CHALLENGES TO THE EFFECTIVENESS OF REGULATION OF UNHEALTHY DIET FOR THE CONTROL OF NON-COMMUNICABLE DISEASES IN NIGERIA

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Abstract
Non-Communicable Diseases (NCDS) remains the global leading causes of mortality and morbidity with modifiable risk factors of tobacco use, unhealthy diet, physical inactivity and alcohol. Unhealthy diet as one of the leading drivers of the four major NCDs such as certain types of cancers, diabetes, cardiovascular diseases, and chronic respiratory diseases. Despite concerted efforts at reducing diet-related NCDs in Nigeria, unhealthy diet prevalence remains high. Currently, statistics on diabetes, high blood pressure, cardiovascular disease in Nigeria is one of the highest in Sub-Saharan Africa. To this end, this paper analyses Nigeria's National Multisectoral Action Plan for the prevention and control of NCDs 2019-2025 (NMSAP), which is geared towards achieving a reduction in diet-related NCDs. The paper also discusses the challenges militating against the effectiveness of the policy framework on unhealthy diet in Nigeria while suggesting critical interventions that is required for the policy framework to be able to achieve its stated objectives.

Keywords *– Unhealthy diet, Non-communicable Diseases, Law, Policy.*

Introduction

Although there has been a lot of efforts towards reducing deaths from consumption of unhealthy diet, unhealthy diet remains one of the biggest contributors to the NCD disease burden globally.[1] Unhealthy diet, defined as the continuous consumption of foods high in trans-fat, sugar and sodium (HFSS) is on the rise in low and middle-income countries (LMICs) and in particular in Nigeria.[2] According to estimates, prevalence of unhealthy diets in Nigeria is estimated at 74.6%,[3] ranking 42nd out of 195 countries with the highest rate of diet-related deaths.[4] Diet-related NCDs such as certain types of cancers, diabetes, high blood pressure and cardiovascular diseases (CVDs) are on the rise in Nigeria. For instance, studies show that diabetes prevalence in sub-Saharan West Africa (SSWA) has notably increased over the past decade, affecting people in all sectors of society with substantial economic effects.[5] Within the last three decades, type 2 diabetes mellitus (T2DM) cases also known as adult-onset diabetes) which was previously thought to be uncommon in sub-Saharan Africa (SSA), have risen substantially, accounting for nearly 90% of all diabetes cases.[6] Nigeria ranks second in country-specific cancer burden in Africa.[7] Studies have shown that high blood pressure and

[1]World Health Organization. Invisible numbers: the true extent of noncommunicable diseases and what to do about them. Geneva: World Health Organization. 2022

[2]A.A Kibrom, I. Kosam, B. Clemens, Food policies and obesity in low-and-middle-income countries. [2022] (15) *World Development* 105775

[3]<https://www.iccp-portal.org/system/files/plans/NCDs_Multisectoral_Action_Plan.pdf> accessed 20 December 2022.

[4]Chukwuma Muanya. Why More Nigerians May Die of Diet-Related Diseases. The GuardianOnline [2019] <https://guardian.ng/features/why-more-nigerians-may-die-of-diet-related-diseases/>accessed 17 January 2023

[5]A. Diawara, et.al. Type 2 Diabetes Prevalence, Awareness, and Risk Factors in Rural Mali: A Cross-Sectional Study. [2023] (13) (1) *Scientific Reports* 3718.https://cutt.ly/4wOUCDE2 accessed 24 June 2025

[6]Motala, A. A., Mbanya, J. C., Ramaiya, K., Pirie, F. J. and Ekoru, K. Type 2 Diabetes Mellitus in Sub-Saharan Africa: Challenges and Opportunities.[2022] (18) (4) *Nature Reviews Endocrinology* 219–229. <https://cutt.ly/gwOUN5Hs.> accessed 22 July 2024

[7]A.E. Schutte, AE., et al. Hypertension in Low- and Middle-Income Countries. [2021] (128 (7) *Circulation Research* 808–826. Available <https://cutt.ly/EwOmlDbw> Accessed 18 May 2022.

diabetes have more than doubled in Africa and particularly in Nigeria, which has higher rates than Europe and the United States.[8]

Aside from its negative health and psychological impacts, NCDs are economically costly and a threat to socio-economic development. NCDs pose developmental concerns because they cause loss of production posing a threat to both human well-being and economic growth.[9] The World Economic Forum has ranked NCD as one of the 21st century's major health and development challenges, both in terms of human suffering and economic development.[10] This has been further confirmed by the World Health Organization (WHO) which estimated an annual global cost of $49.9 billion as a direct cost of treatment of NCDs; indirect costs include loss of productivity and reduced earnings – since NCDs occur mostly between 35-69 at the most productive years.[11] Unfortunately, financial and physical access to healthcare is a major issue for people in low-income countries, particularly those in Africa. If there is no change in the current situation, NCDs will increase in LMICs by about 50% which will translate to about 80% of deaths by DR-NCDs. This prognosis portends a dismal future for a region already ravaged by infectious diseases and starvation, among many other things. This is why it is imperative that States must adopt policies and best practices that can reduce the prevalence of unhealthy diet such as contained in Global Strategy on Diet, Physical Activity and Health (GSDPAH), food System approach and other relevant policies and legal regimes.

There is increased commitment to reducing the prevalence of NCDs, especially DR-NCDs. Unlike the Framework Convention on Tobacco Control which is a binding legal framework on tobacco under the auspices of the World Health Organization, unhealthy diet is largely governed using soft law in the form of policies, guidelines and strategies.[12] Starting with the United Nations General Assembly (UNGA), the Political Declaration on the Prevention and Control of Non-Communicable Diseases (2012) acknowledged the need for increased awareness, commitment and greater measures in NCD intervention. Also, the Sustainable Development Goal target 3.4 targets the reduction of premature mortality from NCDs through prevention and treatment. It is in line with these instruments that Nigeria has adopted a number of domestic policy frameworks including USAID/Nigeria Multi-sectoral Nutrition Strategy 2025; National Multi-sectoral Plan of Action for Food and Nutrition (NMPFAN) 2021-2025; National Multi-sectoral Action Plan for Noncommunicable Diseases 2019-2025; National Strategic Plan of Action for Nutrition (NSPAN (2021-2025) aimed at curbing the menace of prevalence of unhealthy diet. These policies notwithstanding, there are still notable flaws hindering their effectiveness as evident from the all-time high rate of unhealthy diet consumption. As studies have shown, despite regulations, processed foods, SSBs, and fast foods in Nigeria still contain excessively high sodium content, trans fats, and sugar.[13] This means that, the challenge of continuous prevalence of DR-NCDs such as cancers, high blood pressures, diabetes is not so much of lack of policies, but the dissonance between global and domestic policy frameworks and practices. Following this introduction, Section II analyses Nigeria's MNSAP and the level of compliance with international framework; identifies the lacuna, gaps and disharmony and also suggest appropriate remedial measures.

[8]S. Van de Vijver et al. Status report on hypertension in Africa--Consultative Review for the 6th Session of the African Union Conference of Ministers of Health on NCDs. [2013] (16) (1) *The Pan African Medical Journal* 38. <https://cutt.ly/iwOTsuch > accessed 8 May 2024

[9]Ibid.

[10]Ibid.

[11]C.E. Ekpenyong, et. al. Double burden, Non-Communicable Diseases and Risk Factors Evaluation in Sub-Saharan Africa: The Nigerian experience.. [2012] (1) (2) *European Journal of Sustainable Development* 249-270

[12]WHO. Framework Convention on Tobacco Control (FCTC) adopted May 2005 and entered into force 27 February 2005

[13]Udezo, P.eace Chinaza et al. 'Nutritional Investigation of Three Commonly Consumed Fast Foods in Two Major Fast-Food Restaurants in Lagos State, Nigeria'. [2019] (5) (1) *International Scientific Organization Chemistry International* 81-86.

Section II

Implementing international strategy for the prevention and reduction of unhealthy diet

A convenient starting point in the discourse on reduction of chronic diseases, and one which is consistent with scientific studies and the vision of the WHO is that an appropriate intervention aimed at effectively reducing the prevalence of DR-NCDs is the prevention paradigm of the international body, and which is at the heart of public health-focused intervention policies as an effective way of reducing the mortality of NCDs. To provide a better sense on the prevention paradigm of NCDs globally, it is necessary to provide some perspectives on the definition of 'public health' and 'health'. Although there are many definitions of public health, the Institute of Medicine (IOM)'s summary of the core objective of public health as *"Fulfilling society's interest in assuring conditions in which people can be healthy. "* clearly indicate that the aim of the society is to provide conditions that assures the health of those that live in it.[14] Turnock further elaborated on the activities of public health to include 'organized community efforts to prevent, identify, and counter threats to the health of the public'.[15] The understanding from these perspectives is that public health is population-focused to improve health status. On grounds of wellbeing therefore, it could be argued that there is a public health objective of adopting a population-level intervention for preventing and reducing NCDs.

The challenge of prevention of NCDs by reducing the impact of unhealthy diet as a major driver of NCDs propelled a number of policies and approaches; the 2004 Global Strategy on Diet, Physical Activity and Health (GSDPAH)[16] which was formulated by the WHO/FAO to address physical inactivity and unhealthy diet as risk factors of NCDs; the Global Strategy for the Prevention and Control of Noncommunicable Diseases.[17] The WHO"s SHAKE technical package and the REPLACE package, put together, represent international policy packages at the heart of unhealthy diet reduction strategies. The SHAKE technical package (as an acronym for **S**urveillance **H**arness **A**dopt **K**nowledge **E**nvironment (**SHAKE**) represent practical steps designed for salt reduction, sodium consumption to less than 5mg per day is critical to NCD prevention strategy. In regions where such policies have been implemented such as South Australia's health-in-all-policies approach, the integration of health and wellbeing into policy creation across all sectors has shown a positive impact on the goals of the government in meeting its goal for a healthy population.; or through a similar phenomenon in South Africa's Strategic Plan for the Prevention and Control of Non-Communicable Diseases 2013–17 which includes a health-in-all-policies framework.[18]

In 2019, Nigeria developed the National Multisectoral Action Plan for the prevention and control of NCDs 2019-2025 (NMSAP) to reduce the burden of NCDs in Nigeria in line with global NCD targets by setting out five objectives. While this situation signals a positive move towards NCD prevention, there are factors frustrating the effectiveness of the policies. These constraints will be examined under NMSAP's rubrics, using WHO's latest data on global strategy for the prevention of DR-NCDs. NMSAP is a guideline which incorporates the SHAKE package on salt reduction, use of economic instrument for sugar reduction and regulation on trans-fat. Put together, the NMSAP focuses on four priority action areas namely: (a) Reduce salt intake through the reformulation of processed food products to contain less salt, set targets levels for processed foods and adopt standard for front-of-pack labelling; (b) Reduce sugar consumption through effective taxation on sugar-sweetened products; (c) Replace trans-fat and saturated fats with unsaturated fats through reformulation, using

[14]Institute of Medicine, *The Future of Public Health*. Washington, National Academic Press, Winslow, CEA 1988
[15]Turnock Bernard. *Public health: What it is and how it works*. Aspen Publishers. [2001] At page 15
[16]World Health Organization. *Global strategy on diet, physical activity, and health*. Geneva. 2004. <https://cutt.ly/fwNv0eEE> accessed 6 July 2019
[17]World Health Organization. *Global strategy for the prevention and control of noncommunicable diseases*: Report by the Director-General. 2000
[18]National Department of Health, South Africa. The National Strategic Plan for the Prevention and Control of Non-Communicable Diseases 2022-2027 2022 < https://www.health.gov.za/wp-content.pdf> accessed 29 October 2024

fiscal policies and/or agricultural policies; (d) limiting portion and package size to reduce energy intake and the risk of overweight/obesity; (e) implement nutrition education and counselling, mass media and behaviour change campaign on healthy diets including social marketing to reduce the intake of total fat, saturated fats, sugars and salt.

(A) Sodium- Reduce salt intake through the reformulation of processed food products to contain less salt, set targets levels for processed foods and adopt standard for front-of-pack (FOP) labelling

The directive to reduce sodium consumption derives from several scientific evidence which establishes the role of a high sodium diet in the development of certain NCDs. Excess sodium consumption is linked to negative health conditions such as gastric cancer, kidney injury, decreased bone mineral density, obesity, raised high blood pressure, and cardiovascular disease, which is responsible for 62% of strokes and 49% of coronary disease.[19] Consequently, the WHO recommends an adequate daily sodium intake of <87mM/day (<5g) for optimum health.[20] To this end, article 22 GSDPAH directs a reduction in sodium consumption while the SHAKE package recommends that average salt consumption be less than 5mg per day. WHO's best buy on sodium encouraged countries to set up targets in line with WHO Global Sodium benchmark.

Under the NMSAP, salt reduction is through either product reformulation or target setting, which can either be driven through legislations by governments or voluntary covenants with the food industry. As the 2025 deadline draws to a close, it is apparent that the NMSAP has not translated to action to reduce DR-NCDs and other chronic conditions resulting from high consumption of sodium. According to 2023 WHO'S Global database on the Implementation of Nutrition Action (GINA)'s four-point score card to assess country implementation of sodium reduction policies, Nigeria has neither any voluntary or mandatory measure for sodium reduction except national commitments to sodium reduction through its policies which has not translated into action.[21] Perhaps for this reason, Nigeria has further developed the Sodium Reduction Guideline and the National Guideline for Food Handlers' Medical Test to align with the objectives of the MNSAP framework.[22]

Nigeria's NMSAP targets voluntary reformulation as key to successfully reducing consumption level; however, a challenge with voluntary reformulation is the lack of objectivity in the evaluation process. Therefore, the implication of voluntary reformulation and target setting by the food industry is that there is a lack of accountability in the process. A second challenge with reformulation is getting an appropriate, cost-effective alternative through reformulation without altering the taste of the products. A critical action necessary to scale up implementation of the sodium reduction is both community and mass-media focused educational awareness. Sodium is an agelong ingredients that cuts across traditional and modern uses in food such as food flavoring and preservation; it is essential therefore, that there is increased awareness as to the dangers of overconsumption of sodium.

The second tool under the NMSAP for salt reduction is target setting. Target setting aims at achieving maximum permitted salt levels in foods which has a generally high salt content.[23] In some cases, the targets come with a threat of regulation as seen in the Netherlands where the government adopted the mandatory National Agreement to Improve Product Composition. While the NMSAP on sodium

[19]The Nutrition Source. Salt and Sodium. 2023. <https://www.hsph.harvard.edu/nutritionsource/salt-and-sodium/>

[20]World Health Organization. *Sodium reduction.* 2023 https://cutt.ly/uwNvNbK accessed 14 November 2024

[21]WHO. *WHO global report on sodium intake reduction*. 2023 <https://www.who.int/publications/> accessed 23 June, 2023

[22]The Federal Government of Nigeria on 27 March 2025 through the National Agency for Food Drug Administration and Control (NAFDAC) launched the National Guideline for Sodium Reduction and the National Guideline for Food Handlers' Medical Test. These guidelines align with the objectives of the MNASAP framework <https://health.gov.ng/Bpg_info/250/PRESS-RELEASE--FG-Launches-National-Guideline-for-Sodium-Reduction-To-Fight-Hypertension>- accessed 29 March 2025

[23]For instance, Belgium, Bulgaria, Greece, Netherlands, and Portugal have set target for bread which contains an unusual high amount of salt content. <https://khni.kerry.com/news/salt-and-health-what-is-being-done-globally-to-reduce-salt-intake/> accessed 21 December 2022

reduction has been acknowledged for adequate coverage, there is still a wide gap between policy and implementation.[24] For voluntary targets to fulfil its objective, there is a need to establish robust surveillance and monitoring and compliance programmes to ensure compliance with agreed targets.[25]

(b)Front-of-pack Labelling (FoPL)

NMSAP also recommends FoPL. Generally, FoPL is a policy approach with indirect effects on reformulation. The majority of evidence on product reformulation following implementation of front-of-package systems comes from voluntary labelling systems and a handful of evaluations.[26] This provision is critical because the constitution guarantees a right to information, furthermore, the information must be adequate as to give the reader a clear understanding and knowledge required to make informed decision. From this, it can be inferred that the goal of information is attainable where the FoPL gives clear, legible, complete information. Attaining this goal requires complete information. Permitting incomplete information does not suffice as labeling as these cannot absolve from the obligation to provide information.

There are several challenges to implementing this mandate under the NMSAP because of the loopholes that defeat the intended purpose of food labeling. Under Nigeria's NMSAP, mandatory nutrient declaration is only required on the back of pre-packaged foods and beverages that make a health or nutrient declaration.[27] This provision contradicts the Codex Alimentarius recommendation that nutrient declarations should be presented on all pre-packaged foods rather than those that make a nutrient declaration.[28] Furthermore, the Codex recommended a standardized nutrient declaration per 100g, per 100ml but specifying in each information the quantity of sugar, salt and trans-fat; however, NMSAP currently allows manufacturers to provide declarations on a per serving basis. Lastly, these regulations allow the manufacturer to list the amounts of nutrients in a serving size of their own choice rather than in standardized unit or quantity of the food (for example, grams of fat per 100g). Using standardized quantities enable consumers to make comparisons between foods based on nutrient amounts, and to choose products containing lower levels of over-consumed nutrients.[29]

Similarly, nutrition labelling and disclosure only become meaningful where it provides sufficient information. But information overload or too little information can negate the effect of the information. When there is information overload, consumers find it difficult paying attention to the most relevant information; or they may have difficulty processing long information or even digesting such information. According to Caoimhe Macmaolain, 'the labelling disclosures that are to be the subject of regulation must be accurate, complete and, ideally, incapable of being understood.[30] Unfortunately, reviews have not consistently supported the benefit of such labels. According to FHSA's modelling study on the impact of nutrition labelling on consumers in Lagos, the authors that '*the overall deduction however, is that many Nigerians do not read nutrition labels except they are looking for product's expiry date or registration status';' And that, 'many consumers do not seem to understand the labelling format currently being used*.'.[31] What this means is that nutritional

[24]O.A., Sanuade et al., Stakeholder Perspectives on Nigeria's National Sodium Reduction Program: Lessons for Implementation and Scale-Up.[2023] (18) *PLoS ONE* 1

[25]A.E., Ojo, V.O., Alfa, M.D., Huffman. Nigeria Sodium Study 2023 Policy Meeting on Dietary Sodium Reduction in Nigeria. [2024] (18) *BMC Proc*. 18.

[26]In recent years many countries such as Chile, Mexico, Peru, Uruguay, and soon Brazil, have adopted front-of-pack black warning labels that indicate if a product is high in fat, sugar, or salt have adopted similar front-of-pack labels displaying information on sodium (or salt)

[27] See NAFDAC Pre-Packaged Food, Water and Ice Labeling Regulations. (supra)

[28]FAO and WHO. Guidelines on Nutrition Labelling CXG 2-1985. https://www.fao.org/fao-who-codexalimentarius/sh-proxy/en accessed 14 June 2023

[29]Supra foot note 23

[30]Caoimhin MacMaoláin. Regulating Consumer Information: Use of Food Labelling and Mandatory Disclosures to Encourage Healthier Lifestyles. A. Alemanno & A. Garde (eds.) *Regulating Lifestyle Risks: The EU, Alcohol, Tobacco and Unhealthy Diets*. 2015 Cambridge: Cambridge University Press. 46–67.

[31]FHSA. Aug. 2019. Impact of nutrition labelling on the eating habits of Nigerian consumers. Retrieved May 18, 2020, from https://fhsafrica.org/2019/08/19/impact-of-nutrition-labelling-on-the-eating-habits-of-nigerian-consumers/.

information can only be useful if the target audience is reading them. A frequently suggested explanation for this disinterest is where consumers have difficulty comprehending the information provided. This confirms Egele's study that 'a food label fails to achieve its aim because the consumer lacks the technical knowledge needed to decode the information on the label. This enables customers to disregard the information and select their familiar options.[32] What is clear is that, consumers are likely to read label if the information provided is simple, legible, clear and concise. Therefore, the simpler the label, the higher the probability that it will have impact.

(C) Sugar policies:

The third approach of the NMSAP to prevent NCDs is to reduce sugar consumption; this too, is derived from data showing the overwhelming scientific studies linking excessive sugar consumption to NCDS such as heart disease, diabetes, obesity and kidney related diseases. what implicates an unhealthy diet is the added or free sugar content which are added to foods and drinks Within this category, sugar-sweetened beverages (SSB), soda companies (the big soda), and processed foods industries are the culprits of ill health as they contain added sugars in large quantities. Sugary drinks and sugar-sweetened beverages (SSB) are the single largest source of added sugar.[33] with a single soft drink bottle containing as much as 12spoons of sugar (twice the recommended daily sugar intake limit).[34] With respect to sugar, NMSAP recommends that added sugar be regulated through taxes or subsidies. This approach is premised on the fact that increasingly, and in line with global recommendations, countries have either implemented or proposed plans to introduce taxes on SSBs or HFSS foods.

Over the past decades, there has been several commitments to using fiscal policies in form of tax to reduce SSB. For example, the United Nations General Assembly adopted an updated political declaration on NCDs which calls for the implementation of appropriate fiscal measures to address NCD risk factors and promote healthy diets and lifestyles.[35] Also in 2013, objective 3 of the Global Action Plan, WHO members unanimously supported 'considering economic tools that are justified by evidence, and may include taxes and subsidies, that create incentives.'[36] WHA adopted the Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020 (now 2030) along with nine voluntary global targets. Of note, the Global Action Plan Resolution WHA70.11 endorsed the updated the nine policies.[37] The rationale for a 20% tax is with the expectation that, higher price on taxed products will serve as deterrent to unhealthy eating habit, or, if consumers are given a lower price for drinks with less sugar, they will either consume less sugar or choose healthier versions of sugary drinks due to cost efficiency. However, Nigeria has been paying lip service to this approach despite the evidence showing the effect of the correlation between raising taxes and lower consumption of foods containing added sugar. For instance, the vast majority of countries that have implemented SSB tax have successful story which reflect in their numbers. In 2018, South Africa levied a SSB at 0.08 South African Rand (ZAR) per gram of sugar, a tax approximately 20% of the per-litre price of the soft drink.[38] Similarly, UK introduced a two-tier levy on sugary drinks with

[32]A.E., Egele, P.O., Ikechi, J.U., Ozo.. Product Label Data and Consumer Post Patronage Behaviour of Beverages in Port Harcourt Rivers State of Nigeria. [2017] (19) (11) IOSR *Journal of Business and Management* 38-46.

[33]The Nutrition Source. Sugary Drinks. August 2023 13, 2019, from https://cutt.ly/NwNvMu60 accessed 13 September 2019

[34] Iyizoba, N. The bitter truth about sugar. 2-019. Retrieved June 13, 2019, from https://guardian.ng/features/the-bitter-truth-about-sugar-2/;https://coach.nine.com.au/diet/sugar-in-beverages/2febc5cb-5ce6-482d-8add-0f7b98a561c3

[35]United Nations General Assembly Resolution WHA66/9. Draft Action Plan for the Prevention and Control of Non-Communicable Diseases: Resolution adopted by the General Assembly 2018. <https://digitallibrary.un.org//apps.who.int/iris/handle/10665/105668> accessed 28 June 2025

[36]Sixty-six World Health Assembly WHA66.10 agenda item. <https://apps.who.int/iris/handle/10665/327119> accessed 28 June 2025.

[37]Updated Appendix 3 of the WHO Global NCD Action Plan for 2013-2030 endorsed by the Seventieth World Health Assembly Executive Board, 144 Follow-u to the high-level meetings of the United Nations General Assembly on health-related issues; prevention and control of non-communicable diseases: report by the Director-General 2018. <https://apps.who.int/iris/handle/10665/204176> accessed 28 June 2025

[38]National Treasury Taxation of sugar-sweetened beverages (Policy Paper). National Treasury, Republic of South Africa, Pretoria 2016

different rates depending on the sugar concentrates. Drinks containing more than 8grams of sugar are taxed at 0.25pound per litre while those containing 5 to 8grams of sugar are taxed at 0.18pounds per liter. The tax led to widespread industry reformulation of SSBSs thereby reducing the amount of sugar in SSBs without necessarily affecting sales while still maintaining personal autonomy. Chile's tax on non-alcoholic drinks increased between 13 – 18% between 2013 and 2014 resulted in 22% reduction in overall purchase of soft drinks.[39] Nigeria too, implemented a N10.00 (ten naira) excise sugar tax in 2021 in clear dissonance of the 20% WHO-recommended measures to reduce the prevalence of NCDs.

As a double blow, the regulation has suffered extensive setback through a legal action filed by the Nigeria Employers' Consultative Association in Suit No. FHC/ABJ/CS/2004/2022 delivered on the January 30, 2025. In that suit, the high court barred the Nigeria Customs Service (NCS) from collecting excise duty on non-alcoholic carbonated beverages from members of the Nigeria Employers' Consultative Association. The court further nullified the implementation of the 2022 Fiscal Policy Measures and Tarriff Amendment of March 1, 2022 issued by the Minister of Finance, Budget and National Planning. While this may be a temporary setback, it is essential to bear in mind that litigation is one of the many armoury of the food industry in checkmating regulatory efforts.

(D) Replace trans-fat and saturated fats with unsaturated fats through reformulation, using fiscal policies and/or agricultural policies;

In line with WHO REPLACE package which recognizes that a legislative action which totally bans or limit industrially produced trans-fat is the most effective tool of reducing its impact on human health.[40] Nigeria in August 2023, gazetted the Fats and Oil Regulations 2022 which regulates the manufacture, distribution, advertisement and labelling of all foods containing fats and oil in Nigeria sourced from vegetable and animal origin or derived from vegetables which are derived from the botanical source.[41] By the provisions of the regulation, every product must comply with the Pre-Packaged Food (Labelling) Regulations and must, in addition, state the source(s) of the oil. The regulation prohibits any food in which the trans-fat content exceeds 2g per 100g and the nutritional content must be so labelled on the packaging.[42] In other words, the regulation requires notification or disclosure of trans-fat, and do not necessarily ban the ingredient even though studies have shown that there is no safe limit of TFA consumption. The Regulation provides for a penalty of N800,000 and N5,000,000 for violation for an individual or body corporate respectively.[43] The Pre-Packaged Food (Labelling) Regulations is a complementary regulation of the Fats and Oil Regulation which makes it mandatory for a list of ingredients to be labelled on pre-packaged foods.

This policy is timeous and would save the country. Up on till the passage of the policy, Nigeria with the highest burden of CVD attributed to high consumption of trans-fat and other unhealthy diet, has merely committed to unimplemented policies.[44] Nigeria's cuisine is rich in the use of fats and oil, majority of which is high in the use of iTF or PHO found in vegetable fats, baked foods (sweet

[39] Obesity Evidence Hub. Prevention: Tax and Pricing - Countries That Have Taxes on Sugar-Sweetened Beverages (SSBs). Retrieved June 14, 2023, from https://www.obesityevidencehub.org.au/collections/prevention/countries-that-have-implemented-taxes-on-sugar-sweetened-beverages-ssbs

[40] World Health Organization. REPLACE Trans Fat: An Action Package to Eliminate Industrially-Produced Trans-Fatty Acids. From < https://iris.who.int/bitstream/handle/> 14 June 2023,

[41] This Regulation repeals the Fats and Oil Regulation 2005 See article 2 of the Fats and Oil Regulations

[42] Article 7 (3) Fats and Oil Regulations 2020

[43] Article 10 (1) (a) and (b) Fats and Oil Regulations 2020.

[44] L., Huang et.al. Presence of trans-Fatty Acids Containing Ingredients in Pre-Packaged Foods and the Availability of Reported trans-Fat Levels in Kenya and Nigeria.[2023] {15) (3) *Nutrients* 761.

[45] Anjorin, O.M. and GAIN.Mapping of industrially-produced trans-fatty acids (ITFA) in Nigeria. [2020] <https://www.gainhealth.org/sites/default/files/publications/documents/mapping-industrially-produced-trans-fatty-acids-i n-nigeria.pdf> accessed 12 Aug. 2023.

biscuits), noodles, edible cooking oil and other confectionaries.[45] It is also in fried foods such as akara, fried meat, chicken, chips including pre-packaged foods and vegetable. Combined together, iTF and PHO constitute the highest consumed edible oils in Nigeria. For Nigeria's best policy on elimination to be effective, it must be enforceable and sustainable. Evidence suggest that adopting a restriction on ITFs is usually weaker and difficult to implement because the users of trans-fat are not only the big food industries but include small, unregulated food vendors

The Regulation addressed a key factor which is the restriction of the amount of trans fat in foods intended for human consumption or assumed to be intended for human consumption to not more than 2 grams per 100 grams of fat or oil. However, it is still lacking in some key elements recommended in the WHO's How-to guide in the "Legislate or Regulate" module for policy action. A major deficit in the regulation is the exclusion of unbranded cooking oils. The Regulation lays emphasis on packaged products or food containing fat and oils but it does not clearly address unpackaged/unbranded cooking oils which is easily accessible to so many Nigerians.[46] As stated above, unbranded cooking oils occupies a larger market share in the consumption of oils in Nigeria. Suppliers of unbranded edible cooking oils may even be more instrumental in the amount of ITFA from the national food supply.

(D) Limiting portion and package size to reduce energy intake and the risk of overweight/obesity

Portion sizes have been shown to be strong predictors of adequate nutrient intakes.[47] Indeed, it has been observed that the proportion of adults who snack has grown monotonically since the late 1970s.[48] and the mean number of snacks consumed has increased by one per day.[49] Since snacks are consumed more spontaneously than meals and in addition to, rather than instead of, regular meals, this suggests that frequent snack consumption may be responsible for DR-NCDs. Portion sizes of foods and beverages available at restaurants, fast-food outlets, and convenience stores have sharply increased since the 1970s. Current portion sizes of beverages, snacks and unhealthy foods offered at fast-food chains have been found to be two to five times larger than their original size and the majority of marketplace food portions have been found to exceed standard serving sizes by as much as eightfold. For instance, in 2019, Coca cola introduced the 60cl bottle into the Nigerian market while PepsiCo introduced the long throat bottle.[50] Similarly, indomie introduced the 210g hungry man size and 450g family size.[51] There is also a correlation between increasing portion sizes and rising adult and childhood obesity rates suggesting that the additional energy (kcal) provided in larger food portions may in part account for an overconsumption of calories.[52]

(E) Implement nutrition education and counselling, mass media and behaviour change campaign on healthy diets including social marketing to reduce the intake of total fat, saturated fats, sugars and salt.

[46]Vanguard Online. Why Nigeria should regulate/eliminate Trans Fatty Acids from the Food System.[2021] https://www.vanguardngr.com/2021/09/why-nigeria-should-regulate-eliminate-trans-fatty-acids-from-the-food-system/.> accessed 12 January 2022.

[47]R.A. Sanusi, A. Olurin. Portion and Serving Sizes of Commonly Consumed Foods, in Ibadan, Southwestern Nigeria. P20212] (15) (3) *African Journal of Biomedical Research* 149-158.

[48]V. Drapeau, S. Pomerleau, V. Provencher, V. Snacking and Energy Balance in Humans. A.M. Coulston, C. Boushey, and M. Ferruzzi (eds.) *Nutrition in the Prevention and Treatment of Disease*. 3rd ed. [2017] Academic Press. 539-568.

[49]Piernas, C. and Popkin, BM. Snacking increased among U.S. adults between 1977 and 2006. *The Journal of Nutrition* 2010;140.2: 325–332.

[50]RC Cola Launches 60cl Bottle as it Felicitates With Trade Partners. Retrieved Dec. 24, 2022, from https://beverageindustrynews.com.ng/index.php/2019/11/11/rc-cola-launches-60cl-bottle-as-it-felicitates-with-trade-partners/.

[51]Indomie Introduces World's Biggest Pack.. https://www.vanguardngr.com/2014/02/indomie-introduces-worlds-biggest-pack/ Retrieved 24 December. 2022

[52]Tanja V.E Kral. The Influence of the Food Environment on Food Intake and Weight Regulation in Children. Julie C. Lumeng, and Jennifer O. Fisher. *Pediatric Food Preferences and Eating Behaviors*. (Academic Press, 2018) 47-163.

This regulatory approach is a hybrid market and policy approach to reformulation whereby informational policies, in the form of health promotions, education, or dietary guidelines, can help to shift consumer preferences. Dietary Guidelines, education and counseling are individual level interventions designed to tell the public how to promote health and prevent chronic disease through diet and lifestyle.[53] For a guideline to effectively prevent DR-NCDs, it must be based on the preponderance of current scientific and medical knowledge. Even if the guidelines promoted an optimal diet for preventing chronic disease, people actually have to follow it to benefit. It is thus crucial to understand how nations can motivate people to do so. Education is achieved through dietary guidelines and related marking campaigns and information to enable citizens make better choices. However, the use of education and public information campaign has being criticized as being local in scope and limiting in their reach.[54] Taylor et.al identified trends and developments in recent legislations in obesity-related legislation within the lens of sin tax and education; counter advertising and health campaigns; labelling; the built environment; school-based interventions; marketing restrictions; bans on specific ingredients; screening and integrated sector programs. He argues that these model interventions have not been successful because most of them are voluntary standards or industry-led regulations which have limited records of success.[55]

Conclusion and Recommendations:

Way forward: What should work for a reduction in DR-NCDs in Nigeria

From the analysis above, the challenge with prevention strategies is not a function of the deficit of legal regimes; instead, the problem is hydra-headed including but not limited to, the inconsistency between international best practices and domestic legal frameworks as has been gleaned from a number of provisions of Nigeria's policy documents for the regulation of unhealthy diet; lack of a binding framework; an enforcement and compliance mechanism.

What is paramount is for Nigeria to translate policies to action. There is enough rhetoric surrounding reduction of unhealthy diet without activities to enforce same. It goes without saying that, unless targeted action is undertaken, the policies remain mere action points without success. An essential success necessary to pivot these policies into success is in the area of rigorous monitoring. Within the context of this research, the food industry is a vector of unhealthy diet; it is therefore necessary that monitoring progress towards reducing DR-NCDs must be robust. There is need to have a credible database of food industries and sub-groups without which progress will be limited. It is based on this data that preventive monitoring of the food industry will be effective.

At the 77th World Health Assembly held at Geneva, five countries, including Nigeria renewed their commitment to implement comprehensive policies towards a 30% salt reduction Specifically, Nigeria, alongside Cameroun, Bangladesh, Singapore and Malaysia pledged towards (a) reducing the maximum amount of sodium allowed in different groups through mandatory front-of-pack warning labels and bans on purchasing with public funds.[56] These commitments are not different from the provisions of Nigeria's NMSAP. Under the renewed commitment, Nigeria undertakes using bans on purchasing with public funds. If this commitment is to be implemented, Nigeria will adopt the use of laws as a legal framework for regulating sodium intake in Nigeria. Presently, the lack of a binding

[53]Taylor, A., Parento, E. and Schmidt, L. The Increasing Weight of Regulation: Countries Combat the Global Obesity Epidemic. [2015] (90) (1) *Indiana Law Journal* 257-291.

[54]B.V Tigerstrom, Food Labeling for Healthier Eating: Is Front-of-Package Labelling the Answer? [20090 (33) (1) *Manitoba Law Journal* 87 – 130.

[55]Supra. Footnote 52

[56]WHO. Seventy-seventh World Health Assembly/governance/world-health-assembly/seventy-seventh/> accessed 28 June 2025

legal framework is evident in the level of compliance. Being a strategy, compliance level with the NMSAP is low. This position is contrary to UK that has successfully implemented a reformulation program on salt reduction strategies, and South Africa's mandatory sodium limits in regulation for certain foods using mandatory regulations.[57]

The conclusion is that the lack of a mandatory, binding regulatory approach towards salt reduction has its health implications on Nigerians with the leading statistics on hypertension, CVDs and chronic kidney disease progressions. Mandatory sodium reduction policies are more effective, as they achieve broader coverage and safeguard against commercial interest, while providing a level playing field for food manufacturers. Mandatory legal framework must be clear, with appropriately worded and targeted sanctions and not subject to exemptions. Also, penalties and sanctions must be weighty enough to serve as deterrent to other intending violators.

[57]H., Trevena, B., Neal, E., Dunford, J.H., Wu, An Evaluation of the Effects of the Australian Food and Health Dialogue Targets on the Sodium content of Bread, Breakfast Cereals and Processed Meats. [2014] (6) (9) *Nutrients* 3802–3817.