Future Burden - Cancer Mortality in India

Prelims: *Current events of national and international importance*

Why in news?

A recent disease-forecasting study projects deaths due to pancreatic, colorectal and breast cancers to rise by 2030 in India.

- **Objectives –** To project the future burden of ***cancer mortality*** in India for ***23 major cancer types*** up to the year 2030.
- It provides the first comprehensive, long-range forecast of age-standardized mortality rates (ASMR).

  Standardized Mortality Rate *is a measure used to compare the death rates of a population to a reference population, adjusted for factors like age and sex.*

- **Method –** Autoregressive Integrated Moving Average ***(ARIMA)*** model has a greater ability for prediction and applicability for cancer forecasting in the country.
- **Data source –** Aggregated, national-level cancer mortality data for the population of India from 2000 to 2019 were used from Global Cancer Observatory (GCO)'s **'Cancer Over Time' database.**

  India was found to see a ***jump of 26.4 % in cancer rates*** *between 1990-2023 - among the highest in the world.*

Findings of the study

- **Associated factors –** The study found that there is a clear shift towards cancers associated with lifestyle and economic development.
- Found that a rise in cancers linked to *lifestyle and metabolic factors* and a *decline* in *infection-related and tobacco-related cancers* in India.

- **Increasing trend in Mortality rates –**
  - **Among males – Colorectal cancer & pancreatic cancer** increased by 29.49% and 67.81% respectively, between 2000 and 2025, and expected to increase by 6.55% and 9.59% respectively, from 2025 to 2030.
  - **Among females – Breast cancer** is expected to have the highest increase from 2025 to 2030, followed by lung, colorectal cancer, pancreas, ovary, kidney, and lymphomas.
- **Dipping projections –** Among both genders - **Mouth & oropharynx cancers, urinary bladder cancer** mortality is projected to decrease between 2000 and 2030.
- It attributed to the reduction in tobacco use and household air pollution.
- **Prevention –**
  - Improving early detection through expanded screening programmes (such as mammography and colonoscopy);
  - Improving diagnostic infrastructure in rural and underserved regions are essential;
  - Increased public awareness; and
  - Improved lifestyle interventions like healthier diets, physical activity, and reduce tobacco and alcohol consumption.

References

1. The Hindu | Future burden of 23 major cancer types
2. BMJ Journal | Burden of cancer mortality in India