EDITORIAL

Rising trend of Non-Communicable Diseases in India

Surekha Kishore[1], Bhavna Jain[2]

[1]Professor & Head, Department of Community & Family Medicine, All India Institute of Medical Sciences, Rishikesh, Uttarakhand; [2]Senior Resident, Department of Community & Family Medicine, All India Institute of Medical Sciences, Rishikesh, Uttarakhand

Abstract	Introduction	Methodology	Results	Conclusion	References	Citation	Tables / Figures

Corresponding Author

Corresponding Author: Surekha Kishore, Professor & Head, Department of Community & Family Medicine, All India Institute of Medical Sciences, Rishikesh, Uttarakhand
E Mail ID: surekhakishore@rediffmail.com

Citation

Kishore S, Jain B. Rising trend of Non-Communicable Diseases in India. Indian J Comm Health. 2019;31(3):287-288.

Source of Funding: Nil **Conflict of Interest:** None declared

Article Cycle

Received: 12/08/2019; **Revision:** 20/08/2019; **Accepted:** 15/09/2019; **Published:** 30/09/2019

The 21st century has witnessed multiple public health emergencies (viz. Fukushima nuclear disaster, the Ebola outbreak in West Africa, civil wars, natural calamities, etc.), which are mostly associated with many adverse consequences locally, nationally, and internationally. (1,2) Simultaneously, an unexpected rise in the global magnitude of noncommunicable diseases (NCDs) has also been observed. The Lancet Commission on Global Health 2035 foresees that the threat of pandemics, antimicrobial resistance and noncommunicable diseases will represent the greatest threats to global public health in the future. (3) The disease burden in India is changing. While communicable diseases remain a significant threat, non-communicable diseases (NCDs) are also posing threat to country's public health and wellbeing. (4)

NCDs encompass a vast group of diseases such as cardiovascular diseases, cancer, diabetes and chronic respiratory diseases. The majority of NCD cases and deaths occur in low and middle-income countries such as India. The reason is India is undergoing an epidemiological health transition owing to rapid urbanization, which in turn has led to an overall economic rise, but also increase in certain risk factors. These risk factors are manifold including genetic predisposition, increasing adoption of unhealthy diets and sedentary lifestyles, behavioural and biological risk factors such as use of tobacco and alcohol, physical inactivity, overweight and obesity, increased fat and sodium intake, low fruit and vegetable intake, raised blood pressure (BP), blood glucose and cholesterol levels. These factors predispose to the development of NCDs, (WHO, 2013) (5) placing Indians at elevated risk of conditions such as hypertension, heart diseases and diabetes.

The impact of NCDs on public health is well known. The findings of the National Family Health Survey-4 shows that NCDs are gaining ground — the incidence of diabetes is 20.3 per cent and that of hypertension, 22.2 per cent. Detailed estimates of the trends of cardiovascular diseases, diabetes, chronic respiratory diseases and cancer in every state of India from 1990 to 2016 has been published in The Lancet family of journals which has showed that : a) Prevalence of ischemic heart disease and stroke has increased by over 50% from 1990 to 2016 in India, b) The number of persons with diabetes in India has increased from 26 million in 1990 to 65 million in 2016, c) The number of chronic obstructive lung disease cases in India has increased from 28 million to 55 million from 1990 to 2016, d) The proportional

contribution of cancers to the total health loss in India has doubled from 1990 to 2016. (6)

NCDs are the leading causes of death globally, killing more people each year than all other causes combined. Available data demonstrate that nearly 80% of NCD deaths occur in low- and middle-income countries. (4) Overall, 61.8 percent of all deaths in the country were caused by NCDs in 2016. (4) In 2017, as a part of the Global Burden of Diseases (GBD) Risk Factors, and Injuries report, the leading cause of mortality in India are the cardiovascular diseases (ischemic heart disease and stroke) contributing to the total burden of 28·1%. Also, mortality caused due to cardiovascular diseases increased by 34·3% from 1990 to 2016. (7) When assessing chronic respiratory diseases, the India GBD Collaborators show that these diseases make the second largest contribution to the total mortality burden of India, at 10·9%. The crude prevalence rates of these diseases increased by 29·2% for COPD and 8·6% for asthma from 1990 to 2016. (8) Finally, the diabetes analysis shows that diabetes contributes 3·1% of the total mortality burden. The age-standardised diabetes prevalence rose by 29·7% in 1990–2016. (9)

Despite their rapid growth and inequitable distribution, much of the human and social impact caused each year by NCD-related deaths is quite high. NCDs can affect personal security in many ways: they are chronic conditions and therefore have a long-lasting impact on health and security and well-being of an individual and their families. Evidence suggests that these diseases contribute to personal poverty, because of their chronic nature and costly in terms of long-term care. As a result, these diseases call for a type of social and financial investment which will be difficult for some countries unless and until they begin to re- prioritize their efforts and funding. NCDs also impact nations productivity and their direct and indirect costs. Also, A recent Lancet editorial noted that noncommunicable diseases are not garnering the attention they deserve and suggested that such diseases should be considered as a global health security issue. (10)

Although NCD burden has increased but India still does not have sufficiently detailed data on NCD for research and policy purpose. It is seen that the magnitude of the epidemic of noncommunicable diseases, their increasing prevalence, global costs, potential to overwhelm the response capacity of low-income countries and their contribution to the inequality of health, make noncommunicable diseases a global health security threat. For noncommunicable diseases to be understood they need to be framed not only in terms of data on morbidity and mortality, or on their economic costs. It should be averted through well-understood, cost-effective and feasible interventions. It is time that noncommunicable diseases is recognized as a threat to global health.

On a global scale, in order to successfully respond to the problem of NCDs and to reduce the associated morbidity and mortality, it is the need of the hour to create awareness about the significance of NCDs among general population and health providers so that any cost-effective interventions can be identified and implemented.

References

1. Chan EY, Kim J. Chronic health needs immediately after natural disasters in middle-income countries: The case of the 2008 Sichuan, China earthquake. Eur J Emerg Med 2011;18:111-4.
2. Shrivastava SR, Shrivastava PS, Ramasamy J. Ebola disease: An international public health emergency. Asia Pac J Trop Dis 2015;5:253-62.
3. Jamison DT, Summers LH, Alleyne G, Arrow KJ, Berkley S, Binagwaho A, et al. Global health 2035: a world converging within a generation. Lancet. 2013 Dec 7;382(9908):1898–955. http://dx.doi.org/10.1016/S0140-6736(13)62105-4 pmid: 24309475.
4. https://www.healthissuesindia.com/noncommunicable-diseases/ assessed on 14 November 2019.
5. World health organization (2013). Noncommunicable diseases global monitoring framework: Indicator definitions and specifications. Geneva, Switzerland: World health organization.
6. New evidence released on the trends of non-communicable diseases and suicide over a quarter century for every state of India to inform policy and action, By PFHI and ICMR jointly with Department of Health Research, Ministry of Health and Family Welfare, Government of India, Published in Lancet.
7. India State-Level Disease Burden Initiative CVD Collaborators. The changing patterns of cardiovascular diseases and their risk factors in the states of India: the Global Burden of Disease Study 1990–2016. Lancet Glob Health 2018; published online Sept 12. http://dx.doi.org/10.1016/S2214-109X(18)30407-8.
8. India State-Level Disease Burden Initiative CRD Collaborators. The burden of chronic respiratory diseases and their heterogeneity across the states of India: the Global Burden Of Disease Study 1990–2016. Lancet Glob Health 2018; published online Sept 12. http://dx.doi.org/10.1016/S2214109X(18)30409-1.
9. India State-Level Disease Burden Initiative Diabetes Collaborators. The increasing burden of diabetes and variations among the states of India: the Global Burden Of Disease Study 2016. Lancet Glob Health 2018; published online Sept 12. http://dx.doi.org/10.1016/S2214-109X(18)30387-5.
10. . Horton R. Offline: NCDs-why are we failing? Lancet. 2017 07 22;390(10092):346. http://dx.doi.org/10.1016/S01406736(17)31919-0 PMID: 28745593.