



KAMARAJ IAS ACADEMY
Only IAS Academy by Grandson of "Perunthalaivar Kamarajar"

CANCER BURDEN – A GROWING CONCERN FOR INDIA

Published On: 17-09-2025

Introduction

Cancer has emerged as one of the most serious public health challenges in India, contributing significantly to the burden of non-communicable diseases (NCDs).

According to the Indian Council of Medical Research (ICMR)–National Cancer Registry Programme (2023), India records over 14–15 lakh new cancer cases annually, with common forms including breast, oral, cervical, and lung cancers.

Rising urbanization, lifestyle changes, tobacco and alcohol use, pollution, and increasing life expectancy are driving this surge.

With growing incidence of **tuberculosis, diabetes, and cardiovascular diseases**, India is on the verge of becoming the “**cancer capital of the world**,” making urgent interventions necessary.

Causes of Rising Cancer Burden in India

1 Tobacco Consumption (Smoking & Chewing)

o India is the second-largest consumer of tobacco in the world.

o Tobacco (smoked & smokeless) is responsible for nearly 27% of all cancers in India, especially oral, lung, and esophageal cancers.

o *Example:* ICMR-NCRP 2023 report shows oral cancer accounts for nearly **one-third of cancers among men** in India.

2 Unhealthy Diet & Lifestyle Changes

o High intake of processed foods, red meat, sugar, and low fruit-vegetable consumption increase cancer risk.

o Rising obesity and sedentary lifestyles contribute to breast, colorectal, and pancreatic cancers.

o *Example:* Studies in **urban Delhi & Bengaluru (2023)** showed rising obesity-linked breast cancers among women.

3 Alcohol Consumption

o Excess alcohol use damages the liver, esophagus, and oral cavity, and increases the risk of multiple cancers.

o *Example:* A **Lancet Oncology (2022)** study reported that alcohol-related cancers are rising in states like Kerala, Punjab, and Goa where consumption is higher.

Kamaraj IAS Academy

Plot A P.127, AF block, 6 th street, 11th Main Rd, Shanthi Colony, Anna Nagar, Chennai, Tamil Nadu 600040

Phone: **044 4353 9988 / 98403 94477 / Whatsapp : 09710729833**

4Environmental Pollution (Air & Water)

oIndia has some of the world's most polluted cities. Air pollution, particularly PM2.5, is linked to lung cancer.

oIndustrial effluents, arsenic-contaminated groundwater, and pesticide residues also increase risks.

o*Example: Delhi and Uttar Pradesh* show higher incidence of lung cancer among non-smokers, linked to air pollution (ICMR, 2023).

5Infections & Viral Causes

oCertain cancers are infection-driven: HPV (cervical cancer), Hepatitis B & C (liver cancer), H. pylori (stomach cancer).

oLack of vaccination and screening worsens the situation.

o*Example: Cervical cancer* remains the **second most common cancer among Indian women**, with HPV infection as the main cause.

6Rising Life Expectancy & Aging Population

oWith India's population aging, more people fall into the high-risk age bracket (above 60 years).

oCancer is primarily a disease of cellular mutations accumulating over time.

o*Example: By 2035*, elderly cancer cases are projected to double in India (WHO–GLOBOCAN).

7Occupational Hazards

oExposure to asbestos, silica, heavy metals, and chemicals in industries (construction, mining, textiles) increases cancer risk.

o*Example: Ship-breaking yards in Gujarat* expose workers to asbestos, raising mesothelioma risk.

8Genetic & Familial Predisposition

oMutations like BRCA1/2 increase breast and ovarian cancer risk, while family history of colon or prostate cancers raises susceptibility.

o*Example: The Tata Memorial Centre (2022)* reported higher cases of hereditary breast cancers in young Indian women compared to the West.

9Urbanization & Stressful Lifestyles

oUrban areas witness higher prevalence of cancers due to stress, late marriages, fewer childbirths, hormonal changes, and lifestyle risks.

o*Example: Breast cancer* has overtaken cervical cancer as the **most common cancer among urban women** (Mumbai, Delhi, Bengaluru).

10Delayed Diagnosis & Lack of Screening

oNearly 70–80% of cancer cases in India are diagnosed at advanced stages due to poor awareness and weak screening infrastructure.

oLate detection increases mortality and raises the perceived cancer burden.

o*Example:* In rural Bihar and UP, cervical cancer often goes undiagnosed until advanced stages due to lack of Pap smear facilities.

Challenges in Preventing Cancer in India

1. Low Awareness & Late Detection

- Lack of awareness about cancer symptoms, screening, and lifestyle risks leads to delayed diagnosis.
- *Example:* According to ICMR-NCRP 2023, over 70% of cancer cases in India are detected in advanced stages, reducing survival rates.

1. Weak Screening & Early Diagnosis Infrastructure

- Limited access to Pap smears, mammography, HPV tests, and oral screenings, especially in rural areas.
- *Example:* Despite being preventable, cervical cancer continues to kill over 77,000 women annually in India (WHO, 2023) due to poor screening coverage.

1. High Tobacco & Alcohol Consumption

- Despite laws like COTPA (2003) and tobacco taxation, enforcement is weak; smokeless tobacco use is widespread.
- *Example:* India accounts for one-third of the world's oral cancer cases (2023, Global Burden of Disease study).

1. Socio-Economic Barriers

- Poverty, stigma, and gender inequality limit healthcare access for preventive care.
- Women often neglect early signs of breast or cervical cancer due to social stigma.
- *Example:* Rural women in UP and Bihar delay hospital visits due to cultural taboos around reproductive health.

1. Environmental & Occupational Exposures

- Rampant air pollution, pesticide use, industrial effluents, and poor occupational safety contribute to rising cancer risks.
- *Example:* Delhi-NCR has reported a significant rise in lung cancer cases among non-smokers (AIIMS, 2023) linked to air pollution.

1. Insufficient Vaccination & Preventive Programs

- Vaccines against HPV (cervical cancer) and Hepatitis B (liver cancer) are underutilized due to high cost, lack of awareness, and logistical gaps.
- *Example:* India approved its first indigenous HPV vaccine “**Cervavac**” (2022), but coverage remains very limited in 2023–24.

Government initiatives to prevent cancer

1. National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS)

- Launched in 2010, it integrates cancer prevention with other non-communicable diseases.

- Focus: screening, early diagnosis, treatment, and referral services at district and community health centres.
- *Example:* In 2023, NPCDCS rolled out **population-based screening** for oral, breast, and cervical cancer across several districts.

2. National Cancer Registry Programme (NCRP) – ICMR

- Established in 1982, provides data on incidence, mortality, and survival trends of cancer.
- Helps in policy planning, identifying hotspots, and resource allocation.
- *Example:* The **NCRP 2023 report** estimated **15.7 lakh new cases by 2025**, guiding preventive interventions.

3. Pradhan Mantri Jan Arogya Yojana (PM-JAY) under Ayushman Bharat

- Provides health insurance coverage up to ₹5 lakh per family per year for secondary and tertiary care hospitalization.
- Cancer patients benefit from cashless treatment packages in empanelled hospitals.
- *Example:* Till 2023, **over 4.2 lakh cancer-related hospital admissions** were covered under PM-JAY.

4. National Tobacco Control Programme (NTCP)

- Aims to reduce tobacco consumption (major cause of oral and lung cancers).
- Awareness campaigns, tobacco-free schools, enforcement of **COTPA Act (2003)**.
- *Example:* In **2023**, GST Council kept high taxes on cigarettes and smokeless tobacco to discourage consumption.

5. Cervical Cancer Prevention – HPV Vaccination

- Cervavac (India's first indigenous HPV vaccine) was launched in 2022 at an affordable cost.
- The government is working towards including HPV vaccination in the Universal Immunization Programme (UIP).
- *Example:* Pilot projects for HPV vaccination in **Delhi, Sikkim, and Punjab** show promising results.

6. Tertiary Cancer Care Centres (TCCC) Scheme

- Strengthens oncology care by upgrading government medical colleges and regional cancer centres.
- *Example:* By 2023, **27 TCCC centres** were approved across India, including in Himalayan and northeastern states.

Conclusion

Cancer poses a growing challenge in India due to lifestyle changes, environmental risks, and demographic shifts. While the government has implemented multi-pronged measures—from awareness campaigns and screening programs to affordable treatment and vaccination—early detection, equitable access, and behavioural change remain crucial. Strengthening these interventions, along with community participation and robust healthcare infrastructure, is essential to reduce mortality, improve quality of life, and make cancer prevention a sustainable public health priority.