

Trends in Non- Communicable Diseases in Sri Lanka

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Introduction

In general there are two types of diseases, communicable diseases (CD) and non communicable diseases (NCD). Communicable diseases are diseases which spread by organisms, like bacteria, viruses, fungi and spirochetes (Athukorala, 2016). Some examples for CDs are Malaria, Dengue, Cholera, Tuberculosis, Encephalitis and Urinary tract infections. NCDs are the diseases which do not spread by organisms and occur due to some imbalance or activity problems in human physiology or anatomy. Some examples for NCDs are Chronic Heart Diseases, Diabetes Mellitus (DM), Hypertension and Bronchial Asthma. Among these NCDs, DM is a common and a problematic condition for the humankind. DM can go unnoticed and undiagnosed for years. It can lead to serious complications and even to death. Examples for some complications are; Coronary Heart Diseases and strokes, Diabetic Retinopathy, Diabetic Neuropathy and Renal Failure.

Non-Communicable-Diseases (NCD) is a medical condition or disease which is non- infectious (Athukorala, 2016). The prominent characters of these diseases are long duration and slow progression. Diabetes, Hypertension, Heart disease (Ischemic heart disease and Myocardial infarction), Stroke (Cerebro-vascular accidents), Neoplasms, Dyslipidaemia, Chronic kidney disease, chronic respiratory conditions are the key conditions in NCD. All these conditions require long term

management. World Health Organization declares NCDs possess the highest mortality rate among all other diseases globally which is equally applicable to Sri Lankan context. Nearly one in five people die prematurely due to NCDs (World Bank 2011).

There are a list of risk factors for NCDs in which majority of them are modifiable. Low physical activity, stress, bad food habits, use of alcohol and smoking, are among them. NCD's are easily preventable by changing sedentary life style and food habits as well as by cessation of smoking and alcohol use. According to the new report (WHO and World Bank) the NCDs have already become the largest disease burden (85 % ill health and premature death) in Sri Lanka. As per the available statistics, it shows that considerable proportion of population is suffering from these diseases. This might affect badly for their livelihoods as well as Sri Lankan economy.

National Sleep Foundation has carried out a survey in America in 2003. They have revealed that 83 % of the respondents reported one or more of 11 medical conditions such as depression, heart disease, bodily pain and memory problems were associated with more prevalent symptoms of insomnia. Other conditions such as obesity, arthritis, diabetes, lung diseases, stroke and osteoporosis were associated with other sleep-related problems such as breathing pauses, snoring, daytime sleepiness, restless legs or insufficient sleep (<6 h nightly). The Department of Census and Statistics has conducted a similar survey in 2014 namely National Survey on self-reported health.

Objectives

This study investigates the recent trends of chronic non-communicable diseases in Sri Lanka. It is clear that choices and decisions about today's healthcare environment is extremely complicated as increasing health care costs; limits on health care resources, changing reimbursement patterns and debate over the effectiveness of health care treatments. Therefore, a study of this nature helps to develop a program which enables to minimize increasing trend of NCD in Sri Lanka.

Methodology

In this article, we referred nationally available and reliable data from the Department of Census and Statistics of Sri Lanka. In addition annual Health Bulletins of Department of Health of Sri Lanka which are published annually were used to gather data on NCDs mainly on Diabetes, Hypertension, Heart diseases and Neoplasms (cancers). We have also conducted informal interviews with key informants in Health Planning Unit at the Ministry and Provincial Health Offices to gather information. The data gathered were analysed as per the impact on environmental, economically and socially. Finally, the root causes were identified and suggested solutions to reduce the number of cases reported in NCDs discussed here

Results and Discussions

Each year, non-communicable diseases (NCDs) cause more than 36 million deaths worldwide, representing around 63 per cent of all mortality. Four categories of NCDs are responsible for more than 80 percent of NCD deaths globally: cardiovascular diseases, cancers, diabetes and chronic respiratory diseases(United Nation Report,2012). The burden of non-communicable diseases (NCDs) is increasing in Sri Lanka largely due to prevalence of various risk factors, which can be controlled.

According to the United Nations Report on NCD(2012) as populations age, NCDs cause a growing proportion of all deaths. Rapid reductions in fertility combined with improvements in survival lead to population ageing, wherein an increasing proportion of the population is concentrated among older age groups (United Nations Report, 2012). Because susceptibility to NCDs increases with age, populations with older age structures tend to experience a greater share of deaths due to NCDs compared to populations with very young age structures where communicable diseases such as pneumonia and diarrhoeal diseases disproportionately affect children and produce a large burden of mortality (United Nations Report, 2012). Therefore, trend of the age

structure of Sri Lanka were analyzed first in this study and it is given in Table 1.

Table 1: Percentage distribution by population by age group

	Age 6-14	Age 15-59	Age 60 and above
1911	40.9	54.8	4.4
1946	37.9	57.4	5.4
1971	39	54.7	6.3
1981	35.2	58.2	6.6
2001	26.3	64.5	9.2
2012	25.2	62.4	12.2
2015	25.2	62.4	12.4

Source: Department of Census and Statistics in Sri Lanka

By observing above figures, in 1911, the percentage of child population was 40.9 while percentage of elderly population was 4.4. In 2015 the percentage of child population was 25.2 and percentage of elderly population was 12.4 which shows three fold increment. It is evidenced that the elderly population is increasing gradually and the proportion of youngsters is decreasing in the country. Differences in population age structure mask the disproportionately high risks of NCD mortality experienced in the developing regions. Exposures to risk factors that accumulate over the life course such as tobacco use, unhealthy diets, physical inactivity and harmful use of alcohol of elder group which is likely to be higher can increase the risk of morbidity and mortality due to NCDs in this group.

Table 2: Life expectancy at birth in Sri Lanka

	Male	Female
1920-1922	32.7	30.7
1945-1947	46.8	44.7
1955	57.6	55.5
1962-1964	63.3	63.7
1970-1972	64.2	66.7
1980-1982	67.2	72.9
2001-2002	68.8	76.2
2011-2013	72.0	78.6

Source: Department of Census and Statistics in Sri Lanka

These figures indicate gradual increase in life expectancy at birth since 1920 to 2013. This is mainly because development of quality of health care service as well as the increasing literacy of the people in the country. This shows significant high figure of female life expectancy than men. Increasing life expectancy and good health services of country in turn has an impact on increasing elderly population in Sri Lanka (Demographic transition). As NCDs are common among elderly population this has a great impact on trends in non-communicable diseases.

Table 3: Trends in hospitalisation of selected non-communicable diseases 2005-2014 (No of hospitalisation per 100,000 population)

	2004	2005	2006	2007	2008	2009	2010	2012	2013	2014
Diabetes	231	246	265	296	307	296	343	357	411	394
Isch. heart disease	341	336	353	399	427	423	450	478	494	506
Hypertensive disease	444	413	429	480	469	466	438	476	486	489
Neoplasm	301	282	289	329	359	368	403	470	492	484

Source: Annual health bulletin Sri Lanka -2015

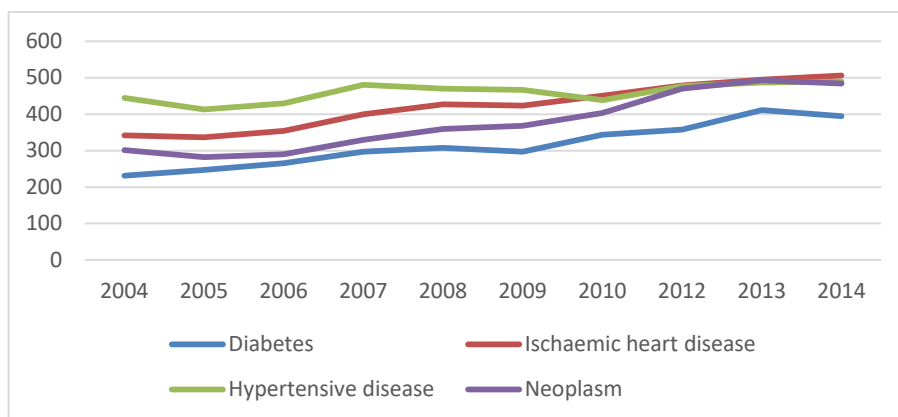


Figure 1: Trends in hospitalisation –Several NCDs.

This shows gradual increasing pattern of NCDs in the country. Almost all the NCDs has an increasing trend over the time. Out of those, neoplasm (cancers) is increasing in a higher rate. It affects the person itself his family, society and country's economy in several ways. Initially someone who affected by the NCDs has to spend his money for treatment investigations and other interventions (out of the pocket expenditure). And inability to attend their work it affects the individual income too. It directly affects to their families drastically, where the skilled manpower withdrawal from work force in the country affecting productivity (Value of lost productivity due to illness or premature mortality or indirect medical costs). Relatively young people who are directly contribute to development are most susceptible for NCDs. NCDs will increase the fiscal costs of pensions NCDs will increase the costs of long term care of affected individuals (Direct non-medical costs).

The Government has to increase the allocation of funds for health sector annually. This causes increasing the direct and indirect taxes on the society. As Sri Lankan society mainly depend on government health facilities government has to spend a considerable amount of money for treatment as well as rehabilitation of the affected individuals. And also unwanted medicines spread throughout the medical market and addition

of continues usage of medicine and treatments affect all aspects of the society including the social stability, productivity, social capital, investments on other income generating activities, social & cultural activities, education, knowledge sharing as well as losing of foreign exchange.

Conclusion and Policy Implications

According to the Department of Census and Statistics of Sri Lanka, the current population of the country is nearly 2.1 million. During the period of 1981 and 2014, the age composition shows a drastically change. The population below 15 years of age has decreased by 10 percent and population aged 60 years of age and above has increased by 5.8 percent. Accordingly, the population of Sri Lanka seems to be gradually shifting to an aging population. The life expectancy for both male and females in Sri Lanka has been increased during past few decades. Increasing life expectancy as well as shifting to aging population has an impact on increasing number of incidents of chronic non-communicable diseases among the population in Sri Lanka. The older population often gets diseases which are more chronic and costly to cure. As a result, our country faces high health care costs to face this problem. The identified main risk factors are obesity, smoking, high sugar and salty diets and alcoholism. This problem will further rise in future due to further aging of the population resulting doubling of the population over the age of 65 years within next thirty years (World bank report 2015).

Reducing risk factors Tobacco usage and excessive alcohol usage, active life style and improved healthy diet will go for a long way towards healthy life. More effective legislation on the use of tobacco, alcohol and Trans-fat and public education to reduce salt intake would help delay the onset of this diseases. Especially healthy life style clinics all over the country launched a screening and awareness programme to those vulnerable groups. It is very successful. Well-women clinics which are conducted throughout the country do the screening of common cancers of females. These activities are done by national NCD

Surveillance System of Sri Lanka. National Cancer Early Detection Centre is responsible to conduct screening programmes for cancers. This could not be achieved by government alone. General public has the responsibility to change their life styles dietary habits regular health check-ups getting away from stressful lives in order to overcome this problem.

References

Athukorala, W. 2016. Estimating the health cost of climatic change related diseases: A case of Dengue in Sri Lanka. Unpublished Report. Department of Economics and Statistics, University of Peradeniya.

Boutayeb, A. and Boutayeb, S. 2005. The burden of non communicable diseases in developing countries. *International Journal of Equity Health*. 4(1):2.

Ministry of health Sri Lanka-2012-2016. Annual health bulletins National survey on self-reported health in Sri Lanka 2014. NCD-Wellness Sri Lanka.

The World Bank. 2011. Tackling Non communicable diseases in Sri Lanka. National multisectorial action plan the prevention and control of communicable diseases.

Sugathan, T. N., Soman, C.R., Sankaranarayanan and Behavioural, K. 2008. risk factors for non-communicable diseases among adults in Kerala. *India. Indian J Med Res*, 127 : 555-63.

World Health Organization. 2005. WHO STEPS Surveillance Manual: The WHO STEP wise approach to chronic disease risk factor surveillance Geneva: World Health Organization.