Reversing the HIV epidemic in South Africa: an insider's view?

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As we enter 2015, we have less than a year to achieve the Millennium Development Goals (MDGs). This is also the year when the United Nations is expected to adopt the Sustainable Development Goals (SDGs) which no doubt South Africa will sign up to like we did in 2000 when we signed up to the MDGs. This is a good time to reflect on South Africa's achievements and continuing challenges in achieving all of the MDGs, but the HIV goals in particular.

With respect to the MDGs there are two specific targets for HIV. Target 6A calls on all countries to have halted by 2015 and begun to reverse the spread of HIV/AIDS and target 6B requires that countries achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it. It is always useful to locate a country's progress within the global context. The United Nations reports (1) with respect to target 6A the following progress:

- New HIV infections continue to decline in most regions.
- The number of new HIV infections per 100 adults (aged 15 to 49) declined by 44 per cent between 2001 and 2012.
- An estimated 2.3 million people of all ages are newly infected and 1.6 million people died from AIDS-related causes.
- Comprehensive knowledge of HIV transmission remains low among young people, along with condom use.
- About 210,000 children died of AIDS-related causes in 2012, compared to 320,000 in 2005.

With respect to target 6B, the global progress is as follows:

- Antiretroviral medicines (ARVs) to treat HIV were delivered to 9.5 million people in developing regions in 2012.
- Over 900,000 pregnant women living with HIV globally were receiving antiretroviral prophylaxis or treatment by December 2012.

Our own National Strategic Plan on HIV, STIs and TB, 2012-2016 sets equally ambitious goals and targets:

- Reduce new HIV infections by, at least, 50% using a combination of available and new prevention methods;
- Ensure that 80% of all people who need antiretroviral treatment (ART) get treatment; ensure that 70% of these people remain alive and on treatment five years after initiation of ART;
- Reduce the number of new TB infections and deaths caused by TB by 50%; ensure an enabling and accessible legal framework that protects and promotes human rights in order to support the implementation of the NSP;
- Reduce self-reported stigma related to HIV and TB by 50%.

So how has South Africa progressed so far?

With respect to both prevention and treatment it may be argued that the glass is half full. However, each of these may be characterized differently!

UNAIDS reported that significant progress was made in selected areas. These include the large number of people on ART, the reduction in maternal to child transmission (MTCT) and the impact of our interventions on mortality in both children and adults (see Box 1 below).

Since the UNAIDS report the Department of Health reported that 2.7m people have been initiated on ARVs and that the 2011 MTCT rate at 6 weeks post-natally has declined further to 2.6% in 2012. The 2013 MTCT population survey data are currently being finalized and for the first time we will have data that covers the breastfeeding period (up to 18 months postnatally).

Box 1: South Africa's National AIDS Response (UNAIDS, 2013)

- 2.14m people on ARVs as at end 2012
- 240 000 people died from AIDS related causes in 2012 a decline from 270 000 in 2011
- MTCT rate decreased from 3.5% in 2010 to 2.7% in 2011
- Life expectancy at birth increased from 56.5 years in 2009 to 60 years in 2012
- 21 000 children 0-14 years acquired HIV annually, a decline from 82 000 in 2005 (a decline of 80%)
- 780 000 AIDS deaths averted between 2003 and 2012
- 13% annual decline in the under 5 mortality rate in the past two years

The South African Medical Research Council (2) estimated life expectancy in South Africa has increased from 57.1 in 2009 to 61.3 years in 2012. When disaggregated by sex, female life expectancy increased from 59.7 years to 64 years whilst male life expectancy increased from 54.6 years to 58.5 years. A significant contributor to this improvement in life expectancy is the increase in ARV coverage. In 2009 there were just 781 465 people living with HIV on ARVs compared to the 2.1 million in 2012 as reported in the Department's Annual Reports for 2009 and 2013 (3, 4) and the current total was 2.7 million at the end of 2014.

More recently, the HSRC (5) published the results of the 2012 Household Survey. The report on the survey estimated that there are 6.4m South Africans who are HIV positive. This survey

corroborated the report from the Department of Health that noted that 2.1 million were on ARVs in 2012 and estimated that 2 million people were on ARVs. An analysis conducted by UNAIDS in 2013 (6), found that 82% of eligible HIV+ adults were on ARVs, and that 63% of HIV+ children were on treatment at the eligibility criteria of CD4<350. (These criteria did not apply to children under 5 and HIV/TB co-infected patients who were initiated regardless of CD4 or staging). The fact that more women are on treatment relates to the high percentage of pregnant women that are tested and treated in the prevention of MTCT (PMTCT) setting.

One expects that as the number of people on treatment increases so should prevalence. The HSRC 2012 survey found that prevalence increased from 10.6% in 2008 to 12.2% in 2012 with prevalence highest in women between the ages of 25-29 years (28.4%) and those between 30 and 34 years (31.6%) and in men between the ages of 30-34 years (25.6%) and 35-39 years (28.8%).

These prevalence data, together with the increase in life expectancy suggest that the significant ARV coverage does make a difference. However, of continuing concern is the significantly higher prevalence rates in females compared to males who are between 20-24 years of age. So in addition to the increased life expectancy of those that are HIV+ and on ARVs, there is a continued contribution by new HIV infections that fuels the high prevalence rate. The high number of new infections was estimated in the HSRC survey as 469 000 in 2012. The HIV incidence in females was 1.7 times higher than males in the 15-49 year age group and in females aged 15-24 four times higher than in males.

However, the HSRC survey also noted some encouraging trends: a decline in incidence in young people aged 15-24 years from 2.8% in 2002-2005 to 1.5% in 2008-2012 was accompanied by a 60% decline in the number of new infections in young women in the same age range and time period.

In summary, the story to date is that South Africa has a large number of people who are HIV+ (6.4m) and a significant number of these are on ARVs. As the data suggests, despite the significant achievements, there are concerns. These have been reported in several publications, notably the HSRC 2012 survey, reports by civil society organizations as well as the recent 2013 independent review commissioned by the Department of Health on the HIV, TB and PMTCT programmes (7).

What are the continuing challenges?

The continuing challenges include: (a) the large number of new infections, especially in young women; (b) the need to provide treatment for all eligible HIV+ persons, especially children and men; (c) the need to ensure the continuous, uninterrupted supply of ARVs; (d) and the need to provide more support to health professionals as well as patients to improve the quality of the programme.

It is vital that we close off the tap of new infections even as we increase access to quality treatment. Whilst South Africa has a generalized epidemic, it is clear that some geographic areas have a higher prevalence than others and some sections of the population are more vulnerable

than others. This means that even as we provide prevention and treatment, care and support to every community in the country, scaled-up and targeted interventions are necessary in high transmission areas or hotspots as well as for people who are more vulnerable to HIV acquisition.

Mapping the geographical hotspots using available data is currently underway and it is clear from the work already done that the provinces of KwaZulu-Natal, Mpumalanga, Free State and Gauteng should be prioritized together with selected districts and parts of districts in other provinces. With regard to groups that are more vulnerable to HIV acquisition, it is clear from the existing data that we must prioritise the following groups: young women; female sex workers; men who have sex with men; and people living in informal settlements.

It is acknowledged that these two parameters, hotspots and vulnerable groups, may not always be mutually exclusive. For example, geographic hotspots may be characterized as such because they have a large number of young women or sex workers or people living in informal settlements.

DOH Plans for HIV

The Department of Health will continue to prioritise HIV in 2015 given that it contributes to around 50% of maternal and child mortality and is a major barrier to extending life expectancy. Many people living with HIV still die from TB. This means that we must also deal with TB as we improve HIV services.

Commencing in January 2015, as announced by the Minister of Health in his budget speech in July 2014, the Department will expand eligibility to ART by moving from eligibility at CD4 <350 to the WHO guideline of CD4<500 and from Option B to option B+ with respect to the PMTCT programme, meaning that all pregnant women and breastfeeding women who are HIV+ will take ARVs for life. At the rate of expansion of the programme that we envisage we will double the number of patients on ARVs by the end of 2016. As this will no doubt increase the pressure on an already compromised health system, we acknowledge the need to make changes to the ARV delivery system, including more rapid decanting of stable patients into support groups as well as expanding the number of patients to whom medicines will be couriered to decrease the number of patients that need to attend clinics to collect medicines. This will also decrease the burden on patients. To sustain patients in communities requires that we strengthen our adherence programme – we are in the process of finalizing a revised strategy that will be implemented during 2015.

Many have argued that in order to provide prevention, treatment and care services one needs a functional health system. It is remarkable that South Africa has achieved as much with a health system that is often considered less than functional in many areas. Improvements in clinical outcomes will depend on our ability to more rapidly strengthen our health system – which is the main intention of the National Health Insurance System.

As noted previously, even in a generalized epidemic we need to focus more on vulnerable communities and groups. We will focus on preventing new infections in young women through information, education and communication, through greater access to sexual and reproductive

health services, including easy access to condoms. Clearly, there are other factors that make young women vulnerable, such as interpersonal violence and socio-economic issues. We will work more closely with other Government Departments and civil society organizations to mitigate the impact of the structural issues that make young women vulnerable to HIV acquisition.

Working with civil society organizations, the Department will strengthen services provided to female sex workers. Besides sensitizing health workers, we will increase outreach services for female sex workers and make both male and female condoms more accessible to them. We will work with health districts to ensure that every district has a robust condom distribution plan that improves access to condoms for everyone that needs them. Additionally, we will work with clients of sex workers to inform them of the dangers of unprotected sex and the need for regular HIV testing.

The Department is in the process of strengthening our communication around HIV, TB, maternal and child health as well as healthy lifestyles. We acknowledge that whilst much has been done on the supply side, we need to strengthen our communication with the general public as well as targeted groups, regarding HIV acquisition, prevention of HIV and TB, including consistent use of condoms, the importance of regular testing for HIV and screening for TB and the importance of treatment adherence. This communication strategy will also address the critical issue of stigma against those with HIV as well as TB.

Our communities have been significantly affected by HIV/AIDS. Whilst we have made some progress in arresting the epidemic, there are still far too many new infections and far too many people not on treatment and being initiated on treatment too late. The task of reaching the MDGs, our NSP targets or the UNAIDS, 90, 90, 90 targets (90% of people know their status, 90% of HIV+ people on treatment, 90% of those on treatment virally suppressed), depends on an enhanced whole of society response. In this context the Department of Health is ready to scale up our response.

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