

Non-communicable Disease – Bangladesh Perspective

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In the last three to four years, we have experienced the most devastating epidemic of our lifetime which is caused by a communicable disease. But at present worldwide disease prevalence is shifting from communicable to non-communicable diseases. Non-communicable diseases (NCDs), which include cardiovascular diseases, diabetes, chronic respiratory diseases and cancers, have become a global problem accounting for more than 68% of total global deaths. These are also the major cause of disability worldwide.^{1,2} While all age groups are affected by NCDs, these are more common in the older age groups. Shared NCD key risk factors include unhealthy diet, physical inactivity, tobacco use, and harmful use of alcohol. Overweight or obesity, hypertension, diabetes and dyslipidemia are intermediate metabolic risk factors for NCDs. Non-communicable diseases (NCDs) result in significant socioeconomic and health care costs, and are detrimental to sustainable development. Due to their chronic nature; NCDs require long time treatment resulting in significant socioeconomic and treatment costs. While NCDs affect all economic groups, the poor are disproportionately affected leading to a vicious cycle of disease, poverty and non-productivity.³

Unfortunately, almost 85% of the 15 million premature deaths worldwide occur due to NCD in low- and middle-income countries (LMICs).² In Bangladesh, NCDs have become a serious and urgent public health problem and the underlying determinants include globalization and rapid urbanization. Bangladesh is a lower-middle-income country having over 170 million people. It has become a developing country with a rapid growth in economy and urbanization in the previous decades.⁴ As a result, a large number of people are leading a more sedentary lifestyle influenced by the change in dietary habits,

increased supply and demand for unhealthy processed food, and physical inactivity followed by irregularities in mealtimes, smoking, and alcohol consumption altogether increasing the risk for developing NCDs.⁴⁻⁷ Therefore, Bangladesh is one of those low- and middle-income countries that are experiencing an epidemiological transition from communicable to non-communicable diseases.⁸ Bangladesh is now experiencing the third stage of epidemiological transition which is the stage of degenerative and manmade diseases, with large reductions in mortality due to acute, infectious, and parasitic diseases and increases in non-communicable, degenerative, and chronic diseases. In Bangladesh NCDs are now the highest leading causes for morbidity and mortality.⁹ The prevalence of non-communicable diseases is gradually increasing in Bangladesh over the past few decades. According to data from Health and Demographic Survey (HDS) 2000 and the Health and Morbidity Survey (HMSS) 2012 of Bangladesh, the prevalence of cancer has increased from 0.4 per 1000 population to 0.6 per 1000 population. The prevalence of heart diseases has also increased from 1.6 per 1000 to 3.3 per 1000 population. The most significant increase has occurred in the prevalence of diabetes from 2.7 per 1000 population in 2000 to 7.8 per 1000 population in 2012.⁹ On the other hand, the prevalence of communicable diseases is declining or is on the static level more or less and there has been a decline in the prevalence of diarrhea, pneumonia, anaemia, diphtheria over the recent years.⁹ A 2013 national survey revealed that three quarters of the population of Bangladesh was exposed to two or more modifiable NCD risk factors; 5% of the adult population was diabetic and 23% was hypertensive.³ In 2021, NCDs were accountable for 41 million deaths (71% of all deaths), and 77% of deaths occurred in low and

middle-income countries (LMICs).¹⁰ Recent data shows that NCDs accounted for an estimated 70% of total deaths in Bangladesh in 2019. In Bangladesh, 52% of men smoke; 1 out of 5 adults have hypertension. There were about 13.14 million cases of diabetes in Bangladesh in 2021 and an estimated 75,617 deaths were attributed to diabetes in 2021.¹¹ By the year 2030, the number of deaths due to NCDs is predicted to reach 38 million globally.¹²

For prevention of NCDs, exposure to common NCD risk factors should be addressed, such as reducing tobacco use and alcohol use, and promoting physical activity and healthy diet. Early detection of NCDs through a primary health care approach is a high impact intervention. Broad based approaches should include initiatives to encourage physical activity, and health-promoting environments in workplaces, schools and cities. These broad approaches require involvement of the health sector, local governments, urban planning, transport, education, agriculture, and finance, etc.³

The changing pattern of diseases and causes of death are raising new challenges which are essential to provide need based health care delivery to the population.⁹ Currently, the government's health care system has given more importance to the control of non-communicable diseases. World Health Assembly in the year 2000 took global initiatives with the adoption of the Global Strategy for the Prevention and Control of Non-communicable Diseases. It was advocated that Member States of the UN should implement national multisectoral plans to achieve NCD targets by 2025. The Government of the People's Republic of Bangladesh joined the Member States at the UN General Assembly High-Level Declaration on NCDs (2011) as well as the World Health Assembly to commit to the actions and the "Multisectoral Action Plan for Prevention and Control of Non-communicable Diseases, 2018-2025" has been adopted.³ The 4th Health, Population, and Nutrition Sector Development Program (HPNSDP) of Bangladesh allocated an estimated budget of USD 133.0 million in

Non-communicable Disease Control Operational Plan (NCDC-OP) from 2017 to 2022 to strengthen the early detection and management of NCD at the Primary Health Care (PHC) level.¹³

Bangladesh is also a part of other global instruments for implementing NCD prevention and control, such as the WHO FCTC, Global Strategy on Diet, Physical Activity and Health, Global Strategy to Reduce Harmful Use of Alcohol, WHO set of recommendations on the marketing of foods and non-alcoholic beverages to children, including foods that are high in saturated fats, trans-fatty acids, and free sugars. Bangladesh is a signatory to the "Colombo declaration: strengthening health systems to accelerate delivery of non-communicable diseases services at the primary health care level" as well.³

Over the past few decades, the availability and supply of resources, such as the healthcare workforce, technology, equipment, medicine and infrastructure facilities have been increased, which is a critical first step for better managing the NCD burden.¹⁴ However, there are some areas where target is not yet achieved. The National Health System of Bangladesh was reviewed in 2017 to look for medicines that are essential and categorized as generally available to treat major NCDs. It was found that only 5 out of 10 medicines were available at Primary Health Care (PHC) facilities. The study findings revealed that, though doctors, nurses, and midwives had been recruited recently; there was an acute shortage of paramedics, medical technologists, and support staffs that had not been recruited for long. The study also revealed insufficient fund allocation for many important activities and all these are creating a gap in primary care. A better coordination mechanism with proper budgeting of all NCDC activities and decentralization of financial power can surely meet the gaps and help to reach the target of preventing the NCDs.

Delta Med Col J. Jul 2020;8(2):52-54

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