South Africa's battle against HIV/AIDS gains momentum

A recent survey by South African researchers emphasises the weaknesses and strengths of the country's current efforts to curb the HIV/AIDS epidemic. John Maurice reports.

South Africa has come a long way in its war against HIV. In the 1990s, its attempts to stem the escalating death toll of the epidemic against a background of political and social unrest were often ineffectual or misquided. Today sees a country confronting the epidemic head on and making substantial inroads against the enemy. South Africa still has the greatest number of people infected with the virus and the highest number of new cases annually. But it also now holds the world record for having the largest number of HIV-infected people surviving thanks to a burgeoning antiretroviral treatment (ART) programme. It is also well on the way to halting mother-to-child transmission of the infection.

Aaron Motsoaledi, South Africa's Minister of Health, is upbeat. "There was a time", he tells The Lancet, "when the diagnosis of HIV infection was like a death sentence. People were dying all over the country. Between 1997 and 2006 the death rate from the infection doubled. We have changed that. We have scaled up treatment and brought the death rate down by a third since 2004. So we no longer fear the disease as we did. And for the first time, the number of people on ART is greater than the number of new cases we see every year. I fully believe that we have turned the corner and I am delighted with that progress. But we mustn't let down our guard. We still have obstacles to face and a lot of work to do. And we must turn off the tap of new cases occurring."

New data

A recent report by South Africa's Human Sciences Research Council (HSRC) bears out the Minister's caveat. Based on a survey including 37000 interviews and 28000 HIV tests, the report found that 6-4 million South Africans, or 12-6% of the total population, were living with HIV in 2012. Three previous HSRC surveys had shown slightly lower prevalence rates—10-9% in 2008, 10-8% in 2005, and 11-4% in 2002. The report's findings, released last month, surprised many observers who were hoping for a drop in prevalence. But as Olive Shisana, HSRC's chief executive officer and principal investigator of the report, explains: "Yes, the report does

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show an increasing prevalence but one important reason is the four-fold increase in the number of HIV-infected people receiving ART—from 490 000 in 2008 to more than 2 million in 2012. These people on treatment are surviving and therefore swelling the number of people living with HIV."

A second, less encouraging reason, she says, is the continuing high annual number of new cases in the 15–49 year age group—400 000 in 2012, corresponding to an annual incidence rate of 1.7%, which has hardly changed since 2005. The reasons for such a high incidence are closely related to high-risk sexual behaviour. In 2012, 23% of men aged 15-49 years were having sex with several partners, up from 19% in 2008 and 9% in 2005. And the proportion of young men using condoms fell from 85% in 2008 to 68% in 2012. The report notes that the increases in high-risk behaviours could be the result of so-called treatment

optimism due to the wide availability of ART.

Vulnerable populations

Several other segments of South Africa's population were singled out by the findings of the HSRC report as particularly vulnerable to HIV infection. They include habitual consumers of alcohol or recreational drugs and also black African women aged 20–34 years and black African males aged 25-49 years. Black Africans, of whom 15% were infected with HIV in 2012 versus 0.3% of whites, are hardest hit by HIV, mostly because of low marriage rates and low socioeconomic status. Poverty and poor living conditions also underlie the fact that HIV is infecting 20% of people living in city slum areas (officially termed "urban informal localities"), twice the prevalence of residents in the more well-to-do ("formal") areas.

A disturbing finding of the survey is the rising proportion of girls aged 15–19 years having sex with older men—34% in 2012, up from 19% in 2005. The proportion of boys in this category remained below 5% during the same period. This trend, the survey researchers believe, could be one factor responsible for the greater proportion of females having the infection than



Aaron Motsoaledi, South Africa's health minister

For the **HSRC survey** see http://www.hsrc.ac.za/en/ research-outputs/view/6871



In 2010, South Africa launched a campaign to encourage people to know their HIV status

males (14% vs 10%, all ages combined). "This is the biggest obstacle I face", says health minister Motsoaledi. "There is a historical reason for this practice in South Africa. It is the large number of children orphaned by the HIV epidemic." Motsoaledi explains that some orphan girls believe that having sex with an older man will help them to survive and to acquire a social status, but it also gives them a higher risk of being infected by these older men. "This socalled survival sex is still rampant in our country", he says.

The HSRC's Shisana lauds the government for the progress achieved so far. However, she points to several areas where urgent action is needed. "We need to focus more on vulnerable groups that have been neglected up to now, such as men who have sex with men, sex workers, and disabled people. We need to strengthen our efforts to communicate to these groups how to prevent the infection. We have been concentrating greatly on treatment. Now we should give prevention a stronger focus."

Looking to the future

Questioned about the government's future plans in the fight against the epidemic, Motsoaledi says his main focus for the future is on combination prevention. "No one method alone can defeat this epidemic. My strategy for the future is to bring together in a coordinated manner all the different means we have of dealing with the epidemic—communicating, promoting condom use, getting more men to accept medical circumcision, developing a post-exposure prophylaxis

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programme, increasing the numbers of infected people on ART, and so on. Accelerating combination prevention is my priority now."

Mbulawa Mugabe, director of country impact and sustainability at UNAIDS headquarters in Geneva, Switzerland, says that he is impressed with the way South Africa is handling the fight against the epidemic. "The country got off to a slow start but now, despite several challenges, it has become one of the countries making the greatest strides in tackling the epidemic. We believe it is on the right track. Also impressive is the fact that South Africa is largely financing its AIDS programme from its own domestic resources. It currently invests more than US\$1 billion annually to run its AIDS programmes. We are delighted that this investment is now showing results."

Mugabe is also impressed with the government's plans to bring tuberculosis and HIV activities under the same roof. About 65% of tuberculosis patients in South Africa were living with HIV in 2012 and tuberculosis causes most of the deaths of HIV-infected people.

Peter Ghys, head of strategic information and evaluation at UNAIDS, says his team provides the South African Government with guidance as to where action is most needed. "We assist the government and its partners in locating where new cases of infection are coming from and where remedial action is required, both in the country as a whole and in specific provinces. Our aim is also to identify some of the bottlenecks that are preventing the country's anti-AIDS programmes from working as effectively as they should be. Of course, we are not the only players working with the government. There's a whole battery of South African institutions and civil society organisations that have been a driving force in the work of the country's AIDS programmes." The US President's Emergency Plan for AIDS Relief, he says, has been a major player on the ground, and the Global Fund to Fight AIDS, Tuberculosis and Malaria has been particularly active in the country's provincial programmes.

At a recent meeting of South African health officials, Michel Sidibé, executive director of UNAIDS, declared: "I am confident that...[you] will realise our common vision of zero new HIV infections, zero discrimination, and zero AIDS-related deaths. You are changing the course of the epidemic, not only in your country, but also on the continent and the world, by your efforts and achievements in the HIV response."

John Maurice