

Financing of NCD Prevention in LMICs: Jamaica Case Study

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Objective:

Prevention programs are increasingly seen as critical for tackling the rising burden of non-communicable diseases (NCDs), but tend to be under-prioritized and under-funded, particularly in low and middle income countries. The objective of this study is to estimate spending on NCD prevention in Jamaica and identify the enablers, challenges and dynamics underpinning population-level NCD prevention spending, with particular focus on tobacco use, harmful use of alcohol, unhealthy diets and physical inactivity.

Methods:

Primary and secondary data collection was used to examine processes and organizational contexts that shape the formulation of policy and financial frameworks for NCD prevention. The methodology was categorized into three tiers; an academic literature review, scrutiny and analysis of official policy documents and budgetary data on health and NCDs, and in-depth stakeholder interviews with key government officials leading NCD programs. Government and government-routed donor spending on population level prevention was gauged to estimate NCD prevention spending. Where possible, impact of prevention programs on disease incidence and risk factors was gauged through available outcome indicators.

Results:

Jamaica spent an estimated 1,435 million JMD on NCD prevention in 2017-18, constituting around 2.7% of total health spending for the year. Key enablers for NCD prevention revenue mobilization have been earmarked taxes on alcohol, tobacco and gambling, civil society advocacy for prevention efforts, regional cooperation for NCDs, increased prioritization of NCD prevention by the Ministry of Health, awareness campaigns focusing on risk factors, political will and inter-sectoral collaboration. Unhealthy diets remain an underserved area in Jamaica and economic slowdown, opposition from tobacco and alcohol industries remain major barriers to further success at revenue mobilization for NCD prevention.

Conclusion:

Jamaica has made considerable progress in reorienting its health system for an inter-sectoral effort for NCD prevention, but still continues to spend a small proportion of its health budget on prevention. Fears of investment relocation and lower taxation commitments present obstacles to increased revenue mobilization and prevention spending.

1. Introduction

This is a case study on the financing of NCD prevention in Jamaica as part of a series of 10 case studies from LMIC describing the enablers, challenges and dynamics of financing NCD prevention programs, aimed at providing promising practices and determining common threads and trends.

In Jamaica, nearly four out of five individuals die from NCDs, and a 30-year-old has a 17% chance of dying prematurely from any of the four main NCDs (cardiovascular disease, diabetes, chronic respiratory disease, and cancer) before reaching his or her 70th birthday.¹ The impact of NCDs goes beyond health, and their economic and social effects are immense. Jamaica spends about 15% of its health budget on the four main NCDs.² This imposes a direct economic burden on the country – estimated at \$18.5 billion over 15 years - and reduces investments in education and physical capital, which increase GDP in the long run. The economic burden of NCDs also stems from indirect sources. Poor health reduces productivity by permanently or temporarily removing individuals from formal or informal labor markets. When individuals die prematurely, the labor output that they would have produced in their remaining years is lost. In addition, individuals with NCDs are more likely to miss days of work or to work at a reduced capacity while at work.

Jamaica has made significant progress on its NCD response, both in health service provision and multi-sectoral action for prevention. The government has taken numerous policy and financing steps to control NCDs. These have included the implementation of national strategic plans for NCD control and prevention, the formation of dedicated NCD financing mechanisms like the National Health Fund, taxation of tobacco, alcohol and the gaming and gambling industries to finance NCD interventions, healthy activities and public campaigns for health promotion and improved nutrition, among others. The interventions have met with considerable success in many respects; however, NCDs continue to pose a major and growing public health challenge. Premature deaths attributable to NCDs remains as high as 79% and Jamaica is not on track to meet the overall regional NCD goal of a 15% reduction in premature mortality by 2030.³ Perhaps worryingly, expenditure on NCD treatment appears to be rising in proportion to prevention in recent years.

Limited availability of funds for financing NCD control and prevention in particular are an important part of the reason for the continued persistence of chronic NCDs. There is an established tendency for governments to provide more funding for treatment than prevention, almost in inverse proportion to potential impact – that is, while prevention is clearly the best use of limited resources it is often easier to secure resources for treatment instead.

This study will investigate the dynamics of NCD prevention financing in Jamaica to identify the key lessons, challenges and barriers from Jamaica's experience with financing and implementing NCD prevention. It will do so by first examining the socio-economic and institutional context of NCDs in Jamaica and the region, outlining the key policy responses and interventions of the Jamaican government to the NCD crisis, and understanding how financing for NCD prevention is raised and spent, and what kind of economic, social, political and institutional barriers stand in its way. The key lessons and challenges emerging from the Jamaican experience will then be discussed and summarized, and a set of actionable outcomes and recommendations will be presented.

2. Methodology:

The methodology for this assessment consisted of two parts: a review of academic and grey literature and budgetary data and data collection in the form of interviews with key informants. The study adopts the critical

theory approach, which acknowledges reality as contextualized and shaped by various social, cultural, economic and political factors and sees the research process as a means to bring about change and transformation. In this study, the critical theory approach was employed to question existing frameworks, organizational hierarchies and red-tape, identify impediments arising from political, economic, systemic and bureaucratic, and largely regional and global contexts, before proceeding to present a set of actionable outcomes and recommendations.

Public financing was defined as resources allocated/mobilized indigenously (revenues) at the country level. This also includes the use of catalytic official development assistance as grants/loans and/or monies from philanthropic sources predicated on the understanding that these are meant to build country capacity and are a stop gap arrangement. This implies that funds from ODA loans and grants, as well as from philanthropic sources, need to go first into the government's resources. The World Bank definition of prevention was employed, as those preventative and "public health services ... designed to enhance the health status of the population as distinct from the curative services which repair health dysfunction."

The investigators used a search strategy involving Medline, Google Scholar, Embase, JStor and Web of Knowledge, databases to identify peer-reviewed articles that examined NCD financing. In addition, the first 20 pages of Google searches were examined to identify articles from the grey literature. The main search terms were 'NCD', 'prevention', 'financing' and 'Jamaica'. Additional search terms related to the topic were: 'health promotion', 'non-communicable disease', and 'budget'. Additional search terms related to policy were: tax, legislation, ban, intervention, labelling, law, and standards. Based on the information in the abstracts, those studies were selected for review that: a) were of an empirical nature; b) examined NCD prevention and its financing; and c) dated from the 21st century onward, when concerted policy efforts to counter NCDs began in the region.

The selected studies were reviewed and organized into categories of analysis that were refined based on the evidence emerging from the literature. Later, a specific search was undertaken for broader literature, including policy frameworks on NCDs in Jamaica and the Caribbean.

The investigators then reached out to the governments and relevant departments/bodies to procure reports, budget plans, policy guidelines and similar material. This data was analyzed thematically, to further refine research questions and thoroughly revise interview guides. At the end of the second tier, the investigators shortlisted potential participants to be recruited for in-depth interviews. These included key stakeholders such as officials from the Ministry of Health and Wellness (MOHW), Ministry of Finance, planning ministry or staff from the office of the head of state.

3. The socio-economic context of NCDs in the Caribbean:

As a group of small, vulnerable economies, the Caribbean as a whole has struggled to achieve desired social and economic development. Some of the challenges faced by these small island developing states (SIDS) include slow uneven economic growth compromised by susceptibility to external economic shocks and natural hazards. While the region depends heavily on exports, the small size of the countries of the region and their rather scarce resources mean that export trade is concentrated around a limited range of goods and services. Small size leads to chronic high costs of inputs and factors of production that present barriers to productivity and competitiveness in external markets. These factors constrain employment creation and stifle the generation of tax revenue.⁴ This weak fiscal position limits Caribbean governments' ability to provide for their populations access to, and quality of, social safety nets, including health and NCD-related service delivery.

The global financial crisis led to a prolonged economic decline in the region, causing a decline for Caribbean exports in foreign markets, remittances and foreign direct investment, while also causing increases in food prices. The effects of the global financial crisis were further exacerbated by trade liberalization. The Caribbean EU

Economic Partnership Agreement (EPA) liberalized 87% of trade imports from the European Union leading to reductions in Caribbean governments' revenues from import duties. Further, the graduation from ODA owing to the region's rise to middle income status resulted in a reduction in foreign aid to Caribbean states, that was traditionally used by governments of the region to supplement their annual budgets. As a result, Caribbean countries have seen their debts rise drastically over the past decade; four countries, including Jamaica, have seen gross public debt rise to 100% or more of GDP.⁴

Trade liberalization policies in the Caribbean have also contributed to the "nutrition transition" or rapid changes in food availability and consumption patterns in developing countries that lead to shifts from diets consisting largely of traditional plant-based and home-cooked foods to meat-derived and processed products.⁵ This 'nutrition transition' has been accompanied by an epidemiological transition from infectious diseases to chronic, non-communicable diseases such as obesity, diabetes and cardiovascular disease. Today, 50% of CARICOM countries import 80% of what they consume, fueling dramatic changes in diet towards greater consumption of processed foods (leading the top five food imports in the region), contributing to an 'epidemic' of obesity and diet-related NCDs.⁵

3.1. Key industries relevant for NCD prevention:

The alcohol industry plays a significant economic role in Jamaica and the rest of the region. Jamaica is the largest alcohol beverage exporter in the Caribbean and, along with Trinidad & Tobago, Saint Lucia, Guyana and Barbados, accounts for 97% of extra-regional exports in the industry. This accords it a high level of political influence due to significance of its export earnings. The alcoholic beverage industry is not supportive of the NCD target of reduction in alcohol consumption and advocates CSR measures as voluntary self-regulation.

The ultra-processed food industry is also an important economic player in Jamaica, with the country importing the majority of its food consumed. The industry is aware that the public is calling for reductions in sugar, salt and trans-fat consumption. As a result, and with some prodding from government, some of the companies in this industry are voluntarily reformulating the products to meet market demand. However, they are still resisting attempts at regulating or taxing sweetened beverages and ultra-processed foods.

Like most other CARICOM countries, Jamaica is a net importer of tobacco products. While the government has introduced tobacco controls over the past 15 years, the tobacco industry has actively opposed, and sought to delay, the development of the Regional Standard for Labelling of Tobacco products. The industry has also tried in the past to dilute bans on smoking in public places and spaces and to counter challenges to tobacco-related advertisements, promotions and sponsorships.

4. NCDs in the Caribbean

NCDs have the leading causes of mortality and morbidity in the Caribbean region for many years now. Data from the Caribbean Epidemiology Centre (CAREC)¹, show that "heart disease" was the leading cause of death in CAREC member countries for the years since 1985, accounting for 15.3–17.5% of deaths in the region. In addition, cerebrovascular disease was the second or third leading cause of death, and hypertension was the fifth or sixth leading cause of death between 1985 and 2000.⁶ Data from the Pan American Health Organization (PAHO) suggests that the Caribbean NCD epidemic is the worst in the region of the Americas (5-7). In light of this high burden of NCDs, Heads of Government of the Caribbean Community (CARICOM) member countries met in Port of Spain in September 2007 and issued a declaration entitled "Uniting to Stop the Epidemic of Chronic Non-communicable Disease", now known as The Port of Spain Declaration. This declaration has proved instrumental and has served

¹ Now part of the Caribbean Public Health Agency (CARPHA)

as a regional rallying cry to address the burden of NCDs and eventually led to the holding of the UN summit on NCDs .

5. NCDs in Jamaica:

NCDs are the largest driver of morbidity and mortality in Jamaica and a leading cause of death, accounting for 77% of mortality. In 2015, an estimated seven out of ten Jamaicans died from the four major NCDs, cancer, cardiovascular disease, diabetes and chronic lower respiratory disease [Ministry of Health and Wellness 2018].⁷ Beyond the toll on health, NCDs also impose a significant burden on the national economy since individuals with NCDs are more likely to exit the labor force, miss days of work, and/or work at reduced capacity. High expenditures to treat NCDs also impose a direct economic burden to the health system, and society, reducing investments in areas like education and physical capital, which increase gross domestic product (GDP) in the long run. Total losses associated with all NCDs and mental health conditions over the period 2015–2030 were estimated to be US\$ 18.45 billion for Jamaica; this amounts to 3.9% reduction of annual GDP in 2015-2030 and is 18 times Jamaica’s total health spending in 2013. Cardiovascular disease alone accounts for 20.8% of the total economic loss, followed by cancer.⁸

5.1. The epidemiological burden of NCDs in Jamaica:

Jamaica has made significant progress on its NCD response, both in health service provision and multi-sectoral action for population prevention. However, NCDs continue to pose a major and growing public health challenge in Jamaica. Jamaica is not on track to meet the overall regional NCD goal of a 15% reduction in premature mortality by 2019.⁹ Jamaica’s high rate of NCDs is driven by dramatic increases in modifiable risk factors that cause NCDs. Additionally, population aging, which is causing a demographic shift, is also fueling the growth in NCDs. The following sub-sections provide an overview of the four main NCDs: cardiovascular disease, diabetes, chronic respiratory disease, and cancer.

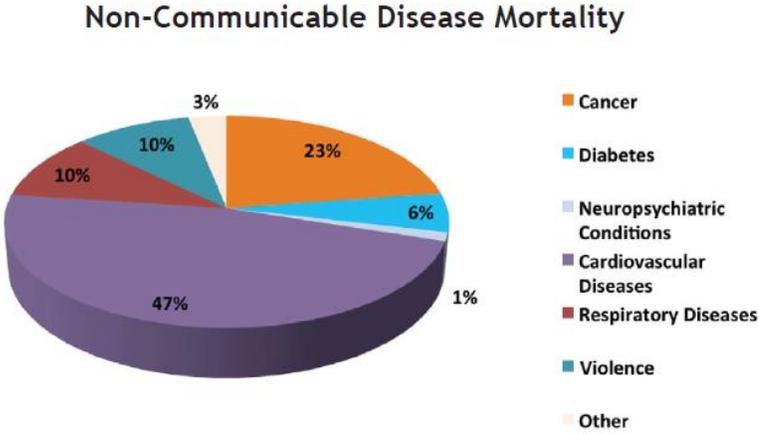


Figure 1 Break-up of NCD mortality in Jamaica (Source: Ministry of Health and Wellness, Jamaica)

5.1.1. Cardiovascular Diseases (CVD):

In 2014, diseases of the circulatory system claimed 6,476 out of the 19,557 total lives lost in Jamaica, or roughly 33% of all deaths. Previous studies have documented a high prevalence of CVD risk factors, including high blood pressure and elevated cholesterol in the Jamaican population. A total of 31.7% of Jamaicans aged 24 years and older have hypertension (SBP ≥ 140 mmHg) and 2.9% have elevated total cholesterol (≥ 6.2 mmol/L). Higher prevalence rates of both metabolic risk factors are seen in women; 32.8% have hypertension and 3.9% have high cholesterol, compared to 30.6% and 1.9% of men.⁹

5.1.2. Diabetes:

Among adults aged 25 years or older, an estimated 9.5% of males and 13.3% of females have diabetes. The prevalence of diabetes increases significantly with age. Around 16% of individuals aged 45-54 years have diabetes, compared to 22% of those aged 55-64 years and 31.3% of those aged 65-74 years.¹⁰ Based on current estimates,

the levels of diabetes are expected to rise because levels of overweight and obesity remain high. According to the International Diabetes Federation of North America and the Caribbean members, there were 209,300 cases of diabetes in Jamaica in 2017 (out of 1,842,000). This amounts to a prevalence of 11.4% of diabetes in Jamaican adults.¹⁰

5.1.3. Chronic Respiratory Diseases:

Globally, some of the most common chronic respiratory diseases are asthma, chronic obstructive pulmonary disease (COPD), occupational lung diseases and pulmonary hypertension. Estimates for Jamaica indicate a 7% prevalence of asthma among Jamaicans aged 15-74, and a prevalence of 12.1% among adults aged 40 and above.¹¹

5.1.4. Cancer:

Cancer is also among the leading causes of death in Jamaica, with an estimated 3,502 deaths occurring in 2014. Prostate cancer among men, and breast and cervical cancer among women are the leading cancer types. Cancer screening is offered in primary care clinics for cervical cancer, for women aged 18 years and over using the Pap test and both visual inspection with acetic acid and Pap test in the Southern Health Region; and for breast cancer, using clinical breast exams opportunistically. Cancer diagnosis, treatment and palliative care services are generally available in the public sector. The Jamaica Ministry of Health and Wellness, through its Strategic Plan for NCD and Cancer Prevention and Control (2013-2018), has included several objectives, activities and indicators for primary cancer prevention (tobacco, alcohol, physical activity, fruit and vegetable consumption), and secondary cancer prevention (medical interventions for cervical cancer, breast cancer, prostate cancer, and colon cancer). Population-based cancer registry information is currently collected by, and available from the Jamaica Cancer Registry for Kingston and St. Andrew parish, located in the Department of Pathology at the University of West Indies.

5.2. NCD risk factors in Jamaica

5.2.1. Tobacco use:

Tobacco use is the only common risk factor that is shared by the four main NCDs. Findings from the 2016 National Drug Use Prevalence Survey indicate that 11 % of Jamaicans are considered “current smokers,” meaning that they have smoked tobacco within the previous month, and 7% are considered daily users, meaning that they smoke daily. The prevalence of tobacco use is higher in men than in women. Only 5.3% of women are considered current smokers, compared to 16.8% of men. Moreover, tobacco consumption prevalence among youth (aged 13-15) is the highest in the Region, at 28.7%.¹²

5.2.2. Harmful Alcohol Use:

The 2016 National Drug Use Prevalence survey indicates that alcohol continues to be the most widely used drug in Jamaica. Approximately 40% of the population report being current drinkers and 75% report that they used alcohol at some time in their lifetime. Nearly 15% of Jamaicans are at medium to high risk of alcohol dependence. Heavy episodic drinking is disproportionate among men and women. About 23% of males (vs. 9.9% of females) indicated that they had participated in “binge” drinking in the previous two weeks or that they drank more than four drinks on the average drinking occasion, and these drinking patterns would be of high risk for harmful use of alcohol as well.¹²

5.2.3. Unhealthy diet, physical inactivity and obesity:

An Unhealthy diet is one of the main risk factors for high blood pressure, raised blood glucose, and overweight or obesity, and is associated with cardiovascular disease, cancer and diabetes. According to the latest Jamaica Health and Lifestyle Survey, the vast majority, or 99% of Jamaicans are currently consuming below the daily recommended portion of vegetables, and roughly 55% of the population consumes one or more bottle/glass of

sweetened beverage per day. 12% of the population had raised blood glucose in 2016.1 Trade liberalization policies and rising imports have meant Jamaica is also undergoing a “nutrition transition” or rapid changes in food availability and consumption patterns that lead to shifts from diets consisting largely of traditional plant-based and home-cooked foods to meat-derived and processed products.¹³

Similarly, low levels of physical activity are a strong predictor of obesity, diabetes, and cardiovascular disease. Moreover, in 2010, the prevalence of insufficient physical activity in adults was estimated at 31.8%.¹⁴82% of the Jamaican were engaged in low physical activity, 16% engaged in moderate activity and 2% in high level activity. They did not differ significantly in age or sex.52% of Jamaicans had made no attempt to increase their level of physical activity in the past year.⁸

All this contributes to an ‘epidemic’ of obesity and diet-related NCDs. Estimates indicate that in 2014, 48% of male and 63.4% of female adults in Jamaica respectively, were overweight or obese, while overall, one in two Jamaicans (54%) were classified as over-weight (pre-obese or obese) and nearly a quarter of Jamaicans (24%) as obese (with female obesity considerably higher than male) At current rates of growth, female obesity is projected to reach 40% by 2025.¹

5.2.4 Air pollution:

Indoor air pollution from Solid Fuel Use (SFU) continues to be a problem with 45% of households using SFU. Outdoor air pollution also continues to be at unsafe levels, with annual average fine particulate matter (PM2.5) concentrations at 43 ug/m3, far higher than the WHO guideline of 10 µg/m3.

6. Jamaican health system and financing context:

Jamaica has a two-tiered system whereby the public sector is primarily involved in primary care, public health and hospital care (94% of the country’s hospital bed capacity) while the private sector mainly provides outpatient (ambulatory) services (75% of all outpatient care) and pharmaceuticals (82% of all sales).The majority of the spending comes from the government, with a small share coming from the prepaid private spending and out of pocket payments.

The public sector includes the national Ministry of Health and Wellness (MOHW), the Regional Health Authorities (RHAs) and a broad network of primary, secondary and tertiary care facilities as well as the country’s medical school. In 1997, some functions of the MOHW were decentralized with the MOHW retaining responsibility for policy, planning, and regulatory action and purchasing, while the four RHAs are now responsible for health service delivery in all 14 Jamaican parishes, through Service Level Agreements (SLAs) between MOHW and the RHAs.¹⁵

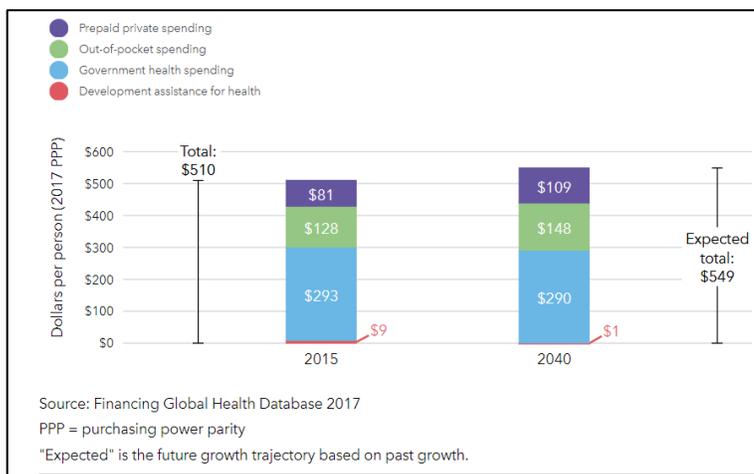


Figure 2 Health spending in Jamaica

User fees were abolished in public health facilities in 2008 (with the exception of pharmaceuticals) so that Jamaica now has universal health care. The inability to meet increased demand, however, has led to poor quality of care, driving Jamaicans from all income groups to increasingly seek private medical care.

Jamaica's MOHW is financed mainly through general taxes. Approximately 86% of the MOHW budget is transferred to RHAs for health service provision. The abolition of user fees in public facilities run by RHAs in 2008 had several impacts: the poorest 20% of the population showed a 10% increase in health facility use from 2008-2009; conversely, long wait times, insufficient supplies, inadequate human resource levels and poor quality of services in public facilities have driven an increase in usage of private facilities even among the poorest income quintiles. After the abolition of user fees, the government increased the budget of the MOHW to compensate for the loss of health facility income; however, this increase has not been large enough to fund the increased demand for services particularly in regards to longer-term investments needed for the scale-up of human resource levels. Currently, public expenditure in health in Jamaica represents 3.47% of GDP (of which the MOHW is responsible for the bulk (97%).

7. NCD prevention in government policies and plans:

The government's National Strategic Plan, '**Vision 2030 Jamaica**', was formulated in 2009 and aims to advance the country's status to developed nation by 2030 with the guiding principles of social cohesion, equity, and sustainability. Its goal is to provide citizens with world-class standards in education, healthcare, nutritional status, basic amenities, access to environmental goods and services, civility, and social order.

The national health policies (2006-2015 and 2018-2022) sought to expand the healthy lifespan of its people and encourage the population to take greater responsibility for their own health. Under this strategic direction, the MOHW encourages health promotion via education activities in the national curriculum to influence youth to change behavior to reduce the incidence of chronic diseases, high-risk sexual behavior, and violence. It promotes physical activity, healthy diet, marketing of healthy foods, and reduction of alcohol and tobacco use through the education sector and in cooperation with the mass media, NGOs, and other national and international avenues (see section on chronic disease prevention programs below).

The MOHW passed the National Strategic Plan for the Prevention and Control of NCDs in Jamaica in 2013, which had as its principal strategic objective the reduction of exposure to modifiable risk factors for non-communicable diseases and promotion of health throughout the lifecycle through the creation of health-promoting environments. This included multiple interventions for NCD prevention and mitigation of risk factors, including measures for reducing tobacco and harmful alcohol use, increasing physical activity, increasing fruit and vegetable consumption, reducing salt and sodium intake, and implementing a comprehensive screening program for NCDs.

8. NCD prevention programs and their financing in Jamaica:

Since the early 21st century, Jamaica has taken a number of initiatives to counter NCDs. These have included dedicated, earmarked funds to combat NCDs and subsidize medicines like the NHF, funds to promote healthy activities like CHASE, regular MOHW spending on health promotion initiatives, initiatives for chronic disease prevention and free screening services, campaigns like Jamaica Moves and the Healthy Lifestyle Program, and other key initiatives around tobacco and alcohol regulation. Some of the key initiatives are described below with a view to capturing the scope of the interventions and key aspects of their financing.

8.1. National Health Fund:

The National Health Fund is one of the main financing mechanisms devised by the government of Jamaica to deal with NCDs. This was created under the National Health Fund Act in 2003, with the objective of reducing the cost of treatment for NCDs by providing free or subsidized medicines to patients with a number of NCD conditions. The NHF is situated within the National Insurance Scheme (NIS) which also includes the country's pension, disability, life and other types of social insurance. It is financed through earmarked taxes on tobacco, alcohol,

motor vehicles, petroleum, and payroll contributions to the NIS (see next section on revenue sources). It serves as a public health management approach to the treatment of chronic disease by providing two categories of healthcare benefits to the Jamaican population: individual and institutional benefits. **NHF individual benefits** are for medicinal purchases for NCDs, and are available to all persons who enroll as required. These take up the bulk of expenditure for the NHF - **up to 50 percent of the NHF revenue has to be spent on these benefits**. Individual benefits also include the JADEP program, which provides low-cost medications for a list of 10 illnesses to enrolled beneficiaries over 60.

The NHF also finances **prevention programs**, including projects and initiatives under the Health Promotion and Protection Fund, and the now-defunct Healthy Lifestyles Program administered through the MOHW. Since its establishment in 2003, the National Health Fund has spent in excess of J\$30 billion on medication subsidies which have resulted in over 800,000 Jamaicans having increased access to more affordable drugs and improved health benefits and provided over J\$17 billion in grants to fund health projects.¹⁶

8.1.1. NHF Revenue Sources

The NHF has been deemed an example of an innovative and relatively successful health financing mechanism owing to its use of a mix of revenue sources, which include tobacco excise tax, 5% of special consumption tax (SCT) imposed on petrol, alcohol, and motor vehicles, and payroll tax on annual earnings paid by employees and employers (Strachan 2010). In addition, since 2011-12, as the NHF assumed responsibility for the procurement, warehousing and distribution of pharmaceuticals to the public health sector and the retail pharmacy operations of Drug Serv, it has also raised a significant part of its revenue from the sale of pharmaceutical drugs.¹⁷

Earlier, the tobacco excise tax contributed the largest share to the Fund (23%) up to 2006, when the major national tobacco producer (Carreras Limited) relocated to Trinidad and Tobago. This, along losses from tobacco smuggling, led to a dip in tobacco tax revenues, leading to an increased reliance on payroll taxes. From 2006 to the present, **payroll taxes have contributed most of the tax revenue of the NHF budget, with over 54% in 2015-16 and 53% in 2016-17**. By the end of 2016-17, payroll taxes contributed \$30 million (J\$3.9 billion), SCT increased to \$16 million (J\$ 2.1 billion) tobacco taxes contributed \$9 million (J\$ 1.2 billion) and to the NHF's tax revenues. In addition, the NHF raised \$50 million (J\$6.4 billion) in revenue from the sale of pharmaceuticals in 2016-17.

Table 1 NHF Revenue sources 2010-1 to 2016-17 (\$J million)

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Tobacco Tax	1,329	1,062	1,251	941	946	1,002	1,206
Payroll Tax	1,672	2,272	2,223	2,672	2,985	3,504	3,948
5% of SCT	1,045	1,112	1,441	1,199	1,367	1,915	2,173
Total Revenue from Taxation	4,046	4,446	4,915	4,811	5,298	6,420	7,327
Warehouse operations	0	2,105	2,464	2,749	2,557	2,957	2,614
Drug Serv Pharmacies	0	1,169	1,286	1,653	2,091	2,169	3,820
Total Revenue from Pharmaceutical sales	0	3,274	3,750	4,402	4,648	5,125	6,433
Total NHF Revenue	4,046	7,720	8,665	9,213	9,946	11,546	13,761

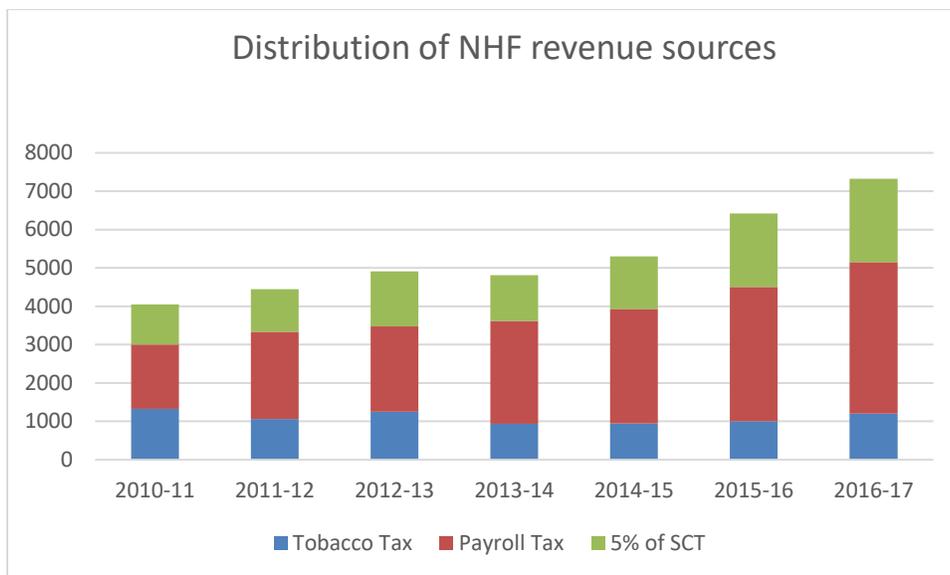


Figure 3 Distribution of NHF tax revenue sources (Source: NHF Annual Report)

8.1.2. Health Promotion and NCD prevention through the NHF:

The NHF provides grants to public and private institutions to support activities related to health promotion and chronic disease prevention. Institutions must submit a project proposal to the NHF which is evaluated by an NHF committee using the national healthcare priorities defined by government, encompassing areas like public infrastructure, equipment, education, research, and training. In the early years of the NHF, institutional grants accounted for the vast majority of NHF expenditures, but since then they have fallen in favor of individual benefits, and have remained between 20 and 29% of expenditures since 2009.¹⁵

The NHF's Health Promotion and Protection Fund provides public and private-sector organizations health promotion and disease-prevention programs. NHF's Health promotion activities are aligned with the MOHW Program to reduce NCDs and the new "Jamaica Moves" initiative. The HPF focuses on promoting wellness in schools, communities and in the workplace. This includes initiatives like screening tests, school and workplace wellness, promotion of healthy eating and living, health promotion partnerships and health literacy, among others. Some details of these initiatives are provided below:

Screening Tests: During the 2016-2017 fiscal year, the NHF conducted a total of 100,063 screening tests across the island at 254 events. The provision of screening tests benefited individuals at 83 community health days, 19 school wellness activities, and 152 health fairs. The majority of tests (approximately 57%) were done at community health days where a total of 57,431 tests were completed for individuals who were screened.

School Wellness: The NHF school wellness program is carried out in collaboration with the MOHW and the Ministry of Education, Youth and Information (MoEY&I). It provides support for school feeding projects, healthy youth positive energy (HYPE) clubs, sponsorships and school screenings. Healthy Eating and Fitness is one of four thematic areas in the Health and Family Life Education Curriculum for primary and secondary schools.

Workplace wellness: NHF runs a 'Work-it-out' challenge to encourage and foster positive behavioral change in the lives of everyday working men and women, whose main goal is to increase physical activity and encourage adoption of healthy eating practices. A survey conducted among 57 participants who had completed the Work-It-Out-Challenge, as well as those who had not, revealed that the competition had a positive impact on the competitors, their families and workplaces.

5 Star Health for Men: The 5 Star Health For Men programme, which began in 2015, encourages the important five steps that men must take to achieve better health. These steps are healthy eating, daily exercise, regular health checks, taking prescribed medication, and getting substantial rest. For this 2017-19, a total of 3,943 men were enrolled in the program.

Re-imagine Food: The NHF's Re-Imagine Food program focuses on educating Jamaicans around healthy eating and healthy living, around the slogan 'Healthy Eating On a Budget'. The program organizes numerous activities such as a Cooking Challenge aired on TV, the development of a series of healthy eating videos in collaboration with the Nutrition Unit of the MOHW, and executing booths promoting healthy eating at the Jamaica Independence Village, the Jamaica Cultural Development Commission, National Festival of the Arts finals, and several other occasions.

Health Promotion partnerships: Health promotion committees were formed between the NHF, the Jamaica Constabulary Force (JCF), the Jamaica Teachers Association (JTA) and the Jamaica Fire Brigade (JFB) for driving the Memoranda of Understanding MOU for Health Promotion for each agency. To date, the most successful of the MoUs has been with the JCF, signed on June 23, 2016, which was twinned with the official opening of a renovated physiotherapy building at the National Police Academy, which had received a USD\$38,000 (J\$5 million) grant under the NHF Institutional Benefits Program. After the launch, screenings at several JCF locations and the implementation of a Knowledge Attitude Practice (KAP) survey were among the activities completed during the year under the MOU with funding support from the NHF. The results of the survey formed the baseline data used to develop a health promotion program for the Force by the NHF-JCF Health Promotion Committee. This included a revision of the curriculum for recruits to include training in nutrition and the development of brochures in collaboration with the JCF nutritionist. A 'Force-It-Out' weight-loss and healthy-lifestyle competition was also conceptualized.

Health Literacy: The NHF also tries to educate the Jamaican population on the dangers of NCDs and how they can be prevented or controlled. During the 2016-2017 financial year, four brochures were developed and one revised for the conditions covered by the Jamaica Drug for the Elderly and NHF Card programs. The NHF digital signage system has a significant role in communicating vital information on healthy living, the beneficiary programs and NHF-related activities to clients waiting for service.

Spending on Health Promotion in the NHF has not meaningfully increased in the past decade; in 2007-08, health promotion activities amounted to \$0.95 million (J\$123 million), whereas in 2017-18, they amounted to \$1.28 million (J\$166.17 million) – **an increase of less than \$0.33 million (J\$ 43 million) over 10 years** (see Figure 4), which would amount to a decline when adjusted by inflation. **Health promotion activities and projects have declined as a proportion of total NHF expenditure** over time – from 7% in 2008 to 1.59% in 2018 (see Figure 2).² The relative decline in Health Promotion expenditure is despite the fact that NHF revenues have risen five-fold in this period – from \$20 million (J\$ 2.6 billion) in 2007-08 to \$100 million (J\$ 13 billion) in 2017-18.

² Calculated from NHF Annual Reports 2014-15 to 2017-18

Other than health promotion activities, institutional projects for health promotion have also reduced. The value of health promotion institutional projects approved was **\$600,000** (J\$ 80 million) in 2014-15, **\$1.57 million** (J\$204 million) in 2015-16, **\$1.63 million** (J\$211 million) in 2016-17 and **\$215,000** (J\$ 28 million) in 2017-18. In 2018, this amounted to 2% of total projects approved.

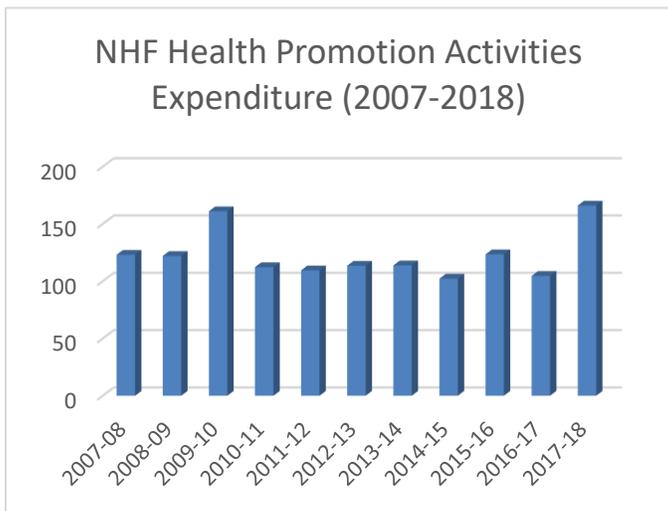


Figure 4 Cost of health promotion activities in NHF (2007-08 to 2017-18)

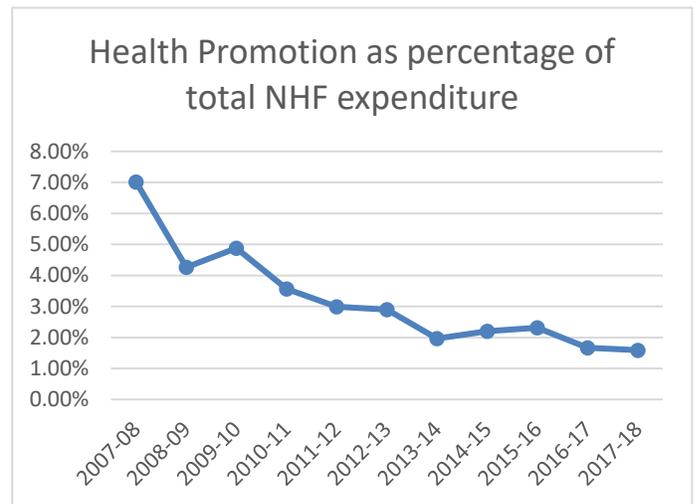


Figure 5 Declining proportion of health promotion in NHF expenditure

Year	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Community Health Days	54	34	38	78	74	74	83	Not available
Health Fairs & Event Days	81	79	99	122	148	251	254	NA
School Wellness Program	7	3	3	14	10	22	19	NA
Screening Tests	43,525	30,000	29,520	51,590	81,279	79,598	100,063	NA
Total NHF Spending on Health Promotion Activities (J\$ million)	112	109	113	114	102	123	105	166

Table 2 Break-up of NHF Health Promotion activities

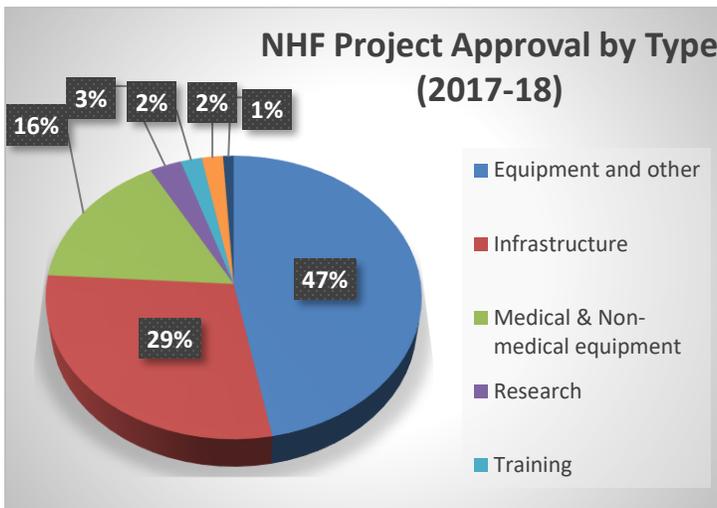


Figure 6 NHF projects approved by type (2017-18)

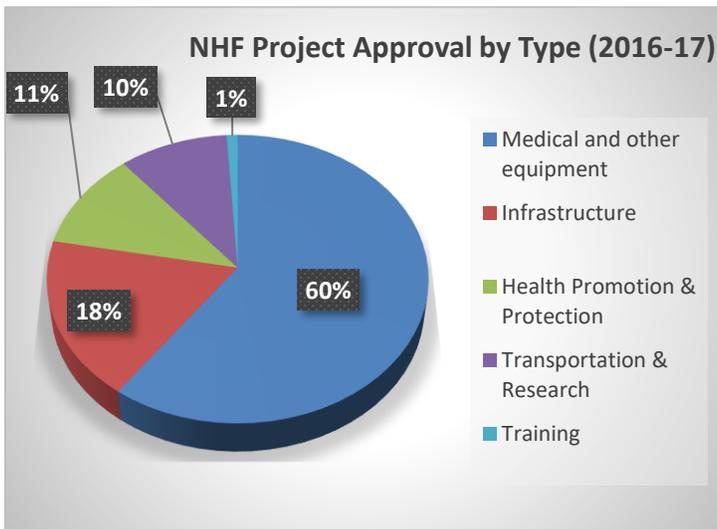


Figure 7. NHF projects approved by type (2017-18)

8.2. The CHASE Fund:

The CHASE (Culture, Health, Arts, Sports and Early Childhood Education) Fund was established in late 2002 through provisions in the Betting, Gaming and Lotteries Act, to receive, distribute, administer and manage the monetary contributions from the gaming industry, which it uses to invest in the following five defined areas of national life: Culture, Health, Arts, Sports and Early Childhood Education. The CHASE Fund's grants are especially relevant to the promotion of healthy physical activity as well as healthy lifestyle promotion. All funds are raised from taxes and fees imposed by the government on lotteries and gaming. The CHASE Fund falls under the auspices of the Ministry of Finance and Planning. In 2017, the Fund disbursed a total of USD \$17 million (J\$ 1.7 billion) to 328 projects in health, sports, education, and arts and culture. Some of the Fund's interventions which, directly or indirectly, pertain to NCD prevention are listed below.

Health: 20% of CHASE funds are allocated for health projects. In respect of Health, the CHASE Fund finances projects which include: building, upgrading, restoring and equipping health facilities, providing training for healthcare practitioners; promoting healthy lifestyles; and developing and implementing programs related to renal disease and cancer prevention, detection, treatment and care. In 2017, out of total Health project disbursements of USD \$6.19 million (JMD \$791 million), the CHASE Fund disbursed USD \$0.5 million (JMD \$65m) for Healthy Lifestyles projects.

Early Childhood Education: The CHASE Fund places emphasis on education projects at the early childhood level, to which it dedicates 25% of its disbursements. In 2018, this amounted to \$2.47 million (J\$ 321 million).³ Projects are focused on building, upgrading and equipping early childhood institutions and resource centers; supporting the development of early childhood materials to enhance the cognitive development of children; improving the nutritional status of pupils in Basic and Infant schools, including those in infant departments within Primary and All Age schools; and providing scholarships for specialist training in Early Childhood Education.

Sports Development: 40% of CHASE funds contributions are disbursed to the Sports Development Foundation (SDF) for the benefit of various sporting interventions, which enable thousands of Jamaicans to engage in healthy activity. In 2018, CHASE disbursements for the sports development foundation amounted to \$4.8 million (J\$ 626 million), which included funds for the development of sports facilities and infrastructure, contributions to sporting associations, athletes support, sports scholarships and sporting events.

8.3. Healthy Lifestyle program:

The Health lifestyle policy and strategic plan was approved in 2004, and funded through the NHF. The Healthy Lifestyles Program was an inter-sectoral program to engage the public and private sectors, government and non-governmental organizations, and communities to address critical health issues. The goal of the Healthy Lifestyle policy was to decrease the incidence of chronic diseases, high-risk sexual behavior, violence, and injury through behavior change among all age groups but with a focus on youth and adolescents. It aimed at empowering communities, developing healthy lifestyle skills, building more green-zone recreational facilities, encouraging smoke-free environments, supporting school and household nutrition and mental-health programs, the gender dimension, and reproductive health services (Planning Institute of Jamaica 2009).

Government projects under the healthy lifestyle program sought to improve health status through improved socioeconomic conditions, addressing cultural issues, and changing dietary habits. This was done through media shows, educational activities at workplaces, schools, clubs, churches, communities, sport facilities and health

³ For the purposes of this paper, while this intervention is listed, this amount is not included in the estimation of Jamaica's spending on NCD prevention, as, while it may be indirectly beneficial for long-term NCD prevention, it is not categorized as NCD-related spending by Jamaican policymakers.

facilities, and the integration of behavior modification activities into treatment programs for those affected by lifestyle diseases. Healthy lifestyles projects promoted higher levels of physical activity, increased availability and consumption of healthy foods, and reduced smoking. On reproductive health, the project aims to reach pre-adolescents, adolescents, and youth through educational interventions. The program also sought to address behavior leading to violence, unintentional injury, and suicide. Program components included The **Healthy Lifestyle School Program** which shared information on the risks of unprotected sexual activity, drug usage, unhealthy eating habits, conflict resolution, and environmental concerns, **the Healthy Zones Program**, a community-based physical-activity-promotion program, **The Camp Yellow Bird Program** which provided children and adolescents affected with diabetes with an active and safe camping experience, among others.

The Healthy Lifestyles Program was discontinued in 2008, but the Healthy Lifestyle Policy still exists and guides ongoing health promotion initiatives by the Ministry of Health and Wellness.

8.4. Health Promotion by the Ministry of Health and Wellness (MOHW)

In recent years, Health Promotion has increasingly been taken up by the Ministry of Health and Wellness. According to Dr. Davidson of the MOHW, prior to 2015, NCD prevention activities of the MOHW were largely funded through the NHF and WHO/PAHO, whereas, in 2015, the government began to allocate a budget line item to support health promotion, public relations and communication, which finances NCD prevention activities, including the Jamaica Moves program, and a range of NCD prevention activities.

From 2014 to 2019, a total of **\$14.03 million (J\$ 1.88 billion)** were allocated over 4 years for **Health Promotion and Protection by the Ministry of Health and Wellness**. This included **\$3.8 million (J\$509 million) in 2018-19**, \$2.9 million (J\$ 397 million) in 2017-18, \$3.11 million (J\$ 416 million) in 2016-17, \$3.06 million (\$J 410 million) in 2015-16 and \$1.16 million (\$J 156 million) in 2014-15. While Health Promotion and Protection expenditure by the MOHW has doubled over the past 5 years (see Figure 8), **in 2018-19 it still represented less than 1% of total health expenditure** of J\$ 64 billion (see Figure 9).

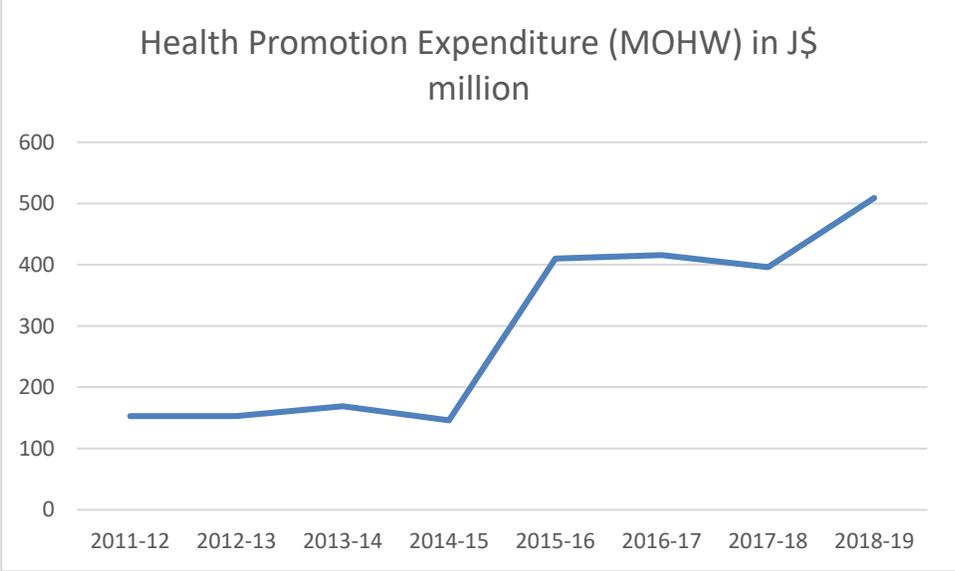


Figure 8 Health Promotion Expenditure by MOHW

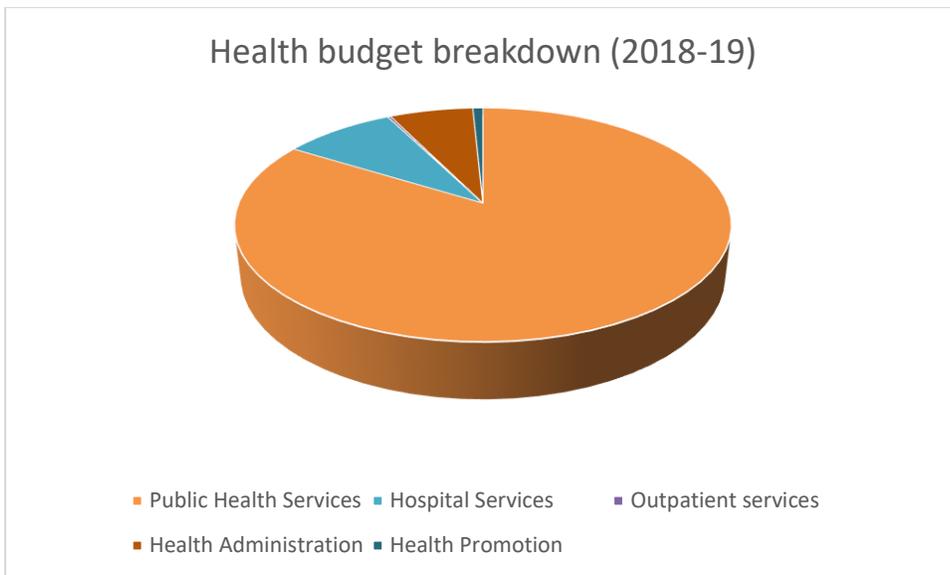


Figure 9 Health Budget breakdown 2018-19 (Source: Ministry of Finance, Jamaica)

8.4.1. Chronic Disease Prevention Programs

The MOHW runs chronic disease prevention programs that are central to its NCD interventions. The Chronic Disease Unit of the MOHW is implementing prevention programs for NCDs, including diabetes, hypertension, cancer, and coronary artery disease. These include:

Cardiovascular Disease: The Heart Foundation of Jamaica focuses on educational intervention and screening programs to reduce the incidence of death from heart disease. Services offered include heart screening, counseling and education, home visits, and tobacco cessation programs. The MOH initiated smoking prevention programs among adolescents but does not have intervention programs specifically designed for cardiovascular diseases. The programs also address hypertension.

Diabetes Mellitus: The efforts in this area are mainly activities for promoting general awareness of risk factors for chronic diseases and guidance to adopt supportive lifestyles and behavior in communities.

Cervical Cancer Screening: The MOH Cervical Cancer Screening program targets adult women aged 25–54 years of age at risk for cancer of the cervix. Screening is conducted by public health nurses and midwives in the field, while the Jamaica Cancer Society also screens for cervical cancer. Another reported success was the Jamaica National Cervical Cancer screening program, which has been credited with reducing age specific Cervical Cancer Incidence Rates.

Breast Cancer Screening: The Jamaica Cancer Society also provides breast cancer screening services. Women aged 40–49 were at the highest risk of breast cancer, accounting for 39 percent of those having mammograms.

The costs for the above-mentioned chronic disease prevention programs are incurred separately from the MOHW's Health Promotion budget and, according to Jamaican officials interviewed, are difficult to isolate as they are not budgeted for separately from health services and no user fee is charged for them.

8.4.2. Jamaica Moves:

Jamaica Moves is one of several NCD interventions being pursued by the MOHW to alleviate the effects of non-communicable diseases on individuals and the health system, particularly those related to physical inactivity. Jamaica Moves was launched in 2017 with the objectives of promoting physical activity among the populace and educating individuals on practical means of fostering healthier eating habits. Its launch signaled the beginning of a corporate challenge, a media campaign and island-wide activities to encourage the population to move, with the take home messages being engage in physical activity for at least 30 minutes a day and eat healthier to reduce your chances of acquiring NCDs to live longer. Beyond physical activity, the campaign also emphasizes screening and healthy eating. Despite the progress made, challenges in infrastructure, including a limited number of parks, undeveloped and not well-lit or maintained parks/reserves, and inadequate sidewalks for physical activity, continue to prevent higher levels of physical activity.¹⁸

Through the Jamaica Moves website, TV and newspaper ads, brochures, posters and social media campaigns content have been created and shared to promote positive behavioral change. Using these platforms, physical activity ambassadors from different walks of life have been sharing their testimonies of how they have benefitted in a significant way from increasing their frequency and intensity of physical activity. Jamaica includes several initiatives including: the 'Get Moving' Challenge, friendly competition between fourteen influential members of the private and public sector as they took steps towards a healthier lifestyle; the Get Moving corporate challenge; the Jamaica Moves Road Tour to promote physical activity; activities around globally recognized health days; and partnerships with public and private stakeholders like the National Food Industry Taskforce and the Obesity Prevention Program.

Jamaica Moves is funded through the MOHW's Health Promotion budget while some of its activities and projects are also funded through NHF grants.

8.4.3. IDB Development Assistance for NCDs.

In 2019, Jamaica secured a US\$100 million loan from the Inter-American Development Bank (IDB) to boost the country's fight against NCDs. Dubbed the 'Health Systems Strengthening for the Prevention and Care Management of NCDs Programme', the initiative aims to improve the health of Jamaica's population by bolstering policies for the prevention of NCD risk factors, and implementation of a chronic care model with enhanced access to integrated primary and hospital service networks. The loan comprises two complementary elements – a US\$50-million Programmatic Policy-Based (PBP) loan and a US\$50-million investment loan. The Programmatic Policy-based Loan will facilitate measures to address prevention and control through a people-centered primary health chronic care model. The investment element will focus on the organization and consolidation of integrated health services networks; improvement of management, quality and efficiency of health services; and programme administration and evaluation.¹⁹

8.5. Tobacco control regulations:

In addition to excise taxes on tobacco, Jamaica has also taken a number of other regulatory measures for tobacco reduction. Jamaica also ratified the FCTC in October 2005 and has received praise from PAHO and WHO on its tobacco control regulations. Jamaica has banned smoking in enclosed public places, indoor and outdoor workplaces and public transportation. The Public Health (Tobacco Control) Regulations 2013, updated and amended in July 2014, establishes smoke-free spaces. The legislation also requires all tobacco products to have 60 percent of the principal display surface of both sides permanently affixed with health advisories warning users about the health risks associated with tobacco and tobacco product use. Vendors who sell these products without health warnings or disguise them are guilty of an offence. The regulation also prohibits the use of terms such as "low tar", "light" and other terms which seek to minimize or dispel the health risk associated with smoking. Also included in the regulation is a requirement for tobacco companies to disclose product contents.

Although Jamaica does not have one consolidated Act addressing advertising, promotion or sponsorship of tobacco or tobacco products, the Broadcasting and Radio Re-Diffusion Act and the Television and Sound Broadcasting Regulations, 1996, prohibit any broadcaster licensed in Jamaica from advertising tobacco products on radio and television. Unfortunately advertising in the cinema, electronic media, outdoor venues and billboards are allowed. Jamaica currently has a draft comprehensive tobacco control bill that will cover the articles of the FCTC not included in the current Regulations, including tobacco advertising promotion and sponsorship (TAPS).

The role of civil society has been critical in advancing tobacco control and pushing for the implementation of the FCTC in Jamaica. Some details on civil society’s role are shared in the subsequent section.

8.6. Unhealthy diet interventions:

The Jamaican government has run several school-based nutrition interventions, such as the Nutrition Support Strategy for 4-6 year olds, the Nutrition Promotion Campaign 2004-2008, and breastfeeding pilot projects. Furthermore, Jamaica has begun to introduce provision of nutritional management in health centers and hospitals. Jamaica’s Food and Nutrition Security Policy calls for the ‘promotion of healthy Caribbean diets and optimal nutrition to reduce Non-Communicable Diseases (NCDs), obesity and malnutrition, especially at all stages of the education system.’ Jamaica has also implemented national policies to reduce population salt/sodium consumption, including reformulation of food products; establishment of a supportive environment in public institutions to enable lower sodium options to be provided; behavior change communication and mass media campaigns (See Jamaica Moves); and front-of-pack labelling. Most of these nutrition interventions are financed under the Health Promotion budget of MOHW while some are financed by the Education Ministry.

8.7. Total annual public spending on NCD prevention in Jamaica:

Based on estimates of spending on the aforementioned areas of intervention, Jamaica spent an estimated 13.25 million USD (JMD 1.75 billion) on NCD financing in 2017-18. The bulk of this is the funds allocated for sports development by the CHASE Fund (USD 4.98 million), which represent 38% of the total spending on NCD prevention and health promotion. This is followed by health promotion spending by the MOHW (USD 3.8 million), which represents 29% of total annual spending on NCD prevention and health promotion. This represents about 2.7% of total health spending of \$470 million (J\$ 64 billion) in 2017-18.

Table 3 NCD Prevention financing (estimate) in Jamaica in 2017-18

NCD Prevention area	Estimates (million JMD)	Estimates (million USD)
Health Promotion Activities (NHF)	166	1.28
Health Promotion Projects (NHF)	28	0.215
Health Promotion by MOHW	509	3.8
Healthy Lifestyles (CHASE)	65	0.5
Sports Development (CHASE)	667	4.98
Total	1,435	10.78

9. Discussion:

Jamaica’s experience is both one of the successful mobilization of domestic resources for reducing and controlling NCDs, and a struggle to adequately finance prevention efforts in favor of treatment. The success of its policy and financing efforts can be partly gauged from the gradual reduction in probability of premature death due to NCDs (Figure 10).

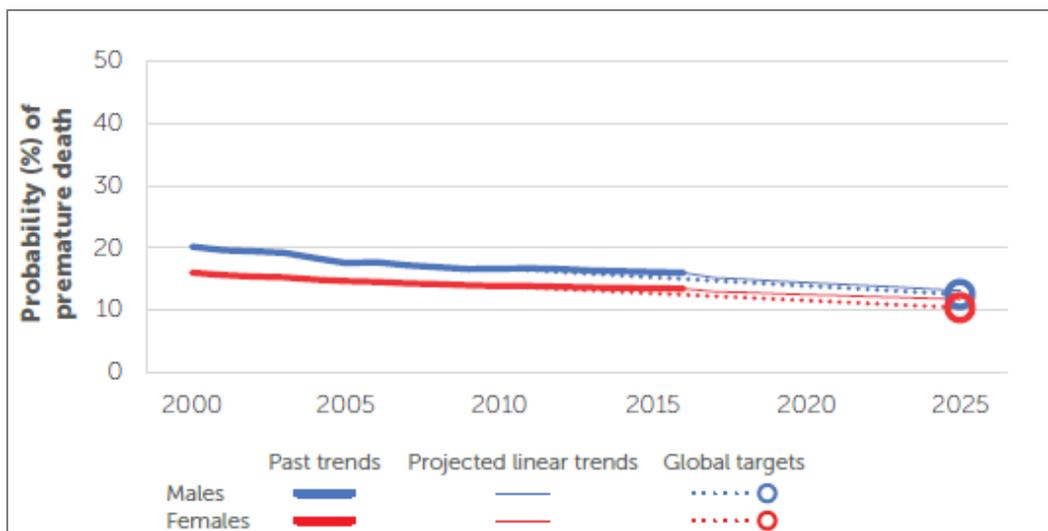


Figure 10 Risk of premature death due to NCDs in Jamaica (WHO 2016)

The following sections summarize some key themes that illustrate the key lessons and challenges from Jamaica’s experience that are instructive for the debate around effective and well-financed prevention efforts.

9.1. Taxing tobacco and alcohol to finance NCD control and prevention:

Taxing tobacco and alcohol to finance both NCD control and prevention has been a key element of Jamaica’s strategy against NCDs. The NHF’s innovative financing mechanism, whereby resources are raised from a mix of tobacco tax, 0.5% of national payroll tax, and a special consumption tax on alcohol and earmarked for use for NCD control and prevention, have led to its sustained success and expansion of activities. The CHASE Fund has employed a similar strategy of raising revenue through tax lotteries and gaming earmarked to fund its wide range of projects. Other than raising finances for NCD prevention, some of these taxes have had a definitively positive impact on NCD prevention; tobacco consumption has halved since the tobacco tax was introduced in 2007-08 (See Figure 11). Research has also demonstrated that there is a strong, positive and highly significant correlation between the SCT on alcohol and its revenue.²⁰

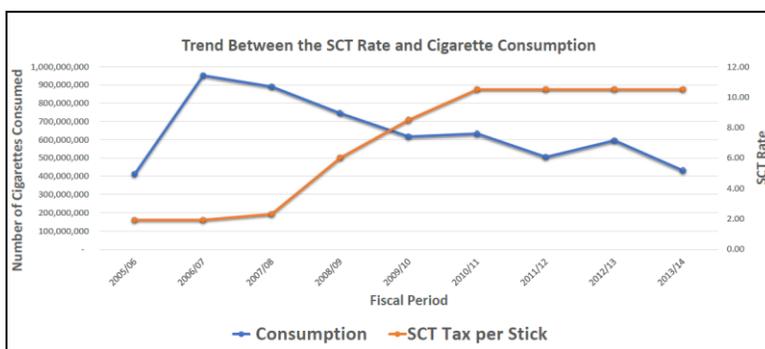


Figure 11 SCT on tobacco and cigarette consumption in Jamaica

Current tobacco taxes in Jamaica have increased annually since 2015, with total tobacco tax share currently at 44.5% and the total excise tax rate currently at 28.3%.²¹ This is still below the WHO recommended tobacco excise tax share of 70% and the 75% total tobacco tax share specified in the Progress Monitor and WHO Global Tobacco Epidemic Report. Tax revenues from tobacco are limited by smuggling of tobacco products, with estimates of 44-50 billion cigarette sticks illegally imported and distributed in Jamaica annually.

Jamaican health ministry officials interviewed say that “the effectiveness of the tobacco tax has eroded because of inflation in recent years and tobacco taxes need to be increased accordingly. However, it will be a difficult undertaking because of the current government’s public commitment to not raise taxes.” A related obstacle is persistent pressure by the industry, which raises the specter of economic and trade losses for the government, as occurred when tobacco producer Carreras relocated to Trinidad and Tobago. However, progress in this area is critical; according to an investment case carried out by UNIAFT, UNDP and PAHO, tobacco control interventions have the highest 15-year period return on investment (ROI): for every JMD invested in tobacco control, one can expect to see 5.37 JMD in return.⁸

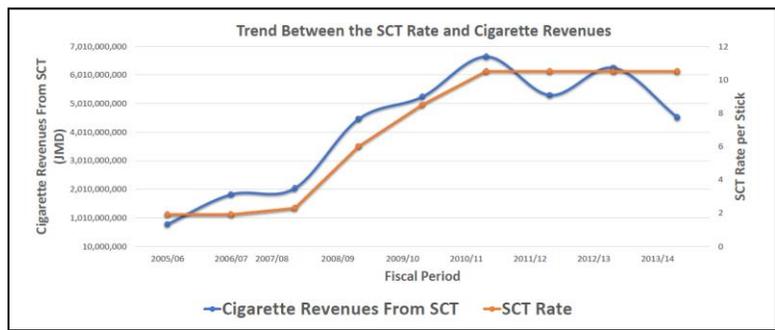


Figure 12 SCT on tobacco and cigarette revenues

To improve NCD prevention Jamaica’s tobacco and alcohol taxation gains should be consolidated and efforts made to raise excise taxes, which will both increase revenue for NHF and help reduce the disease burden from tobacco and alcohol. Furthermore, a greater proportion of revenue from these taxes needs to be allocated to NCD prevention and health promotion efforts.

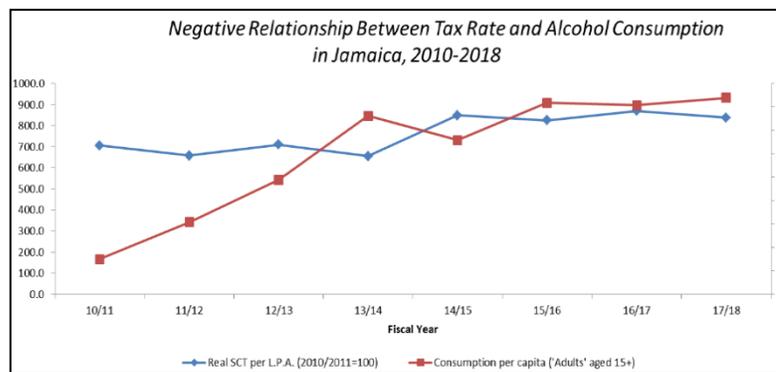


Figure 13 Alcohol tax and alcohol consumption in Jamaica

The government should also enforce existing tobacco control legislation and enact and finance a comprehensive including the FCTC time-bound commitment as banning all forms of tobacco advertising, promotion and sponsorship. However, this will have to involve political support for such measures to mitigate the effects of resistance from industry.

9.2. The shift of NCD prevention efforts from NHF to MOHW

Initial NCD prevention efforts were mainly supported through the National Health Fund of Jamaica. The NHF is an example of how an innovative financing mechanism allowed Jamaica to better manage the growing pressure from NCDs. After struggling for decades to find the financial resources needed to respond to the growing demand for medicines and care for chronic diseases, the NHF achieved a balance whereby the government, insurers and population share the burden of expenses for the prevention and control of NCDs. Further, it has managed to both ensure affordable access to medicines for the population and channel investment in expansion of public health infrastructure and equipment, public education, training and a broad range of health promotion and wellness activities and initiatives that contribute to NCD prevention.

However, the NHF’s focus on NCD prevention has been limited and over time, its focus has come to shift predominantly toward individual drug benefits and health service delivery and infrastructure. As the MOHW has increasingly taken up health promotion financing, health promotion now accounts for less than 2% of annual NHF expenditure and it has decreased in proportion over time. Since 2015, the MOHW has allocated a line item to health promotion which increased from JMD \$146 million in 2014-15 to JMD \$509 million in 2018-19. According

to Jamaican Health officials interviewed, *“this represents a strategic prioritization of health promotion and NCD prevention by the MOHW, while the role of NHF will be to continue to focus on medicine and treatment and contributing financing support to the MOHW and fund individual health promotion projects.”*

9.3. Civil society role in advancing tobacco control in Jamaica

The work of civil society organizations has been crucial to many of the accomplishments seen in tobacco control in the Caribbean in general and Jamaica in particular. The Jamaica Coalition for Tobacco Control (JCTC) has been a tobacco control champion and enjoyed considerable success in advocating for the Jamaican government to adopt tobacco control policies compliant with the FCTC. In 2011, vigorous CSO advocacy was a strong factor in the Jamaican government’s decision to shelve their involvement in plans to increase tobacco production (with support from the tobacco industry).

Advocacy efforts by JCTC, the Heart Foundation Jamaica (HFJ) and other organizations were also key to the government enacting the comprehensive Tobacco Control Regulations of 2013, which included a total ban on tobacco use in all public places and workplaces and called for the placement of graphic health warnings on cigarette packs sold in Jamaica (75% of front and back panel) and mandatory disclosure of product contents by tobacco companies. JCTC in partnership with PAHO and other stakeholders then lobbied for the 14% increase in the Special Consumption Tax on tobacco (per stick) in 2015, employing both research and communication efforts.²²Civil society pressure was especially critical here in the face of a government with a weak majority reluctant to raise taxes. Evaluations of civil society’s role in supporting public health in Jamaica have highlighted the success of chronic disease prevention approaches that integrate health services with personal responsibility for one’s health, supported by community and civil society actions which lead to policy change (like smoke-free environments, taxes, warning labels, food labeling and physical activity), which in turn can support healthy lifestyles.

9.4. The challenge of public awareness of NCD prevention measures:

Despite concerted efforts to combat NCDs by health authorities over the past decade, Jamaica still suffers from low public awareness of risk factors and changes necessary for a healthy lifestyle. A performance audit report of the MOHW in 2015 found that the MOHW had not embarked on a robust public awareness program in support of its main strategy of minimizing exposure to health risks. The report found that the Ministry did not have a NCDs communication plan and public awareness was limited as the Ministry had not aired audio and audiovisual material as planned. The report further noted that the Service Level Agreements (SLAs) between the Ministry and the Regional Health Authorities (RHAs), which outlined priority areas, did not include any performance indicators for health promotion and education. The Ministry has since stated that it has taken steps to include these indicators in the SLAs and has initiated the Jamaica Moves campaign, which officials interviewed termed a *“concerted recent attempt to improve broader awareness and drive behavioral change to reduce the risks of NCDs.”* Evidence is clear that large scale communication campaigns for behavioral and social change with behavioral economics, health literacy and communication levers (mass and social media) can drive citizens toward healthier decisions. An increase in financing of public awareness and behavioral change communication has to be a priority in the coming years to reduce the NCD burden.

9.5. Strengthening nutrition interventions for healthy diets

Unhealthy diet interventions remain a major underserved priority area for Jamaica due to the high prevalence of overweight, obesity and diabetes. Obesity continues to rise for both women and men, while diabetes prevalence has nearly doubled since 1990 (Figure 14).

However, diet-specific prevention interventions in the country have been relatively limited to school focused programs, dietary guidelines and nutrition promotion campaigns, and recent attempts to reformulate food to reduce salt and sugar consumption. In January 2019, the Jamaican Government imposed a ban on the sale of beverages containing more than six grams of sugar per 100ml to early childhood, primary, and high schools with annual incremental decreases in the sugar content planned till it bottoms out at two and a half grams per 100ml in 2023. This was also accompanied by an advertising campaign against the harms of high sugar consumption, which were criticized by the food and beverage industry.²³

Jamaica needs to consider a broader range of diet-related interventions that aim to reconfigure food systems, transform food habits and practices and make nutritious food affordable and widely available.

This would include implementation of a Sugar-Sweetened Beverage (SSB) tax of at least 20%, examples of which have been implemented in neighboring countries like Mexico with considerable success. The SSB tax could improve public health by reducing sugar consumption, boost tax revenues and could be in part earmarked in for NCD prevention and health promotion efforts. As Jamaica, like most Caribbean countries, imports most of its foodstuffs, trade policies will have to be a key instrument for nutrition interventions.

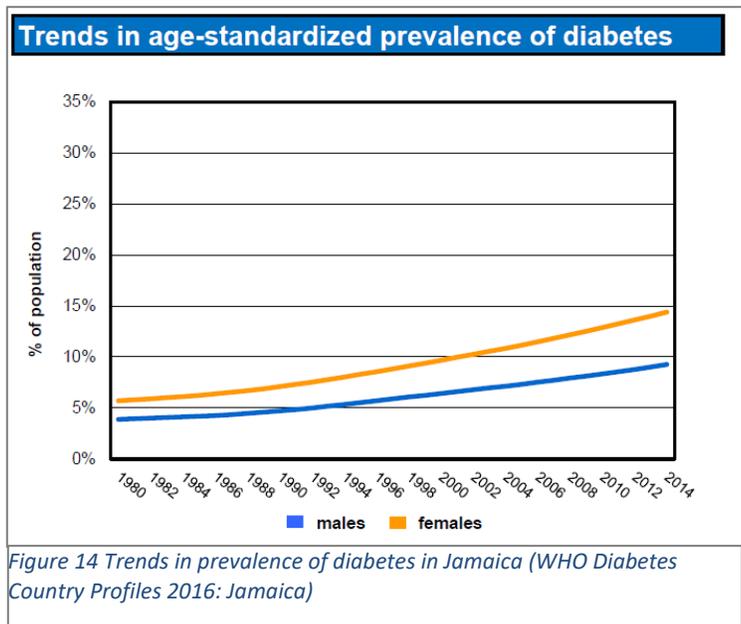
While the food and beverage industry in Jamaica has claimed it will not affect consumption, multiple studies including the WHO 2016 Report on Fiscal Policies for Diet and Prevention of Non-communicable Diseases concluded that there is sound evidence that proportionate reductions in consumption of SSBs can be achieved by taxation aimed at raising the retail price of sugary drinks by 20% or more.

Similarly, increases in consumption of fruits and vegetables can be observed by providing subsidies for fresh fruits and vegetables that reduce prices by 10%-30%. A 2017 modelling study predicted taxes and subsidies on foods and beverages can be combined to achieve significant improvements in overall population health and cost-savings to the health sector, with the sugar tax yielding the greatest overall cumulative health benefits. Reductions in trans-fat intake and implementation of WHO-recommended food and drink labelling requirements also remain critical pending tasks and adequate funds need to be allocated for them from the increased earnings.

Jamaican officials interviewed also agreed that, other than taxing unhealthy items like SSBs, the government should also initiate incentives and subsidies for the increased production and reduced prices of healthy vegetables and fruits, to foster the consumption of healthy and nutritious food products.

9.6. Political will and inter-sectoral collaboration for NCD prevention:

Key lessons from the Jamaican experience in fighting NCDs include the presence of strong local and regional political will and leadership, and an inter-sectoral approach. According to Jamaican officials interviewed, *“the commitment of the current Minister of Health to NCD prevention has been important in raising spending in this area. The Minister has prioritized healthy lifestyle initiatives like the Jamaica Moves program and population education initiatives, and has also taken ‘health responsibility’ tours to urge citizens to take responsibility for their lifestyle choices.”* Furthermore, Jamaica has increasingly taken an intersectoral approach for NCD control



and prevention, which treats health as a development issue that includes the analysis and consideration of health-related goals in the formulation and approval of policies in all sectors of government (i.e. Health in All Policies or HiAP) to address social determinants of health and health inequities. HiAP is an approach to public policies across sectors that systematically considers the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity. As a concept, it reflects the principles of legitimacy, accountability, transparency and access to information, participation, sustainability, and collaboration across sectors and levels of government.

10. Conclusion

An examination of Jamaica's experience illustrates many important lessons for those interested in the challenge of NCD prevention around the world. The country belongs to a region with a massive NCD burden and an NCD 'epidemic' that is the worst in the Americas region, while it has also taken creditable multi-sectoral steps for NCD control and prevention.

Jamaica's efforts to combat NCDs must be viewed in the context of development and cooperation in the Caribbean. Jamaica's policies for NCDs are closely tied to regional initiatives guided by CARICOM and PAHO, as exemplified in the Port of Spain declaration in 2007. While efforts to combat NCDs have accelerated in the Caribbean and Jamaica since then, this period has also seen protracted economic decline in the region, tied to the global financial crash of 2007. Regional exports have gone down in this time, while trade liberalization has caused import revenues to fall, leading to a huge rise in public debt and subsequent pressures on public spending in economies like Jamaica. Liberalization policies in this time have also exacerbated the effects of a 'nutrition transition' toward processed and meat derived products, which has led to an epidemiological transition from infectious diseases to chronic NCDs. Similar regional economic, nutrition and epidemiological transitions have hence also spurred cooperative regional NCD responses.

Jamaica has responded to its NCD challenge with, among other things, a comprehensive strategic plan for NCDs, that has included a wide range of initiatives such as taxes on unhealthy consumption earmarked to combat NCDs and subsidize medicines, funds to promote physical activities and sports like CHASE, MOHW health promotion initiatives, chronic disease prevention and screening services, nutrition interventions, physical activity campaigns like Jamaica Moves and Healthy Lifestyle Program, and other key efforts around tobacco and alcohol regulation. Jamaica's has adopted an inter-sectoral 'Health in All Policies' (HiAP) approach for NCD prevention and control, which has been key to the progress it has made. This has led to sustained collaborations for NCD prevention between institutions for health, education, sports, trade, food, nutrition and agriculture.

Jamaica's efforts to finance NCD control and prevention through tobacco and alcohol taxes can be seen to have met with considerable success, both in terms of generating an increasing stream of revenue as well as bringing about a reduction in the consumption of both tobacco and alcohol. However, efforts to increase taxes on such consumption have stalled in recent years owing to economic pressures, political disincentives to raise taxes and industry lobbying, including threats of relocation of tobacco production outside Jamaica. Greater political will is needed to both be able to increase tobacco and alcohol taxes and allocate a greater proportion of the revenue from those taxes to NCD prevention efforts. Government commitments to keep taxes low represent an obstacle in this process, but stronger majorities in Parliament can be opportunities for advocating for increasing taxes.

Jamaica's NHF has also been a successful vehicle for mobilizing and earmarking revenue for NCD control and prevention. However, while its revenues and population coverage have registered significant increases in the past decade, its focus on NCD prevention and health promotion has reduced significantly in this period as policymakers have prioritized medicines and infrastructure. In recent years, the financial burden for NCD prevention has been increasingly taken up by the MOHW directly in this period, as part of the Ministry's strategic focus on health promotion. Despite this, spending on health promotion by the MOHW remains less than 1% of total health expenditure, which remains concentrated on service delivery. Another innovative institution that has significantly contributed to NCD prevention in Jamaica has been the CHASE Fund which has raised revenue for health, sports and education through taxation of the gaming and gambling industry, with a significant portion of its funds going towards promotion of sports and healthy lifestyles.

Public communication and behavioral change efforts have been a key component of the government's NCD prevention measures. The government's inter-sectoral Healthy Lifestyles program was started in 2004 through the NHF, but discontinued in 2008 owing to lack of funds. The more recent Jamaica Moves initiative is a more concerted inter-sectoral campaign and activities aimed at fostering physical activity, healthy eating, and accessing screening services. Infrastructure gaps, including limited parks and inadequate sidewalks, continue to hamper progress in encouraging more active lifestyles. Public awareness of risk factors also remains low and highlights the need for well-financed behavioral change communication for healthier life choices by citizens.

Nutrition interventions, including a nutrition support strategy, school nutrition programs, dietary guidelines, policies to reduce salt/sodium and food labelling requirements are also a key part of the government's NCD prevention efforts but they remain piecemeal and under-resourced. Jamaica still requires concerted diet-related interventions that take account of the nutrition transition and bring about a reconfiguration of food systems and incentivization of both increased demand for and supply of locally sourced, affordable, sustainable and healthy food. A key policy proposal that officials and civil society are considering in this regard, one that is increasingly being taken up in other countries in the region and globally, is a tax on sugar-sweetened beverages (SSBs), which can potentially reduce SSB consumption by a fifth or more and could also be used to finance health promotion measures. Furthermore, there is also a need for further incentives and subsidies for increased local production and reduction in prices of healthy vegetables and fruits.

Jamaica's experience also highlights the importance of policy leadership, by both government ministers and officials, and civil society for the fight against NCDs and the necessity of taking an inter-sectoral approach that recognizes the wide range of sectoral interventions required in areas ranging from education, to sports, to agriculture, among others, beyond just health. Jamaican health officials who have spearheaded these efforts say that the key areas for action on NCD prevention going forward are a well-trained and equipped health workforce with an emphasis on primary care, and robust data that can provide a good evidentiary basis for targeted interventions for improved public health.

11. Recommendations:

1. Increase the proportional spending on NCD prevention by the MOHW.
2. Ensure the operationalization and regular functionality of the National Committee on NCDs as an inter-sectoral governance and coordination mechanism.
3. Implement sustained increases in tobacco excise tax to account for inflation and income increases.

4. Implement excise tax on all alcoholic beverages (beer, wine, and spirits) and ensure there are no tax incentives or rebates for production of other alcoholic beverages.
5. Enact and enforce comprehensive bans on tobacco advertising, promotion, and sponsorship.
6. Enact regulatory frameworks for alcohol advertising on different channels (public service/national TV, commercial/private TV, national radio, local radio, print media, billboards, points of sale, cinema, internet, and social media) and establish detection system for infringement of restrictions.
7. Institute an evidence-based tax on SSBs aimed at reducing sugar consumption while generating revenue partly earmarked for NCD prevention and health promotion.
8. Allocate a greater share of resources from tobacco, alcohol and SSB taxes to health promotion, targeted behavioral change communication focused on lifestyle changes and subsidization of health products.
9. Increase subsidies for fresh fruits and vegetables with the aim of reducing their prices by 10%-30%.
10. Enforce nutrition labeling and Traffic-Light Style warning labels on all food products.
11. Initiate nutrition policies that acknowledge the nutrition transition and reconfigure food systems to incentivize demand and supply of local affordable, sustainable and healthy food.
12. Institutionalize mechanisms for civil society oversight of public health and NCD prevention interventions to ensure NCD action can be protected against influence of industrial interests.
13. Enhance financing for Jamaica Moves and address infrastructural challenges limiting physical activity promotion including limited and under-developed parks and reserves, inadequate pavements and lighting among others.

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