

South Africa has the largest number of people living with HIV/AIDS in the world, estimated to be some 5.7 million people by 2009, or 11.7% of the total population. This policy brief deals with predicting the course of the epidemic, costings of treatment that have been performed and the success of HIV disease management programmes. The intention is to gather the best available material for use when costing the impact of HIV and related diseases on a future NHI system.

Prof Rob Dorrington and the Centre for Actuarial Research (CARE) at UCT, together with the AIDS Committee of the Actuarial Society of South Africa (ASSA), produced a series of AIDS and Demographic models that provide excellent estimates of the population and the course of the epidemic. ASSA2003, the current model, estimates the numbers at the various stages of HIV infection, as shown through to 2025 in Figure 1 overleaf. The effect of HIV, various interventions and the impact of antiretroviral treatment (ART) are modelled for South Africa and each province. ASSA 2008, an updated version of the model, is expected to be released in mid-2010.

A significant feature of the epidemic in South Africa has been the very different rates of infection by province. This means that there is a wide disparity in the need for treatment by province and this argues for a risk-adjusted payment to the provinces which includes HIV/AIDS as a risk factor.

Disease management programmes to manage HIV/AIDS benefits were already found to have become standard in medical schemes by 2003. These programmes were accessible on a confidential basis to 90% of medical scheme beneficiaries before treatment became mandatory from January 2005. By mid-2006 it was found that there were seventeen companies offering HIV/AIDS disease management, covering 55,900 patients. A further 11,600 were treated on community treatment programmes so that the total number of individuals receiving HAART in the private sector was estimated to be at least 67,600. Roughly 181 000 people had started HAART in the public health sector by June 2006.

In both the private and public sector, there has been costing work done regarding the treatment of HIV. Dr Leon Regensberg of Aid for AIDS, the longest running disease management programme in the private sector, has long shown that the major cost driver in managing HIV is hospitalisation for AIDS-related conditions. Antiretroviral therapy is effective and reduces the need for hospitalisation. As patients enrolling on HIV management programmes at a later stage of disease incur significantly higher treatment costs than patients who enter at an early stage, significant hospital costs might be avoided through earlier diagnosis. A commitment to destigmatising the disease remains essential.

The ASSA models have played a major role in determining the cost of treatment of HIV/AIDS in the public sector and so it would be valuable for the development of an NHI system to have the costs of HIV estimated again, but using more recent prices. The changing benefits provided for HIV/AIDS as part of the Prescribed Minimum Benefits (PMBs) in medical schemes are a mirror image of the changing benefits provided in the public sector for the disease. It is one of the clearest examples where the public and private sectors provide the same defined minimum package of care.

Co-infection has a substantial bearing on the cost of treatment, in terms of severity and complexity. The HIV epidemic interacts with the epidemic of Tuberculosis (TB) as well as other sexually-transmitted infections (STIs) and Hepatitis B. South Africa, with 0.7% of the world's population, accounted for 28% of the world's people with both HIV and TB in 2006. Some 5% of those living with HIV in sub-Saharan Africa are thought to be co-infected with Hepatitis B. The interaction between HIV and STIs has been modelled by Dr Leigh Johnson of UCT.

Healthcare costs are further aggravated by secondary effects, such as the increased number of orphans, and the burden on the elderly who now have to care for their sick children and possibly their orphaned grandchildren. The impact of AIDS on scarce healthcare resources may mean reduced availability of chronic disease care for older persons.

There are substantial resources and experienced people available to assist in producing estimates of the impact of HIV and related diseases on a future NHI. This work needs to be commissioned, however the future NHI may be structured.

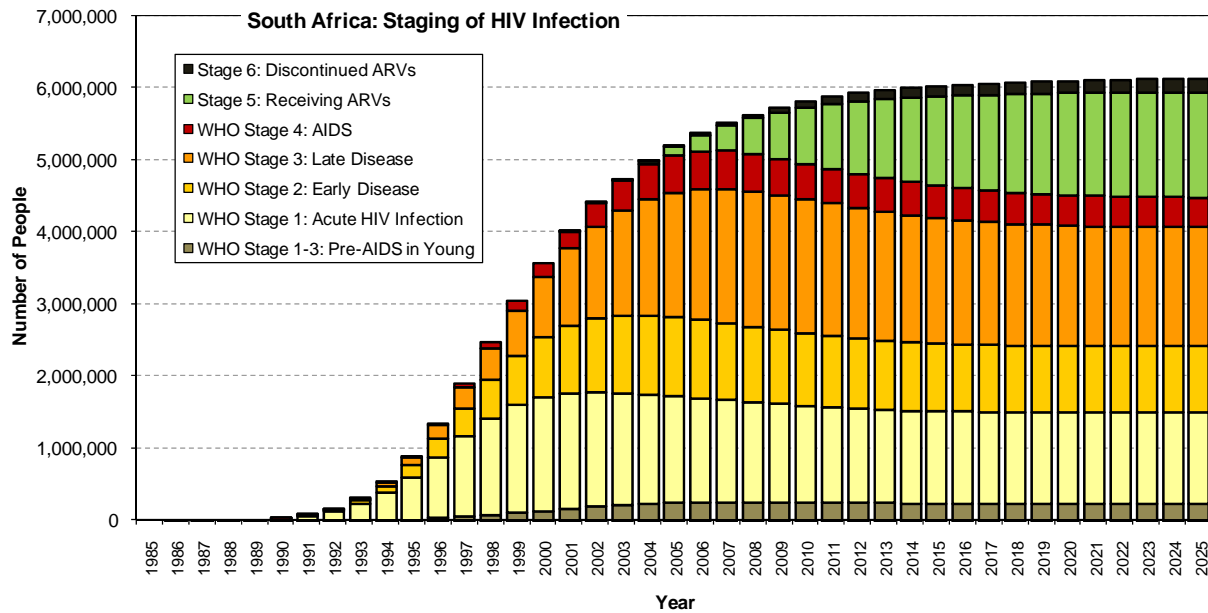


Figure 1: Staging of HIV Infection in South Africa from 1985 to 2025, using the ASSA2003 Model with standard assumptions about treatment and interventions

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Further resources on the IMSA NHI web-site

http://www.innovativemedicines.co.za/national_health_insurance.html

- The full policy brief, as well as the slides and tables used.
- Tables by age and gender of the population in each province, with tables giving the staging of HIV infection and the numbers needing and discontinuing antiretroviral treatment. Tables are available from 1985 (which pre-dates the epidemic) to 2025.

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