

POPULATION BASED CANCER REGISTRY, BHOPAL

Gandhi Medical College, Bhopal

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Under the network of National Cancer Registry Programme (NCRP) of Indian Council of Medical Research (ICMR) a Population Based Cancer Registry was established in September 1985 at the Gandhi Medical College, Bhopal. Data collection and compilation began from 1st January 1986.

Bhopal is situated at an altitude of 505 metres above the sea level at 23.07° North and 77.12° East with a total area of 284.90 sq km. The city has a humid subtropical climate. Summers are hot, maximum being 46°C and winters are dry and cold, minimum being 5°C. Monsoons are humid with an average rainfall of 1020 mm. The average literacy rate of Bhopal is 74.61% with male and female literacy being 87.44% and 76.57% respectively. The population of Bhopal city has nearly 56% Hindus, 40% Muslims while the Christians, Jains, Buddhists and Sikhs put together form 2-4% of the population.

Registration of cancer cases is done by active method of registration and information on cancer patients is obtained from 77 sources which include government hospitals, private hospitals, nursing homes, clinics and diagnostic centres. Social investigators visit these centres regularly and collect data on cancer by interviewing the patients whenever possible and extracting cases from the medical records otherwise. Quality of data collected is maintained by subjecting data to various range and consistency checks provided in the PBCRDM software developed by NCRP. The data from two sources since 2008 was digitally transferred to the registry database and an initial comparison of the quality and completion of the data transferred digitally and that collected manually showed no significant difference hence this has become the practice for these two sources.

Mortality information on all deaths occurring in the city irrespective of the cause of death mentioned on the deaths certificate is collected from burial ground, crematorium and municipal records (VSD). These are then matched with the cancer morbidity data available in PBCR. The matched deaths are then updated. The unmatched cancer deaths are traced back by house visits and scrutiny of medical records. Cancer cases with no other details, other than those available on the death certificate, are registered as "Death Certificate Only".

Since its inception the registry has recorded a very high incidence of tobacco related cancers with the cancers of lung, tongue, mouth, hypopharynx, prostate and oesophagus being the leading sites among males and breast, genital system, mouth and oesophagus in females.

Over the years significant rising trend were observed in cancers of the Mouth, Larynx and Prostate among males. Among females cancers of Breast, Ovary, Mouth, Oesophagus and Gallbladder have shown a significant rising trend. Similarly significant decreasing trend was observed in Cervical Cancer among females. These trends have resulted in a significant change in the pattern and burden of cancer on the population.

Staff of Population Based Cancer Registry, Bhopal

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Main Sources of Registration of Incident Cases of Cancer: 2009-2010 **Bhopal**

Name of the Institution	Number	%
J.L.N. Cancer Hospital	1397	47.7
Hamidia Hospital	678	23.2
Navodaya Cancer Hospital	383	13.1
Kasturba Hospital	173	5.9
Sultania Zanana Hospital	137	4.7
Tata Memorial Hospital	94	3.2
D.C.O.	53	1.8
Others	13	0.4
Total	2928	100.0

1. Institutions listed have registered at least one percent of all cases in the registry for the combined years 2009-2010.
2. The numbers and proportion listed are the minimum number of cases. Institutions could have registered/ reported more cases, since duplicate registrations and non-resident/registry cases are not included.