
Cancer Registration & Cancer Research

Cancer registration is a means to a purpose and not a purpose in itself. It is the forerunner of studies in descriptive epidemiology of cancer, which in turn generate specific scientific hypotheses. Studying the magnitude and patterns of cancer would be the first step in determining clues to the cause of cancer and having a baseline to plan and assess control measures. Epidemiologic studies based on these, help in knowing what is happening and what can be done about it. Cancer registries provide the needed information to undertake such investigations. The registries under the NCRP have highlighted the need to undertake aetiological studies in several sites of cancer.

The data of the population based cancer registries has been published (Muir *et al.*, 1987, Parkin *et al.*, 1992) in successive volumes of the WHO publication - Cancer Incidence in Five Continents, published every five years by the International Agency for Research on Cancer - the cancer research arm of the WHO. Data from registries on Childhood cancer and cancer occurrence in developing countries have also appeared in the Agency's publications (Parkin *et al.*, 1986, 1988).

A number of research investigations have been undertaken based on the cancer registry data and many of the results have been published in national and international journals. For the first time, in the context of a developing country, population based survival studies on selected sites of cancer have been published (Nandakumar *et al.*, 1995; Sankarnarayanan *et al.*, 1998).

Multi-centric case control studies on cancers of the stomach and oesophagus under the NCRP were conducted in 1988-92. The collaborating centres were population-based cancer registries at Chennai and Mumbai and hospital cancer registry, Thiruvananthapuram. In Chennai, the study indicated that chewing,

Population Based Survival Studies:

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The reported five year relative survival for cancers of the female breast and cervix are as follows:

Registry	Breast	Cervix
Bangalore	46.8%	40.4%
Chennai	49.5%	60.0%
Mumbai	55.1%	50.7%

smoking, alcohol, fried foods, salty food, chutney, and increased use of chillies elevated the risk and increased use of vegetables decreased the risk (Gajalakshmi and Shanta, 1996). In Mumbai, the results showed elevated risks for chewers, smokers and alcohol users. Elevated risks were observed for regular users of papad, those eating with curry and very hot chilly. In Thiruvananthapuram, high consumption of rice, high consumption of chilly and consumption of high-temperature food were found to be independent risk factors.

● Over the years, the data from NCRP network have helped in bringing out numerous research publication in indexed national and international journals.

● **Ongoing Project:**

NCRP (ICMR) - WHO Project on "Development of an Atlas of Cancer in India" with data collation through website: canceratlasindia.org

A case control investigation in Bangalore outlined the need for defining the anatomical sub-site of cancer of the oesophagus. Another case control study on cancer of the ovary showed that tubectomy as a method of family planning appeared to reduce the risk of developing ovarian cancer (Nandakumar *et al.*, 1995, 1996). The Mumbai PBCR has carried out epidemiologic studies among different religious groups (Jussawalla *et al.*, 1985; Yeole *et al.*, 2001). Increased cancer awareness in the rural population through the Barshi registry improved stage at diagnosis in cervical cancer (Jayant *et al.*, 1995).

Based on the HBCR data, end results of treatment and survival have been extensively reported and published (Nair, *MK et al.*, 1988, 1992). An official newsletter of the NCRP "CRAB" is periodically published by the HBCR, Thiruvananthapuram.

The NCRP undertakes and coordinates epidemiologic and other research studies including those to ensure that the quality of data is of a high standard and that coverage of cancer cases in the registry area is as complete as possible. Recently a population based cancer survey was done in selected defined divisions within the registry areas in Bangalore, Chennai and Mumbai. The results revealed that the proportion of coverage of cancer cases by the registry was 72% in Bangalore, 100% in Chennai and 78% in Mumbai (NCRP Report, 1999).

An inter-registry panel of pathologists was constituted to study histological features that correlate with prognosis in cancer of the breast. This was completed and the results showed that Clinical Extent of Disease, Vascular Invasion and Involvement of Nipple/Areola/Skin of breast were the factors that significantly influenced survival (NCRP Report 2000).

The World Health Organization is supporting a project on Development of an Atlas of Cancer in India, through networking of pathology departments of medical colleges, cancer centres and major hospitals across the country.

A multi-centric case control study on cancer of the prostate is being presently conducted as also a similar study on cancer of the gall bladder in Delhi. The registries provide an opportunity to embark on studies that could combine in-depth laboratory components with epidemiologic design. Several of the registries have established themselves as Departments of Epidemiology and Research.

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