

GASTRIC CANCER STATISTICS IN INDIA: A REVIEW OF THE NATIONAL CANCER REGISTRY PROGRAM DATA



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Background

Gastric cancer is a major public health challenge in India, with significant regional variations in incidence and mortality. Northeastern states like Mizoram report some of the country's highest age-adjusted incidence rates. Public health initiatives focusing on awareness, early detection, and effective systemic interventions are critical to tackle gastric cancer.

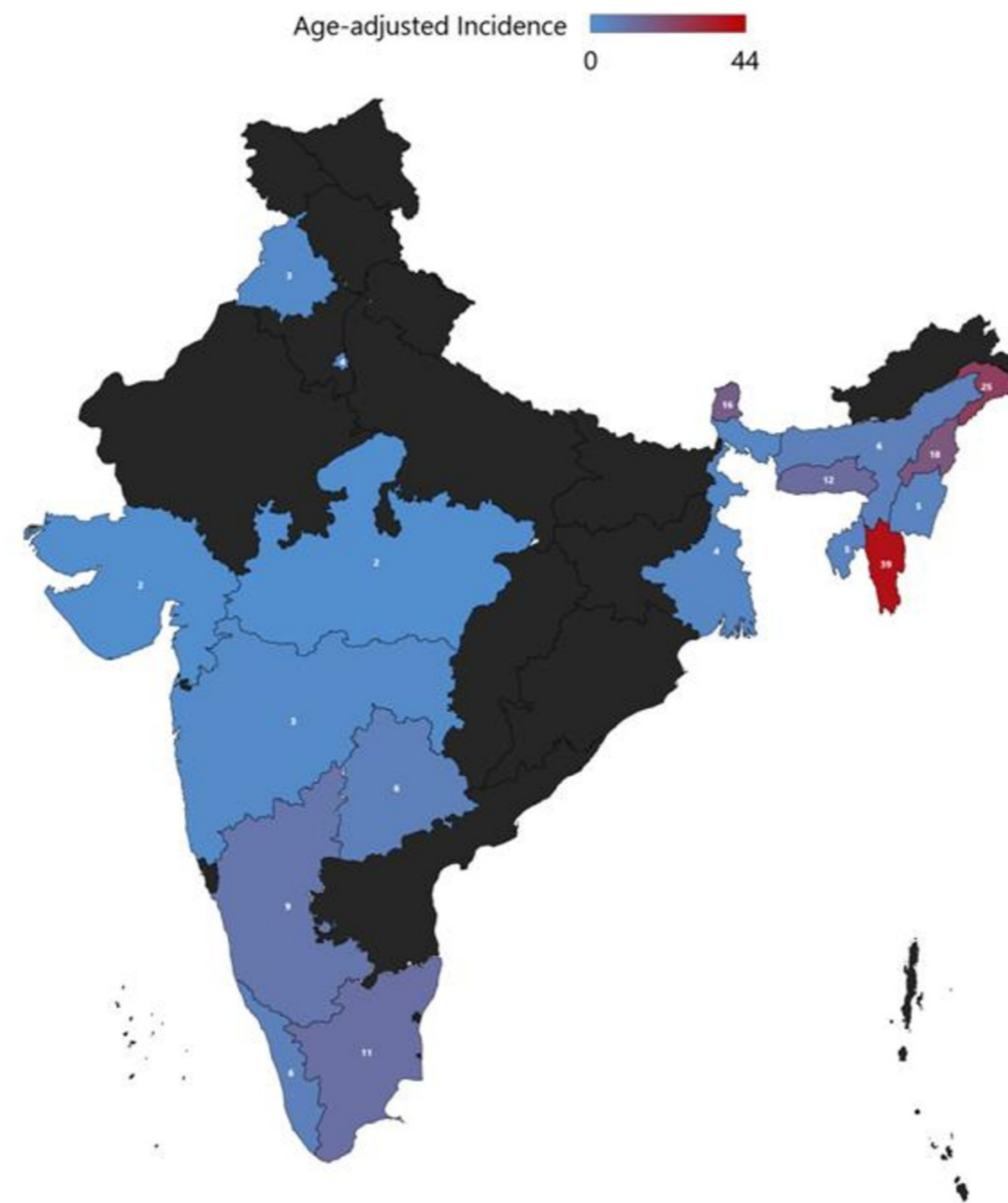
METHODS

This study analyzed publicly available data, focusing on gastric cancer incidence and trends, from the 2020 National Cancer Registry Program report (2012–2016) by the Indian Council of Medical Research, Government of India. The registry includes data from 28 population-based cancer registries (PBCRs), which record all new cancer cases within defined populations, and 58 hospital-based cancer registries, which document cancer cases from specific hospitals.

RESULTS

Gastric cancer showed an annual 4% increase in male incidence rates. The northeastern regions report the highest burden, with Aizawl (44.2 in 100,000) and Papumpare (27.1 in 100,000) leading among males and females, respectively. Significant rises were also observed in males in Sikkim. In Bangalore and Chennai, gastric cancer ranked as the second most frequently diagnosed cancer in males, following lung cancer. Incidence increased with advancing age, with registries in Mizoram, West Arunachal, Pasighat, and Nagaland recording the highest rates among older populations. Conversely, decreases in incidence were noted in 7 PBCRs for males and 4 for females, with significant declines in Kamrup, Mizoram, Mumbai, and Chennai for both sexes. Epithelial tumors were the most frequently reported histological subtype. Locoregional disease was the most common presentation, observed in 51.0% of males and 50.3% of females, while 24% of cases had distant metastases. Over 80% of patients presented with locally advanced or metastatic disease. Treatment strategies were dictated by disease extent, with systemic therapy being predominant in metastatic cases (63.3% in males, 64.4% in females) and localized disease (38.9% in males, 46.8% in females). The age-adjusted cancer mortality rates are highest in the north-eastern districts of India (Aizawl 253.8 in 100,100; Papumpare 202.9 in 100,000).

Age-Adjusted Gastric Cancer Incidence (Male)



Age-Adjusted Gastric Cancer Incidence (Female)

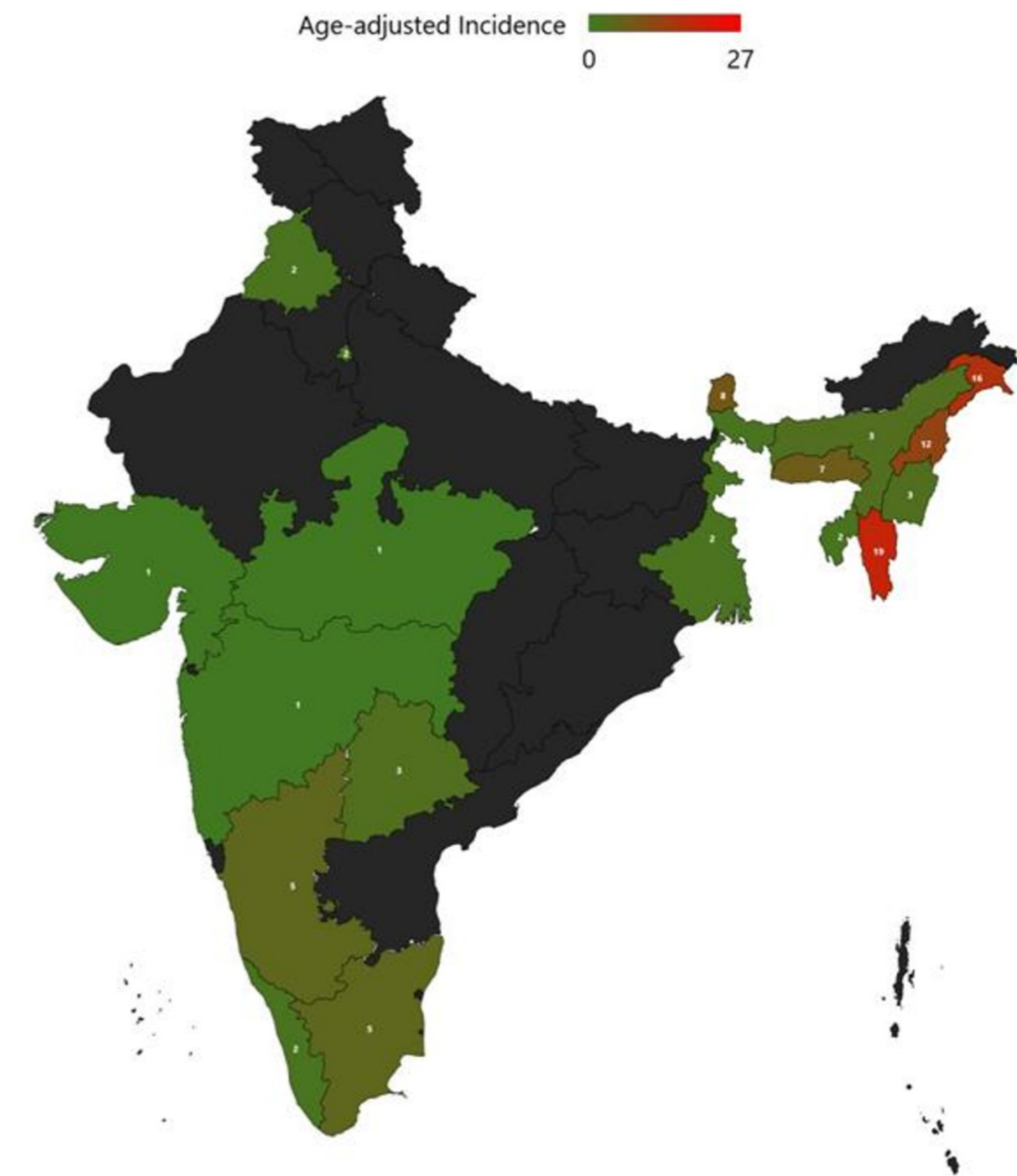


Figure 1: Geographical frequency map of the distribution of gastric cancer age-adjusted incidence rates per 100,000 population is shown separately for Indian males (left map) and Indian females (right map). Higher cancer incidences are shown in the red-spectrum of the frequency map, and lower cancer incidences are shown in the blue-spectrum (male) or green-spectrum (female), respectively. Both frequency maps show an increased age-adjusted incidence of gastric cancer in the northeastern states of India (Data Source: Report of National Cancer Registry Programme 2012-2016, Table 11.1; Map Source: Microsoft Excel powered by Bing).

Full report available online: https://www.ncdirindia.org/All_Reports/Report_2020

CONCLUSION

Gastric cancer poses a significant healthcare burden in India, with northeastern states and males most affected. Early detection programs and national clinical trials for precision therapy could greatly improve outcomes. The National Cancer Registry Program is instrumental in raising awareness and informing strategies to address this critical challenge. This abstract will help increase the global visibility of the healthcare burden of gastric cancer in India.