

## Need for Strategic Revamping to Prevent and Control Non-communicable Diseases in India

### Introduction

Increase in life expectancy and improving the quality of life of its citizens is a common goal pursued by all countries. Countries all over the world are facing challenges in reducing the disease burden, premature mortality and economic impact of Non-communicable Diseases (NCD), which are the global leading cause of mortality. Cardiovascular diseases account for most NCD deaths (17.5 million people annually), followed by cancers (8.2 million), respiratory diseases (4 million), and diabetes (1.5 million).<sup>[1]</sup> Overall, NCDs kill 38 million people every year; 28 million of which occur in low-and middle- income countries,<sup>[1]</sup> confirming that these are no longer considered diseases of the affluent. Further, of the 38 million who die, 14.2 million die prematurely before they reach the age of 70 years.<sup>[1]</sup> 82% of these premature deaths occur in low and middle income countries<sup>[1]</sup> adversely affecting productivity and socio-economic development.

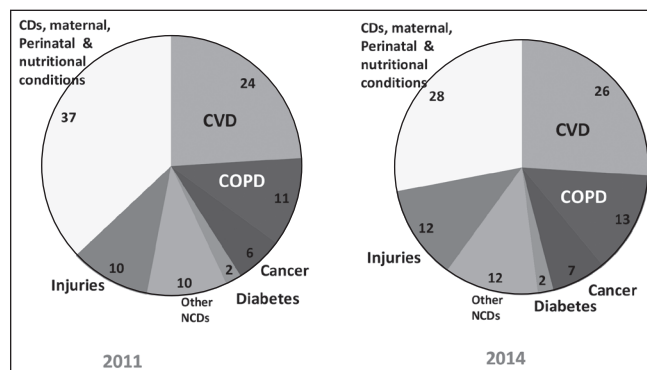
Global projections (2004 to 2030) indicate that NCDs, notably Cardiovascular Diseases and Cancers, are likely to rise in the coming years unless drastic measures are taken to prevent and effectively manage NCDs and their risk factors (tobacco and alcohol use, physical inactivity, unhealthy diet rich in salt, sugar and saturated/trans-fats, air pollution). Estimates for these risk factors [Table 1] show that India needs to introduce policies and interventions to reduce risk of NCDs.

India is also experiencing a growing burden of NCDs claiming over 5.87 million lives in a year.<sup>[2]</sup> The probability of dying between the ages of 30 and 70, from four major NCDs (cardiovascular diseases, cancer, chronic respiratory diseases and diabetes) for both sexes is as high as 26%.<sup>[2]</sup> In the year 2011, 53% of all deaths were due to NCDs and this proportion has gone up to 60% in 2014.<sup>[3]</sup> On the other hand, the proportion of deaths due to all communicable diseases, maternal,

perinatal causes and nutritional disorders has reduced from 37% to 28% in the same period [Figure 1].

There are estimated 2.8 million cases of cancer, 39 million with chronic respiratory diseases, 64 million with cardiovascular diseases<sup>[4]</sup> and 69 million people with diabetes.<sup>[5]</sup> Economic impact of NCDs in India (2012-2030) can be judged from a study which estimates that the cumulative cost associated with CVDs, diabetes, chronic respiratory diseases and mental health was US\$ 6.15 trillion in 2010 (approx. Rs. 38,302,200 crore).<sup>[6]</sup> Up to 80 percent of Indians incur huge out pocket expenses on medical care, resulting in debt and devastation; 39 million Indians are pushed into poverty annually, due to diagnostic and treatment costs.<sup>[7]</sup>

Rapidly changing epidemiological and mortality trends in India urgently calls for strong, cohesive response from several quarters. It's imperative for public health experts to expand their vision and agenda when it comes to NCDs, and develop new, innovative strategies that



**Figure 1:** Proportional Mortality in India (% of all deaths, all ages, both sexes)

**Source:** World Health Organization: [www.who.int/nmh/publications/ncd-profiles-2014](http://www.who.int/nmh/publications/ncd-profiles-2014)

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call for stronger partnerships to address this pandemic. Delayed diagnosis and treatment of NCDs not only escalates the costs, but also amplifies long term health and financial repercussions. Thus, prevention and early diagnosis should be at the fore of all efforts, driving engagement from multiple sectors of government, industry, philanthropy and society.

## Strategies for prevention and control of NCDs

Government of India has prepared a long-term National Action Plan and Monitoring Framework<sup>[8]</sup> with 10 targets to prevent and control NCDs [Table 2]. 7 of the 10 targets aim at reducing exposure to key risk factors. These are challenging targets and would require effective implementation of the following strategies:

A whole-of-government approach: “Health-in-all policies” is a new approach where decision on healthy public policies need to be taken followed by active participation of various ministries and other stakeholders. There would be need for effective legislations to curb the use of tobacco in all forms and alcohol, production and subsidy to healthy food, controlling contents and marketing of processed foods and drinks; promoting physical activity and outdoor sports and reducing emissions and exposure to household and ambient air pollution by providing cleaner sources of energy for cooking and controlling

pollutants from Industries, construction sites, vehicles and burning of wastes. While overall socio-economic development needs to be accelerated, every sector should look at their developmental policies and programs through the “Health” lens. This is going to be a major challenge faced by all Governments.

Comprehensive policy for NCDs: There is need for a policy shift from curative to comprehensive approach with due emphasis on preventive care in order to make ‘healthy living’ a social norm. This would be possible through multi-sectoral approach and introduction of WHO identified “best buys” on population based interventions.

Reducing risk factors and creating health-promoting environments: Use of tobacco and alcohol, unhealthy diet and physical inactivity are key risk factors of NCDs. To reduce risk of NCDs, there is need to create concentrated and continuous awareness through multi-media and behavioral change interpersonal communication for adopting a healthy lifestyle by the public. Public awareness should not only focus on harms of these factors but also ways and means of adopting healthy lifestyle. Governments need to facilitate an enabling environment to give options to the public to adopt healthy lifestyle such as facilities for physical activity in educational establishments, work places and residential areas and providing healthy food in schools and work places.

**Table 1: Burden of NCD risk factors in India (2008)**

Risk factor of NCDs	Prevalence
Proportion of insufficiently active population (above 15 years )	14%
Per capita alcohol consumption in litres of pure alcohol (2010)	4.3
Proportion of population (above 25 years) with raised blood pressure	33%
Proportion of population (above 20 years) who were overweight	11%
Proportion of population (above 25 years) with raised blood glucose	10%
Proportion of population (above 25 years, both sexes) with raised total cholesterol	27%

Source: World Health Organization: [www.who.int/nmh/publications/ncd-profiles-2014](http://www.who.int/nmh/publications/ncd-profiles-2014)

**Table 2: Monitoring Framework showing targets to prevent and control NCDs in India**

Indicator	2020	2025
Relative reduction in premature mortality from NCDs	10%	25%
Obesity and diabetes prevalence	Halt the rise	
Relative reduction in prevalence of insufficient physical activity	5%	10%
Relative reduction in the prevalence of raised blood pressure	10%	25%
Relative reduction in mean intake of salt/ sodium intake	20%	30%
Relative reduction in alcohol use	5%	10%
Relative reduction in prevalence of current tobacco use	15%	30%
Eligible people receive drug therapy and counselling to prevent heart attacks and strokes	30%	50%
Availability of essential NCD medicines and basic technologies to treat major NCDs public/private facilities	60%	80%
Relative reduction in household use of solid fuel	25%	50%

Source: Ministry of Health and Family Welfare: National Action Plan and Monitoring Framework for prevention and control of Non-communicable Diseases in India: [www.mohfw.nic.in/showfile.php?lid=2622](http://www.mohfw.nic.in/showfile.php?lid=2622)

**Strengthening health systems to address NCDs:** There is need to scale up the 'NCD Clinic' model, a Government of India initiative and establish these clinics at the primary healthcare level to promote integrated chronic disease management. Training of healthcare workforce at primary, secondary and tertiary levels would enhance capacity for integrated NCDs management. An adequate logistics management system needs to be set up to procure and supply equipment, vaccines, diagnostics and medicines required for NCDs. Rapid referral systems need to be put in place for transporting patients with medical emergencies like myocardial infarction, stroke and asthma and complications like renal failure and retinopathy following NCDs. All these require additional resources by the Governments without compromising on other priorities, notably, for prevention and control of communicable diseases and improving reproductive and child health.

**Strategic information management system:** There is need to establish Health Information System for NCDs and establish a robust surveillance mechanism. There should be development of common tools and protocols to conduct uniform surveys across the country and assess changing trends of NCDs as well as their risk factors. There is need for periodic independent evaluation to assess effectiveness of strategies for prevention and control of NCDs.

**Healthcare financing:** India should increase the percentage expenditure of GDP on healthcare from the current 1.1% to at least 2.5% by 2025, with an increased focus on preventing and treating NCDs. NCDs are chronic in nature and may require life-long treatment. The option to devise innovative health insurance schemes to provide healthcare coverage, particularly for people below poverty line, can avert catastrophic economic implications on the affected families.

**Public Private partnerships:** India has a mixed healthcare system. There is need to identify strategies to involve voluntary organizations and private health care sector in the diagnosis and treatment of NCDs, emergency care, training etc. There is need to formulate standard treatment guidelines and implement them in public and private hospitals to maintain acceptable level of quality and accountability in the provision of care.

## Conclusion

Burden of NCDs and their risk factors should be viewed broadly for their impact on life expectancy, quality of life,

social and economic implications. India has to achieve the Sustainable Development Goal-3 to ensure healthy lives and promote well-being at all ages as well as Target 3.4 to reduce by one third the premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being. The fraternity of Community Medicine needs to rise to the occasion by contributing in a big way to prevent and control NCDs, particularly in the areas of surveillance, capacity building, health promotion, behavior change communication, public health management and operational research for universal access, especially in the rural areas and urban poor communities.

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