

Executive Summary



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Cancer is rapidly emerging as a matter of public health concern in India. In 2020, there were an estimated 1.39 million cancers in India. Cancer surveillance is an essential part of cancer prevention and control efforts. The Indian Council of Medical Research (ICMR) started the National Cancer Registry Programme (NCRP) in 1981, through a network of Population and Hospital Based Cancer Registries (PBCRs and HBCRs). Cancer registries systematically collect, store, analyze, interpret and generate meaningful data on cancer, which helps develop plans and implement effective evidence-based strategies. HBCRs contribute to providing robust data on clinical, pathological and treatment-related details of cancer patients availing of care at designated cancer care facilities.

This report, "Clinicopathological Profile of Cancers in India: A Report of Hospital Based Cancer Registries, 2021", is based on eight-year data of cancer cases from 96 HBCRs' under the NCRP. The data pertains to all diagnosed and treated patients of confirmed malignancies reported to these centres across the country. The report presents a general overview of the proportion of cancer sites relative to all sites, cancers in sites associated with tobacco use, childhood cancers and detailed chapters for cancers in various organs sites, which include head and neck, gastrointestinal tract, lung, prostate, central nervous system, thyroid, kidney, bladder, childhood and gynaecological cancers including breast.

A total of 1332207 cancer cases were registered from 96 hospitals under the NCRP during 2012-19. Of these, 610084 cases, were included for analysis, based on the completeness and quality of data.

Key Findings

- Out of 610084 cancers, 319098 (52.4%) cancers were reported in males, and 290986 (47.6%) in females.
- Childhood cancers (0-14 years) comprised 4.0% of all cancers.
- Cancers in sites associated with tobacco use comprised 48.7% of cancers among males and 16.5% among females.

- Cancers of the head and neck region accounted for nearly one third (31.2%) of the cancers among males. Gynaecologic cancers, including breast cancer (51%), accounted for over half of all cancers in females.
- The relative proportion of site-specific cancers was higher in males than females except for thyroid cancer (2.5 % in females versus 1% in males) and gall bladder cancer (3.7% in females versus 2.2 % in males)
- The highest proportion of cancer from all sites were reported in the age group 45 to 64 years, except for prostate cancer, which was higher in those over 65.
- Over 90% of the cancers in different organ sites got diagnosed by microscopic examination.
- Among all the cancers, the highest proportion of distant metastasis at presentation was seen in patients with lung cancer (49.2% males and 55.5% females), followed by gall bladder cancer (40.9% males and 45.7% females) and prostate cancer (42.9%).
- Over one-third of patients with cancers of the tongue, larynx, thyroid, corpus uteri, kidney (including children), bladder and retinoblastoma had localized disease at the time of presentation.
- Chemotherapy was the most typical treatment modality for many cancers regardless of the clinical extent of disease at presentation, including cancers of the liver, gall bladder, stomach, lung and childhood cancers.
- Regardless of the organ site and clinical extent, most cancer patients, were initiated on cancer-directed treatment within 8 to 30 days of diagnosis.
- Over half of the patients with cancer of the brain and nervous system and about one-third of the patients of lung, prostate, bladder and thyroid cancer with localized disease, diagnosed at the reporting institution were initiated on cancer-directed treatment on the same day.