ncd)-dashboard

10. Karen E. Charlton, Barbara Corso, Lisa Ware, Aletta E. Schutte, Leanda Wepener, Nadia Minicuci, Nirmala Naidoo, Paul Kowal (2021). Effect of South Africa's interim mandatory salt reduction programme on urinary sodium excretion and blood pressure. Preventive Medicine Reports; 2211-3355. https://doi.org/10.1016/j.pmedr.2021.101469.htt

11. Webster, Jacqui, Crickmore, Christelle, Charlton, Karen, Steyn, Krisela, Wentzel-Viljoen, Edelweiss, & Naidoo, Pamela. (2017). South Africa's salt reduction strategy: Are we on track, and what lies ahead?. SAMJ: South African Medical Journal, 107(1), 20-21. https://dx.doi.org/10.7196/

12. Leyvraz M, Mizéhoun-Adissoda C, Houinato D, Moussa Baldé N, Damasceno A, Viswanathan B, Amyunzu-Nyamongo M, Owuor J, Chiolero A, Bovet P. (2018). Food Consumption, Knowledge, Attitudes, and Practices Related to Salt in Urban Areas in Five Sub-Saharan African Countries. Nutrients. 10(8), 1028; https://doi.org/10.3390/nu10081028 Tekle, D. Y., Santos, J. A., Trieu, K., Thout, S. R., Ndanuko, R., Charlton, K., Hoek, A. C., Huffman, M. D., Jan, S., & Webster, J. (2020). Monitoring and implementation of salt reduction initiatives in Africa: A systematic review. The Journal of Clinical Hypertension. 22(8), 1355-1370. https://doi.org/10.1111/jch.13937

13. Santos, J. A., et al. (2021). A Systematic Review of Salt Reduction Initiatives Around the World: A Midterm Evaluation of Progress Towards the 2025 Global Non-Communicable Diseases Salt Reduction Target. Advances in Nutrition; 12:1768–1780; doi: https://doi.org/10.1093/advances/nmab008. Sanuade OA, Alfa V, Yin X, Liu H, Ojo AE, Shedul GL, et al. (2023) Stakeholder perspectives on Nigeria's national sodium reduction program: Lessons for implementation and scale-up. PLoS ONE 18(1): e0280226. https://doi.org/10.1371/ journal.pone.0280226 Available at: (https://www.globalhealth.northwestern.edu/docs/global-health-day-abstracts/sanuade21.pdf)

14. Hyseni L, Elliot-Green A, Lloyd-Williams F, Kypridemos C, O'Flaherty M, McGill R, et al. (2017) Systematic review of dietary salt reduction policies: Evidence for an effectiveness hierarchy? PLoS ONE 12(5): e0177535. https://doi.org/10.1371/journal. pone.0177535

15. Federal Ministry of Health (2019); National Multi-sectoral Action Plan for the prevention and control of Non -Communicable Diseases(2019 – 2025

16. Federal Ministry of Health and Social Welfare, 2023 National Policy on Food Safety and Quality and Its Implementation Plan 2023

List of Contributors

S/N	NAME	ORGANISATION
1.	Pharm. (Mrs.) Olubunmi Aribeana	Federal Ministry of Health and Social Welfare
2.	Atanda O. John	Federal Ministry of Health and Social Welfare
3.	Fanta Suleiman	Adamawa State Ministry of Health
4.	Fred Chiazor	Association of Food Beverage and Tobacco Employers
5.	Mansur Umar	Association of Master Bakers and Caterers of Nigeria
6.	Ishaq Abdulraheem	Association of Master Bakers and Caterers of Nigeria
7.	Musa Zamzam	Association of Master Bakers and Caterers of Nigeria
8.	Nura Musa M.	Association of Master Bakers and Caterers of Nigeria
9.	Olugbenga Ogunmoyela	CAFSANI
10.	Bolarinwa I. Dudulewa	CAFSANI
11.	Bukola Olukemi Odele	Corporate Accountability and Public Participation Africa
12.	Abayomi Sarumi	Corporate Accountability and Public Participation Africa
13.	Shade Oyelade	Corporate Accountability and Public Participation Africa
14.	Humphery Ukeaja	Corporate Accountability and Public Participation Africa
15.	Babawale Teniola	Dufil Prima Foods Plc
16.	Adebayo Dayo	Dufil Prima Foods Plc
17.	Adegoke Abdulhafeez	Dufil Prima Foods Plc
18.	Martha Aja	Dufil Prima Foods Plc
19.	Ijeoma Madu	Enugu State Ministry of Health
20.	Dr Adeyemi A. Olubunmi	Federal Capital Territory Administration
21.	Adenike Onasanya	Federal Competition and Consumer Protection Commission
22.	Taiwo Deborah Olugbemiga	Federal Competition and Consumer Protection Commission
23.	Patience Ibbi	Federal Competition and Consumer Protection Commission
24.	Olubunmi Ibidapo	Federal Institute for Industrial Research, Oshodi
25.	Likuna Julius	Federal Ministry of Budget and Economic Planning
26.	Dr. Clementina Okoro	Federal Ministry of Budget and Economic Planning
27.	Jamil Abdallah	Federal Ministry of Budget and Economic Planning
28.	Mailafiya Danlami Hassana	Federal Ministry of Education
29.	‘Femi Stephen	Federal Ministry of Health and Social Welfare
30.	Iperepolu Odunayo	Federal Ministry of Health and Social Welfare
31.	Joyce Kpaku	Federal Ministry of Health and Social Welfare
32.	Chichi Ann Iweka	Federal Ministry of Health and Social Welfare
33.	Isah Samaila	Federal Ministry of Health and Social Welfare
34.	Victor Osuagwu	Federal Ministry of Health and Social Welfare
35.	Paul Okhaku	Federal Ministry of Health and Social Welfare
36.	Fatai Olanrewaju	Federal Ministry of Health and Social Welfare
37.	Dr. Amadi Dorothy	Federal Ministry of Health and Social Welfare
38.	Eucheria O. Eke	Federal Ministry of Health and Social Welfare
39.	Beatrice Ali	Federal Ministry of Health and Social Welfare
40.	Chinyere Nma Ogbonna	Federal Ministry of Health and Social Welfare

41.	Nwanchukwu Evelyn N.	Federal Ministry of Health and Social Welfare
42.	Chukwudi Umeayo	Federal Ministry of Health and Social Welfare
43.	George Okoeguale	Federal Ministry of Health and Social Welfare
44.	Dafang Sule	Federal Ministry of Industry, Trade and Investment
45.	Bamisaiye Babajide S.	Federal Ministry of Industry, Trade and Investment
46.	Bala Saliu	Federal Ministry of Industry, Trade and Investment
47.	Adetoro J. Martins	Federal Ministry of Innovation, Science and Technology
48.	Saadiya Haliru	Food and Agriculture Organization of the United Nations
49.	Ibrahim Isiaka	Food and Agriculture Organization of the United Nations
50.	Michelle Mang	GB Foods Africa
51.	Tokunbo Aderibigbe	GB Foods Africa
52.	Aka Jean	GB Foods Africa
53.	Joy Amafah	Global Health Advocacy Incubator
54.	Nadia Flexner	Global Health Advocacy Incubator
55.	Habila Ungmya S.	Hotel Owners Forum of Abuja (HOFA)
56.	Aliyu Angara	Institute of Public Analysts of Nigeria
57.	Dr. Shehu Usman Abdullahi	Kano State Ministry of Health
58.	Ayodele Margaret Olufunke	Lagos State Ministry of Health
59.	Usman Obadiah	Nassarawa State Ministry of Health
60.	Eva Edwards	National Agency for Food and Drug Administration and Control
61.	Sylvia Ifeoma Chukwu	National Agency for Food and Drug Administration and Control
62.	Karima Bako Rimamcwe	National Agency for Food and Drug Administration and Control
63.	Esther Akor	National Orientation Agency
64.	Robinson Okechi	National Orientation Agency
65.	Agbo Adango L.	National Orientation Agency
66.	Chioma Nnoli	Nestle Nigeria Plc
67.	Edidiong Peters	Nestle Nigeria Plc
68.	Dr Jerome Mafeni	Network for Health Equity and Development
69.	Oluwatoyin Adeomi	Network for Health Equity and Development
70.	John F. Tehinse	Network for Health Equity and Development
71.	Tessy-Nongo Maina	Network for Health Equity and Development
72.	Emmanuel Ukaegbu	Network for Health Equity and Development
73.	Peace Asiya	Network for Health Equity and Development
74.	Opeyemi Kehinde	Nigeria Breweries Plc
75.	Prof. Ocheme B. Ocheme	Nigeria Institute of Food Science and Technology
76.	Dr. Paschal M. Ezeobi	Nigeria Institute of Medical Research
77.	Prof. Salisu Maiwada Abubakar	Nutrition Society of Nigeria
78.	Sefiu Ikudaisi	Oyo State Ministry of Health
79.	Dr. Omotola Davis	Project Consultant (FMHSW)
80.	Victoria Azodoh	Project Consultant (FMHSW)
81.	Kikelomo Opatunde	Promasidor Nigeria Limited
82.	Dr Chinenyen Obasi-Obong	Promasidor Nigeria Limited
83.	Dr Eno Udoma-Eniang	Promasidor Nigeria Limited
84.	Nanlop Ogbureke	Resolve to Save Lives

85.	Okeoma Erojikwe	Resolve to Save Lives
86.	Batet Musa	Resolve to Save Lives
87.	Emem Udoh	Resolve to Save Lives
88.	Christine Johnson	Resolve to Save Lives
89.	Iboro Nta	Resolve to Save Lives
90.	Naomi Oboyi	Resolve to Save Lives
91.	Nicole Ide	Resolve to Save Lives
92.	Laura Cobbs	Resolve to Save Lives
93.	Dr Sylvester Igbedioh	c/o Resolve to Save Lives
94.	Amina Haliru	Standards Organisation of Nigeria
95.	Naja'Atu B. Gafai	Standards Organisation of Nigeria
96.	Blessing Solomon	Standards Organisation of Nigeria
97.	Seyi-Obembe Jumoke	TGI Group
98.	Bridget Mayor	Unilever Nigeria Plc
99.	Prof. Dike Ojji	University of Abuja
100.	Dr. Adedayo Ojo	University of Abuja
101.	Dr. Vanessa Alfa	University of Abuja
102.	Dr. Anthony Orji	University of Abuja
103.	Chukwuemeka C. Offorkansi	University of Abuja
104.	Prof Mark Huffman	Washington University Saint Louis, Missouri
105.	Dr. Pinda Wakawa	World Health Organization
106.	De Regil, Luz	World Health Organization
107.	Claudia Neito	World Health Organization


UNITY AND FAITH, PEACE AND PROGRESS