



P O L I C Y B R I E F

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Policy regimes for managing diet-linked non-communicable diseases in Africa

Abstract

Notable dietary shifts from nutrient-dense foods to ultra-processed foods and largely sedentary lifestyles present high risks of diet-linked non-communicable diseases (NCDs). This is a threat to Africa's predominantly young population and its ability to deliver its development mandate specified in Agenda 2063. In this context, we advance three policy suggestions to proactively transform food systems in Africa, seeking to avert the pending NCD health crisis:

1. Governments need to regularly share updated data and information linking the prevalence of named NCDs to levels of consumption of processed foods to inform health and diet standards at the individual, domestic, and industrial levels. This can be enhanced by using artificial intelligence and other information technologies.
2. Governments must employ and enforce tax policies that explicitly promote preference for healthy diets and healthy lifestyles and penalise undesirable options.
3. Governments must promote nutrition-sensitive agriculture interventions through well-crafted policies. For instance, interventions, like biofortification, can improve micronutrient deficiencies, which, in turn, can reduce the risk factors of some NCDs.

Introduction

Presently, NCDs account for about 41 million deaths annually, which is equivalent to 71% of all global deaths (Bigna and Noubiap, 2019). In Africa, NCDs are rising sharply due to rapid urbanisation and diets that are shifting from nutrient-dense foods to ultra-processed foods. While NCDs are not yet the leading cause of death in Africa, their prevalence is rising (Juma et al., 2017). The prognosis is that without intervention, by 2030, NCDs may account for nearly half of the burden of disease in low-income countries with a four-fold higher prospect of NCD-related premature deaths compared to high-income countries (Ibid).

Of concern, is the rapid increase in NCDs among younger populations in Africa a continent with 70% of its people under the age of 30 (Daniels, 2014). This is threatening the health of a young population that is expected to play a central role in Agenda 2063. Many African countries are investing scarce resources to educate and train this young population to meet its development demands. To ensure steady progress, Africa needs to ensure that this population avoids the looming NCD pandemic. Simultaneously, the continent must maintain the progress it has made in dealing with its



entrenched challenge of infectious diseases (Maher et al., 2010).

Many countries and regions acknowledge the looming NCD pandemic and are seeking to manage its escalation. For instance, South Africa notes, and is concerned with, the prevalence of NCDs in a highly unequal society (Hunter-Adams and Battersby, 2020). Elsewhere, Kraef et al. (2020) present a case of a rise in NCD-linked deaths in the East African community. In Nigeria, Ogunmoyela et al. (2022) show a trend of increasing cases of diet-linked NCDs. In this milieu, Juma et al. (2017) have noted that many African countries face health systems challenges that inter alia include inadequate and unsatisfactory NCD-related policy studies and development, poor policy implementation, lack of policy equity to combat NCDs, and lack of data recorded on NCDs' prevalence, morbidity, and mortality. This is indicative of poorly developed, ineffective, and inefficient health systems almost across the whole continent. Notably, some leading NCDs, including type 2 diabetes and some cardiovascular diseases, are linked to dietary changes and lifestyles (Bigna and Noubiap, 2019).

A critical reflection on concerns raised when reviewing diverse documents interrogating the NCD's challenge provided preliminary insights on this subject. Buttressed by discussion points gathered from various forums, including multi-stakeholder workshops, that we have participated in across the continent, we advance three plausible policy measures that could address the looming NCD crisis in Africa. We limit our focus to the NCD-diet-lifestyle nexus encompassing the food and human health sectors. The dictum 'prevention is better than cure' and a principle attributed to Hippocrates – "Let food be thy medicine" – inspire our proposals, which posit that enacting and enforcing diet and lifestyle-focused policies can avert the looming crisis of diet-related NCDs in Africa.

The NCDs-diets-lifestyle nexus

The link between some NCDs, diets, and sedentary lifestyles is an established health fact. Broadly, diets rich in red meat and ultra-processed foods, the harmful consumption of sugar-rich beverages, alcohol, and sedentary lifestyles, are risk factors for NCDs (Juma et al., 2017). In Africa, such diets are largely consumed in urban areas. Notably, as the prevalence of NCDs increases throughout the continent, it is apparent that increases are higher in urban areas compared to rural areas (Ibid). Most concerning, though, is that many cases remain undiagnosed, especially in rural areas where facilities and related machinery are scarce. This skews records of cases of NCDs and suggests that cases may be much higher than reported in national statistics.

Success under Agenda 2063 is likely to see a highly urbanised continent because of rapid growth in the manufacturing and services industries. The lives of many of these urban dwellers will largely be sedentary when they assume formal jobs. Simultaneously, the increased employment of women, commuting for urban jobs, and competition to advance careers, will accentuate the convenience of consuming commercially-processed beverages and foods compared to those that have been prepared and processed at home (Reardon et al., 2021). Hypothetically, these changes will increase the prevalence of diet-linked NCDs.

Health practitioners and governments acknowledge the present and anticipated rise of diet-linked NCDs. To combat this menace, there is now a raft of public policy measures covering the usual targets – tobacco, cigarettes and alcoholic beverages – to new targets that include the amounts of salt, sugar, fat, and/or oil levels in commercially-produced food and beverages. For example, the Surveillance, Harness Industry, Adopt Standards for Labelling and Marketing, Knowledge, Environment (SHAKE) initiative is a global focus seeking a reduction in the consumption of salt, with

the food industry playing a role in this. Simultaneously, the World Obesity Foundation is heightening the global focus on obesity-limiting activities through training and capacity building and collecting and disseminating knowledge about obesity.

Governments are implementing such initiatives by introducing or considering adopting the health tax approach, seeking to instill healthy eating habits. Typically, such taxes are narrowly levied on products that have a negative public health impact including tobacco, alcohol, and sugar-sweetened beverages. Health taxes raise the price of targeted products making them more expensive compared to healthy options, thus compelling higher purchases of the latter than the former. Lwin et al. (2023) conclude that, in some low- and middle-income countries, health taxes are delivering positive health and well-being outcomes for the population.

However, although the food industry acknowledges the role of their products in NCDs, it still argues that such taxes are detrimental to their operations and adversely impact food value chains leading to loss of employment opportunities. In fact, in many countries, health taxes often carry negative political sentiments, especially where unemployment is high, and the food industry often threatens to cut jobs if such taxes are levied. Furthermore, where governments seek subsidies for affected industries to preserve jobs, there are frequent difficulties in defining the scope of the subsidies and administrative difficulties in availing them. Also worrying is the strong lobby from affected industries against limited advocacy for health taxes by health practitioners and other relevant stakeholders. Most disturbing here is that sometimes there is public opposition to such taxes.

In the same vein, micronutrient malnutrition, and its relation to the NCD challenge in Africa, is a growing concern (Global Panel, 2015). To manage this, there are calls to escalate biofortification – a crop breeding technique combining the high concentration of desired nutrient traits in a crop variety with those of high-yielding varieties to develop biofortified varieties. When biofortified crops are combined with interventions that promote dietary diversification, real progress can be made to benefit millions of households without necessarily changing everyday dietary patterns. Simultaneously, food fortification also addresses other micronutrient deficiency-related ailments.

Against this background, we advance three public policy proposals aimed at averting the impending pandemic of diet-related NCDs in Africa. The intention is to mitigate the pending health crisis, seeking to ensure that these ailments do not affect the content as badly as the communicable ones, especially the HIV-AIDS pandemic, that decimated a significant portion of the working and skilled

population in many countries.

Managing the NCDs

Against the foregone, we recommend the following:

1. Governments must seek to entrench the policy and practice of directly linking specific dietary habits to the levels of prevalence of specific NCDs.

Implementing this will involve collecting data on the extent of consumption of certain food types from purchases in supermarkets and prepared-food outlets among others and linking this to the prevalence of named diet-linked NCDs as reported in all medical facilities. Such links could be used to alter food standards and, in public campaigns, seek to alter lifestyles. This is the essence of data-driven policymaking.

Implementing this demands the collection and analysis of large data sets. Modern information computer technology (ICT) is available to assist in the rapid collection and rapid analysis of such data. Artificial intelligence is a technology that can rapidly analyse large data sets (Big Data) and advance policy advice faster than humans can. This is important for real-time decision making, such as altering food standards reacting to NCD trends. Essentially, this avails an opportunity for the development and maintenance of a dynamic policymaking model. This model can have a sequence of quick intercessions that integrate swift and automated feedback loops that buttress learning in the policy cycle, so that the policy remains in a state of dynamic self-improvement. What is important here is for stakeholders to agree on the parameters of related AI algorithms, for example variations in the amounts of salt and sugar in food and beverages and the prevalence of specified NCDs to rapidly compute and adjust the relevant policies and standards with minimal human intervention. Equally, the same data may be used to alert the pharmaceutical and medical industry to prepare its systems to react appropriately to fluctuations in the prevalence and types of NCD cases.

Mjimba and Sibanda (2019) have proposed this approach in the case of managing climate change. We propose the same for the health sector to rapidly react to the looming NCDs pandemic in Africa.

Notably, collecting relevant data will be a challenge where informal food markets dominate. However, this needs to start with the few operating formal traders. Lessons from the small formal markets stand to be helpful when economies become largely formal, as envisaged under the various programmes of Agenda 2063. What is encouraging is that presently many formal traders, including supermarkets and prepared food outlets, are increasingly gathering consumer data through the so-called “loyalty cards”. Governments could utilise these data sources towards entrenching state-led, data-driven determination of a food policy and standards regime.

2. Governments must enact policy and legislation regimes that explicitly promote and incentivise the preference for healthy diets and lifestyles and punish undesirable alternatives.

Linked to the first suggestion, essentially, this is a call for a health tax policy. This has the potential to bear desired outcomes especially when health taxes imposed on unhealthy industrially-prepared foods and beverages varieties are notably high, and there are no taxes for healthy varieties. Such a tax regime is likely to spur greater production and consumption of healthier food options – a desired outcome.

In addition, governments need to encourage physical activities, such as walking, running, and cycling. This demands the provision of relevant public infrastructure for cycling and walking, as well as other areas for physical exercises, such as the public seaside fitness park in Dakar, Senegal. Personalised incentives could include making membership fees for private fitness facilities tax deductible with the appropriate proof of attendance.

3. Governments need to enact policies and strategies that promote the awareness, use and adoption of nutrition-sensitive agriculture interventions with a specific focus on staples.

Most African economies are agro-based such that availability and access to food is mainly through subsistence agriculture, except for South Africa and a few countries in the North. Nutrition-sensitive agriculture interventions, like the biofortification of maize (orange maize) and iron beans, are readily available initiatives to combat micronutrient malnutrition in most African countries where maize is a staple food. Research and development can extend biofortification to other foods.

To conclude, we note that our proposals may appear to be cumbersome and expensive to implement. However, we posit that these proposals are much more inexpensive than managing a full blown diet-linked NCDs pandemic would cost the continent.

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