

This policy brief discusses what is known about cancer in South Africa and how estimates of the future burden of cancer might be made. Resources that could be adapted for planning a comprehensive cancer service for the National Health Insurance (NHI) system are described.

The Cancer Association of South Africa (CANSA) has shown that one in six South African men and one in seven South African women will get cancer during their lives. According to CANSA, important determinants of the prevalence of particular cancers are age, race, gender and socio-economic status.

By gender, South African women suffer predominantly from breast and cervical cancer, while prostate and lung cancers are the most prevalent for men. Black South African men experience high levels of oesophageal cancer. The South African Health Review (SAHR) 2008 reported that cancer death rates adjusted for age are highest in the Coloured population, followed by the White, then the Black African and lastly the Asian groups.

Income level may have an effect on the site of cancer too; this would be significant for South Africa which has extreme disparities in wealth. In a report by the Medical Research Council, it was found that death due to cancer of the cervix is the commonest cause of cancer deaths among poor women and accounts for a quarter of the years of life lost by these women. This condition could potentially be cured and/or death prevented if adequate health services were in place for diagnosis and treatment. The prevalence of cancer in South Africa is additionally burdened by "the huge load of AIDS-related Kaposi's sarcoma".

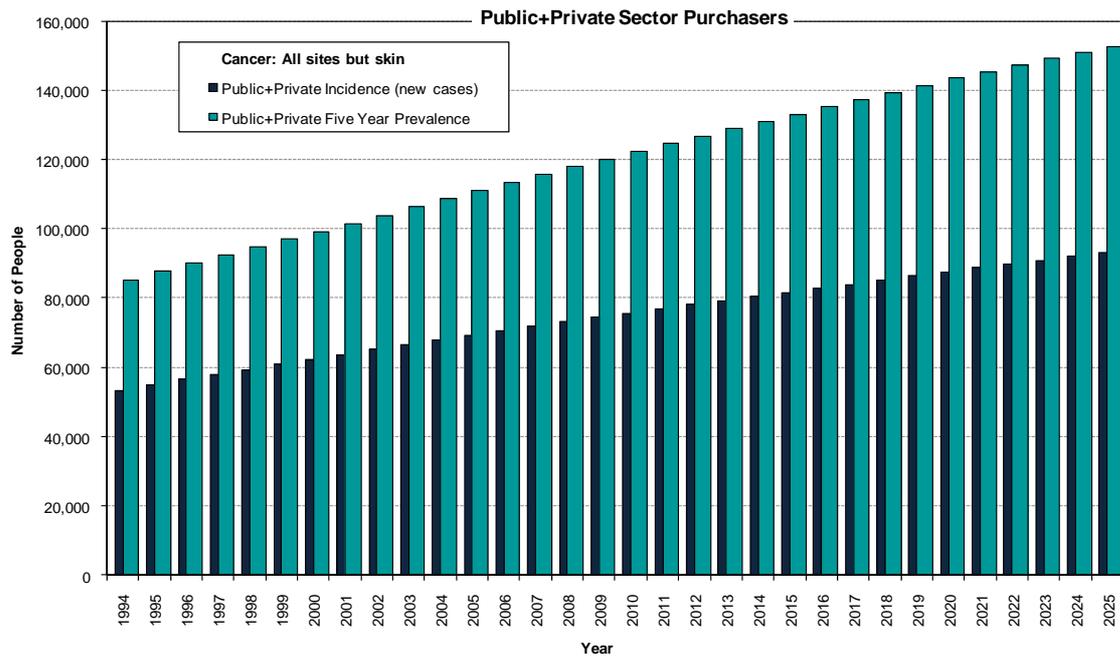
The National Cancer Registry (NCR) collects data on the national incidence and prevalence of cancer. The latest report released is the 2000/1 NCR Report. From this available NCR data, the prevalence of cancer by province could not be estimated. There is, however, good data on cancer deaths. The South African Health Review 2008 published evidence of different experiences between the provinces: "the Western Cape had the highest cancer death rates, followed by Gauteng, the Northern Cape and the Eastern Cape. The lowest rates were found in KwaZulu-Natal, Limpopo and Mpumalanga. The profile of cancer also differed enormously across the provinces."

In South Africa, the expected growth in population numbers and expected aging of the population has a significant effect on the future burden of cancer. Using the GLOBOCAN 2002 rates of incidence and the Actuarial Society ASSA2003 model estimates of the population to 2025, the number of people in South Africa diagnosed with cancer for all sites except skin is estimated to have been 53,310 in 1994. By 2009 the annual incidence is 74,431 (an increase of 40%) and by 2025 the incidence could be 93,060 cases (an increase of 75% since 1994). This is illustrated graphically overleaf in Figure 1.

In medical schemes, data was obtained on some 25% of medical scheme beneficiaries in 2001. This amounted to data on about 1.5 million beneficiaries, making it a very substantial data set. The rate of hospitalisation for neoplasms was 5.412 per 1,000 beneficiaries in 2001. Treatment of neoplasms accounted for 5.2% of total claims costs in that year (however, this estimate excluded the costs of chemotherapy and out-patient costs).

A good example of the way in which healthcare providers should be responding to affordability constraints and thinking about their practice under a future NHI system is the Independent Clinical Oncology Network (ICON), an oncology managed care group. The cost of cancer treatment is rising sharply due to technological advances and the increasing number of cancer cases (as people grow older and live longer). ICON argues that one way of improving access to cancer treatment and making it more affordable is to adopt strict adherence to protocols and to make use of a network of providers, using managed care tools like case management, utilisation management, independent medical evaluations and medical bill reviews to ensure that care is delivered appropriately. They have been able to provide an improved package of radiotherapy and chemotherapy services to more low-income patients than was previously available, at costs that compare well with the public sector.

The Cancer Research Initiative of South Africa (CRISA) co-ordinates research on cancer, including the costing of cancer treatment, the impact on the economy and the cost of interventions to reduce cancer. Policy-makers and researchers interested in the design of a future integrated cancer service should consider the extensive UK material on this topic.



**Figure 1: Estimated Incidence and Five-Year Survival Prevalence of Cancer in South Africa 1994 to 2025**

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**Further resources on the IMSA NHI web-site:**

[http://www.innovativemedicines.co.za/national\\_health\\_insurance.html](http://www.innovativemedicines.co.za/national_health_insurance.html)

- The full policy brief, as well as the slides and tables used.
- Tables from GLOBOCAN 2002 on the rates of incidence, survival and mortality for South Africa for each type of cancer.
- A glossary of healthcare terms.

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