

Current Burden of Non-Communicable Diseases in India

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Abstract: India being the second most populous country in the world, holds the burden of poverty, illiteracy, hunger, unemployment and diseases; Communicable and Non-communicable. The burden of Non-communicable diseases is rising due to change in lifestyle of the population of the country. As per World health organization, NCDs account for total 53% of all deaths in India. Most of the burden is attributed by cardiovascular diseases (24%), followed by respiratory diseases (11%), other NCDs (10%) and Injuries (10%). The govt. of India has launched various National programmes to control and prevent the non-communicable diseases. The successful implementation of these programmes depends upon the resilient strategies, robust surveillance and evaluation system.

Keywords: cardiovascular diseases, respiratory diseases.

I. Introduction

India; officially known as Republic of India is seventh largest country (by area) and the second most populous country of the world. Being a developing country; India has many concerns to deal with e.g. poverty, illiteracy, hunger, unemployment, diseases etc. Currently India is dealing with triple disease burden i.e. Non-communicable diseases, communicable diseases and violence & injuries.

II. Current status of Non-communicable diseases

Non-communicable diseases are the one which are of long duration and slow in progression. As per World health organization, NCDs account for total 53% of all deaths in India. Most of the burden is attributed by cardiovascular diseases (24%), followed by respiratory diseases (11%), other NCDs (10%) and Injuries (10%).¹

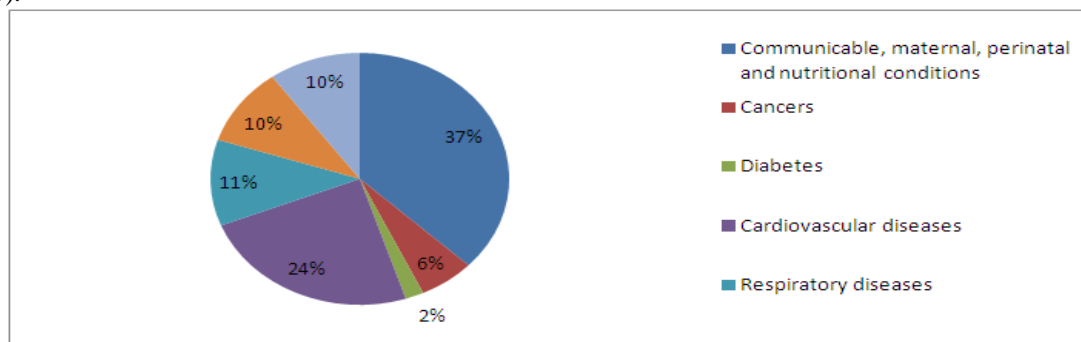


Figure 1 Health Conditions in India, 2008 (Adapted from the WHO, NCD country profile)¹

According to a report presented by world economic forum and Harvard School of public health, the prevalent NCDs in India are CVDs, chronic respiratory diseases, Diabetes, and cancer.² Table 2 shows the prevalent NCDs and percentage of deaths caused by NCDs.

Table 1: Prevalent NCDs and %age of deaths²

S.No.	Non-communicable diseases	%age of Deaths
1.	CVD (including coronary heart disease and stroke/ischemic heart disease)	21.1
2.	Chronic respiratory disease (including asthma; chronic obstructive pulmonary disease [COPD]; and occupational lung diseases, such as chronic bronchitis or emphysema)	11.8
3.	Cancer (including lung; lip/oral cavity and other pharynx-related cancers; and cervical, breast, and ovarian cancers)	6.7
4.	Diabetes	2.2

Cancer is one the leading cause of death in India with 28 lac cases at a point of time and 10 lac new cases taking place very year. The burden of cancer is expected to rise in the country due to the effects of tobacco, demographic transitions and increase in the life expectancy.²

Diabetes is another leading NCD in the nation. Estimated total number of people suffering with diabetes is 40.9 million in India and by 2025 it is expected to increase up-to 69.9 million. Diabetes accounts for 1.09 lakh deaths in a year.²

Hypertension is a major risk factor for cardiovascular diseases. Hypertension is directly responsible for 57% of all stroke deaths and 24% of all coronary heart disease deaths in India. The cases of CVDs are expected to rise up to 741 lacs in 2015.²

Chronic obstructive pulmonary disease is responsible for high rate of mortality and morbidity across the world. In 2010, almost 24 million adults over the age of 40 in India had COPD. It is expected to increase to 32 million by 2020.²

The other conditions which contribute to the burden of non-communicable diseases are mental health conditions (schizophrenia, depression & bipolar disorder) and musculoskeletal disorders (Rheumatoid arthritis, osteoarthritis & gout).³

The non-communicable diseases are emerging due to the risk factors associated with it. The main risk factors which are associated with NCDs are tobacco use, harmful use of alcohol, lack of physical activity and poor diet.³Table 2&3 shows the risk factors(Behavioral & Metabolic respectively) associated with non-communicable diseases and their prevalence.

Table 2: Behavioral risk factors- Non-Communicable Diseases (WHO-2008 estimates)¹

S.No.	Risk factor	Total (%)
1.	Current daily tobacco smoking	13.9
2.	Physical inactivity	14.0

Table 3: Metabolic risk factors of Non-Communicable Diseases (WHO-2008 estimates)¹

S.No.	Risk factor	Total (%)
1.	Raised blood pressure	32.5
2.	Raised blood glucose	10.0
3.	Overweight	11.0
4.	Obesity	1.9
5.	Raised cholesterol	27.1

In addition to the above said risk factors for NCDs; Globalization and urbanization has also contributed to its burden. It has caused the nutritional transition in the country because of the availability of the commercial food. One another important factor causing the rise in NCDs is change in demographic profile of the country.³

A study conducted by Joy Kumar Chakma & Sanjay Gupta on“Lifestyle and Non-Communicable Diseases: A double edged sword for future India” showed that In India, 53% of the deaths in 2008 were due to NCDs (WHO). The cardiovascular diseases (CVDs) alone account for 24 percent of all deaths. The anticipated cumulative loss of national income due to NCDs mortality for India for 2006-2015 will be USD237 billion. By 2030, this productivity loss is expected to double. These major NCDs can be prevented through effective interventions by undertaking the lifestyle related modifiable risk factors.⁴

Total deaths (in thousands) caused by non-communicable diseases as per WHO (2008) estimates are 2967.6 and 2273.8 among males and females respectively. NCD deaths under the age of 60 years are 35.0% (Males) and 32.1% (Females). Table 4 shows the mortality caused by Non-Communicable diseases.¹

Table 4: Non-Communicable diseases mortality (WHO-2008 Estimates)¹

S.No.	Non communicable diseases	Age-standardized death rate per 100 000	
		Males	Females
1.	All NCDs	781.7	571.0
2.	Cancers	78.8	71.8
3.	Chronic respiratory diseases	178.4	125.5
4.	Cardiovascular diseases and diabetes	386.3	283.0

III. National response to NCDs

The various states of India have started with several vertical programmes to prevent and control the NCDs with the support of Govt. of India. Earlier the programmes for cancer, blindness and mental were started. Now the new programmes focus on CVDs, Diabetes, Stroke,Tobacco control, deafness, trauma, burns, Fluorosis and geriatric problems.

IV. Conclusion

The burden of the non-communicable diseases and the mortality caused by the same is expected to rise unless and until considerable initiatives are not taken to control NCDs. To decrease the burden of non-communicable diseases; The Ministry of health and family welfare, Govt. of India has launched the National

Programmes for Prevention and Control of Diabetes, Cardiovascular Disease and Stroke.⁵ Resilient strategies, robust surveillance and evaluation system is must; so that national programmes can be implemented with success.

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