Chapter 5

PROJECTION OF BURDEN OF CANCER

Projection of cancer burden means a systematic way of prediction of number of cancer cases for all anatomical sites or for a specific site and for a specified period of time. This could be based on time trend in incidence rates based on the projected population.

The present chapter projects the cancer cases for the country by sex for selected sites of cancer for the periods 2008-2010, 2015 & 2020 [Table 5(a) and 5(b)]. The incidence data generated by PBCRs at Bangalore, Barshi, Bhopal, Chennai, Delhi and Mumbai for the years 2001-2005 formed the sources of data. The Crude Incidence Rate (CR) was considered suitable for assessing the future load (magnitude) of cancer cases in the country. The CR is preferable to AAR as the latter is more suitable for comparison of rates between areas than for assessing the disease burden for the area. The combination of time trend in pooled crude rates of selected sites for past five years and population estimate by time was used to arrive at the projection for each of the above periods. The Linear Regression method was used to assess the time trend. For whichever sites the trend was not found to be significant, the latest rates were taken into consideration.

The pooled crude rates of the five urban registries (Bangalore, Barshi, Chennai, Delhi and Mumbai) were taken to represent the estimates for all Indian states excluding states from the North East region. The Crude Rate of various cancer sites provided in the report of 2005-2006 for the North East region were assumed to represent the estimates for the same area. The crude rate of cancers of cervix and breast of the rural registry at Barshi was taken into account to represent the rural areas of India. Accordingly, the weightage of 0.7 and 0.3 for rural and urban areas respectively was used to estimate the projection for Breast and Cervix cancers.

The Percentage change observed in decadal growth rate of 1991-2001 as compared to the decadal growth of 1981-1991 was assumed to continue and correspondingly the growth rate of India is calculated separately for both males and females to calculate the yearly populations for the year 2001-2020.
<table>
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<tr>
<th>ICD-10</th>
<th>Site Name</th>
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Table 5(b): Projected Cases at India level for Selected Sites and Selected time periods (2008-2010, 2015, 2020) - FEMALES

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