Spatial and socio-demographic disparities of cancer morbidity in Nigeria: Patterns and factors

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Abstract

An analysis of cancer pattern among states in Nigeria was undertaken with a view to identify spatial variations and the associated factors which could aid in the allocation of health resources and intervention planning. Retrospective cancer data from 1987 to 1996 were retrieved from five national cancer registries in Nigeria which included the cancer patients’ age, gender, cancer site and residential area. In addition, socio-demographic, environmental and pathogenic data used as explanatory variables were collected from secondary sources. Results showed that all cancer sites according to WHO classification were reported in Nigeria. The five leading cancer groups within the study period were breast, cervical, leukaemia/lymphoma, gastro-intestine and bone cancer (19–8%). At each of the cancer registries (zones), cancer occurrence varied in composition and magnitude. Cancer incidence varied significantly (P <0.05) among states; 70–125 in Oyo and Osun, and 15–40 in Enugu, Lagos, Ondo, Kwara, Ogun, Anambra, Imo and Abia state. There was positive correlation between cancer pattern and indices of urbanization, industrialisation and biomass energy utilisation in each state (R = 0.79–0.56) explaining between 31% to 63% (R² =0.31–0.63) of the observed variation in specific cancer pattern. Further, inequality in the development level of the states influenced the cancer pattern. Socio-medical resources allocation for cancer control should thus take cognizance of the regional heterogeneous cancer profile in the country for optimum results.

**Keywords:** cancer, cancer factors, cancer profile, morbidity, spatial variation of cancer, socio-medical resource allocation