

Cancer in rural KwaZulu-Natal

To the Editor: In 1968 the commonest tumours reported in KwaZulu-Natal were cancers of the lung, oesophagus, liver and stomach in men and cancers of the uterine cervix, oesophagus and breast in women.¹ Kaposi's sarcoma occurred only rarely in men and there was no record of a case in women. In 1986, a national pathology-based cancer registry was

established in South Africa, which includes data from the three pathology laboratories in KwaZulu-Natal (the most recent publication was in 1998 and was based on registrations from 1993 to 1995).² These data indicate that cancers of the oesophagus, lung and prostate in men and of the uterine cervix and breast in women remain among the most frequently



reported cancers. Kaposi's sarcoma comprised 0.3% of cancers in men and 0.09% in women. However, Kaposi's sarcoma is increasing in incidence with the spread of the human immunodeficiency virus (HIV) type 1. Sero-surveys show that in parts of KwaZulu-Natal the prevalence of HIV infection in adults has risen from 4% in 1992 to 14% in 1995 and 35% in 2002.³ The impact on cancer risk of the rapid spread of HIV in KwaZulu-Natal is unclear. Furthermore, it is well recognised that pathology-based registration can underestimate the true burden of cancer in such settings because a proportion of cancers will be diagnosed on clinical grounds alone, or using another form of investigation such as X-ray or ultrasound. In this report we present data on the relative frequencies of different cancers diagnosed at Hlabisa Hospital in northern KwaZulu-Natal.

Hlabisa district is situated in rural KwaZulu-Natal about 250 km north of Durban. Between April 2001 and September 2002 the cancer registry based at Hlabisa Hospital employed a nurse part-time to identify cancer cases, primarily through the hospital records office and by visiting every ward and outpatient department twice a week to review admission and discharge records of all patients. In addition, all biopsies from Hlabisa Hospital were sent to Durban for analysis and the pathology reports were copied to study personnel each week. Hospital staff were routinely questioned, and patients suspected of having cancer but for whom a biopsy report was not available had their notes reviewed by one of the study investigators (MD), and if possible were examined before formal registration. The information recorded at notification of cancer included diagnosis (topography and morphology), means of diagnosis (e.g. histology, other laboratory examination, ultrasound, clinical only) and basic demographic details such as age, sex, address, current employment, years of formal education and consumption of tobacco and alcohol. Cancers diagnosed on clinical grounds alone or on the basis of investigations other than histology are included here, but benign tumours have been excluded.

During 18 months of hospital-based cancer registration, information was collected on 118 cancers in men and 106 in women resident in Hlabisa district. The most frequently diagnosed cancers among men were Kaposi's sarcoma ($N = 47$, 40%) and lung cancer ($N = 24$, 20%), followed by cancers of the liver ($N = 11$, 9%) and oesophagus ($N = 8$, 7%). In women, the most frequent cancers were Kaposi's sarcoma ($N = 43$, 41%) and cancer of the uterine cervix ($N = 35$, 33%), followed by other female genital tumours ($N = 6$, 6%) and colorectal cancer ($N = 4$, 4%). No cases of lung cancer were reported in women.

Histological confirmation of diagnosis was available for 25% of cancers and 53% were diagnosed on clinical grounds alone. These figures varied by cancer site or type. The majority of those with Kaposi's sarcoma ($N = 67/90$, 74%) and cancer of the uterine cervix ($N = 26/35$, 74%) were diagnosed on clinical grounds alone. Most of those with lung cancer ($N = 20/24$,

83%) were diagnosed with a chest X-ray, and liver cancer cases ($N = 10/13$, 77%) with an ultrasound and a blood test for alpha-fetoprotein levels. The relatively high proportion of cancers diagnosed solely on the basis of a clinical examination suggests that histologically based cancer registration in South Africa may be significantly underreporting certain tumours.

About one-third of male and female cancer patients were employed at the time of diagnosis. More than one-third of patients had no formal education, although some schooling was more likely in younger people. Use of tobacco was predominantly a habit of men; 53% of men under 40 years of age and 85% of men aged 40 or over had smoked in the past or were current smokers. In women, 10% of those under 40 years and 27% of those aged 40 or over were past or current smokers. All 24 cases of lung cancer occurred among men and all of them reported a history of tobacco use. Similarly, alcohol consumption was more prevalent in men than women. Among men, 53% of those under 40 and 84% of those aged 40 years or older consumed alcohol, compared with 11% and 41% of the women respectively.

In summary, cancers of the lung and cervix remain relatively frequent in KwaZulu-Natal, presumably reflecting the prevalence of risk factors such as tobacco and human papillomavirus infection. Kaposi's sarcoma has increased in frequency with the recent spread of HIV infection. The impact on health of sexually transmitted infections and tobacco is clearly evident in these cancer registration data, but cancer incidence represents only a small proportion of morbidity and mortality associated with these factors.

M Dedicoat is supported by a Training Fellowship in Clinical Tropical Medicine from the Wellcome Trust, UK.

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