International Journal of Advance and Applied Research
www.ijaar.co.in
ISSN – 2347-7075 Impact Factor – 8.141
Peer Reviewed Bi-Monthly
Vol. 7 No. 15 January – February - 2026

The Rising Threat of Non-Communicable Diseases (NCDs) Among Young Indians: Implications for the Demographic Dividend

Swapnali Sanjay Dusane[1] & Dr. Dipak N. Kare[2]
[1]*Research Student*
[2]*Research Guide*
KTHM College, Nashik Savitribai Phule Pune University
Corresponding Author – Dr. Dipak N. Kare
DOI - 10.5281/zenodo.18833539

Abstract:

India's demographic dividend largely depends on the health and productivity of its young working-age population. In recent years, a rapid increase in non-communicable diseases (NCDs) such as diabetes, hypertension, obesity, cardiovascular diseases, and chronic respiratory disorders has been observed among young Indians, posing a serious challenge to economic growth and workforce efficiency. The present study examines the rising burden of NCDs among young Indians and analyses its implications for India's demographic dividend. The study is based on secondary data collected from National Family Health Survey (NFHS-5), Indian Council of Medical Research (ICMR), World Health Organization (WHO), and National Sample Survey Office (NSSO) reports. A descriptive and analytical approach is adopted to assess trends, risk factors, and socio-economic consequences of NCDs. The analysis reveals a growing prevalence of lifestyle-related NCDs among individuals aged 15–34 years, driven by physical inactivity, unhealthy dietary habits, stress, and substance use. The rising burden of NCDs contributes to reduced labour productivity, increased healthcare expenditure, and premature workforce exit. The study concludes that without early preventive interventions and youth-centric public health policies, India risks underutilizing its demographic dividend. Strengthening preventive healthcare, promoting healthy lifestyles, and integrating NCD prevention into development planning are essential for sustaining long-term economic growth.

Keywords: Demographic Dividend, Non-Communicable Diseases, Lifestyle, Young Indian and Public Health

Introduction:

1. Importance of the demographic dividend:

While moving forward in this research need to know Demographic Dividend deeply. From the starting of this century the term demographic dividend has repeatedly came in the limelight. And in recent years when India is about to start its journey on the path of demographic dividend, it attracts our focus for in-depth study on all the aspects of its optimum utilization and tackling those which causes its underutilization. As it has got immense potential for the building of Indian economy.

According to United Nations population fund (UNPFA), Demographic dividend is the economic growth potential that is mainly because of the share of working age group(15 to 64) is the larger than the non-working age group(14 & below or 65 & above).

The human capital is the crucial part to the economy for every country. With the help of this human capital every country try to achieve their economic goals. Especially the working age group is the very important part of the demography. So the demographic dividend is nothing but the golden opportunity for a country, where there exists a large working population and

small dependent population. This leads to high productivity, good earnings and comparatively less expenses on health, High demand and the Boom in the economy.

2. Background of NCDs in India:

Non-communicable diseases are one of the major problems in front of the world. Demographic changes bring the change in the Lifestyle along with the increasing rate of urbanization, sedentary Lifestyle, stress, etc. these are the major causing factors which support non-communicable diseases.

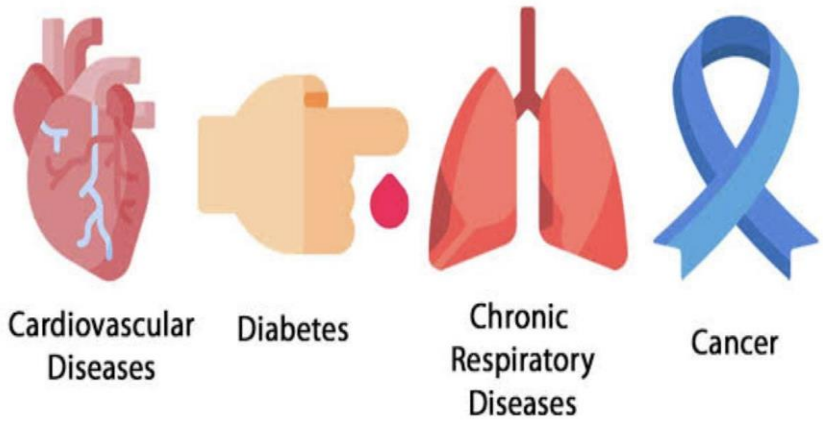
"**The worldwide increase of non-communicable diseases is a slow-motion disaster, but the unhealthy lifestyles that fuel these diseases are spreading with a stunning speed and sweep.**"

Non-communicable diseases (NCDs) are medical conditions that are not infectious and cannot be transmitted from one person to another. They are usually long-lasting (chronic), progress slowly, and often require long-term management rather than short-term treatment.

Over two thirds of deaths worldwide are caused by these four main non-communicable diseases:

1.Cardiovascular diseases
2. Diabetes
3. Cancer
4. Chronic respiratory diseases

Figure No. - 1.

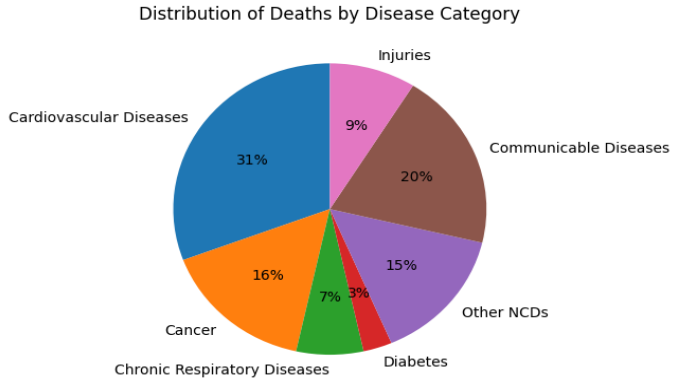


Lifestyle illnesses, which include heart disease, stroke, diabetes, obesity, metabolic syndrome, chronic obstructive pulmonary disease, and several kinds of cancer, share risk factors with extended exposure to three modifiable lifestyle behaviours: smoking, eating poorly, and being inactive.

Formerly considered as "Western diseases" or "diseases of affluence" specific to industrialised nations, these conditions are now generally referred to as non-communicable chronic diseases that fall within the category of degenerative diseas.

The WHO also observes a direct correlation between nation income levels and early NCD mortality. In 2016, low- and middle-income countries accounted for 78% of all NCD fatalities and 85% of premature adult NCD deaths (LMICs). People in low- and lower-middle-income nations had an almost twofold greater chance of dying from an NCD (21% and 23%, respectively) than adults in high-income nations.

Figure No. - 2



Global Mortality (% of Total Deaths), All Ages, Both sexes, 2016
Source:- Noncommunicable diseases country profiles 2018. Geneva: 2.

Research Objectives:

1. To analyse the prevalence of NCD's among young Indians
2. To. Examine the socio- economic impact of NCD's on workforce productivity
3. To explore correlation between NCD burden and India's Demographic Dividend.
4. To evaluate existing policies and suggest measures for prevention and interventions.

Research Hypothesis:

Lifestyle factors such as poor diet,Physical inactivity, higher level of stress are significant contributors to the rising incidence of NCDs among young Indians

Rising Burden of NCDs Among Young Indians:

Non-Communicable Diseases (NCDs) such as cardiovascular diseases, diabetes, chronic respiratory diseases, and cancers have traditionally been considered diseases of old age. However, in recent years, there has been a sharp increase in the prevalence of NCDs among young Indians (15–45 years). This shift poses a serious threat to India's demographic dividend, economic productivity, and healthcare system.

1.Trends and patterns:

1.1. Increasing Prevalence: Studies indicate that India is witnessing a rapid rise in NCDs among young adults, with obesity, hypertension, and diabetes becoming common in individuals as young as their 20s.

1.2. Urban vs Rural Divide: While urban populations face a higher burden due to sedentary lifestyles and processed food consumption, rural areas are also catching up due to increasing tobacco and alcohol use.

1.3. Premature Mortality: According to the World Health Organization (WHO), nearly 60% of all deaths in India are due to NCDs, and a significant portion of these are premature (before 70 years).

2. Factors Contributing to the Rising Burden:

The rising burden of NCDs among young Indians can be attributed to multiple interrelated factors:

2.1. Unhealthy Dietary Practices: Increased consumption of processed foods, sugar-rich diets, and inadequate intake of fruits and vegetables.

2.2. Physical Inactivity: A significant proportion of young adults do not meet recommended physical activity levels due to sedentary work culture and excessive screen time.

2.3. Stress and Mental Health Issues: Academic pressure, job insecurity, and urban stress contribute to hypertension, cardiovascular diseases, and metabolic disorders.

2.4. Substance Use: High prevalence of tobacco and alcohol consumption among youth increases the risk of chronic diseases.

Implications for the Demographic Dividend:

1. Reduced Workforce Productivity:

Young individuals affected by NCDs often experience reduced work efficiency, increased absenteeism, and in some cases premature exit from the workforce. Chronic health conditions weaken physical and mental capacity, leading to lower labour productivity and underutilisation of human capital.

2. Increased Healthcare Costs:

NCDs require long-term treatment and continuous medical care, resulting in higher out-of-pocket healthcare expenditure for individuals and households. Rising medical expenses reduce disposable income, savings, and investment, thereby limiting the economic benefits of a young working population.

3. Higher Economic Strain on the Government:

The growing burden of NCDs increases public expenditure on healthcare infrastructure, disease management programmes, and social security measures. This places additional pressure on government finances and diverts resources from development-oriented sectors.

2.5. Environmental Factors: Air pollution in urban areas contributes to respiraory diseases such as asthma and chronic obstructive pulmonary disease (COPD).

4. Threat to India's Growth Potential:

If a significant proportion of the working-age population becomes chronically ill, India risks underutilising its demographic dividend. Declining productivity and labour force participation may slow economic growth and weaken the country's long-term development prospects.

Research Methodology:

The present study adopts a **descriptive and analytical research design** to examine the burden of non-communicable diseases (NCDs) among young Indians and its implications for the demographic dividend.

The study is based entirely on **secondary data** collected from published sources such as the **National Family Health Survey (NFHS-4 and NFHS-5)**, **Indian Council of Medical Research (ICMR)** reports, **World Health Organization (WHO)** publications, **Global Burden of Disease (GBD) Study**, and reports of the **Ministry of Health and Family Welfare, Government of India**.

Table 1: Prevalence of NCD Risk Factors in India (Year-wise Comparison)

Risk factors	Prevalence (2005–06)	Prevalence (2010–12)	Prevalence (2016–17)	Data Source
Tobacco Use	34.6%	29.5%	28.6%	Global Adult Tobacco Survey (GATS)
Alcohol Consumption	8.7%	9.8%	10.0%	National Family Health Survey (NFHS)
Physical Inactivity	49.4%	52.0%	54.4%	ICMR-INDIAB Study
Obesity (BMI ≥ 30)	5.3%	7.2%	8.9%	National Nutrition Monitoring Board
High Blood Pressure	25.0%	28.0%	30.0%	National Family Health Survey (NFHS-5)

Table 1 presents a year-wise comparison of major NCD risk factors in India. The data indicate a declining trend in tobacco use, while alcohol consumption and physical inactivity show a steady increase over time. The prevalence of obesity and high blood pressure has also risen significantly, suggesting a growing lifestyle-related health risk among the population. These trends indicate an increased vulnerability of the working-age population to non-communicable diseases.

Table 2: Mortality Due to Major Non-Communicable Diseases in India (Year-wise Comparison)

Disease	Mortality (2010)	Mortality (2015)	Mortality (2019)	Data Source
Cardiovascular Diseases (CVD)	2.3 million	3.0 million	3.2 million	Global Burden of Disease Study
Diabetes	1.5 million	1.8 million	2.0 million	World Health Organization (WHO)
Chronic Respiratory Diseases	1.1 million	1.2 million	1.3 million	Global Burden of Disease Study
Cancers	0.7 million	0.8 million	0.9 million	National Cancer Registry Programme (NCRP)
Hypertension	1.0 million	1.5 million	1.8 million	National Health Mission

Table 2 highlights mortality trends due to major non-communicable diseases in India. Mortality from cardiovascular diseases, diabetes, and cancers has shown a consistent increase over the years, indicating the rising severity of NCDs. The growing mortality burden among economically productive age groups poses a serious challenge to India's demographic dividend.

Table 3: Economic Burden of Non-Communicable Diseases in India

NCD Type	Economic Burden (in Billion INR)	Data Source
Cardiovascular Diseases (CVD)	1,53,000	National Institute for Health and Care Excellence (NICE)
Diabetes	55,000	ICMR-INDIAB Study
Chronic Respiratory Diseases	60,000	WHO Global Health Estimates
Cancer	48,000	National Cancer Registry Programme (NCRP)
Hypertension	45,000	Indian Journal of Public Health
Mental Health Disorders	28,000	National Mental Health Survey

Table 3 shows the economic burden of major non-communicable diseases in India. Cardiovascular diseases account for the highest economic cost, followed by diabetes and chronic respiratory diseases. The high treatment costs associated with NCDs place a significant financial burden on households and the public healthcare system.

Table 4: Prevalence of Non-Communicable Diseases in Selected States of India (2019)

State	Cardiovascular Diseases (%)	Diabetes (%)	Hypertension (%)	Cancer (%)	Chronic Respiratory Diseases (%)	Data Source
Kerala	5.5	11.0	34.0	0.9	3.5	NFHS-5 (2019–20)
Maharashtra	4.5	9.3	30.0	0.8	3.0	NFHS-5 (2019–20)
Tamil Nadu	4.8	10.1	32.0	0.7	3.2	NFHS-5 (2019–20)
Delhi	5.0	8.5	29.0	1.0	2.5	NFHS-5 (2019–20)
Uttar Pradesh	3.0	7.0	25.0	0.6	2.8	NFHS-5 (2019–20)

Table 4 presents state-wise variations in the prevalence of major non-communicable diseases. States such as Kerala and Tamil Nadu report higher prevalence rates of diabetes and hypertension, reflecting regional disparities in lifestyle patterns and healthcare access. These variations highlight the need for state-specific NCD prevention strategies.

Data Sources: Secondary data from NFHS, NSSO, ICMR, WHO reports

Policy Interventions and Recommendations:

India has undertaken several policy initiatives to address the growing burden of non-communicable diseases (NCDs). These initiatives primarily focus on prevention, early detection, treatment, and strengthening healthcare infrastructure. However, despite notable progress, significant gaps remain, particularly with regard to the young population.

1. Key Policy Interventions:

The **National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS)** aims at early diagnosis, awareness generation, and strengthening healthcare services at the primary level. The **Ayushman Bharat Scheme**, through Health and Wellness Centres and Pradhan Mantri Jan Arogya Yojana, provides comprehensive primary healthcare and financial protection for secondary and tertiary care. The **National Health Policy (2017)** emphasizes NCD prevention through lifestyle modification and improved access to healthcare services. In addition, initiatives such as the **Eat Right India Movement** and the **Fit India Movement** promote healthy dietary practices and physical activity. Fiscal and regulatory measures, including taxation on tobacco, alcohol, and sugary beverages, along with air quality and pollution control policies, aim to reduce key NCD risk factors.

2. Government Initiatives and Achievements:

The expansion of **Health and Wellness Centres (HWCs)** has improved access to primary NCD care, particularly screening and early management. Digital health initiatives such as the **Ayushman Bharat Digital Mission (ABDM)** have strengthened healthcare delivery through improved data integration and accessibility. Furthermore, public–private partnerships, including **Jan Aushadhi Kendras**, have enhanced the availability of affordable medicines for chronic disease management.

3. Gaps and Challenges:

Despite these initiatives, several challenges persist. Existing policies largely focus on older age groups, with limited emphasis on

early prevention among youth. There is inadequate integration of health education and wellness programmes in schools, colleges, and workplaces. Implementation gaps and regional disparities continue to limit access to quality NCD care, particularly in rural areas. Weak regulation of processed foods and misleading advertising, along with insufficient attention to mental health as a contributor to NCDs, further reduce policy effectiveness.

4. Recommendations for Strengthening NCD Policies:

To effectively address the rising NCD burden among young Indians, policies must adopt a **youth-centric preventive approach**. Mandatory health screenings in educational institutions and workplaces should be introduced. Stronger regulation of unhealthy foods, tobacco, and alcohol advertising is essential. Community-based awareness programmes should be expanded to promote healthy lifestyles. Integrating mental health services with NCD prevention strategies can address stress-related risk factors. Additionally, the use of digital technologies such as telemedicine, mobile health applications, and artificial intelligence can support early detection, monitoring, and timely intervention.

Conclusion:

India's demographic dividend presents a significant opportunity for sustained economic growth, but the rising burden of non-communicable diseases (NCDs) among young Indians poses a serious challenge to this potential. The increasing prevalence of lifestyle-related risk factors has led to reduced workforce productivity, higher healthcare expenditure, and growing economic pressure on households and the public health system.

Although various policy initiatives have been implemented to address NCDs, gaps remain in youth-focused prevention and effective implementation. Strengthening preventive healthcare, promoting healthy lifestyles, and integrating early screening and mental health support into public health strategies are essential to protect India's demographic dividend and ensure long-term economic development.

References:

1. United Nations Population Fund (UNFPA). (2014). The power of 1.8 billion: Adolescents, youth and the transformation of the future. New York: UNFPA.
2. United Nations Population Fund (UNFPA). (2016). Demographic Dividend: Investing in Human Capital. New York: UNFPA.
3. World Health Organization (WHO). (2018). Noncommunicable diseases country profiles 2018. Geneva: World Health Organization.
4. World Health Organization (WHO). (2022). Noncommunicable Diseases (NCDs): Key Facts. Geneva: WHO.
5. World Health Organization. (2016). Global Health Estimates: Deaths by Cause, Age, Sex, by Country and by Region, 2000–2016. Geneva: WHO.
6. Indian Council of Medical Research (ICMR), Public Health Foundation of India (PHFI), & Institute for Health Metrics and Evaluation (IHME). (2017). India: Health of the Nation's States – The India State-Level Disease Burden Initiative. New Delhi: ICMR.
7. Indian Council of Medical Research (ICMR). (2020). India State-Level Disease Burden Initiative: NCD Trends. New Delhi: ICMR.
8. Ministry of Health and Family Welfare (MoHFW), Government of India. (2021). National Family Health Survey (NFHS-5), 2019–21. Mumbai: International Institute for Population Sciences (IIPS).

9. Ministry of Health and Family Welfare (MoHFW). (2017). National Health Policy 2017. New Delhi: Government of India.
10. Ministry of Health and Family Welfare (MoHFW). (2023). National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS): Operational Guidelines. New Delhi.
11. World Bank. (2020). The economic burden of non-communicable diseases in India. Washington DC: World Bank.
12. Bloom, D. E., Cafiero, E. T., Jané-Llopis, E., et al. (2011). The Global Economic Burden of Noncommunicable Diseases. Geneva: World Economic Forum.
13. Global Burden of Disease (GBD) 2019 Collaborators. (2020). Global burden of 369 diseases and injuries in 204 countries and territories. The Lancet, 396(10258), 1204–1222.
14. World Economic Forum. (2019). Workplace wellness and productivity: Addressing NCDs among working-age population. Geneva: WEF.
15. Gupta, R., Gaur, K., & S Ram, C. V. (2019). Emerging trends in hypertension epidemiology in India. Journal of Human Hypertension, 33(8), 575–587.
16. Misra, A., & Shrivastava, U. (2013). Obesity and dyslipidemia in South Asians. Nutrition, 29(2), 290–297.
17. Reddy, K. S., Shah, B., Varghese, C., & Ramadoss, A. (2005). Responding to the threat of chronic diseases in India. The Lancet, 366(9498), 1744–1749.
18. Global Adult Tobacco Survey (GATS) India. (2017). GATS-2 India Report. New Delhi: Ministry of Health and Family Welfare.
19. Patel, V., Chatterji, S., Chisholm, D., et al. (2018). Mental disorders and risk of NCDs. The Lancet Psychiatry, 5(11), 932–946.
20. World Health Organization. (2021). WHO Global Action Plan for the Prevention and Control of NCDs 2013–2030. Geneva: WHO.