

Non-Communicable Diseases In Cameroon **A Growing Threat To Human Capital**

With a GDP of approximately US\$ 29.2 billion and a GDP growth of 6.2% in the year 2015 (World Bank 2016), Cameroon, a LMIC (Low and Middle Income Country) with a rapidly increasing population is experiencing steady economic growth. This growth over the last few years has stimulated an increase in urbanization, with 57.6% of the 23.3 million population currently living in urban areas (Echouffo-Tchegui and Kegne 2011). Rapid urbanization and a transition from agrarian life to the wage-earning economy of city life are fuelling a potentially negative impact on health behaviors. These socio-economic changes have exposed Cameroon to the double burden of infectious and non-communicable diseases (NCDs). The increasing urbanization in Cameroon and the swift adoption of a Western lifestyle by Cameroonians are compounding the already increasing burden of NCDs.



The UNDP (2013) place NCDs (cardiovascular disease [CVD], diabetes, cancer and chronic respiratory disease) as the world's leading forms of preventable illness, as well as causes of disability and mortality – five of the top six causes of death worldwide are NCDs. In 2010, NCDs accounted for two-thirds of 53 million global deaths, killing more people than all other causes combined (UNDP 2013). According to the WHO (2015), NCDs kill, on average, 38 million people each year with CVDs (17.5 million), cancers (8.2 million), respiratory diseases (4 million), and diabetes (1.5 million), accounting for 82% of all NCD deaths. Since the 1990s, the negative impact of NCDs on disease burden has grown, and NCD epidemics are currently a global challenge. In order to highlight the severity of the threat on global health posed by NCDs, the UNDP (2013)

states that by 2030, NCDs are expected to be the major cause of death globally and will kill 52 million people per year; a figure five times more than the number of deaths caused by communicable diseases.

NCDs are often misconstrued as a problem of high-income countries. However they place an equal or even greater burden on LMICs (UNDP 2013). Over 80% of countries in Africa are LMICs and this continent is increasingly bearing a significant proportion of the global burden of chronic diseases. Many countries in Africa, especially sub-Saharan Africa, are experiencing an alarming increase in NCD-related morbidity and mortality, with various segments of the population being affected. In their paper on Cardiovascular Diagnosis and Therapy, Tchoumi and Butera (2013) point to projections which predict the largest increase in death rates over the next 10 years in Africa from CVD, cancer, respiratory disease and diabetes. As it stands, almost three-quarters of NCD deaths (28 million) occur in LMICs; 16 million of these deaths occur before the age of 70 and 82% of these “premature deaths” occur in LMICs (WHO 2015). Alarming, in developing countries, NCD-related mortality is occurring at earlier ages, affecting more people who are in the prime of their economically productive years; 29% of NCD-related deaths occur before the age of 60.

Africa’s NCD burden has been attributed to several factors including aging, rapid unplanned urbanization and industrialization, increasing food market globalization, and the adoption of unhealthy lifestyle behaviors. Tobacco consumption, sedentary lifestyles characterized by physical inactivity, the harmful use of alcohol and unhealthy diets high in saturated fats, sugars and salt increase the risk of dying from NCDs. These risk factors are not only particular to the older age groups; they affect all age groups, increasing their vulnerability to NCDs. Despite the inescapable nature of these risk factors, they are behavioral and can be modified. Statistics from the WHO (2015) show that modifiable behavioral risk factors play a major role in rising death tolls from NCDs. Tobacco use causes 6 million deaths per year; physical inactivity is attributed to 3.2 million deaths per year; harmful alcohol consumption results in 3.3 million deaths per year; and in 2010, CVD deaths resulting from excess sodium intake caused 1.7 million deaths (WHO 2015).

Cameroon, like other LMICs on the African continent, is currently experiencing an increase in NCD-related deaths. According to the 2014 NCD profile report for Cameroon, 239,000 deaths were NCD-related and NCDs accounted for an estimated 31% of total deaths that year (WHO 2014). The same report states that there is a 20% probability of dying between the ages of 30 and 70 years from the four main NCDs in Cameroon. This situation could worsen with an increasing population aged 50 or more, and an increase in obesity, diabetes, and hypertension as a result of urbanization and social mobility (Echouffo-Tchegui and Kegne 2011).

In addition to their customary diet which is very rich in starch, oils, and sugars, Cameroonians are now increasingly exposed to contemporary and unhealthy diets. These diets are contributing to the increase in obesity rates. Obesity is rapidly becoming a health problem in Cameroon; this is encouraged by the fact that being obese is still being perceived as a sign of good living because it confers respect and influence (Kiawi et al. 2006). A qualitative survey conducted by Dapi et al. (2010), among Cameroonian adolescents, showed a strong preference for sweetened foods; with a trend showing a transition over time from a traditional diet in

rural areas to a more westernized diet characterized by processed foods and sweet beverages in urban areas. This is not a problem limited to urban areas; the adoption of unhealthy lifestyle behaviors that lead to NCD has been emerging in rural areas as well.



Despite the presence of operational policies, strategies and plans to reduce physical inactivity, the burden of tobacco use and consumption of unhealthy diets—the country still faces several challenges in reducing NCD prevalence. A crucial factor is that, in most rural and urban settings in Cameroon, health beliefs, knowledge, lay perceptions, and health behavior interact strongly to contribute to the occurrence of chronic NCDs. More so, due to misconceptions indicated by popular health beliefs, many Cameroonians fail to take appropriate actions for prevention and control of NCDs such as diabetes and CVD, and their risk factors (Kiawi et al. 2006; Awah et al. 2008). According to the WHO (2014), this situation is further compounded by the limited operational policies, strategies or action plan to reduce the harmful use of alcohol: no operational policy or strategy that integrates several NCDs and shared risk factors, the absence of operational NCD units within the Ministry of Health (MoH), no evidence-based national guidelines and protocols for the management of major NCDs through a primary care approach, and the non-existence of surveillance systems or monitoring systems that enable reporting against global NCD targets.

Since 2001, as a response to the growing threat of NCDs, several health policies which aim to enhance the management of chronic NCDs, as well as address the standard for primary and community health care, have been designed and adopted by the Cameroonian MoH (Tchoumi and Butera 2013). So far, health policy and program implementation, with respect to diabetes and hypertension, has been guided by the scientific knowledge obtained from the baseline Cameroon Burden of Diabetes (CAMBOD) survey, which led to diabetes and hypertension being incorporated into a national 10-year plan for health promotion (Tchoumi and Butera 2013). The Ministry of Public Health moved to create two departments; the Department of Applied Research and the Department of Disease Control that focus solely on NCDs.

Despite the efforts being made to reduce the prevalence of NCDs in Cameroon, the desired results are still a

long way off due to a weak health care system which is already struggling to cope with the burden of infectious diseases. Poverty is an NCD-exacerbating factor, and this is not an exception, in Cameroon, which has an uneven distribution of wealth with at least 30% of the population living below the poverty line (Echouffo-Tchegui and Kegne 2011). Disadvantaged people are more exposed to the risk factors of NCDs. Exorbitant health care costs for NCDs in low-resource settings, lengthy and expensive treatments, and the loss of breadwinners, quickly drain household resources and drive millions of families into poverty (WHO 2015). This unending loop of poverty, characterized mainly by loss of productivity due to NCDs, stifles poverty reduction initiatives as well as economic growth and development. Although the NCD problem may seem insurmountable, several multi-sectored and holistic solutions can be implemented to lessen its impact.

INTERVENTIONS NEEDED TO REDUCE THE BURDEN OF NCDs IN CAMEROON

The major risk factors of NCDs are well known, largely influenced by economic growth, globalization and unplanned urbanization, and similar in all countries. These risk factors which include tobacco use; unhealthy diets high in trans- and saturated fats, sugar and salts; physical inactivity; and the harmful consumption of alcohol are responsible for more than two-thirds of all new NCD cases globally, and increase the risk of complications in people with NCDs (Beaglehole et al. 2011). Health education and counselling by health professionals play an important role in addressing these risk factors. Despite the often loose portrayal of health education and counselling as the most effective strategy to combat the NCD burden, it cannot be used as a stand-alone solution due to the challenging nature of variation effecting behavioural change in people. An enabling policy environment is fundamental for sustaining healthy behavior and positive behavioral changes. This implies that health must be a key consideration during the formulation of sector-wide public policies. NCD policies can ensure policy coherence and facilitate collaboration as well as coordination of multi-sectored action only if they are embedded within the national health strategy (Mendis 2010). Therefore, sustainable behavioral change requires conducive and supportive environments in which policies can make healthy choices easy and affordable.

This article proposes interventions, including policies for the prevention and control of NCDs by targeting the major risk factors of NCDs which are modifiable and can be influenced by behavioral changes. Implementing these interventions effectively can reduce the burden of NCDs in Cameroon. These interventions are categorized according to each risk factor and are further discussed below.

1) Tobacco Control

Policies for tobacco control should be aimed at: monitoring tobacco use; protecting people from tobacco smoke (secondhand smoking); supporting tobacco cessation; warning the general public about the dangers of tobacco consumption; enforcing bans on advertising; and raising taxes on tobacco products.

Key to tobacco control in Cameroon is adopting and accelerating the full implementation of the WHO Framework Convention on Tobacco Control (FCTC). Beaglehole et al. (2010) suggest that the full implementation of just four of the FCTC strategies would avert 5.5 million deaths over a period of 10 years in 23 LMICs

with a high burden of NCDs.



Reducing tobacco use and exposure can be achieved through the following interventions:

- Legislating for 100% tobacco smoke-free environments workplaces, schools, public transport and both indoor and outdoor public areas. For example Norway, like most developed countries, has a complete ban on smoking in bars and restaurants, and legal protection from exposure to smoke in work places.
- Provide smoking cessation services which should include access to nicotine replacement therapy and counselling for people who want to quit smoking or reduce their exposure to tobacco smoke.
- Raise public awareness on the dangers of tobacco consumption and secondhand smoking by providing health information and evidence-based mass-media campaigns with large and clear visible health warnings.
- Implementing comprehensive bans on tobacco advertising, promotion and sponsorship. Through government legislation in the UK, tobacco companies are required to package their products in plain green packaging that carries images as health warnings. This is an intervention put in place to eliminate misleading advertising, give greater prominence to health warnings, help smokers quit, and discourage children and youths from smoking.
- Protecting tobacco control policies from commercial and other vested interests of the tobacco industry. Special focus should be placed on monitoring and mitigating the interference of tobacco industries in the implementation of public health policies (Kenyan Ministry of Health 2015).
- Strengthening the implementation of the regulation of the contents and emissions of tobacco products and require manufacturers and importers of tobacco products to disclose the contents and emissions of their tobacco products via labeling and packing.
- Raising taxes on tobacco products. This will lead to an increase in the market price of tobacco products, making them less affordable to the public and hence bring about a reduction in tobacco consumption (WHO 2013).

Implementing these actions will have an immediate beneficial effect on health and the economy because a reduction in exposure to tobacco smoke will reduce the burden of NCDs like cardiovascular disease and respiratory disease and thus a decrease in health expenditure.

2) Promotion of Healthy Diets

Three major processes related to globalization are driving up the consumption of trans- and saturated fats, salt and free sugars. These processes are: the production and trade of agricultural goods; foreign direct investment in food processing and retailing; and global food advertising and promotion (Mendis 2010). Apart from health education and counselling on food preparation and consumption at an individual level, nutrition policies that ensure food content balance and quantity consumption are needed at a national level. These policies should support infant feeding, provision of healthy meals in schools, labeling of food, responsible marketing of food and drinks, consumer education, and capacity building of key personnel. Policies are needed to create a mechanism by which the government, health professionals, employers, food producers and retailers, schools and community members can work together to solve issues surrounding food and nutrition.



Promoting healthy diets can be improved by:

- Reducing the level of salt added to food. Explaining the need through mass media campaigns, and through reformulation of food products by the food industry. The consumption of processed foods in Cameroon has yet to reach the levels witnessed in developed countries, and health workers can play a major role in ensuring those levels are not attained by educating patients and families on reducing the addition of salt in food preparation.

- Increasing the availability and affordability of fruits and vegetables. Introducing policy incentives such as agricultural subsidies for growing and marketing fruits and vegetables as well as improving the weak road infrastructure so as to ensure the efficient transportation and distribution of these perishable commodities will provide healthy diet options for Cameroonians, as well as increasing uptake.
- Promoting the provision of healthy foods in public institutions such as schools, and implementing nutrition component in school health policy and curriculum.
- Developing policy measures that encourage food producers and retailers to utilize healthy agricultural products.
- Implementing evidence-informed public awareness programs about healthy diets within communities so as to encourage consumers to select healthier diet options.
- Increasing taxes on unhealthy food products and providing economic incentives and subsidies to food producers, importers and retailers that take steps to make their food healthier.
- Implementing health-related legislations and regulations on salt, saturated and trans fats, refined sugar content of processed foods, and labeling and marketing of food products and beverages.
- Introducing prevention policies to optimize women's diets before and during pregnancy so as to prevent diseases and birth defects. These policies include: the promotion and use of salt fortified with iodine so as to prevent iodine deficiency disorder; and the promotion of staple food fortified with folic acid and the use of supplementary multivitamins with folic acid to prevent neural tube defects and other malformations (Mendis 2010).

Beaglehole et al. (2011) state that a population-wide reduction in salt consumption by only 15% would avert up to 8.5 million deaths in 23 high burden countries over 10 years. Furthermore, an improvement in the consumption of healthy diets can reduce the prevalence of obesity which is an exacerbating factor of NCD.

3) Promotion of Physical Activity

Contrary to developed countries where there is a mixture of policies in place to ensure that physical environments support safe and active commuting, and for creating space for recreational activities, Cameroon has little or no such policies in place. Urban planning policies in Cameroon do not facilitate active travel and leisure time physical activities. The lack of playgrounds in most schools is an obvious oversight. This is in addition to the heavy traffic, narrow roads, absence of cycle lanes, and no park areas which hinder physical activity and pose the risk of accidents. Creating an environment that supports and encourages physical activity among all age groups is necessary for the promotion of physical activity and the reduction of NCD burden.

Promoting physical activity can be accomplished by:

- Conducting evidence-informed campaigns through mass media, social media, and at the community level to inform and motivate adults and young people on the benefits of physical activity.



- Creating free gyms and open-air workout spaces to encourage the uptake of physical activity. This can be supplemented by offering economic incentives and subsidies to gym owners, and improving sports, leisure and recreation facilities.
- Strengthening the current implementation of physical education in school curriculum and health policy, and supporting school health programs.
- Creation and preservation of built and natural environments that support physical activity in schools, workplaces, clinics and hospitals.
- Amending national and subnational urban planning and transport policies to improve accessibility, acceptability, safety of, and supportive infrastructure for walking and cycling (WHO 2013). Furthermore, transportation policies should be designed to promote the use of public transport and dissuade the use of private vehicles. Therefore, the public transport sector needs to be strengthened. The resulting beneficial effect will be a decrease in air pollution, which is a risk factor of NCDs.

4) Reducing the Harmful Use of Alcohol

Cameroon is one of the largest consumers of alcohol in Africa. Due to the popularity of alcohol in Cameroon, it has so far been very difficult to not only implement, but monitor, policies which aim to control the excessive consumption or abuse of alcohol. Reducing harmful alcohol consumption will require a strict and unforgiving approach which should seek to penalize the excessive consumption of alcohol. Target areas include: drink-driving policies and countermeasures; availability of alcohol; marketing of alcoholic beverages; pricing policies; and reducing the impact of illicit alcohol and informally produced alcohol.

Reducing the harmful use of alcohol can be improved by:

- Implementing the effective use of tax and price measures (increasing the taxes on alcohol producers and retailers, and increasing the consumer price of alcohol) to control the demand for alcohol.
- Creating public awareness via mass media on the dangers of alcohol consumption and its related risks.
- Introducing an age limit on the purchase and consumption of alcoholic products.
- Creating and integrating alcohol abuse management and rehabilitation at all levels including the community, healthcare system and workplace.
- Reducing the number of alcohol vendors and increase the difficulty in acquiring an alcohol vending license.
- Monitoring and prohibiting the misleading advertising, promotion and sponsorship of alcoholic beverages.
- Introducing legislations that reduce drink-driving and heavily penalize drink-drivers.
- Improving policing of illegal, informally produced, and imported alcohol, as well as increasing the proportion of alcohol that is taxed. This is because of the high amounts of unrecorded alcohol production and consumption in Cameroon.

Relying solely on treatment options to combat NCDs is proving to be very costly to the government and health infrastructures that are unprepared to respond to this growing threat (World Bank 2011). More than half of the NCD burden could be avoided through health promotion and prevention initiatives. Comprehensive and multi-sectored approaches that involve various sectors such as health, finance, education, agriculture, planning, foreign affairs, etc. can reduce the negative impact of NCD. Lessening the risk factors of NCDs and putting surveillance systems in place to collect relevant data on the epidemic should be prioritized. Essential NCD interventions that encourage early detection and timely treatment should be incorporated into the basic health package delivered by the primary health care system. The creation of public health policies that promote prevention and control, and re-orient the health systems to address the needs of people with NCDs should be adopted (WHO 2015).

According to the World Bank (2011), the world currently has the largest cohort of young people aged 10 – 24 in history; a figure that stands at approximately 1.8 billion with 1.5 billion of these youths living in developing countries. Adolescents, without doubt, presents a great opportunity to build positive health habits and eliminate damaging ones. The implementation of health promotion and prevention strategies that target this age group can limit the risk factors of NCDs such as tobacco use and alcohol consumption as well as initiate physically active lifestyles. When addressed earlier in life, the risk factors of NCDs are less damaging, and targeting adolescents offers the opportunity to have better health, reduce health costs, increase the number of years of productivity, and foster economic growth and development.



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