

Multisectoral approach and WHO ‘Bestbuys’ in Nigeria’s nutrition and physical activity policies

Mojisola Oluwasanu *, Opeyemi Oladunni, and Oladimeji Oladepo

African Regional Health Education Centre, Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan, Queen Elizabeth Road, Mokola, Ibadan, Nigeria

*Corresponding author. E-mail: ope3m@yahoo.com; mmoluwasanu@com.ui.edu.ng

Summary

Unhealthy diet and physical inactivity are modifiable risk factors for non-communicable diseases. Policies formulated in line with international guidelines are required for the implementation of population-level interventions to reduce the risks. This study describes the utilization of multisectoral approach (MSA) for the formulation of nutrition and physical activity policies and the extent to which they align with the WHO ‘Best Buy Interventions’. The research utilized a descriptive case study design and the theoretical model guiding the study was the Walt and Gilson framework for policy analysis. Data were obtained through the interview of 44 key informants using pre-tested guides and document review of 17 policies and articles obtained from government institutions or through the search of electronic databases. Data were integrated and analysed using thematic analysis. Between 2000 and 2016, Nigeria had formulated 10 nutrition-related policies and 5 guidelines with actions to promote physical activity. Only three nutrition and two physical activity policies adopted a high level of MSA. In line with the WHO best buy interventions, educational interventions for the general population are proposed to reduce sugar and salt intake and replace transfat with polyunsaturated fats but there are no legal regulatory acts to support these actions. Policy documents with actions to reduce physical inactivity do not include the WHO best buys. The country should adopt a wider range of actors to formulate and review policies, integrate all the WHO best buy interventions and develop effective legislation to regulate the salt and sugar content of processed foods.

Key words: unhealthy diet, physical inactivity, policy analysis, WHO best buy interventions, multisectoral approach

INTRODUCTION

Unhealthy diet and insufficient physical activity are major risk factors for non-communicable diseases (NCDs) (WHO, 2011a). Over a quarter of Nigerians (27%) consume sugar-sweetened beverages two to six times per week (Akarolo-anthony *et al.*, 2014) as well as street foods high in salt and transfat (Olutayo and Akanle, 2009). Compounding the problem is the sedentary lifestyle and physical inactivity which ranges from 25% to

57% due to urbanization, motorization and automation of daily activities (Abubakari and Bhopal, 2008; World Heart Federation, 2017).

The World Health Organization (WHO) urged countries to develop policies to tackle these risk factors. In 2004, WHO proposed a Global Strategy on Diet, Physical Activity and Health endorsed by all member states, Nigeria inclusive (WHO, 2004). The Health Assembly in 2008 and 2013 also endorsed the action

plans for the prevention and control of NCDs (WHO, 2008, 2013). These plans stipulate the adoption of multisectoral approach (MSA) (defined as ‘actions undertaken by sectors outside the health sector, possibly, but not necessarily, in collaboration with the health sector, on health or health-related outcomes or the determinants of health’) for actions aimed at addressing physical inactivity and unhealthy diets. In addition, the WHO recommended best buy interventions ‘defined as “an intervention for which there is compelling evidence that it is not only highly cost-effective but is also feasible, low-cost and appropriate to implement within the constraints of the local health system”’. Member states are expected to mainstream the WHO best buy interventions into their policies and implement them (WHO, 2011b). Best buy interventions for unhealthy diets and insufficient physical activity include: ‘Replace transfat with polyunsaturated fat; Reduce salt intake in food; Promote public awareness about diet and physical activity via the mass media’ (WHO, 2011b).

In the last two decades, Nigeria has developed some policies to address unhealthy diets and insufficient physical activity (NPC, 2001, 2005; NAFDAC, 2005a, 2005b, 2005c; Federal Ministry of Education, 2006; National Sports Commission, 2009; FMOH, 2013, 2014a, 2014b, 2015; Federal Ministry of Budget and National Planning, 2016). However, the extent to which these policies addressed the recommended WHO ‘Best Buy Interventions’ and the application of the MSA in the policy formulation processes is unknown. Thus, this article describes the application of MSA in the formulation of diet and physical activity policies and the extent to which the policy content reflect the WHO ‘Best Buy Interventions’.

METHODS

This article describes results from the research titled ‘Analysis of Non-communicable Disease Prevention Policies in Africa (ANPPA)’ and the findings for Nigeria are outlined. The ANPPA is a multicountry study and the main goal is to ‘generate evidence on the extent to which and how MSA informs policies related to the implementation of NCD prevention “best buys” in six countries in sub-Saharan Africa’ (Juma et al., 2016).

A descriptive case study design was used for the research because it is suited to studies aimed at analysing a complex issue in its real-life perspective to generate an in-depth and comprehensive understanding (Crowe et al., 2011). The Walt and Gilson framework of policy analysis guided research tool development, data collection and analysis. A key principle underlying this

framework is the acknowledgement of the non-linearity of policy processes. The framework has four key constructs which are: (i) the policy content which includes the objectives, programmes, activities, resources required and targets; (ii) processes in policy formulation and implementation; (iii) the policy actors who influence policymaking in diverse conditions; and (iv) the context which determines and influences the policymaking process (Walt and Gilson, 1994).

Data sources and collection procedure

Document review

Policy documents according to this study included academic journal articles, programme and strategic plans, guidelines, activity reports, minutes of meetings, print media to access information on policy processes and issues, drafts of policy statements, reports and websites content of development partners and donor organizations (Juma et al., 2016).

The review comprised a five-stage process, which was gaining access to the policies, reports or guidelines, validating the authenticity of the documents, reading and comprehending the documents, extracting and analysing the data and utilizing the extracted themes/information (Krippendorf, 2012). Documents reviewed included national policies and guidelines, articles, media and global reports. The research team retrieved the related documents systematically by conducting an electronic search of a search engine (Google) and three online databases (Science Direct, PubMed and Google Scholar) with no language restriction. The search terms used were *multisectoral approach*, *physical activity*, *physical inactivity*, *salt*, *transfat*, *sugar*, *diet*, *unhealthy diet*, *nutrition*, *policy*, *best buys* and *Nigeria*.

In addition, relevant government institutions were contacted and they provided policy documents that were not available online. Thirteen policy documents, two articles and two reports relevant to the policy formulation process were identified. Between 2000 and 2016, Nigeria had enacted or formulated 10 nutrition-related policy documents (*three policies*, *three strategic plans*, *three regulations* and *one guideline*) and five policy documents, which had elements focusing on physical inactivity (*three policies*, *one strategic action plan* and *one guideline*).

In order to ensure the extraction of information in the documents in a structured approach, (Bastani et al., 2018) an excel inventory extraction tool was used. This approach facilitated the systematic extraction of all the relevant information on the policy contents and actors/sectors involved in policy formulation.

Key informant interviews

The range of sectors necessary for diet and physical activity policy formulation that as suggested by Meiro-Lorenzo et al. (Meiro-Lorenzo *et al.*, 2011) guided the identification and selection of 44 interviewees for the key informant interviews. These comprised policy actors and bureaucrats who participated or should have participated in the policy process. We also used a snowball sampling approach to identify additional individuals pertinent to the study. There were 20 interviewees from diverse government ministries or agencies (*health, information, youth and sports, education, women affairs trade and investment, justice, finance, labour, legislature and food, drug administration and control*): six from professional bodies, nine from academic and research institutions; two from the hospitality/food industries; and one each from the religious, civil society/non-governmental and international organizations.

The interview guide had sections on diet and physical activity policy content, policy context, policy actors, implementation and financing mechanisms. Trained research assistants and the researchers conducted the interviews using interview guides pretested in Nassarawa state, Nigeria to ensure content validity.

Data extraction and analysis

Information from the policy documents was manually extracted and entered into an excel extraction tool. This had variables such as objectives, document type, year of publication, author, names of sectors involved in policy formulation, type of best buy interventions, the extent of MSA and other NCD policy element addressed.

Trained research assistants transcribed the audio recordings of interviews verbatim, while the researchers coded and analysed the data using NVIVO version 10. Two members of the research team jointly coded the documents and transcripts guided by the predetermined codes, which were developed in line with the constructs in the Walt and Gilson framework of policy analysis. The research team integrated data from both sources and these were analysed using thematic analysis.

The MSA was assessed by counting the number of sectors and their level of involvement in the policy formulation process. This was categorized as 'low' if less than five sectors were involved in the policy formulation process; 5–9 and 10 or more relevant sectors were categorized as 'moderate' or 'high' respectively.

Preliminary findings from the analysed data were presented to some of the interviewees at a workshop conducted in Abuja, Nigeria. This was done as a form of member checking to validate the data and themes and

findings were adjudged to reflect the summary of the data.

RESULTS

The historical context of the formulation of diet and nutrition policies in Nigeria

In the early 2000s, the National Committee on Food and Nutrition of the National Population Commission formulated two policies. These were the 2001 *National Policy on Food and Nutrition in Nigeria* and the 2005 *National Plan of Action on Food and Nutrition in Nigeria*. The development of these policies preceded the country's endorsement of the WHO 2004 Global Strategy on Diet, Physical Activity and Health and participation of government officials at the 2011 UN high-level meeting on NCDs. Donors' interest in funding child nutrition initiatives largely influenced the development and implementation of these policies.

In the mid-2000s, the National Agency for Food Drug Administration and Control (NAFDAC), Nigeria's regulatory agency for food and drugs, developed three regulations—the 2005 *Food Grade (Table or Cooking) Salt Regulations*, the 2005 *Fruit Juice and Nectar Regulations* and the 2005 *Fats and Oils Regulations* (NAFDAC, 2005a, 2005b, 2005c). These policy documents are not focused on NCDs prevention but propose actions with implications for a healthy diet. The development of these documents was motivated by the need to have regulations guiding the manufacturing of foods and beverages.

Though the country endorsed the WHO 2004 Global Strategy on Diet, Physical Activity and Health, policies to address nutrition-related NCDs through the consumption of healthy diet remained inadequate. Lachat et al. (Lachat *et al.*, 2013) recognized Nigeria as one of the countries with no concise policies and strategies to reduce salt, fat intake and increase the consumption of fruits and vegetable. Indeed, Nigeria's endorsement of the global strategy and participation in several international meetings aimed at addressing the increasing burden of NCDs using nutrition interventions had no significant impact on the nutrition-focused policies developed prior the 2011 UN high-level meeting. There was an obvious disconnect between the burden of nutrition-related NCDs and national policy responses to promote the consumption of healthy diets in Nigeria.

Consequent to the country's participation in the UN 2011 high-level meeting and other WHO fora, there was a growing interest to address unhealthy diets as a strategy to reduce the growing burden of NCDs. The NCDs unit

of the Federal Ministry of Health developed four policy documents to address diet-related NCDs. These were: (i) the 2013 National Policy and Strategic Plan of Action on NCDs; (ii) 2015 National Strategic Plan of Action on Prevention and Control of Non-Communicable Diseases; (iii) National Nutritional Guideline on Non-Communicable Diseases Prevention, Control and Management; and (iv) the National Strategic Plan of action for Nutrition (2014–2019) for the Health Sector Component of the 2016 National Food and Nutrition Policy'. The Federal Ministry of Budget and National Planning developed the 2016 National Policy on Food and Nutrition in Nigeria (Federal Ministry of Budget and National Planning, 2016).

Policy content and WHO 'best buys' addressed in the healthy diet and nutrition policies

Between 2000 and 2016, Nigeria had enacted or formulated 10 nutrition-related policy documents (*three policies, three strategic plans, three regulations and one guideline*). Data in Table 1 revealed that 5 out of the 10 nutrition-related policy documents proposed all of the WHO 'best buy' intervention to reduce the consumption of unhealthy diets (see Table 1).

A critical review of these documents revealed that the actions outlined focused largely on population-wide educational interventions as well as the development and dissemination of dietary guidelines. These reflect the conventional approaches to promoting lifestyle changes in individuals. However, findings have revealed the limitation of these strategies because the environmental and policy environment influence individual's diets and lifestyle (Swinburn *et al.*, 2011). In addition, policy regulatory measures targeting the private sectors were not clearly stated in the policies. Furthermore, the content of these documents revealed that though overnutrition is addressed; there is a skewed focus on undernutrition.

The three regulatory policy documents by NAFDAC provide information on salt, fats and oil production in Nigeria. However, information on the transfat and salt content of processed food products are not outlined (NAFDAC, 2005a, 2005c). The 2005 Fruit Juice and Nectar Regulations, on the other hand, specifies the required added sugar content of fruit juices and nectars, however, this does not cover other beverages and food products (NAFDAC, 2005b).

Application of multisectoral approach for the formulation of healthy diets and nutrition policies

Table 2 presents the rating for MSA in unhealthy diet policy formulation. The National Committee on Food

and Nutrition of the National Population Commission provided leadership to develop the Food and Nutrition Policy (2001), National Plan of Action on Food and Nutrition in Nigeria (2005) and the National Policy on Food and Nutrition in Nigeria (2016). The documents were developed through consultative processes and had high MSA ratings. From the foregoing, a critical factor, which enhanced MSA for the formulation of these policies, was the establishment of a well-funded, efficient and multidisciplinary nutrition committee.

With regards to the 2013 National Policy and 2015 Strategic Plan of Action on NCDs, the use of MSA to develop and propose nutrition policy actions was initially very low. However, with the recommendation of the WHO, the Federal Ministry of Health expanded the committee that developed the policy documents to reflect a broader representation in the range and number of sectors.

In spite of this, sectors such as environment, justice, women affairs, the food industry and professional associations such as the Nutrition Society of Nigeria did not participate in the policy formulation process. Though a mitigation strategy was implemented to address the low level of multisectorality; however, the process had already been compromised with grave implication for policy implementation.

The Nutrition department of the Federal Ministry of Health developed the National Strategic Plan of action (2014–2019) for the Health Sector component of the National Food and Nutrition Policy while the NCDs Division of the Federal Ministry of Health led the development of the National Nutritional Guideline on NCDs Prevention, Control and Management (2014). The MSA ratings for these policies were low. For instance, relevant government sectors such as Education, Agriculture and Information were not involved in the formulation of these policies but policy actions and roles were proposed for the sectors. In addition, the National Nutritional Guideline on Non-communicable Disease Prevention, Control and Management were developed largely by medical professionals such as members of the expert committee on NCDs, and officials of the State and Federal Ministries of Health. Quotes from respondents underscore these:

During the meeting [for the development of the National Nutritional Guideline on Non-communicable Disease Prevention] it was very obvious we probably may not get it right until we involve more sectors. There was a lady actually from the ministry of health, I think she is a nutritionist . . . she said we needed a bigger society like the Nigeria Nutrition Society.

(Representative of the Academic and Professional Groups)

Table 1: Healthy diet policies and the best buys addressed

Recommended WHO best buy interventions	Policy document reviewed	WHO 'Best-Buy' interventions addressed in the policy document
Best buy 1: Reduced salt intake in food	National Policy on Food and Nutrition in Nigeria, 2001	All the best buy interventions
Best buy 2: Replacement of trans-fat with polyunsaturated fat	National Plan of Action on Food and Nutrition in Nigeria, 2005	All the best buy interventions
Best buy 3: Public awareness through mass media on diet	National Policy on Non-Communicable Diseases, 2013	All the best buy interventions
	National Strategic Plan of Action on Non-Communicable Diseases, 2015	All the best buy interventions
	National Nutritional Guideline on Non-Communicable Disease Prevention, Control and Management, 2014	Best buy 1 and 2
	National Strategic Plan of action for Nutrition (2014–2019) for the Health Sector Component of National Food and Nutrition Policy	Best buy 3
	2016 National Policy on Food and Nutrition Food In Nigeria	All the best buy interventions
	Fruit Juice and Nectar Regulations, 2005	None
	Food Grade (Table or Cooking) Salt Regulations, 2005	None
	Fats and Oils Regulations, 2005	None

The Food regulations developed by the National Agency for Food Drug Administration and Control had a moderate rating for MSA.

Barriers to multisectoral approach

A major barrier to MSA as suggested by an interviewee included the difficulty in reaching agreement on issues which can be an untoward consequence of using an extensive, multisectoral process as highlighted in the quote below:

..... getting to arrive at a consensus on the right approaches How best we can preach the message, merely getting the consensus on the various issues posed a challenge

(Official of the Federal Ministry of Health)

Barriers to the use of MSA for the development of the 2013 National Policy and 2015 Strategic Plan of Action on NCDs include poor financial support to conduct the consultative meetings, poor understanding and ignorance of the principles of MSA as expressed in the quote below:

..... before, the thoughts for the development of the NCD policy was that we needed experts but that is a thing of the past we may say it was ignorance but now the thinking has been expanded, so there is need to get

many people from different sectors that have a say in NCD prevention and control

(Official of the Federal Ministry of Health)

Historical context and process of formulation of physical activity policies in Nigeria

The National Sports Policy was developed by the National Sports Commission in 2009 when sports was brought into prominence under government direct control at the ministerial level coupled with the recognition that physical health education gained as an academic discipline (Aibueku and Ogbouma, 2014). This policy focuses mainly on sports and does not propose comprehensive actions aimed at increasing physical activity in the country. Policies with actions for physical activity include the 2006 National School Health Policy, which was developed by the Federal Ministry of Education and the 2013 National NCDs Policy and 2015 Strategic Plan of Action for NCDs prevention and control.

In spite of the country's endorsement of the WHO 2004 Global Strategy on Diet, Physical Activity and Health, proposed global recommended actions and activities are not well outlined in the Nigeria sports policies. Due to the growing burden of NCDs, the officials of the National Sports Commission proposed to develop a policy document titled 'Health benefit of exercise'. However, anecdotal sources indicate that the development of this policy does not top the priority list of the

Table 2: Scoring for multisectoral approach in nutrition and healthy diet policy formulation

Sectors	National Policy on Food and Nutrition in Nigeria 2001 and National Plan of Action on Food and Nutrition in Nigeria, 2005	Fats and Oils Regulations, 2005	Food Grade (Table or Cooking) Salt Regulations, 2005	Fruit Juice and Nectar Regulations, 2005	National Nutritional Guideline On Non-Communicable Disease Prevention, Control and Management, 2014	National Strategic Plan of action for Nutrition (2014–2019) for the Health Sector	National Policy 2013 and Strategic Plan of Action on Non-Communicable Diseases 2015	2016 National Policy on Food and Nutrition in Nigeria
						Initial formulation in 2013	After the review facilitated by the WHO in 2015	
Health	✓	✓	✓	✓	✓	✓	✓	✓
Education	✓	×	×	×	×	×	✓	✓
Agriculture	✓	×	×	×	×	×	✓	✓
Justice	×	×	×	×	×	×	×	✓
Finance	✓	×	×	×	×	×	✓	✓
Transport	×	×	×	×	×	×	✓	✓
Women affairs	✓	×	×	×	×	×	✓	×
Trade	✓	✓	✓	✓	×	×	✓	✓
Legislature	×	×	×	×	×	×	✓	✓
Regulatory agencies	✓	✓	✓	✓	×	×	✓	✓
Research and academic	✓	✓	✓	✓	×	×	✓	✓
Information	✓	×	×	×	✓	✓	✓	✓
Professional associations	✓	✓	✓	✓	✓	✓	✓	✓
Civil Society Organizations	✓	×	×	×	×	×	✓	✓
Religious Organizations	✓	×	×	×	×	×	✓	✓
Food Industry	✓	✓	✓	✓	×	×	×	✓
Other	✓	✓	✓	✓	×	×	✓	✓
Industries/private sector								
Total number of sectors involved	14	7	7	7	3	4	6	16
MSA rating	High	Moderate	Moderate	Moderate	Low	Low	Moderate	High

✓, involved; ×, not involved.

Table 3: Multisectoral approach for physical activity policy formulation

Sectors	National Sports Policy 2009 ^a	National School Health Policy 2006 and Implementation Guidelines on National School Health Programme 2006	National Policy 2013 and Strategic Plan of Action on Non-Communicable Diseases 2015	
			Initial formulation in 2013	After the review facilitated by the WHO in 2015
Health	×	√	√	√
Education	√	√	×	√
Agriculture	×	√	×	√
Environment	×	√	×	×
Justice	×	√	×	×
Finance	×	√	×	√
Sports	√	√	×	×
Urban and regional planning	×	×	×	×
Transport	×	×	√	√
Women affairs	×	√	×	√
Trade	×	×	×	√
Legislature	×	×	×	√
Regulatory agencies	×	×	×	√
Research and academic	×	√	√	√
Information	×	√	×	√
Professional associations	×	√	√	√
Civil Society Organizations	×	√	√	√
Industry	×	×	×	×
Private sector	×	√	×	√
Total number of sectors involved	2	14	6	15
MSA rating	Low	High	Moderate	High

√, involved; ^aDetailed lists of sectors not available. × Involved;

agency. The quote from an interviewee from the sports agency explains the rationale for the development of the document.

We commenced a process to develop the policy document 'Health benefit of exercise' because we realised that that is the only way to go if we do not want to get into an epidemic situation with non-communicable diseases.

(Representative of the Sports sector)

Policy content and best buys addressed in the physical activity policies

Several activities have been proposed in the four policy documents to reduce physical inactivity; however, none of these documents addressed the best buy strategy (use of mass media to raise awareness on the importance and benefit of physical activity).

The National Sports policy has 15 objectives and only three address interventions which have potentials

to improve physical activity. These are: 'Encourage mass participation in sports and recreation, encourage the provision of recreational and sporting facilities by the three tiers of government, promote school and institutional sports development and competitions at all three tiers of government and ensure that sports in an integral part of the curriculum of Educational Institutions at all levers'.

The School Health Policy (2006) also has some policy contents for physical activity and explicitly states among others that 'the Federal Ministry of Education in collaboration with the Ministry of Sports shall create awareness on contemporary health issues, build capacity of personnel to supervise sporting activities in schools, design sporting activities in school, and ensure the development and execution of relevant recreational activities for the health benefits of the school community' (National Sports Commission, 2009).

Activities proposed to tackle physical inactivity in the 2013 National Policy and 2015 Strategic Plan of

Action on NCDs included: ‘development and implementations of national guidelines on physical activity for health, implement school-based programmes in line with WHO health-promoting school initiative, ensure that the physical environment support safe active commuting, and create space for recreational activity by ensuring that the environment for physical activity is accessible to and safe for all; introducing transport policies that promote active and safe methods of travelling; provision and improvement of sports, recreational and leisure facilities in educational institutions, workplaces and communities and increasing the number of safe spaces available for active play’ (FMOH, 2013, 2015).

Application of multisectoral approach for the formulation of physical activity policies

Table 3 presents the MSA ratings for the formulation of physical activity-related policies. The MSA rating for the formulation of the 2006 National School Health Policy and Implementation Guidelines on National School Health Programme is high as reflected by the range of stakeholders involved in the process. However, this was low for the 2009 National Sports Policy—a *crucial document which outlines the strategic blueprint for promoting physical activity in Nigeria*. This finding is supported by a quote from the representative of the sports agency who responded as follow when asked to describe the mechanism utilized in involving other actors during policy development:

Well, we have no experience in bringing other sectors together, we just started. This is necessary otherwise, other sectors won't buy into it [won't support the implementation of the policy].

(Representative of the Sports sector)

Barriers to physical activity policy formulation

Key barriers to PA formulation included the low prioritization of PA, the low political buy-in, a poor understanding of actions proposed for reducing physical inactivity among relevant stakeholders and the intensive efforts required to develop an extensive policy to sufficiently cater for the large Nigerian population. These points were reflected in the quote below:

We have challenges of getting a policy that will cover the population of 190 million, it requires a lot we have to get the political heads to buy into the policy and give it political support and the framework, we have to get those who are going to eventually operate this policy and drive it so, it is a complicated situation.

(Representative of the sports sector)

DISCUSSION

WHO best buy interventions in diet and physical activity policies in Nigeria

Nigeria has formulated policies to promote healthy diets and all the best buys interventions are proposed however some are yet to be published (i.e. the *National Policy and Strategic Plan of Action on Non-Communicable*) and actions to reduce the risk associated with the consumption of unhealthy diets are weak. For instance, there are no Acts to regulate the salt and transfat content of manufactured foods produced by the food industry. Policy actions proposed are mainly educational intervention characterized by the use of broad, non-specific statements such as ‘create awareness of healthy eating lifestyle to control NCDs’. These statements are weak and hardly target the private organizations such as the food industries that have the ability to implement recommended dietary guidelines to improve the quality of food consumed (Swinburn *et al.*, 2011; Lachat *et al.*, 2013). Furthermore, most of the proposed actions or statements target consumers and aim to prevent NCDs through awareness creation (i.e. labelling). These are conventional approaches with very limited outcome.

Despite the widespread prevalence of physical inactivity in Nigeria, policy documents which outlined actions to tackle this risk factor, do not include the best buy intervention. This is attributed to the low prioritization of physical activity and few governments organized efforts to combat physical inactivity. Where available, PA programmes are viewed as useful but not as necessary compared with anti-smoking programmes, partly due to the failure of stakeholders to emphasize the huge harms of physical inactivity. In fact, physical inactivity is regarded as a minor or secondary risk factor for NCDs, which is hardly targeted for the prevention, and control of NCDs especially in low- and middle-income countries and it is (Das and Horton, 2012; Wen and Wu, 2012).

Our findings align with the report by Lachat *et al.* (Lachat *et al.*, 2013) which showed that proposed policy actions for healthy diets and physical activity in many low- and middle-income countries, Nigeria inclusive remain inadequate. The authors suggested that this disconnection may be due to inadequate platforms to share lessons learned and best practices in policy development and implementation, poor multistakeholder collaboration, lack of clear and prioritized actions by countries coupled with poor leadership to tackle the NCD epidemic (Lachat *et al.*, 2013).

Multisectoral action for healthy diets and physical activity policy formulation

A review of the Nigerian context indicates a significant gap with the theoretical concept and application of MSA into public health policymaking. Managing complex multisectoral and multistakeholder interactions is important for efficient actions for NCDs prevention and control (WHO, 2012). The extent of utilization of MSA for policy formulation ranged from low (i.e. the *National Nutritional Guideline on Non-Communicable Disease Prevention, Control and Management* and the *National Sports Policy*) to high (i.e. the *National Policy on Food and Nutrition in Nigeria* and the *National Policy and Strategic Plan of Action on Non-Communicable Diseases*). Indeed, achieving MSA is not easy; challenges may include, lack of shared understanding of goals to be achieved, competing priorities, weak operational capacities and weak skills and experience with multisectoral collaboration among the interacting sectors (WHO, 2012). This underscores the importance of raising the awareness of policy actors to understand the importance and techniques for implementing the MSA approach. Furthermore, capacity building initiatives are needed to equip policymakers with skills for identifying and addressing barriers to MSA through the management of group dynamics and the use of dialogue and consensus building to accomplish the common purpose (Toro *et al.*, 2006).

Study limitations

This research adopted a case study analysis, and a peculiar limitation of this research design is the issue of external validity or generalizability. Hence, study findings are peculiar to Nigeria and may not be generalizable to other populations. We could not interview a relevant government ministry specifically—the *Federal Ministry of Urban and Regional Planning*. The management expressed that the research had no relevance to their ministerial mandate and they failed to participate in the research. Furthermore, we could not access the minutes of meetings held to develop the policies; these would have provided richer details on the involvement of actors in the policymaking processes especially since this a retrospective analysis of policy development. The study is largely descriptive though it provides a rich narrative of the current status of nutrition and physical activity policies in Nigeria. Further explanatory studies, which utilizes theoretical frameworks such as the Advocacy Coalition Framework or the Multiple Streams are recommended to deepen knowledge on the policy dynamics (Moloughney, 2012).

CONCLUSION

NCDs policy formulation in Nigeria is evolving and the country has recorded some strides with the development of policies to address unhealthy diets and physical inactivity; however, there is a need to review and update these adopting an MSA and evidence-based policymaking process. Legal acts are required to regulate the food industries and the production of processed foods. The Nigerian government and relevant stakeholders must increase commitment for NCDs prevention and control by championing efforts to support the consumption of unhealthy diet and reduce physical inactivity. This should transcend mere rhetoric and be backed by adequate resource allocation and political leadership.

ETHICAL CONSIDERATION

Study was conducted based on ethical guidelines. The University of Ibadan and University College Hospital Ethical Review Committee, Nigeria approved the study. Written consents were obtained from all interviewees.

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