**Abstract**

The burden of cancer is growing globally and is one of the top leading causes of death. Information on cancer patterns is essential for effective planning of cancer control interventions. **Aims and Objectives:** The present cross sectional study aims to explore the patterns and trends of the cancer incidences in the western regions of Tamil Nadu, India including Coimbatore, Erode, Tiruppur, Salem, Namakkal and Nilgiris. **Materials and Methods:** A sum of 14392 cancer cases were recorded from the hospital based cancer registries of Coimbatore district. The cancer cases were segregated district-wise for specific cancer sites and the age-standardized incident rates were calculated for different age groups. **Results:** Coimbatore district recorded the highest number of incidences among all districts. Among all age-groups the adults aged 50-74 carry the highest burden of cancer. Among men, head and neck and gastrointestinal cancers are predominant while among women, breast and gynecological cancers are high. The age-standardized incidence rates were found to be higher in Coimbatore and least in Salem. **Conclusion:** Through this study, it is observed that Coimbatore district is under major threat and needs further investigation of risk factors for implementing optimized treatment and prevention strategies for reducing the adverse effects of cancer.