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Non-communicable Diseases in Nepal: Challenges and Opportunities

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ABSTRACT

Non-communicable diseases constitute a major public health problem in Nepal. They are already killing more people than communicable diseases. However, addressingn on-communicable diseases is not getting much attention from the government, academicians and development partners. Simple measures at population and individual level have not been implemented in an effective way. The vision on how to address non-communicable diseases at primary health care level is unclear. However, there is aunique possibility of integrating non-communicable diseases into the existing communicable diseases interventions which need to be tested and potential positive lessons have to be scaled up as soon as possible. The best buy approach as proposed by WHO could be implemented for non-communicable diseases prevention and management through primary health care approach.

Keywords: developing country;Nepal; non-communicable diseases.

INTRODUCTION

Non-communicable diseases (NCDs) are the leading cause of mortality in the world, representing over 60% of all deaths.[1] The overall economic and social cost of NCDs highly exceeds their direct medical cost affecting economy, health systems, households and individuals through a range of factors such as reduced labor productivity, higher medical treatment costs, and lost savings.[2]The problem is more severe in developing countries than in developed countries. Among 36 million deaths each year, 80% are in low and middle income countries.[1]At the same time, these countries are suffering from Communicable Disease (CDs) burdens, thus facing a double burden of disease.

COUNTRY SITUATION

Nepal has an approximate population of 26.5 million and an annual growth rate of 1.35%.[3] While CDs are still an important cause of preventable deaths, the chronic NCDs have emerged as major killers. Nepal has higher age standardised death rates and disability adjusted life years from NCDs than CDs.[4]

Rapid urbanization, change in dietary patterns, behavioural factors and major improvements in the prevention of maternal and child health helping to raise life expectancy are all contributing factors to shift the disease pattern in Nepal.[5] Nepal is now passing through an epidemiological transition with non-communicable diseases accounting for more than 44% of deaths and 80% of outpatient contacts. Though actual estimation of prevalence of NCDs is not available, a hospital based study showed that out of the total admitted patients in Nepal, 36.5% suffered from NCDs.[6] Out of them, 34% had hypertension, 33% had COPD and 10% had diabetes. A study conducted in eastern Nepal among the general population showed that 34% had hypertension, 6.3% had diabetes, 28% were overweight and 32% were obese.[7] Mental health problems are also grossly under-recognized but of growing concern in Nepal. However, little attention is provided by government, policy makers and developing partners to address these problems.

Tobacco use, physical inactivity, unhealthy dietand harmful use of alcohol increase the risk of most NCDs. These behaviours lead to four key physiological changes

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that increase the risk of NCDs: raised blood pressure, overweight/obesity, hyperglycemia and hyperlipidemia.[1]

Table 1: Selected risk factors for NCDs in Nepal

Indicators	Male	Female
Prevalence of raised blood pressure among adults aged ≥25 years	26.6%	28.6%
Prevalence of raised fasting blood glucose among adults aged ≥15 years	9.8%	9.3%
Adults age 20≥ years who are obese	1.4%	1.6%
Alcohol consumption among adults age 15≥ years (unit: litre of pure alcohol per person per year)	36%	29%
Prevalence of current tobacco use among adolescents aged 13-15 years	13%	5%
Prevalence of smoking any tobacco products among adults age ≥15 years	36%	29%

Source: World Health Statistics 2012, WHO

Use of tobacco and alcohol consumption among adults is higher in Nepal as compared to other South Asian neighbours. The number of female smokers is higher in Nepal compared to other countries.[8] Despite current ongoing efforts, the prevalence of tobacco consumption decreased from 56.5% in 2006 to 52% in 2011 among men and 19.6% in 2006 to 13% in 2011 among women.[9, 10]

It is estimated that physical inactivity causes 6-10% of the major non-communicable diseases of coronary heart disease, type 2 diabetes, and breast and colon cancers.[11] Physical activity is a neglected dimension of prevention and intervention worldwide, especially in low-income and middle-income countries.[12] A study conducted in Nepal showed that one in two Nepali were physically inactive,[13] and a similar study conducted in Kathmandu showed physical activity as extremely low.[14]

A study conducted in eastern part of Nepal showed that one in three respondents rarely consume fruits in a week.[15] Similarly, another study near Kathmandu valley showed that salt intake more than recommended level (≥ 5 g per day) was increased from 55.9% in 1981 to 89.5% in 2006. The study also found that prevalence of hypertension was increased three fold from 1981 to 2006.[16]

GAPS AND CHALLENGES

According to the annual health report of Nepal, neither government nor other development partners are taking initiatives to combat NCDs.[17] Out of seven divisions and five centers in the Ministry of Health and Population (MoHP), none of them are directly responsible for non-communicable diseases. The problem is even worse at district and peripheral level where health workers never received training on prevention and management of non-communicable diseases. The availability of medicines for the treatment of NCDs is very poor when compared with the availability of medicines for acute conditions. The problem of NCDs has been further fuelled by shortage of manpower, poor infrastructure and lack of access to technology.

Globally, less than three percent of the global development assistance for health, goes to prevention and control of chronic non-communicable diseases (NCDs).[18] Donor agencies contributed more than 38% of health budget of Nepal in 2011/2012 and definitely played a decisive role in priority setting.[19] Major multilateral and bilateral development partners such as WHO, Unicef, World Bank, USAID and DFID are not giving much attention to NCDs.[17] As a result, none of the above mentioned organizations allocated funding for NCDs. Even the proportion of the government budget allocated to NCDs related activities for fiscal year 2009/10 was only 0.7% which is negligible.[5]

There might be several reasons which decimate NCDs priority. Although the majority of NCD-related deaths, particularly premature deaths, occur in low- and middle-income countries, a perception persists that NCDs afflict mainly the wealthy.[1]Another reason for neglecting NCDs could be myths and lack of knowledge about the true situation. Many partners do not realize that NCDs are rapidly increasing in low and middle income countries that can least afford it. The claim that western governments focus on prevention of infectious diseases to support economic interests of their drug and vaccine industries cannot be denied.[20]

ONGOING EFFORTS

MoHP has identified the focal point for NCDs and formed a NCD prevention and control committee to implement various related activities. The Framework Convention on Tobacco Control (FCTC) was ratified in 2006. Smoking is banned in public places and there is a ban on advertising of alcohol and tobacco on media. The recently developed Nepal Health Sector Implementation Plan also emphasizes community based interventions to tackle NCDs. A national NCD policy and strategy has been drafted and a national policy and framework for injury and violence prevention is being prepared by the Nepal Government. The draft policy has a very ambitious target of reducing tobacco use and alcohol consumption to half of current level by 2015.[21]Even the target set by WHO member states to reduce the probability of dying from the four main NCDs for people aged 30-70 years by 25% looks far beyond.[22]

Few studies have been carried out using WHO Stepwise tool and few independent studies were carried out which

were often small in sample size and does not provide the true scenario inside the country. FCTC is among very few initiatives taken globally to reduce tobacco use prevalence, which is the most important risk factor for NCDs. However, the result in Nepal even after ratifying FCTC in relation to reducing smoking is not promising. Ukraine, a country which ratified FCTC together with Nepal in 2006, showed 15% decline of tobacco use in 2010 whereas decrease of tobacco use in Nepal was less than five percent since it was ratified.[9,10,23] Out of five MPOWER measures proposed by WHO, none of the measures are at the highest level of achievement.[24]

OPPORTUNITIES

There is a strong possibility for Nepal to fight against NCDs through mobilizing community health workers and volunteers. Nepal has been a pioneer in the successful implementation of community-based public health initiatives through mobilizing Female Community Health Volunteers (FCHVs) particularly related to infectious diseases over the past 20 years.[25] As a result, Nepal is one of the few developing countries which is on track of achieving the millennium development goals on maternal and child mortality.[26]

FCHVs may provide health education and can refer to the nearest health facility. They can counsel on different risk factors of NCDs such as smoking, alcohol and lack of physical exercise. They may also screen for high blood pressure and diabetes by using simple and low cost technology. For example, FCHVs may play an effective role on reducing high salt intake in general population through the general awarness program. Substantial reductions of NCD risks could be achieved through the use of existing maternal-child health platforms to educate mothers about both nutritional and environmental exposures and to integrate the health promotion and disease prevention agendas within social and economic development efforts.[27] During an ANC visit, counselling on tobacco and alcohol as well as identification and management of hypertention and diabetes can be done. Screening for breast and cervical cancer can be effective in reducing the cancer burden.[1] So, the scope of an immunization program could be expanded to include HPV vaccines for young girls to protect against cervical cancer. People diagnosed with HIV infections can be screened for hypertention and raised blood sugar levels.[28] Similarly, DOTS framework can be utilized to the management of people with diabetes mellitus which has already been applied in Malawi.[29] In addition to this, lung health programmes developed to address tuberculosis might be integrated with interventions for chronic respiratory diseases.[1]

WAY FORWARD

As suggested by WHO, to decrease the impact of NCDs, a comprehensive approach is needed to work together to reduce the risk associated with NCDs, as well as promote the intervention to prevent and control them.[24] Effective prevention and mitigation measures cannot be implemented by health ministries alone; instead they require action from a variety of government ministries and from global, regional, national, and local stakeholders across the public and private sectors as well as civil society.[2] Health gains can be achieved much more readily by influencing public policies in sectors like trade, taxation, education, agriculture, urban development, food and pharmaceutical production than by making changes in health policy alone.

Designing an intervention from a co-morbidity and co-infection perspective is the need of many developing countries including Nepal which are suffering from double burden of diseases. Efforts have to be concentrated at both population level and institutational level. NCD surveillance, population-based prevention and strengthening health care and the capacities will be essential in Nepal. The best buy approach proposed by WHO are very relevant in the context of Nepal. The most important step Nepal has to take at this point of time is to revise and endorse National NCD Policy which was drafted.The tobacco control policies have to be strengthened in order to yield the results for example shall the ban on smoking in public places be fully implemented. Similarly, focus should be given to implement FCTC with strong monitoring mechanisms. Lack of a reliable NCD surveillance system is hindering to convince policy makers. The awareness level in relation to major risk factors at population level has to be increased.Funding agencies and development partners should be aware that NCDs are closely linked to global social and economic development.[30] Similarly, effective and affordable delivery of primary care interventions for patients with chronic NCDs needs to be created by testing the potential role of volunteers and community health workers. The role of government and other stakeholders including private sectors has to be expanded in coming days in order to explore feasible, affordable and socially acceptable community-based intervention for the prevention, control and management of NCDs.

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