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Key HIV Statistics

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Numerous statistics about the South African HIV epidemic of varying quality have been collected. Here are some of the most reliable, high quality ones.

For an analysis of South Africa's HIV/AIDS statistics, *What do South Africa's AIDS statistics mean? A TAC briefing paper*.

The avert.org website has this very useful article on South Africa's HIV epidemic statistics.

Summary of HIV Statistics for South Africa

Please treat the statistics in this table with caution. We recommend that you do not quote them without first reading the explanations below of how they are derived.

Description	***Value***	***Date***	***Source***
People with HIV (prevalence)	5.6 million	2008	ASSA2003 (2005)
People with HIV	5.4 million	2006	Department of Health (2007)
People over the age of two with HIV	10.8%	2005	HSRC (2005)
Females over the age of two with HIV	13.3%	2005	HSRC
Males over the age of two with HIV	8.2%	2005	HSRC
Pregnant women with HIV	29.1%	2006	Department of Health

Rate of new infections for people over the age of two (incidence)	2.7%	2005	HSRC
Rate of new infections for females over the age of two	3.6%	2005	HSRC
Rate of new infections for males over the age of two	1.5%	2005	HSRC
Babies infected perinatally	39,000	2008	ASSA2003
Babies infected via breastmilk	26,000	2008	ASSA2003
Total babies infected	64,000	2008	ASSA2003
AIDS deaths in year	370,000	2008	ASSA2003
AIDS deaths in year	400,000	2011	ASSA2003
Cumulative AIDS deaths	2.5 million	June 2008	ASSA2003
People enrolled in the public sector antiretroviral programme	488,739	End of 2007	South African report for UNGASS
People who have actually initiated antiretroviral treatment in the public health system	371,731	End of Nov. 2007	South African Report for UNGASS

People on antiretroviral treatment in the public health system	350,000	2008	Aspen Pharmacare estimate as quoted in Business Day (2008)
People on treatment in the private health system	100,000	2007	Joint Civil Society Monitoring Forum (2007)
People requiring treatment but not receiving it	524,000	2008	ASSA2003

Year	***Life Expectancy***
1985	61
1990	62
1995	61
2000	57
2005	51
2010	50
2015	50

ASSA Life Expectancy at Birth Estimates by Year

Notes:
(a) 1985-1995 estimates are from the ASSA2002 Abridged 50% on ARVs Scenario spreadsheet.
(b) 2000-2015 estimates are from the ASSA2003 Summary Statistics spreadsheet.
(c) ASSA values are determined by a complex software model. See below for explanation.
(d) Some numbers have been rounded. Therefore the sum of babies infected perinatally and with breastmilk does not add up precisely to total babies infected.

Number of People on Antiretroviral Treatment

Public Health System

There are no accurate estimates of the total number of people on antiretroviral treatment because of the Department of Health's poor monitoring system. The Western Cape Province, in contrast to the other eight provinces, does however keep accurate statistics.

South Africa's report to UNGASS for the period January 2006 to December 2007 (submitted in February 2008) states:

The estimated number of people needing treatment (children and adults at WHO Stage 4) in South Africa was 764,000 by the middle of 2006 of which a total of 353,945 (46%) enrolled in the ART programme and 273,400 (36%) were

and 371,731 (42%) initiated on the ART programme. Approximately 55% of the people receiving treatment were female and 45% male. The estimated number of children (<15years) needing treatment was 52,000 in 2006 and 65,000 in 2007 of which 23,369 received treatment in 2006 and 32,060 in 2007.

It is unclear how the above statistics were derived and they should be treated with great caution.

This Department of Health document estimates that just over 400,000 people had enrolled on the *Comprehensive HIV and AIDS Plan* as of end of November 2007. Except for the Western Cape, no province records loss-to-followup, deaths etc. So the number on treatment must be considerably less.

The estimate by the major supplier of antiretroviral medicines to the Department of Health, as reported by Business Day , is about 350,000 people on treatment. The figure has been derived based on the fact that Aspen Pharmacare supplies 80% of the public sector lamivudine stock. Nearly all first-line patients are put on lamivudine. Apparently the company projected its sales to the public sector and then added on the remaining supply of lamivudine by GlaxoSmithKline and a projection for the number of people who have moved to second-line therapy. The calculation is not in the public domain and should be treated with great caution.

Private Health System

No comprehensive methodical analysis of the number of people on antiretroviral treatment in the private health system has been done. The Joint Civil Society Monitoring Forum (JCSMF) estimates in the order of 100,000 people receive treatment. The JCSMF intends to re-analyse this sector soon.

Number of People Needing Antiretroviral Treatment and Not Receiving It

Since there is no accurate estimate of the number of people receiving treatment, it is consequently difficult to obtain reliable estimates of the number in need of treatment but not receiving it. The best available estimate comes from the ASSA2003 model.

ASSA2003

ASSA2003, an open source system developed by the Actuarial Society of South Africa, is the most respected of the mathematical models of the HIV epidemic. It uses all available data up to 2003 to make various demographic projections.

On the assumption that by June 2008, 495,000 people will be receiving antiretroviral treatment, the model estimates that at that time, 520,000 people in need of treatment will not be receiving it (numbers rounded to nearest 10,000).

The above link is often down, so we've made the ASSA2003 spreadsheet available on the TAC website:
Local version of ASSA2003 summary spreadsheet.

HIV Prevalence

HSRC 2005

A good quality household survey of HIV prevalence was done by the HSRC in 2005. It's key finding is this:
HIV prevalence amongst persons aged two years and older is estimated to be 10.8%, with a higher prevalence in females (13.3%) than in males (8.2%).

ASSA2003

ASSA2003 estimates that the number of people in South Africa in 2007 with HIV is approximately 5.5 million.

Antenatal Prevalence Data

The Department of Health has estimated the HIV prevalence for pregnant women every year since 1990. The link above to Health Systems Trust Website gives a year-by-year summary of the results of this survey and contains links to each of the surveys themselves.

The percentage of infections, amongst pregnant women attending public antenatal clinics, published annually by the Department of Health is:
2006: 29.1%
2005: 30.2%
2004: 29.5%
2003: 27.9%
2002: 26.5%
etc, all the way back to 0.7% in 1990.

The Department of Health plugs the antenatal data into the proprietry Spectrum Model to estimate national HIV prevalence. This is from the 2007 report (results for 2006):

Using the spectrum model the estimate of the number of people who are estimated to have HIV infection is in the region of 5.41 million. Whilst the number of people living with HIV infection is high, this adjusted estimate is more conservative than the previous estimate of 5.54 estimated in 2005. The HIV prevalence amongst adults 15-49 years is estimated at 18.34%.

New Infections (HIV incidence)

The rate of new infections, i.e. incidence, has been calculated by the HSRC 2005 survey. However, the technology and methodology for analysing its results was relatively new then, so at least until the HSRC survey is repeated in 2008, incidence should be treated with caution.

Incidence is defined as the number of new infections divided by the number of HIV-negative people.

The HSRC calculated that incidence in 2005 was 2.7% for people over the age of two.

AIDS Deaths

Much of our knowledge of AIDS deaths comes from analyses of mortality by Statistics South Africa and the Medical Research Council. This data informs the estimates of the ASSA2003 model.

ASSA2003

- Estimated non-AIDS deaths in 2007: ± 390,000 (rounded this to the nearest 10,000)
- Estimated AIDS deaths in 2007: ± 360,000 (rounded to the nearest 10,000)
- Cumulative AIDS deaths by middle of 2007: 2.2 million.

Mother-to-Child Transmission

The quality of monitoring and reporting on the prevention of mother-to-child transmission (PMTCT) programme is particularly poor. Key statistics of the programme are only available from a Ministry of Health press statement of 12 March 2007, a Health Systems Trust District Health Barometer report and a table in a 2007 treasury report.

Department of Health, Treasury (Intergovernmental Review. Table 3.17, Sept. 2007) and Health Systems Trust

According to statistics obtained from the Ministry of Health statement and the HST report, more than 90% of government clinics (3382 of 3663) are currently providing PMTCT services. Of the approximately 800,000 public sector births in South Africa in 2006, about 580,880 pregnant women were offered PMTCT services. From the antenatal survey, we can estimate that about 168,000 (i.e. 29%) were HIV-positive in 2006. Yet only 74,052 women received nevirapine prophylaxis i.e. less than half the eligible women. Of this amount, the subset of babies who were tested for HIV was just 19,758. About 18% tested positive.

This means that of the approximately 800,000 public sector births, we know the HIV status of less than 3% of infants. And of these, the results are poor ? far above the 5% transmission rate target.

The HST report demonstrates that the Western Cape province is doing well, with about a 75% take-up rate. The report states ?This clearly shows that where a programme is prioritised it can achieve significant results quickly.?

Other interesting statistics

City of Cape Town Presentation on Khayelitsha

This presentation by Virginia Azevedo (July, 2007) of the City of Cape Town demonstrates that some key mortality and morbidity statistics in Khayelitsha, Cape Town's largest township, are improving. This is likely due to the HIV-related health interventions introduced in Khayelitsha.

The presentation shows that the infant mortality rate in Khayelitsha has dropped from 43 per 1,000 live births in 2001 to 31 per 1,000 live births in 2006. It also shows improvements in TB cure rates and other important statistics. It is well worth reading and is an example of how political will leads to effective programmes that mitigate the effects of the HIV epidemic.

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