Alarming Rise of Non-Communicable Diseases in India

For Prelims: Indian Council of Medical Research (ICMR), non-communicable diseases, Diabetes, National Health Mission (NHM), Sustainable Development

For Mains: Impacts of Non-Communicable Diseases, National Health Mission

Why in News?

A recent study conducted by the **Madras Diabetes Research Foundation** in collaboration with the **Indian Council of Medical Research (ICMR)** and **Ministry of Health and Family Welfare** has shed light on the growing burden of **non-communicable diseases (NCDs)** in India.

The study marks the first comprehensive epidemiological research paper to include participants from 31 states and Union Territories. By including data from a wide range of regions, the study provides valuable insights into the prevalence and impact of NCDs, such as <u>diabetes</u>, in the country.

What Were the Key Findings of the Study?

Findings:

- **Goa, Puducherry, and Kerala** have the **highest** prevalence of diabetes, with rates approaching 25-26.4%.
- **Diabetes:** India now has 101 million individuals with diabetes.
- **Prediabetes:** The study identified 136 million people with prediabetes.
- High blood pressure: 315 million individuals were found to have hypertension.
- **Obesity:** 254 million people were classified as generally obese, while 351 million had abdominal obesity.
 - The prevalence of generalised obesity stands at 28.6% across the population, while abdominal obesity affects 39.5% of Indians. Female abdominal obesity is particularly high, at 50%.
- Hypercholesterolemia: 213 million individuals had fat accumulation in arteries, increasing the risk of <u>heart attacks and strokes</u>.
 - The study reveals that 24% of Indians suffer from hypercholesterolemia.
- High LDL Cholesterol: 185 million individuals had elevated levels of low-density lipoprotein (LDL) cholesterol.
 - LDL is the **"bad cholesterol"** because **too much of it in blood** can contribute to **plaque buildup in the arteries.**
 - Cholesterol travels through the blood on proteins called "lipoproteins.
- Significance of the Study:
 - The study encompasses a large sample size of 1,13,043 individuals from diverse regions.
 - It reveals that diabetes and other metabolic NCDs are more prevalent in India than previously estimated.
 - While urban areas currently have higher rates of metabolic NCDs, except for prediabetes, rural regions are expected to experience a surge in diabetes cases in the

next five years if left unregulated.

• Interstate and inter-regional variations highlight the **need for state-specific policies** and interventions.

Urban vs rural

| Non-communicable diseases (NCDs) | National prevalence | Estimated number of people in India, i millions (Burden) | nhighest | State with lowest prevalence |
|-------------------------------------|------------------------|--|-----------------------|------------------------------------|
| Diabetes | 11.4% | 101.3 | Goa (26.4%) | Uttar Pradesh (4.8%) |
| Pre-diabetes | 15.3% | 136.0 | Sikkim (31.3%) | Mizoram (6.8%) |
| Hypertension | 35.5% | 315.5 | Punjab (51.8%) | Meghalaya (24.3%) |
| Generalized Obesity | 28.6% | 254.2 | Puducherry (53.3%) | Jharkhand (11.6%) |
| Abdominal Obesity | 39.5% | 351.1 | Puducherry (61.2%) | Jharkhand (18.4%) |
| Hypercholesterolemia | 24.0% | 213.3 | Kerala (50.3%) | Jharkhand (4.6%) |
| High LDL cholesterol | 20.9% | 185.7 | Kerala (52.1%) | Jharkhand (3.2%) |

Urban vs rural difference: Urban regions had higher rates of all metabolic NCDs than rural areas, with the exception of pre-diabetes.

New National estimates for diabetes and other NCD's: Our study estimates that in 2021, in India there are 101 million people with diabetes and 136 million people with prediabetes, 315 million people had high blood pressure, 254 million had generalized obesity, and 351 million had abdominal obesity. Additionally, 213 million people had hypercholesterolaemia and 185 million had high LDL cholesterol.

Impact of Study on India:

• The study serves as an **early warning for the population's increased vulnerability to NCDs** and life-altering medical conditions, including strokes.

e Vision

 India faces the dual challenge of <u>malnutrition</u> and obesity, with exposure to fast food, sedentary lifestyles, lack of sleep, exercise, and stress contributing to NCD prevalence.

Impact on Quality of Life and Life Expectancy:

- NCDs, such as diabetes, cardiovascular diseases, cancers, and chronic respiratory diseases, contribute to the overall disease burden in the country.
- NCDs often result in disabilities, reducing individuals' functional abilities and impairing their daily activities.
- The management of NCDs requires long-term medical care, medications, and **lifestyle modifications**, which can be challenging for individuals and their families.
- NCDs can lead to increased healthcare expenses, impacting the financial well-being of individuals and households.
- The burden of NCDs can hinder individuals' productivity and socioeconomic development, affecting their employment opportunities and economic growth.
- NCDs can significantly reduce life expectancy if not properly managed and controlled.

What are Initiatives Related to NCDs?

- Indian:
 - National Programme for Prevention & Control of Non-Communicable Diseases (NP-NCD), previously known as National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) is being

implemented under the National Health Mission (NHM).

- The Central Government is implementing the Strengthening of Tertiary Care Cancer facilities scheme to support the setting up of State Cancer Institutes (SCI) and Tertiary Care Centres (TCCC) in different parts of the country.
- Oncology in its various aspects has a focus in case of new AIIMS and many upgraded institutions under Pradhan Mantri Swasthya Suraksha Yojana (PMSSY).
- Affordable Medicines and Reliable Implants for Treatment (AMRIT) Deendayal outlets have been opened at 159 Institutions/Hospitals with an objective to make available Cancer and Cardiovascular Diseases drugs and implants at discounted prices to the patients.
- **Jan Aushadhi stores** are set up by the Department of Pharmaceuticals to provide generic medicines at affordable prices.

Global:

- Agenda for Sustainable Development: As part of the 2030 Agenda for Sustainable Development, heads of state and government committed to develop ambitious national responses, by 2030, to reduce by one third premature mortality from NCDs through prevention and treatment (SDG target 3.4).
 - WHO plays a key leadership role in the coordination and promotion of the global fight against NCDs.
- Global Action Plan: In 2019, the World Health Assembly extended the WHO Global action plan for the prevention and control of NCDs 2013-2020 to 2030 and called for the development of an Implementation Roadmap 2023 to 2030 to accelerate progress on preventing and controlling NCDs.
 - It supports actions to achieve a set of nine global targets with the greatest impact towards prevention and management of NCDs. Vision

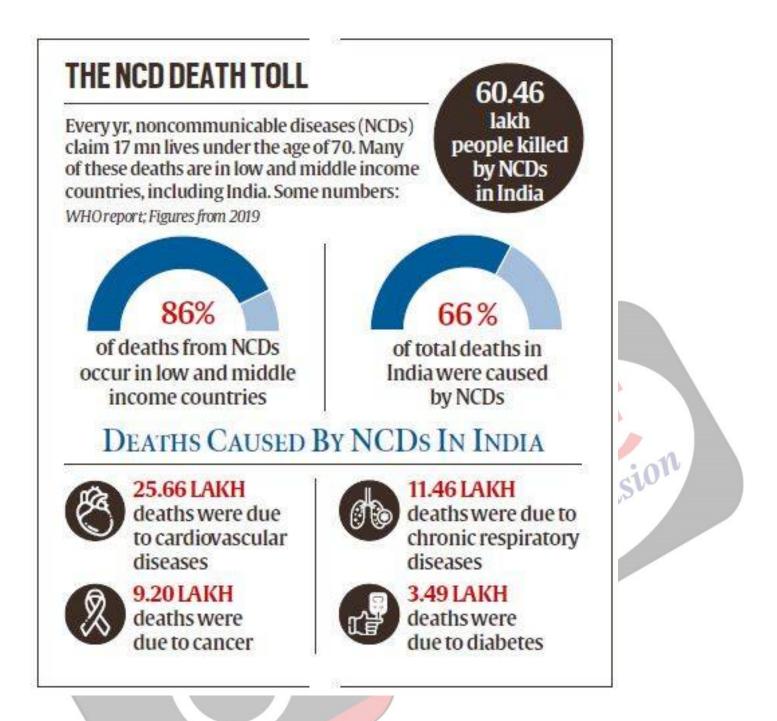
What are Non-Communicable Diseases?

About:

- NCDs, also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioural factors.
- The main types of NCD are cardiovascular diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes.

Causes:

 Tobacco use, unhealthy diet, harmful use of alcohol, physical inactivity and air pollution are the main risk factors contributing to these conditions.



Way Forward

- Wellness and a healthy lifestyle are essential in combating this growing pandemic.
- Emphasizing healthy diets and regular exercise is crucial.
- The Indian Health Ministry has identified cardiovascular diseases, cancers, chronic respiratory diseases, and diabetes as major NCDs, addressing them through programs focusing on health infrastructure, human resource development, health promotion, awareness generation, prevention, early diagnosis, and appropriate healthcare referrals.
- State-specific policies allow tailored interventions to address the specific challenges and risk factors of each region, maximizing the effectiveness of efforts to combat NCDs.
 - By allocating resources according to the specific needs of each state, state-specific strategies optimize resource utilization, enhance healthcare infrastructure, and ensure maximum impact in the fight against NCDs.

Source: TH

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The Vision