

# NCDs in Nepal: Burgeoning Burden amid Low Priority and the Ways Forward

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Non-communicable diseases (NCDs) refer to diseases or conditions that occur in, or are known to affect, individuals over an extensive period of time and for which there are no known causative agents that are transmitted from one affected individual to another. (1) WHO has defined NCDs to include chronic diseases, principally cardiovascular disease, diabetes, cancer, and asthma/chronic pulmonary disease (COPD), in addition to injuries and mental illness. (2) The risk factors for many of these conditions are associated with lifestyle related choices, environmental and genetic factors. The behavioural risk factors, that are common and easily modifiable include smoking, alcoholism, low quality diet intakes and physical inactivity and these have been found to have 80% contribution in the development of NCDs. (3) Behavioral risk-factors alone, however, are inadequate in explaining the current rapid rise of NCDs like diabetes and CVD. The intricate relations of NCD with mother and child health (MCH) have also been recognized recently. (4, 5) Metabolic/intermediate risk factors like hypertension, high level of blood glucose and cholesterol and BMI are well known triggers of NCDs. (6)

It is well established that NCDs are the leading cause of death in the world, responsible for 63% of the 57 million deaths that occurred in 2008. The majority of these deaths - 36 million - were attributed to cardiovascular diseases and diabetes, cancers and chronic respiratory diseases and 80% of these deaths occurred in low and middle income countries. (7, 8) Similarly, in 2010, the three leading risk factors for global disease burden were high blood pressure (7.0 percent of global DALYs), tobacco smoking, including second-hand smoke (6.3 percent), and alcohol use (5.5%). (9) Regional data show that in most of SEARO, communicable diseases have been overpowered by NCDs already where NCDs account for 54% of total mortality and 44% of total morbidity. (10)

In terms of the number of lives lost due to ill-health, disability, and early death (DALYs) NCDs (inclusive of injuries) account for 60% of the total disease burden in Nepal while the remaining 40% is from communicable diseases, maternal and child health, and nutrition issues all combined. (12) The major NCDs that Nepal has been facing are cardiovascular diseases (CVD), injuries, neuropsychiatric conditions, cancers, and to a more moderate extent, chronic respiratory diseases and diabetes. Trend analyses of the metabolic risk factors in Nepal between 1980 and 2008 have shown a distinct upsurge, with an exception of the mean cholesterol level, in the presence of risk factors like high blood pressure, body mass index and blood glucose level. (13) In government hospitals, 80% outpatient and 88% of inpatient attendance is due to morbidity related to NCD. (14) Estimates have also been made that future ageing in Nepal will increase the burden of NCDs as the proportion of the population 65 years and older will rise from 4.2% in 2000, to 5.8% in 2025. (6) All these figures point towards an understandable serious burden to our health system which has been struggling with high maternal, newborn and child mortality along with the age-old problems of infectious diseases.

This upsurge in the burden of NCDs has been attributed to changing demographics and lifestyles of the population, which includes rapid urbanization, increased industrialization, rising personal incomes, expanded education and improved health care. (11) Contrary to the previously-held belief that NCDs are inflicted by affluence, evidences show that NCDs are becoming common among the poor and marginalized people both in economically advanced countries as well as low and middle income countries. As a result, it is highly probable that much of the progress made over several decades to improve life expectancy rates among the poor in developing countries through the control of infectious diseases could be reversed by the rise of NCDs. (15)

This burgeoning burden is made more complex because of the dearth of adequate and reliable information on most of the NCDs. The NCD risk factor survey provides estimates of intermediate risk factors such as hypertension (9%), diabetes (10%) and obesity (7%) along with the behavioural risk factors. (16) A few hospital-based information and localized community based surveys and census have helped to some extent in providing some insights into it but the regional and national level estimates are still lacking. But even the meager information available clearly points towards high prevalence of the risk factors with an increasing trend. (13, 16, 17)

There has been a renewed interest worldwide on NCDs and consequently progress in terms of the formulation of action plan for global strategy for the prevention and control of NCDs (18) and regional framework for prevention and control of NCDs in South-East Asian region (10) but this has yet to materialize at the national level. Despite having a draft prepared in 2009 of "National policy, strategy and plan of action for prevention and control of non-communicable disease" (19) it has yet to be approved by the government. The formation of NCD prevention and control committee to implement various NCD related activities, ratification of Framework Convention on Tobacco Control, banning of tobacco advertisement in electronic media and of smoking in public places, development and endorsement of other policies related to NCDs such as Nutrition Policy

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and strategy and Mental Health Policy have been some of the commendable efforts by the government towards prevention and control of NCDs. Similarly, in response to the rising importance of NCDs and injuries in the burden of disease, the government has committed that NHSP-2 will expand prevention activities aimed at reducing the burden of NCDs by encouraging healthier lifestyles. (20)

However, despite all these efforts and actions gaps do exist in policy/strategy development, infrastructure, human resource capacity, financing, surveillance, and implementation of key tobacco policy measures. Nepal does not have a reliable baseline that reflects the status of NCD and its risk factors as the NCDs and their risk factors have not yet been included in the national reporting system nor do we have a national, population-based NCD registry (except for cancer). The cost and complexity of treatment have limited the service accessibility for majority of the poor Nepalese.(21) Little effort has been made at the primary health care level for prevention and control of NCDs and their risk factors, the trainings conducted on NCDs for the health workers have only existed at small-scale, and the budget allocated for NCDs has been very low and is mainly dependent on the tax collected from tobacco and alcohol products. A national essential drugs list has been developed but information on NCD-related drugs is not available. (22)

Prevention and control of NCDs is a multi-faceted and complex task as it is linked directly with the people's behaviours which do not change easily and the cost of not intervening is very high in terms of the burden of the morbidity and mortality. Some of the actions that needs to be undertaken immediately at the governmental level to address this burden include: Finalizing national NCD Policy as the draft NCD policy gives a basis for building strategies, plans and action; Strengthening Tobacco Control Policies for consumption reduction through specific focus on taxation and comprehensive bans on tobacco advertising, promotion and sponsorship; Creation of a national surveillance system of NCDs and the associated risk factors; Training of the health workforce in NCD prevention and control; and setting up of specific financing strategies for access to services and medications for the poor (for example: sin tax).

However, as pointed out by Global strategy for prevention and control of NCD the main challenge in prevention and control lies in the prevention of the emergence of risk factors (18) and that points towards the importance of primordial prevention.

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