

## Financing of NCD Prevention in LMICs: Sri Lanka Case Study

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### Abstract

**Objective:** To estimate spending on NCD prevention in Sri Lanka 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 programmes. Government and government-routed donor spending on population level prevention was gauged to estimate NCD prevention spending. Where possible, impact of prevention programmes on disease incidence and risk factors was gauged through available outcome indicators.

**Results:** Sri Lanka allocated an estimated LKR 938.93 million on NCD prevention and health promotion in 2019, accounting for less than 1% of total public spending on health for the year. Enablers include tobacco control progress, improved primary care, institutions committed to NCD prevention including the Health Promotion Bureau, and political and civil society leadership. Challenges include persistent alcohol use, high levels of salt intake, pressure against regulations by the food and beverage industry, and lack of a countrywide physical activity campaign. Opportunities include earmarking excise taxes for health promotion, and strengthening primary level prevention.

**Conclusion:** Sri Lanka has made considerable progress in reorienting its health system towards NCD prevention, but spending on NCD prevention still remains less than 1% of government health spending. Increased allocation of resources towards population-level NCD prevention can help address the growing NCD burden and create economic benefits.

**Keywords:** Noncommunicable Diseases, Tobacco, Sodium Chloride, Employees, Incidence, Health, Diet, Exercise, Risk Factors, Beverages, Taxes

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### Introduction

Sri Lanka is a fast-growing economy, in many ways a development success story and is now a lower-middle-income country (LMIC). Following 30 years of civil war that ended in 2009, Sri Lanka has seen a decade of sustained economic growth, reflecting a peace dividend and commitment to reconstruction and development. The economy is transitioning from a predominantly rural economy towards an urbanized economy oriented around manufacturing and services. The country has made significant progress in its socio-economic and human development indicators, which rank among the highest in South Asia and compare favourably with those in middle-income countries. The national poverty headcount ratio declined from 15.3 percent in 2006/07 to 4.1% in 2016.<sup>1</sup>

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Systematic investments in health have resulted in the country's many health achievements, including very low maternal and neonatal mortality rates, elimination of many communicable diseases (most notably malaria), and increased life expectancy (now at 74.9). There are many best practices and lessons from its experience with public health that can help other countries.<sup>2</sup>

At the same time, Sri Lanka is in the advanced stages of a demographic, epidemiological and nutrition transition. Other than the fact of a rapidly ageing population (owing to rising life expectancy and lower fertility rates), economic development, urbanization and associated lifestyle changes are contributing to the growing incidence of non-communicable disease (NCDs).

Each year, 118,700 Sri Lankans die from non-communicable diseases, such as cardiovascular disease, lung disease, stroke, cancer, and diabetes. NCDs now account for more than 80% of deaths in Sri Lanka. The prevalence of NCDs is rising due to changes towards a

more sedentary urban lifestyle, and its associated risk factors (like physical inactivity, unhealthy diets, and increased tobacco and alcohol consumption). One out of three people in Sri Lanka has raised blood pressure, and one in three adults is either overweight or obese.<sup>3</sup>

The NCD epidemic is also a serious economic issue. NCD treatment costs account for a huge proportion of the annual health budget and the vast majority of hospital admissions. Although health care in Sri Lanka is free, NCD care is increasingly financed by out-of-pocket (OOP) expenditure on health, which accounts for more than 40% of healthcare expenditure. 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 labour 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.

Sri Lanka has made substantive progress in its NCD response, both in terms of provision of NCD services and prevention efforts. Sri Lanka has been a pioneer among LMICs and in the region in establishing comprehensive NCD policy frameworks, regulations and programmes and engaging in multi-sectoral action to tackle the prevention and control of NCDs. Interventions have included costed multi-sectoral national action plans, dedicated NCD prevention and health promotion institutions, Healthy Lifestyle Centres (HLCs) for NCD prevention and treatment, implementation of healthy settings in schools, workplaces, and communities, and efforts to regulate and tax tobacco and alcohol among others. Sri Lanka's NCD interventions contain many lessons for similarly placed LMICs dealing with their own health threats. Despite many successes, multiple challenges remain in the way of containing the growing NCD problem.

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 Sri Lanka to identify the key lessons, challenges, and barriers from Sri Lanka's own experience with financing and implementing NCD

prevention. It will do so by first examining the socio-economic and institutional context of NCDs in Sri Lanka, outlining the key policy responses and interventions of the Sri Lankan 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 Sri Lankan experience will then be discussed and summarized, and a set of actionable outcomes and recommendations will be presented.

## 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/mobilised 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 prevention and 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 'Sri Lanka'. 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. An additional search was also carried out for policies related to risk factors using the terms 'alcohol', 'tobacco', 'diet', 'nutrition', and 'physical activity'. 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 late 20th 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. Bibliographies of selected studies were also reviewed for relevant literature to NCD or risk factor prevention policies. Later, a specific search was undertaken for broader literature, including policy frameworks on NCDs in Sri Lanka and the region.

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 analysed 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, Ministry of Finance,

planning ministry or staff from the office of the head of state.

### The NCD burden in Sri Lanka

In 2015, Sri Lanka Ministry of Health conducted the WHO Stepwise approach to surveillance (STEPS) survey with over 5000 adults aged 18–69 years. The survey found that NCDs such as heart disease, lung disease, diabetes and cancer are a major public health concern in Sri Lanka, causing 75% of total deaths each year. Currently, Sri Lanka also has a rapidly ageing population. According to the Census of 2012, the percentage of the elderly was 12.2% and is expected to rise to 18.6% by 2031, which will add 1.5 million people to the cohort above 60 years of age.<sup>2</sup> The age standardized death rates for the common four NCDs (heart diseases, diabetes, cancers and chronic respiratory diseases) are higher for males than females with cardiovascular death rate for males at nearly 350 deaths compared to approximately 200 deaths per 100,000 age standardized population.<sup>4</sup> Furthermore, 18 percent of the common four NCD deaths occur prematurely (between the ages of 30 to 70 years).

In recent decades, the most predominant cause of both mortality and premature mortality has been ischaemic heart disease, followed by stroke and diabetes (Figure 1, 2). Cirrhosis of the liver and chronic kidney disease are other NCD conditions that have been rising in

## What causes the most deaths?

- Communicable, maternal, neonatal, and nutritional diseases
- Non-communicable diseases
- Injuries

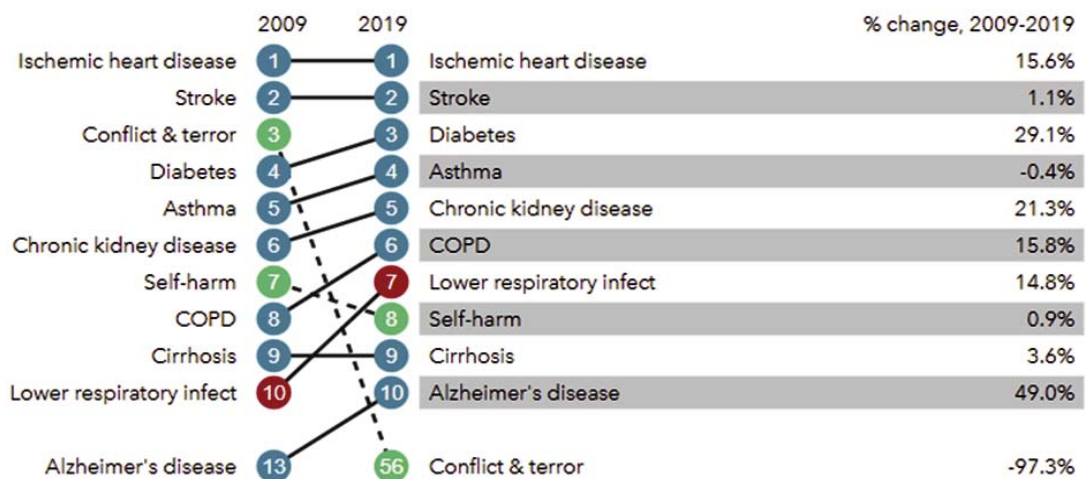
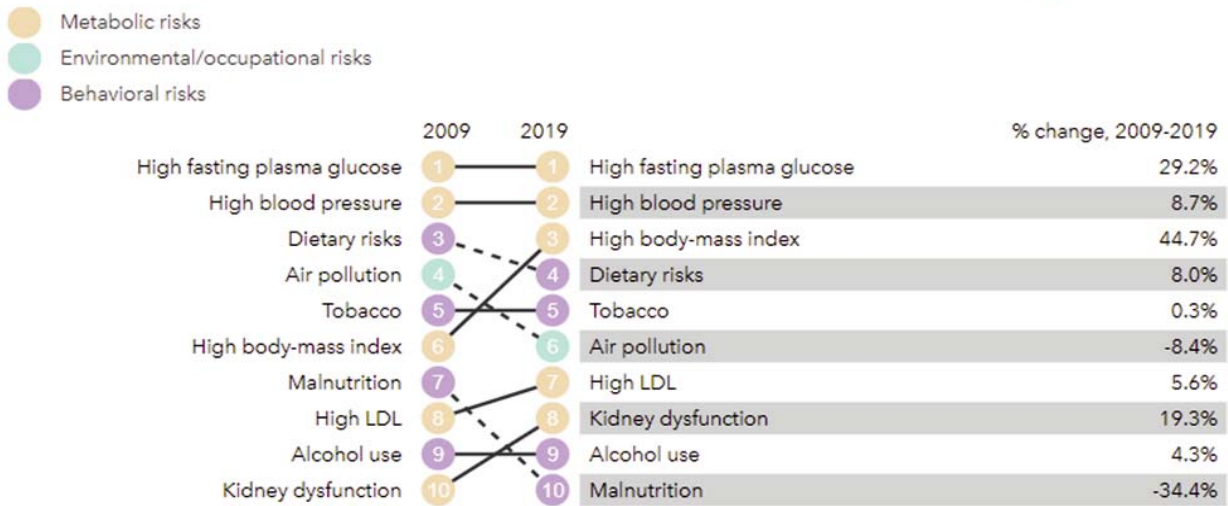


Figure-1: Top 10 causes of death in 2019 and percent change in Sri Lanka, 2009-2019<sup>5</sup>

## What risk factors drive the most death and disability combined?



**Figure-2:** Risk factors driving death and disability in Sri Lanka and % change, 2009-2019<sup>5</sup>

prominence as causes of premature death (Figure 2). Alzheimer's disease is also on the rise, reflecting Sri Lanka's rapidly ageing population (Figure 1). There is widespread diabetes prevalence in Sri Lanka: according to the STEPS survey 2015, 7.4% of adults were estimated to either have raised blood glucose or were currently on medication for diabetes (7.3% males and 7.6% females).<sup>6</sup> Chronic kidney disease of unknown etiology (CKDu) is a serious public health problem in Sri Lanka. CKDu appears to disproportionately affect poor, rural, male farmers in hot climates. Despite more than 20 years of study in Sri Lanka and globally, the problem of CKDu is not well understood.<sup>6</sup>

NCDs and their risk factors also exert a significant economic cost. The vast majority of hospitalizations in Sri Lanka are NCD-related, making it the single biggest strain on the health system. According to a study conducted by World Health Organization and the National Authority on Tobacco and Alcohol, annual the health and social costs of alcohol use were LKR 119.7 billion while the economic cost of tobacco to society (costs to treat the conditions caused by tobacco and costs due to premature mortality and absenteeism) was LKR 89.37 billion (US\$ 662.0 million).<sup>7</sup>

### NCD risk factors in Sri Lanka

Evidence from around the world demonstrates how rapid urbanization and the shift from an agriculture-based to a service-sector economy lends itself to unhealthy food and consumption choices, increased stress and sedentary lifestyle. In Sri Lanka as well, population consumption of

tobacco, alcohol, sugar, salt, fats and unhealthy foods has increased over the decades, commensurate with the increasing rates of obesity, high cholesterol levels and increase in body mass index (BMI).<sup>2</sup>

According to Sri Lanka's last STEPs survey, conducted in 2015, the majority of adults (73.5%) was estimated to have 1-2 risk factors (76.0% males and 71.0% females). Those with 1-2 risk factors were more among the age group 18-44 years than 45-69 years in both sexes. Nearly 18% of the adults were estimated to have 3-5 risk factors. 20.2% of the females and 16.4% males had 3-5 risk factors. Prevalence of 3-5 risk factors was more among 45-69 years in both sexes (24% in males and 31.4% in females).<sup>6</sup> Approximately 9% of the adults aged 40-69 years were estimated to either have 30% or more 10-year CVD risk or an existing CVD. Only half of those (55.6%) had received drug therapy and counselling to prevent a heart attack and stroke.<sup>6</sup>

### Alcohol consumption

According to the STEPs survey, one third (34.8%) of males were current alcohol users (drank in the past 30 days), while 40.2% were lifetime abstainers. A great majority (96.5%) of females were lifetime abstainers. More than one fourth (27.4%) of the former drinkers had stopped consuming alcohol due to health reasons (30.2% males and 11.7% females). Of the males who drank during past 12 months, nearly 5.7% had consumed alcohol daily. Mean number of drinking occasions for male current drinkers during past 30 days was 5.6 and 1.7 for females. Mean number of standard drinks per drinking occasion

among current male drinkers during past 30 days was 4.3 and 1.6 for females. Mean maximum number of standard drinks consumed during past 30 days were 5.5 among males and 1.4 for females.<sup>6</sup>

### **Tobacco use**

The findings indicate that 45.7% men and 5.3% women currently used some form of tobacco product (either smoked or smokeless) while 35.3% of males and 4.1% of females were daily tobacco users. Prevalence of current smoking was 29.4% in males and 0.1% in females. Of current male smokers, 67.6% were daily smokers. Mean age of initiation of smoking for male smokers was 20.5 years. Majority (82.9%) of male daily smokers were using manufactured cigarettes. More than half of current male smokers (51.8%) had tried to stop smoking. Only one third of current smokers were advised by a doctor to stop smoking.<sup>6</sup>

### **Unhealthy diets**

The mean number of servings of fruits and/or vegetables consumed by both males and females per day was 4.3 servings (males 4.3 and females 4.4). Only 26.9% of males and 28.0% of females were consuming five or more servings of fruits and/or vegetables per day, as recommended by WHO. More than half of adults (52.8%) reported adding salt to rice while cooking. Approximately 27% of adults (28.3% males and 24.8% females) were always or often eating processed foods.<sup>6</sup>

### **Physical inactivity**

Survey findings revealed that 22.5% of males and 38.4% of females did not meet the WHO recommendation of physical activity (150 minutes of physical activity per week). More than half of males (53.7%) were engaged in high intensity physical activity and majority of females were engaged in low (44.2%) and moderate (23.6%) intensity physical activity. Physical inactivity is also a serious issue among young Sri Lankans.<sup>6</sup> According to the results of the National Youth Health Survey, among males, 57.2 % of 15-19 year old youth and 55% of 20- 24 year old youth are not engaged in any manual work. The respective values for females are 72.1% and 75.7%. Almost half (48.3%), give a history of watching television, video films, video games or internet on five or more days a week.<sup>8</sup>

### **Overweight/obesity**

According to the STEPS survey, approximately 29% of adults were found to have a BMI  $\geq$  25 (overweight and obese). Nearly one fourths of males (24.6%) and one thirds of females (34.3%) were found to be either overweight or obese. Nearly 30% of adults were estimated to be overweight (21% men and 26.0 females)

and 5.9% of total respondents were obese (3.5% males and 8.4% females). Further, 15.3% of the adults were estimated to be underweight (16.5% males and 14.1% females).<sup>6</sup>

### **Raised blood glucose**

Overall, 7.4% of adults were estimated to be either having raised blood glucose or were currently on medication for diabetes (7.3% males and 7.6% females).<sup>6</sup>

### **Hypertension**

Hypertension prevalence was found in 26% of adults in Sri Lanka. Nearly one fifth of the adults (21%) surveyed had raised blood pressure (21.9% among males and 20.2% among females) One third of the adults (30.7%) had never had their blood pressure checked. Of all adults, 8.1% (6% for males and 10.3% for females) were estimated to be detected with high blood pressure during last year. Higher prevalence was seen among the older age groups with the highest prevalence among the age group of 60 – 69 years. While only about one tenth (9.4 %) of the youngest age group (18-29 years) is hypertensive, more than half (57 %) of the oldest age group (60-69 years) is hypertensive.<sup>6</sup>

### **Air Pollution**

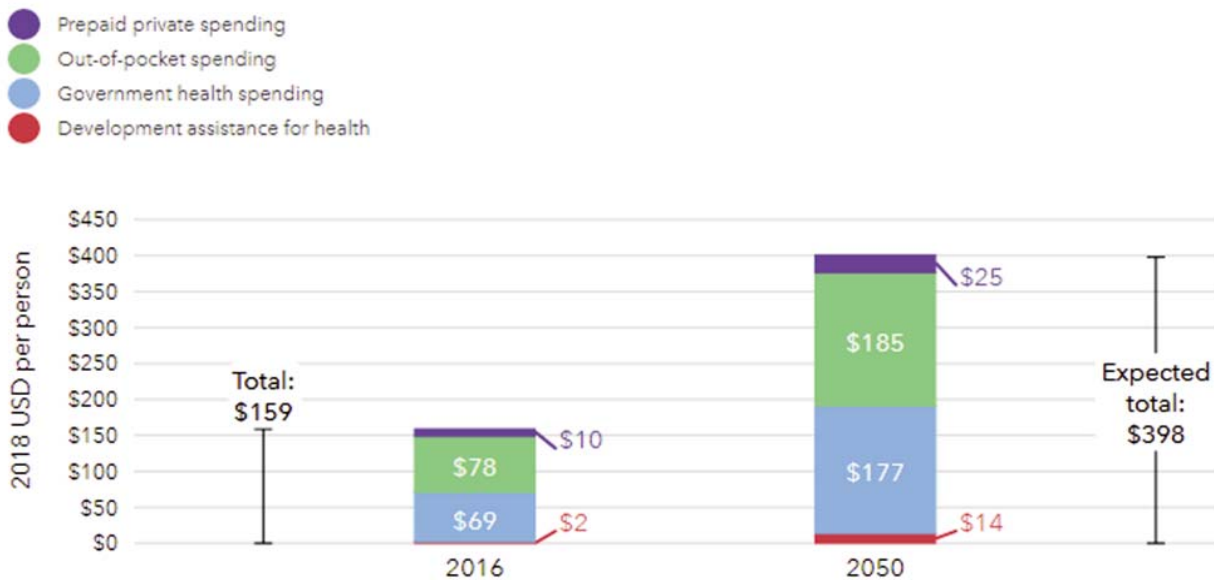
Indoor air pollution from Solid Fuel Use (SFU) continues to be a problem with a high 67% of households using SFU, which causes 4300 deaths per year. Outdoor air pollution also continues to be at moderately unsafe levels, with annual average fine particulate matter (PM<sub>2.5</sub>) concentrations at 93 ug/m<sup>3</sup>, higher than the WHO guideline of 10 µg/m<sup>3</sup>.<sup>9</sup>

### **Sri Lanka health system and financing context**

Sri Lanka's health system is considered a high-impact, low-cost model that provides all its citizens with moderate-quality health services free at the point of service delivery. The government operates a network of public sector health facilities for provision of inpatient care. There are around 631 government sector medical institutions with indoor health facilities, including 16 Teaching Hospitals, 3 Provincial General Hospitals, 20 District General Hospitals, 71 Base Hospitals, 482 Divisional Hospitals, and 14 Primary Medical Care Units with Maternity Homes and 25 specialized hospitals. There are 460 Primary Medical Care Units which provide outdoor clinical facilities only. Three hundred and forty one Ministry of Health Offices headed by Medical Officers of Health, carry out preventive services for defined geographic areas.<sup>10</sup>

Sustained political commitment by successive Sri Lankan governments to the provision of free health services to

## How much is spent on health -- now, and in the future -- and from which sources?



**Figure-2:** Current and projected sources of health financing in Sri Lanka<sup>5</sup>

the population has seen the country emerge as a regional leader in health. The Public Sector in Sri Lanka provides virtually all of preventive care, which includes a comprehensive care package that includes maternal and child health services, immunization, maintenance of food and water hygiene, and prevention and control of communicable diseases. About 95% of inpatient care and 45% of outpatient care is also delivered by public facilities; the remaining is delivered by the private sector. An expanding private sector operates in select urban settings complementing the state sector hospitals and caters to 5% of inpatient care and 55% of outpatient care.<sup>2</sup>

### Sources of health financing

The two major sources of health financing in Sri Lanka are the government budget and out-of-pocket (OOP) payments, which together account for over 90% of total health expenditures. There is no social health insurance other than a very small contributory scheme for civil servants called Agrahara. Voluntary prepayment schemes account for about 6% of total health spending.<sup>11</sup>

Sri Lanka's government health spending as a share of GDP is relatively low by regional standards, but closer to the average when measured as a share of the government budget. As indicated by the WHO Global Health Expenditure Database, current expenditure on health as a share of gross domestic product (GDP) has remained at

3% from 2010. The government health budget, at 1.6% of GDP, makes it among the lower spenders among other Asian countries at a similar income level. In some countries, this may be a sign of low prioritization given to health within the government budget – however, this is not the case in Sri Lanka, where it absorbs about 8.4% of the government budget, only slightly lower than average among Asian countries.<sup>2</sup>

Sri Lankan households spent around 40% out of pocket for health in the past 15 years despite the free health-care policy in public facilities, a proportion that has steadily risen over the years. The bulk of OOP on health is for fees to private medical practitioners (33%), purchase of pharmaceutical items (27%), and payments to private hospitals (17%).<sup>2</sup> However, despite high OOP, the incidence of catastrophic OOP payments (that is, health expenditures that account for a large share of total household spending) is modest by international standards – only 6.4% of households had health expenditures exceeding 10% of total household spending in 2015/16, compared to 13.9% in India, 14.2% in Bangladesh, and 19.6% in Vietnam.<sup>12</sup>

### Primary healthcare reform

Nearly 95% of inpatient health care services are provided by public sector hospitals. Analysis of service utilization patterns show that tertiary-care facilities are over utilised

while divisional-level hospitals remain underutilised. According to studies on primary healthcare in Sri Lanka, suboptimal utilization of primary-care facilities adversely affects optimal resource use and results in higher OOPe by the patients.<sup>13</sup> Reorganization of primary health care (PHC) is needed not only to improving the quality of care, but also to increasing access to health care and reducing catastrophic health-care expenses that result in impoverishment.<sup>2</sup> Currently, the MoH is exploring various models to reorganize the service delivery mechanism and strengthen the various building blocks of the health system, particularly at the local level (see 6.3).

However, despite considerable progress in expanding access and health literacy, the Sri Lankan health-care system remains a “hospital- and illness”-based care model, where people with illness seek care from hospitals that deliver the care. Only 5% of the health budget is directed towards the preventive health services while 91% of the budget is channelled towards the curative sector and that too, mainly for specialized care facilities.

#### **NCD prevention in government policies and plans**

Sri Lanka has developed a National Multi-sectoral Action Plan for Prevention and Control of NCDs 2016-2020, which is consistent with the Global NCD Action Plan. In keeping with the Global Monitoring Framework, Sri Lanka has set national targets that focus on risk factors - tobacco use, high blood pressure, high salt intake, obesity, physical inactivity and air pollution- as well as targets on access to essential NCD medicines and technologies, and drug therapy for prevention of heart attacks and strokes. In the past decade, Sri Lanka has also enacted a Health Promotion Policy and established a Health Promotion Bureau, which engages in multi-sectoral population-level health promoting activities. It has also attempted to institutionalize NCD prevention, screening and care at the primary health care level through the Healthy Lifestyle Centres (HLCs) and taken steps towards reducing sugar and salt intake as well as regulations and taxation measures for the reduction of alcohol and tobacco consumption.

#### **National Multi-Sectoral Action Plan for Prevention and Control of NCDs**

Sri Lanka launched its comprehensive National Multi-sectoral Action Plan for the Prevention and Control of NCDs 2016-2020 (NMSAP) in 2016, which has guided its policies on NCDs in the last five years. The goal of the plan is “to reduce the preventable and avoidable burden of morbidity, mortality and disability due to noncommunicable diseases by means of multi-sectoral collaboration and cooperation at national level so that populations reach the highest attainable standards of

health and productivity at every age and those diseases are no longer a barrier to well-being or socioeconomic development.”

The plan is composed of four strategic areas, namely; i) Advocacy, partnership and leadership; ii) health promotion and risk reduction; iii) strengthening health system for early detection and management of NCDs and their risk factors; and iv) surveillance, monitoring, evaluation and research. The strategic area on health promotion and risk reduction relates to NCD prevention and specifies plans on reduction of tobacco use, reduction of use of alcohol, promotion of healthy diet high in fruit and vegetables, low in saturated fat, trans-fat free, and low in sugar and salt, promotion of physical activity and healthy behaviours and reduction in household air pollution.

The plan aims to achieve the following targets with respect to NCDs and their risk factors by 2025: a 25% relative reduction in premature mortality from cardiovascular disease, cancer, diabetes, or chronic respiratory diseases; 10% relative reduction in the use of alcohol; 10% relative reduction in prevalence of insufficient physical activity; 30% relative reduction in mean population intake of salt/sodium; 30% relative reduction in prevalence of current tobacco use in persons aged over 15 years; and 25% relative reduction in prevalence of raised blood pressure; halt the rise in obesity and diabetes.<sup>14</sup>

The NMSAP 2016-2020 was finalized and costed with a highly ambitious set of priority action. The Directorate of NCDs in the Ministry of Health is the focal unit and coordinator for the plan and has since initiated and implemented many activities specified therein. Nearly half of districts have developed their own plans in line with NMAP.<sup>4</sup> However, monitoring of the plan is irregular and a mid-term evaluation has not yet been undertaken.

#### **NCD Prevention Unit**

The NCD Prevention Unit at the Sri Lankan Ministry of Health is the principal institution responsible for NCD prevention efforts in the country and is responsible for implementing the NCD Multi-sectoral Action Plan for Prevention and Control of NCDs and other related strategies. The Unit plans and implements actions for improving health outcomes in communities, develops and maintains infrastructure for NCD prevention, and engages officials and communities for inter-sectoral action. The Unit’s activities include developing strategies, plans, surveys, and guidelines for NCDs and risk factors, developing and disseminating IEC materials, developing the Health Lifestyle Centres (HLCs), strengthening NCD

and risk factor surveillance, and capacity building of health officials, health workers and elected representatives on NCD prevention.

### **Healthy Lifestyle Centres**

The Healthy Lifestyle Centres (HLCs) were initiated in 2011 as part of Sri Lanka's first National NCD Policy and Strategic Framework for Chronic NCDs 2010-2015. The intervention was based on the WHO Package of Essential Noncommunicable (PEN) disease interventions for primary health care in low-resource settings to provide high impact NCD screening services at primary care units. The central objective of HLCs was to reduce the risk of NCDs amongst people aged 40-65 through early detection of risk factors and detection and management of NCDs.<sup>3</sup>

People between the ages of 40-65 utilise the service largely through self-referral and are checked for behavioural and metabolic risk factors of NCDs. Primary Health Care Units are expected to conduct assessment of a minimum of 20 people once a week. Trained health care workers assess clients for behavioural risk factors tobacco use, harmful use of alcohol, physical inactivity and unhealthy diet. Body mass index, blood pressure and fasting blood sugar are checked. Counselling is provided as appropriate, to help modify behavioural risk factors including physical inactivity. Those at high risk of NCDs (particularly CVD) are referred to the next level of care.

The NMSAP 2015-2020 enhanced the role of HLCs through additional outreach programmes, mass media campaigns and the expansion of opening hours of HLCs to increase public awareness and encourage further male participation at HLCs.<sup>15</sup> HLCs now also have a health promotion role, with regular physical exercise sessions for local communities in the HLCs, public playgrounds, and premises of various government institutions.<sup>16</sup>

Supervision and coordination of the activities of Healthy Lifestyle Centres in each district has been assigned to a new cadre of Medical Officers (MO-NCD), who also coordinate NCD related activities at the district level. Preparations, including training of health personnel are also underway to provide support for smoking cessation through HLCs.

### **Cancer Control Programme**

The Ministry of Health runs a cancer control programme with the objective of reducing the incidence of cancers by controlling and combating determinants of cancers, ensuring early detection and providing a holistic and accessible continuum of cancer care which address curative treatment options to end of life through an

evidence – based approach. Other than overseeing treatment and care, the programme aims to ensure primary prevention of cancers by addressing risk factors and determinants by improved public awareness and empowerment and advocate for early detection of cancers by improved public awareness and relevant service providers, particularly primary care providers, through opportunistic screening of asymptomatic populations and, if clinically suspicious, ensure prompt referral of individuals with symptoms and signs suggestive of cancer in symptomatic populations leading to early clinical diagnosis.<sup>17</sup> Other than treatment and care related activities, the programme carries out advocacy for cancer prevention, develops and publishes health education materials on cancer prevention, early detection and palliative care, and carries out mass media advertisements to raise cancer awareness.

### **Health Promotion Bureau**

Sri Lanka passed a Health Promotion Policy in 2010, which is anchored in the Health Promotion Bureau (HPB) of the Ministry of Health. The purpose of the policy is to mobilise, empower and support individuals, families, and communities to promote health. The policy objectives include making health promotion a core responsibility of the government, establishing a 'setting' approach for health promotion, and to build capacity for health promotion at all levels of government.

The policy established the Health Promotion Bureau in the Ministry of Health, which was formerly the Health Education Bureau. The Health Promotion Bureau is one of the key institutions in the government's efforts to change unhealthy population behaviours. It oversees, guides, and monitors the implementation of health promotion activities across the country. It develops guidelines, circulars, and training manuals for implementing health promotion activities in multiple settings. It also holds capacity strengthening workshops at national provincial and district levels, encompassing advocacy, communication, health education, community mobilisation and community empowerment.<sup>17</sup>

### **Promoting Healthy settings**

The Health Promotion Bureau plays a key role in establishing healthy settings in schools, workplaces, villages and hospitals. In 2016, the Bureau certified 1425 preschools, 520 workplaces, 580 villages and 78 hospitals as health promotion settings. The Health Promoting Schools initiative, run jointly by the Ministries of Health and Education, is based on the FRESH (Focusing Resources on Effective School Health) framework. Underpinned by a School Health Promotion Policy, the programme aims to create a sustainable health

promoting school culture which enables children to adopt healthy behaviours and optimally benefit from educational opportunities provided. The key components of the programme are skills-based health education, safe and healthy school environment, access to health services and empowerment of the children to be agents of change, for promoting health of the family and the community.<sup>18</sup> During the annual School Medical Inspection, nutritional and health status of children are assessed providing a means of monitoring this target. In 2015, all schools were evaluated and nearly 3,400 schools (out of 10,144) were accredited as Health Promoting Schools, while 720 schools achieved gold standard.<sup>18</sup> In 2015, the Family Health Bureau, National Institute of Education and the Health Promotion Bureau designed the new "Health and Physical Education" curriculum for students giving special attention to health promotion, life skills development and strengthening of physical activity.

The Bureau also runs similar programmes in communities, such as its 'Happy Village' project, which aims to promote healthy lifestyles in over 1000 villages across the country by disseminating risk factor reduction health messaging through a network of volunteers as well as health education materials. District officials are also trained to mobilise communities for healthy settings in their areas.

The Health Promotion Bureau and Nutrition Division of the MoH have also established Mother Support Groups in all districts of the country to improve family health through promoting practices that promote healthy living. Mother Support Groups also assist Medical Officers of Health through their Public Health Midwives in several other tasks: to increase growth monitoring in children under 5 years, increase early detection of pregnancy and to reduce rates of anaemia among pregnant mothers. The project has also facilitated self-employment of participating women and enhanced communication between the public health network and the target community.<sup>19</sup>

### **Tobacco and alcohol control**

Sri Lanka has taken a number of institutional, regulatory, and fiscal steps to address the problem of rising tobacco and alcohol consumption. The country became a Party to the WHO Framework Convention on Tobacco Control on February 27, 2005. The government launched a National Policy on Tobacco and Alcohol in 2016, following which the President launched a National Campaign called "A Country Free of Intoxicants" demonstrating political commitment to at the highest level to curb the consumption of alcohol, tobacco, and illicit drugs. He appointed a Presidential Task Force that has the ambitious goal of gradually eliminating the overall

consumption of alcohol, tobacco, and illicit drugs. The task force formulates and implements joint initiatives at the grassroots and national levels.<sup>16</sup>

### **Sales, marketing, and labelling**

The government passed the National Authority on Tobacco and Alcohol Act in 2006. The law established the National Authority on Tobacco and Alcohol (NATA) and enacted regulatory restrictions on public smoking, packaging, and labelling, and tobacco advertising, promotion, and sponsorship. It banned the sale of tobacco and alcohol to young adults below 21 years, and established an alcohol and tobacco free perimeter around religious places and schools.

The bill also set out a total ban on alcohol and tobacco advertisement in media or on billboards, prohibited free distribution of tobacco or alcohol related products as a means of promotion or installation of automatic vending machines that dispense any tobacco or alcohol related products.

The Act also authorised the Minister of Health to issue regulations under the law. The Minister has used these powers several times, issuing regulations regarding the content and display of the required health warnings on tobacco products in August 2012 and amendments to these regulations in November 2012, February 2013, and May 2014 (their implementation however was delayed until 2015 because of litigation by the tobacco industry). An amendment to the NATA Act was passed in 2015 that increased the size of health warnings to 80% of front and back of tobacco product packages. In 2016, the Minister issued regulations prohibiting the manufacture, importation, and sale of smokeless tobacco products, e-cigarettes containing tobacco, and cigarettes that are flavoured, coloured, or sweetened.<sup>20</sup> Smokeless tobacco and ENDS was also banned in 2016 with substantial fines for use.

### **Taxation measures**

Tobacco tax in Sri Lanka is governed by the Tobacco Tax Act. Tobacco tax is a major source of government revenue - in 2016, government revenue from tax on cigarettes was LKR 88.8 billion, an 11% increase compared to the previous year.<sup>21</sup> In September 2016 cabinet approval was obtained for a 74% increase in tax on cigarettes (a 15% increase in Value Added Tax on cigarettes and an increase in production tax by LKR 5 per cigarette). The tax imposed on cigarettes was increased from LKR 2000 per kg to LKR 3000 per kg.

In March 2019, the government levied a "Nation Building Tax (NBT)" on cigarette production whereby excise duty

on cigarettes which are more than 60 mm, was increased by 12%, resulting in an increase of Rs.5 per stick on average. The government also indexed excise duty to inflation with a minimum annual increase.<sup>22</sup> This tax revision made taxation on cigarettes in Sri Lanka among the highest in Asia and increased total tax on the most sold cigarette brand to 66.1% of retail price.<sup>23</sup>

Tax rates on alcohol products have been increased in successive budgets. Currently, excise duties contribute to 27% of the total tax revenue in Sri Lanka. In 2016, excise tax on liquor increased (by 14.2%), to LKR 120.2 billion due to upward revision of excise tax rates.<sup>24</sup> In March 2019, excise taxes on beer and wine were raised 12 percent, domestic and foreign styles of alcohol (except special) was raised 8%. Import taxes on wine and beer was raised 10%, and others 7.5%.<sup>22</sup>

The Sri Lankan government spent an average of LKR 75 million per annum to finance the National Authority on Tobacco and Alcohol between 2018 and 2019 (See Table 1).

### **Sugar reduction measures**

Sugar intake reduction has been a priority for health officials in recent years given its role in the high prevalence of diabetes, which afflicts nearly 8% of the population. In 2016, the Ministry of Health introduced Food Colour Coding Regulations to enable consumers to make an informed choice about sugar content in beverages. The regulations mandate makers of sweetened beverages to indicate the sugar content of different products visually on the packaging through a traffic light system (TLS) with three scales based on the level of sugar contained in them high (red, over 11g of sugar/ 100ml), medium (amber- 2-11g/100ml) and low (green - less than 2g/100ml). The private sector responded within a relatively short period of time reducing the sugar content in sweetened beverages to at least less than 11g of sugar/100 ml so that a red colour code would not deter consumers from buying their products.<sup>16</sup>

A sugar tax was introduced in the National Budget and implemented from late 2017. The sugar tax is levied on sweetened carbonated beverages which has sugar over 6 g/100ml. Each gram of sugar above this level is taxed at 50 cents per gram per 100ml. This tax resulted in 30-50% increase of prices of sugar sweetened beverages. As a result of the sugar tax, the demand for sweetened carbonated beverages dropped by a significant margin in 2017 an indication that the higher prices have pushed away consumers. Food and beverage firms like Ceylon Cold Stores (CCS) and Nestlé Lanka recorded a significant

drop in earnings following the imposition of the tax. CCS saw earnings for the quarter ending December 31, 2017 drop 32%. The company cited the sugar tax and discretionary consumer spending as the cause.<sup>25</sup> This has led to resistance from the industry and a downward revision of some of those taxes (See 8.5).

Independent of fiscal, legislative and regulatory approaches: (i) the Ministry of Health is in the process of implementing a communication for behavioural impact plan to reduce the consumption of SSB among school children; and (iii) an awareness programme for the school children is being carried out by the Medical Officers at local level.<sup>4</sup>

### **Other healthy diet regulations**

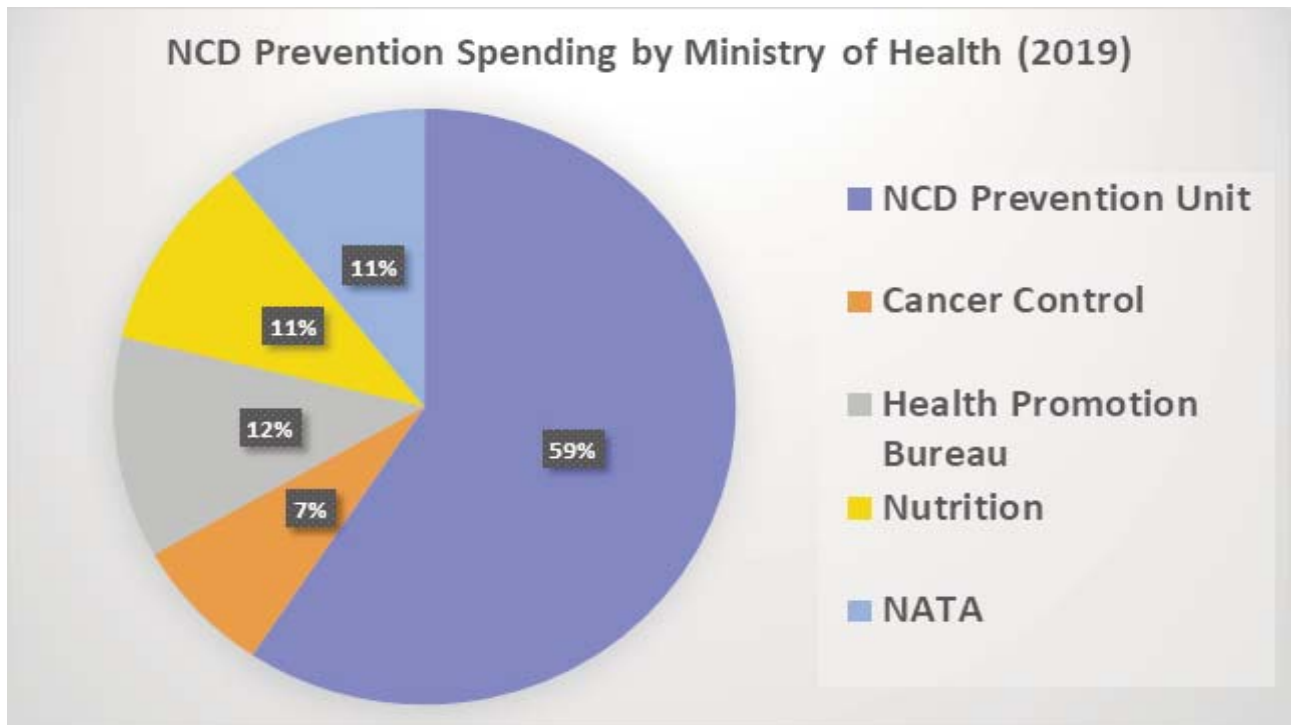
Interventions for healthy diets are led by the Nutrition Division of the Ministry of Health as well as the Food Control Administration Unit in the Department of Environmental and Occupational Health. While diet-related interventions are yet at an early stage, a number of important steps have been taken. Efforts are underway to expand the TLS labelling system to other food products. The Food Control Administration Unit has initiated a legal process for mandatory inclusion of a nutrition panel on processed food packages that will indicate the content of salt, sugar, and other nutrients of the food item. Plans are also underway to mark processed food items with recommended levels of salt, sugar, and fat, with a special logo.<sup>16</sup>

The government launched a national salt reduction strategy (NSRS) in 2018 with the overall aim of a 30% reduction in mean population intake of salt/sodium by 2025 from its baseline of 10.5g/day. Guided by the SHAKE technical package of WHO, the NSRS calls for better surveillance, implementation of an effective behaviour change communication and mass media campaign, harnessing food industry to reformulate food products to contain less salt, adopting a front of pack labelling system and establishment of a supportive environment in the community for reduced salt consumption. Negotiations are underway with food manufacturers on reducing salt in processed food and implementing the TLS labelling system.

The process for eliminating trans-fats has also begun, with trans-fat regulations developed and equipment purchased to test trans-fats on commonly consumed food items. The Nutrition Division of the Ministry of Health has also developed food-based dietary guidelines with recommendations about sugar, salt, and dietary intake. School based programmes on healthy diets have been conducted in all districts. Several TV commercials on

**Table-1:** NCD prevention and health promotion spending by MoH, Sri Lanka (2018, 2019)<sup>29</sup>

Area	Strategy	Estimated cost (LKR million) 2019	Estimated cost (LKR million) 2018
NCD Prevention Unit	<b>Total</b>	<b>557</b>	<b>1,017</b>
	Primordial (child, youth) prevention	46	401.5
	Advocacy	3.50	37.5
	Prevention infrastructure	24	195.5
	Health promotion and risk reduction	385	200
	Health systems strengthening for early detection & management of NCDs and risk factors	42.50	-
	Capacity building	6.50	-
	Monitoring and evaluation	12.50	4
	Secondary prevention	37	-
	National level programme strengthening	-	9.5
	Community participation & intersectoral coordination	-	169
Cancer control (prevention)	<b>Total (prevention)</b>	<b>69.75</b>	<b>14.6</b>
	Cancer Prevention advocacy	1.45	0.15
	Health education	65.10	12.85
Health Promotion Bureau (NCD activities)	<b>Total (NCD activities)</b>	<b>112.82</b>	<b>64.58</b>
	Health outcome improvement	0.67	32.25
	Health promotion setting development	43.5	-
	IEC Material development	4.30	-
	Equipment for health promotion bureau	1.50	-
	Advocacy	0.55	2.1
	District capacity building	1.80	-
	Communication training for health staff	27.22	8.22
	Community participation for health promotion	6.84	5.3
	Health promotion programme strengthening	17	9.19
	Monitoring and evaluation	9.44	7.52
Nutrition Division	<b>Total</b>	<b>99.36</b>	<b>105.80</b>
	Health outcome improvement	45.46	44.15
	Nutrition infrastructure improvement	39.1	42
	Advocacy	3.50	5.3
	Nutrition health education	5	11.4
	Community participation	0.80	0.55
	National programming	4.65	0.9
	Monitoring and evaluation	0.85	1.5
National Authority on Tobacco and Alcohol (NATA)	<b>Total</b>	<b>100</b>	<b>50</b>
<b>Total NCD prevention and health promotion spending (MOH)</b>		<b>938.93</b>	<b>1251.98</b>



**Figure-3:** Breakdown of NCD prevention spending, MOH Sri Lanka (2019)<sup>30</sup>

diet and physical activity have been aired during past few years. A comprehensive mass communication campaign on healthy diets, including salt, sugar, trans-fats and other forms of unhealthy consumption has not yet been carried out.

### Spending on prevention

According to the Ministry of Health's Annual Action Plans for 2019 and 2018, the government health budget for the year 2019 was about LKR 187.5 billion compared to LKR 160 billion Sri Lankan Rupees in 2018.<sup>27,28</sup> In both budgets, the vast bulk share of public health expenditure over 90% was channelled to meet curative care expenditure. The bulk of recurrent expenditure is for the payment of salaries and wages of health care staff (54.9%) and for purchase of medicines (33.7%).

In 2019, the government allocated a total of LKR 938.93 million for NCD prevention and health promotion which amounts to 0.5% of the total health budget, whereas in 2018, the government allocated LKR 1,251.98 million, which amounts to 0.78% of the health budget (Table 1).

In 2019, out of the LKR 938.93 million for NCD prevention, LKR 557 million was for the NCD Prevention Unit, LKR 69.75 million for Cancer prevention, LKR 112.82 million for NCD-related spending by the Health Promotion Bureau, LKR 99.36 million for the Nutrition Division, and LKR 100

million for the National Authority on Tobacco and Alcohol (NATA). In 2018, out of the LKR 1,251 million for NCD prevention, LKR 1,017 million was for the NCD prevention unit, LKR 14.6 million for Cancer prevention, LKR 64.58 for NCD-related spending by the Health Promotion Bureau, LKR 105.80 for the Nutrition Division, and LKR 50 million for NATA.

### Discussion

Sri Lanka has laid a robust public health foundation to tackle NCDs, with multiple policies, programmes, actions to undertake NCD prevention. Its efforts have led to considerable success in some areas such as tobacco control and primary prevention, while less so in others areas like unhealthy diets and alcohol use. The following sections summarize some key themes that illustrate the key themes, lessons and challenges from Sri Lanka's experience that are instructive for the debate on prevention efforts and their financing. These pertain to issues of budgetary priorities, NCD control through primary healthcare, reduction of tobacco and alcohol use, institutional stewardship for NCD prevention and health promotion, political leadership, revenue mobilisation via excise taxes, physical inactivity reduction and salt and processed food regulation.

### Financially prioritising prevention and primary care

Despite the demonstrable cost-effectiveness of

preventive interventions, NCD prevention still remains under-served in terms of financial prioritisation. Despite an array of NCD prevention and health promotion interventions, the vast bulk of funding still goes to curative care interventions, while NCD prevention still continues to account for less than 1% of total public spending on health per annum. According to health officials interviewed, "prevention is less of a financing priority because its results are often intangible and difficult to witness at the level of constituencies who tend to demand better facilities and services." Hence, though the Sri Lankan government has been proactive in policy formulation, funding for the prevention of NCDs has not been prioritised at the national or county levels, with resulting gaps in regulation, surveillance, monitoring, research and mass communication.

### Anchoring prevention in primary care through HLCs

Health Lifestyle Centres (HLCs) are a cornerstone of Sri Lanka's efforts to prevent and control NCDs. The number of HLCs in Sri Lanka has grown from 126 in 2011 to 826 in 2016 and the percentage of the targeted population targeted screened increased from 2.5% in 2011 to 25% in 2016 (Table 2). HLCs have been the anchor for population-level prevention efforts as well, through multi-stakeholder partnerships for health promotion and healthy lifestyles. The HLC experience shows that reorganisation of primary healthcare is a cost-effective way to ensure prevention and care for NCDs - the incorporation of HLCs at the primary health care level improved accessibility to preventive services for the public.<sup>3</sup> Comparative studies on NCD services with other LMICs have indicated that a greater proportion of Sri Lankan primary healthcare units have NCD services and medicines in comparison.<sup>31</sup>

According to health officials, "political commitment and support from the highest level of government have been instrumental in driving the success of this initiative." Collaboration with multiple stakeholders like the World Bank and JICA for training and funding support has also been a vital ingredient in building the capacity of the HLCs. "Capacity building of primary health staff through training programmes has been critical to optimise their functioning."

**Table-2:** Number and services of HLCs in Sri Lanka, 2011-2016.

Indicator	2011	2012	2013	2014	2015	2016 (1st quarter)
Total no. of HLCs	126	420	672	760	814	826
% of MOH areas in a district with two or more healthy lifestyle centres a	—	—	56	69.5	77.8	79.6
Cumulative % of the target population (aged 40-65 years) screened b	2.5	3.8	12.7	19.9	23.1	25.5
Ratio of men: women screened a	—	—	2.6:7.3	2.9:7.1	2.8:7.2	2.9:7.1

HLC: Healthy Lifestyle Centre, MOH: Medical Officer of Health, a Data not available for 2011 and 2012.,b Target population is nearly 25% of the country population. Source: Mallawaarachchi et al. WHO South-East Asia Journal of Public Health 2016; 5(2): 89-95

However, financing for primary healthcare, where HLCs and other NCD prevention interventions are anchored, remains a challenge. Primary healthcare centres receive just 15% of the health budget, with the bulk going to secondary and tertiary hospitals.<sup>16</sup> In order to improve NCD outcomes, aside from increased funding for NCD prevention, primary health care needs to be strengthened and consideration need to be given to allocating resources across programmes, facilities, districts, and provinces based primarily on need.

Other challenges include the under-utilization of screening services by men, weak staff adherence to protocols and shortage of human resources.<sup>32</sup> The government plans to address this under-utilisation of screening services, within the context of the NMSAP on NCDs 2016–2020. Key interventions include extended opening hours for HLCs as well as outreach activities in workplaces and integration with well woman clinics.<sup>32</sup>

### Protecting and building on tobacco control gains

Sri Lanka's tobacco control policies have gradually increased in stringency and have resulted in some success with tobacco smoking decreasing in incidence over the past decade, though not significantly and still less than targets (Figure 6). The most promising successes have been in the areas of warning labels and sale restrictions. Taxation is also at relatively high levels compared to other Asian countries at 62% of retail price; however, the price of cigarettes in the country still remains below a level that would significantly affect their affordability. In order to reduce tobacco consumption, the National Authority on Tobacco and Alcohol is negotiating with the Government to introduce a taxation formula and schedule which reduces affordability, by keeping in step with the increase in the per capita income and the purchasing power of the population.

Health officials say they are currently revising tobacco control legislation to ensure full enforcement of smoke-free environments in all indoor workplaces, public places and public transports.

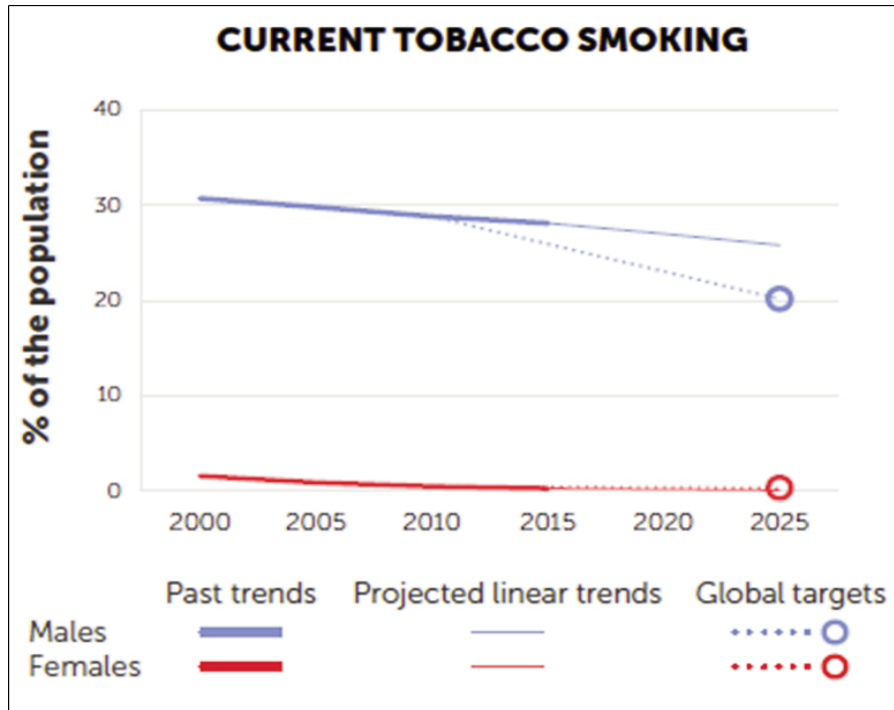


Figure-6: Tobacco smoking in Sri Lanka (WHO 2019)

Enforcement still remains a major concern. Sri Lanka’s powerful and profitable tobacco industry has consistently interfered with the government’s policies for tobacco control. The regulations on 80% pictorial health warnings introduced by the Ministry of Health were litigated in court by the Ceylon Tobacco Company, delaying their implementation by three and a half years. The industry also violates existing regulations, including through point-of-sale advertising and promotion, strategic targeting of youth and women in marketing campaigns

and influencing communities via retailers and Corporate Social Responsibility based activities.<sup>33</sup> The industry also interferes in multiple covert ways by lobbying policy makers, disguised promotion under Corporate Social Responsibility activities, organising tobacco farmers as pressure groups, and bribing the retail sellers with unauthorised incentives.

In June 2016, Sri Lanka launched the Centre for Combatting Tobacco (CCT), a Framework Convention on Tobacco Control tobacco industry observatory. The remit of this Centre is to monitor tobacco industry interference and disseminate information on tobacco industry violations of the Framework Convention on Tobacco Control Article 5.3 (pertaining to industry interference). In August 2017, the new Centre initiated the first ever public hotline, giving public the opportunity to report violations of Article 5.3.<sup>16</sup>

The National Authority on Tobacco and Alcohol is also supporting the establishment of smoke-free villages and towns using a multi-sectoral approach. Among the key priorities for the coming years is a planned nationwide Tobacco Quit Programme. A tobacco quit-line first established in 2010 was expanded in 2017, with a network of trained counsellors and mental health specialists to provide advice and supervision. Preparations, including

### Alcohol per capita (15+) consumption (in litres of pure alcohol)

	2010*		2016*	
Recorded	2.5		2.7	
Unrecorded	1.5		1.6	
<b>Total**</b>	<b>4.0</b>		<b>4.3</b>	
Total males / females	7.0	1.1	7.7	1.2
WHO South-East Asia Region	3.5		4.5	

\* Three-year averages of recorded and unrecorded for 2009–2011 and 2015–2017; \*\* adjusted for tourist consumption.

Figure-5: Per capita alcohol consumption in Sri Lanka (2010-2016).<sup>35</sup>

training of health personnel are also underway to provide support for smoking cessation through Healthy Lifestyle Centers.<sup>16</sup>

Further actions that are necessary include research and action for alternative livelihoods for tobacco farmers, who are often the biggest casualties of tobacco control efforts (and consistently mobilised by the industry) and need to be supported to transition away towards healthier crop alternatives.

### **The challenge of curbing alcohol**

Alcohol continues to present a major challenge for Sri Lanka, and research indicates that alcohol consumption per capita has increased drastically since the end of the Civil War in 2009, particularly for beer.<sup>34</sup>

According to officials interviewed, *“one of the main issues in the way of effective regulation is inadequate capacity to enforce existing alcohol regulations.”* While excise officers *“have the authority to enforce regulations, they are relatively few in number compared to police, who do not have regulatory authority.”*

Adequate taxation of alcohol remains a huge problem and tax increases are often threatened by collusion between policymakers and the industry. In October 2018, the Ministry of Finance unilaterally reversed a recently increased tax on beer, to a tax based on concentration and type of liquor, which practically led to a significant reduction (around 40%) in beer prices in Sri Lanka.<sup>34</sup> However, after criticism from the National Authority on Tobacco and Alcohol (NATA) and sustained pressure from civil society, the government decided to raise taxes again and index alcohol taxation to inflation in 2019. Continued transparency in alcohol policy and increased impetus for enforcement from regulators and civil society will be crucial to reverse the growing tide of alcohol consumption in Sri Lanka.

Consumption of illicit alcohol is also a significant problem. It is estimated that about 65% of the total alcohol market in Sri Lanka is illicit.<sup>37</sup> Illegal alcohol industry deprives the government of tax revenue and thrives due to corruption and political patronage. The Excise Department conducts regular raids to control unlawfully manufactured liquor. Recently a Legal Division has been established under the direct supervision of the Commissioner General of Excise to strengthen legal action against violations of the Excise Ordinance.<sup>16</sup>

### **Institutional commitment to NCD prevention**

The government’s establishment of dedicated institutions for NCD prevention and health promotion – such as the NCD Prevention Unit and the Health Promotion Bureau – has been key to the development of its NCD response.

Ensuring sufficient dedicated personnel and a comprehensive legal framework for prevention-specific national institutions have enabled strong central stewardship for population-level NCD prevention. This high level of institutional commitment distinguishes Sri Lanka from other LMICs as well – a policy review of institutional capacity for the prevention and control of NCDs in seven Asian countries found that Sri Lanka had the highest number of full-time professional staff at its dedicated NCD Unit in the Ministry of Health, even compared to much larger countries like Vietnam and Indonesia.<sup>31</sup>

These institutions have enabled the multi-sectoral Health-in-all-Policies approach by forging partnerships for health promotion with other government ministries (like Education and Environment) and local authorities, and mobilising schools, workplaces, and communities to establish health promoting settings. They have developed and maintained budgeting and information systems about NCD prevention and risk factors, something that is often neglected in other LMICs. They have also helped build the capacity of government officials in healthy lifestyles and health promotion, enabling them to play a more effective role within their own functions. The key obstacle to the further effectiveness of these institutions remains an absence of adequate financing that could enable them to engage in broader population outreach.

### **Political and civil society leadership amid industry pressure**

While Health ministries in multiple countries have pushed for regulations and taxes on unhealthy products, Sri Lankan officials interviewed say this has been made possible in Sri Lanka by the commitment of political leadership that resisted to push through effective and well-framed regulations and tax measures that has enabled private sector compliance for public health. Similarly, in periods where political leadership has been lacking or disinterested in public health, industry has managed to push back against necessary tax or regulatory measures.

In the case of tobacco, the Sri Lankan government at the time was able to withstand sustained legal and political pressure from the tobacco industry on the issue of pictorial health warnings. Despite a longstanding legal challenge from 2012 to 2015 and an unfavourable court ruling from the Court of Appeal in 2014 that reduced the size of the health warning on packs, the government persisted and passed legislation to ensure the proposed 80% warning could be enacted. Similarly, Sri Lankan President Sirisena took Nestle head on when he publicly

asked the multinational to reduce sugar content in its beverages.

The case of the tax on sugar-sweetened beverages (SSBs) is instructive about the dangers of an absence of political commitment to public health. Having been passed in the 2017 budget, the sugar tax had led to drastic reductions in food and beverage industry revenues. Following a period of political instability after the dismissal of the sitting Prime Minister in October 2018, the food and beverage industry took advantage of the political vacuum and successfully managed to lobby for a downward revision of the sugar tax in December 2018. Following a meeting of industry representatives with the new Prime Minister, the Sri Lankan Ministry of Finance doubled the tax exemption on carbonated drinks to 4g/100ml of sugar from the earlier 2g/100ml, and reduced the tax per additional gram to 30 cents from 50 cents. This was seen by many as a populist and undemocratic move not in keeping with government commitments or objective public health advice.<sup>38</sup>

Resisting industry pressure will continue to be a test for governments in Sri Lanka and other LMICs in the coming years, as measures to reduce consumption of unhealthy products affect the profits of the industries that make those products. Political leadership and commitment to public health within government will be essential for ensuring health gains are not reversed. For civil society advocates, this points towards the need for cultivating political champions for health reform who can become flag bearers for the NCD prevention agenda. For government, steps need to be taken to institutionalize civil society oversight for health and NCD policies and include representatives in decision making bodies.

### **Earmarking excise taxes for health**

Excise taxes have been used as a policy mechanism to curb consumption of unhealthy goods in Sri Lanka. While helping limit unhealthy consumption, excise taxes also make up a significant portion (27%) of tax revenues in Sri Lanka. Excise taxes on cigarettes and alcohol alone make up over one fourth of excise tax revenue – close to LKR 100 billion annually. However, this revenue goes into the broader revenue pool and none of it is earmarked for health.

The UN Interagency Taskforce on NCDs has recommended to the Sri Lankan government to establish a fund for health promotion with revenue earmarked from tobacco and alcohol excise taxes.<sup>4</sup> Multiple countries around the world – from Jamaica to Tonga – have used this model to great effect, whereby taxes on unhealthy products are channelled into dedicated funds

for health promotion that create fiscal space for prevention efforts. Earmarking even 2% of excise tax revenue from alcohol and tobacco could triple the spending on NCD prevention and health promotion from its current level of about LKR 1 billion. This simple fiscal measure could greatly enhance the space for NCD prevention in Sri Lanka in the short term.

Examples of potential programmes and policies that could be supported by earmarked tax revenue in Sri Lanka include: an integrated health communication campaign to promote healthy diets and physical activity; subsidising fruit and vegetable snacks in schools; promoting implementation of school gardens as a learning tool and to improve access to fruits and vegetables.<sup>39</sup>

### **Physical activity campaigning**

Physical activity promotion is one area of health promotion where progress has been relatively slow and this is reflected in declining levels of physical activity among adolescents and adults. While physical activity promotion is part of the menu of interventions in the healthy settings approach in schools, workplaces, and communities, a more comprehensive and dedicated countrywide campaign is needed to help the public understand that physical activity is essential for good health and identify and facilitate easy ways through which it can be undertaken within daily routines (including walking, running, cycling, sports and other forms of recreation). Other countries have experimented with national health promotion campaigns like Jamaica Moves or Health Japan 21, which encourage physical activities as well as healthy diets and lifestyles. Communities could be mobilised for such a campaign through social marketing and mass media campaigns, which have been relatively under-financed in NCD prevention efforts in Sri Lanka so far.

### **Addressing salt & processed food consumption**

Salt intake remains a major health challenge in Sri Lanka, which is fuelling high levels of hypertension as well as kidney disease, stomach cancer and iodine-induced hyperthyroidism (because of high levels of iodine in commercialized salt products). According to health officials interviewed, *“Sri Lanka’s salt reduction strategy is in its early stages of implementation and negotiations are underway to reformulate iodine levels and salt levels in processed foods.”* However, the success of the strategy hinges on the knowledge and attitudes of the population and low levels of population awareness about salt intake and its many health dangers remains a problem. A 2020 study found that a majority of Sri Lankan adults were not adequately aware of the recommended daily salt consumption (5 g/day) and most believed that

they consumed just the right amount of daily salt, despite evidence to the contrary. The study further found that while the vast majority of adults were aware about the link between high salt intake and hypertension, most did not know about its associations with kidney disease and stomach cancer.<sup>26</sup>

These findings indicate that implementing a comprehensive behavioural change communication strategy on salt education will be critical for salt reduction. The study further found that 75% of adults and adolescents use television as their main source of health information, indicating the medium of communication authorities need to use for campaigning.<sup>39</sup>

Other priorities for salt reduction need to include implementation of mandatory food labelling and nutrition facts on food products, mechanisms for monitoring salt iodisation, surveys for estimating salt intake using a 24-hour urinary sodium excretion sample, and generating data on main sources of salt/sodium in the diet to inform regulations.

## Conclusion

Since the start of the millennium, Sri Lanka has taken some far-sighted policy steps to deal with its epidemiological transition to NCDs and many of these provide lessons for other developing countries in South Asia and around the world that are struggling to deal with their own emerging NCD crises. At the same time, the NCD burden and many of its associated risk factors are still growing and its spending on prevention continues to be a fraction of its overall health spending.

Sri Lanka's NCD response is anchored around its multi-sectoral action plan (the NMSAP 2016-2020), which is an excellent example of concrete policies anchored in prevention, a focus on risk factor reduction rather than isolated disease control programmes and a collaborative set of actions that involve all of government and society. Unlike many other NCD plans in LMICs, the NMSAP is also costed in detail, which has been useful for enabling its implementation.

Despite clarity and far-sightedness in policymaking, financing for NCD prevention remains a challenge. Sri Lanka's public health financing remains dominated by curative interventions, and despite an array of NCD prevention initiatives, financing for those interventions remains below 1% of the government health budget despite the enormous cost-effectiveness of prevention efforts. This is a major gap in Sri Lanka's NCD policies that needs to be rectified through an evidence-based prioritisation of interventions that enable massive cost-

savings in curative care.

One potential source for added financing for NCD prevention and health promotion could be excise taxes, which contribute over a quarter to Sri Lanka's revenue pool. Taxes on alcohol and tobacco (and increasingly, sugar) contribute a large proportion of excise taxes but no effort to earmark them for health spending – as has been done in multiple other countries – has yet been considered by the government. Allocating a small proportion (1%-2%) of excise taxes on tobacco and alcohol for health promotion could give a considerable boost to NCD prevention financing in the country.

The implementation of Sri Lanka's NCD policies have been helped by the presence of dedicated institutions for NCD prevention and health promotion that have served as the key advocates within government for NCD prevention and health promotion and helped convince other government departments to collaborate on this agenda. They have also led health promotion efforts in communities, which have been key to developing population-level awareness of diet and activity-related risk factors. The presence of these institutions also enables information management and surveillance of prevention and risk factor variables. However, adequate financing for these institutions remains a challenge and creating space for cost-effective fiscal expansion needs to be explored.

Healthy Lifestyle Centres (HLCs) to improve screening and prevention of NCDs at the primary health care level have been a cornerstone of Sri Lanka's NCD response and the growth in the number of HLCs as well as their targeted population is a testament to their success. They have enabled the anchoring of NCD prevention and early detection at the primary healthcare level and enabled widespread availability of NCD screening, services, and medicine in remote areas. They have also enabled an expansion of community health promotion interventions. Key priorities for HLCs in the coming years are increased financing, enhanced targeting and screening of men, and increase in induction and training of human resources.

Tobacco continues to enact a severe health and economic toll on Sri Lankan society. Sri Lanka has made progress on tobacco control and has enacted a series of regulatory steps to restrict sales, ban public smoking and advertising and institute large warning labels on packs, actions that have led to a gradual, if slow, reduction in tobacco use. The establishment of NATA has been an important part of these efforts and the Authority continues to be a strong voice for reducing the harm caused by these tobacco and alcohol. Sri Lanka's tobacco taxes which have been

gradually increased over time are also among the highest in Asia. However, cigarettes are still affordable for the majority of people, and interference and regulatory violations by the industry, as well as economic and employment concerns related to the tobacco industry, has continued to limit efforts to raise prices further. Ensuring taxes are transparently raised in line with inflation, enforcing existing restrictions on smoking and its marketing need to be priorities going ahead.

Sri Lanka has had less success with alcohol regulation, and alcohol consumption has steadily increased since the end of the Civil War and a decade of rapid economic growth. Gains in taxation measures have come under threat from collusion between policymakers and the industry, and taxes continue to be far from commensurate with the aim of reducing consumption. Illicit alcohol consumption also continues to account for a large part of alcohol trade and continues to proliferate, especially when alcohol taxes are increased. A lack of regulatory capacity among the excise department continues to be a challenge.

High salt intake contributing to high levels of hypertension and other disease continues to be a major public health challenge which the government is taking on through a new salt reduction strategy. Studies have indicated that the majority of the public is still not aware of recommended levels of salt intake and most appear to be unaware that they are consuming more than the recommended amount daily. Reformulating salt-heavy products and implementation of a behavioural change communication strategy anchored in televised messaging needs to be a key priority in the coming years. Traffic light warning labels and nutrition facts are another food regulation priority that can have a significant impact on consumption.

Physical inactivity continues to be a challenge, reflected in growing prevalence of sedentary habits among young people. The government's efforts to promote physical activity have been anchored in the Health Promotion Bureau's healthy settings approach in schools, workplaces, and communities. While this has been effective to an extent, Sri Lanka still lacks a countrywide campaign for physical activity promotion, as has been implemented in other countries facing similar problems. Models like Jamaica's 'Jamaica Moves' or Japan's 'Health Japan 21' can be explored for socially and culturally appropriate implementation in Sri Lanka's context.

Sri Lanka's experience is instructive about the importance of political leadership and commitment in the fight for NCD prevention. In periods where there has been visible political commitment to the NCD prevention agenda

from the country's political leadership, comprehensive policy and regulatory frameworks have been adopted, including for tobacco and sugar, which have pushed down unhealthy consumption. At the same time, in moments of political instability and disinterest towards regulation, industry lobbying has managed to push back against regulatory steps to protect their interests. Ensuring the presence of political support for the NCD agenda in the face of private sector resistance to regulation will continue to be a major challenge in the coming years.

### Recommendations

1. Allocate a greater proportion of resources towards prevention and health promotion that can enable the health system to tackle the shifting disease burden.
2. Strengthen primary health care through instituting need-based resource allocation across programmes, facilities, districts, and provinces.
3. Address under-utilisation of screening services by men by expanding HLC opening hours and engaging in outreach activities through HLCs.
4. Introduce tobacco and alcohol taxation formulae and schedule which reduce affordability by tying tax increases to inflation and the purchasing power of the population.
5. Undertake research and policy action for developing alternative livelihoods options for tobacco farmers.
6. Strengthen financing of NCD prevention and health promotion through earmarking a portion of tobacco, alcohol and sugar-sweetened beverage (SSB) taxes for a health promotion fund that engages in population level outreach and local projects.
7. Institutionalise civil society oversight over health and NCD-related policies to guard against industry interference.
8. Initiate a comprehensive and dedicated countrywide physical activity campaign for the public and identify and facilitate easy ways through which it can be undertaken within daily routines (including walking, running, cycling, sports and other forms of recreation).
9. Implement a comprehensive behavioural change communication strategy on salt, sugar, trans-fats and other forms of unhealthy consumption that employs television and other forms of social and community media.

10. Implement mandatory food labelling and nutrition facts on food products, salt iodisation, and generation of data on main sources of salt/sodium in the diet to inform salt regulations.

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