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NATIONAL AIDS COUNCIL

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HIV and AIDS and the Universal Access

Biennial Report

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Foreword

Concerted efforts have been made to control the HIV epidemic in Zambia. Over the course of carrying out interventions; policies, strategies and programmes have been improved. Successive Governments of the Republic of Zambia, Donors and Cooperating partners have endeavoured to intervene with Global best practices to the highest extent possible with the resources that could be marshalled and in the context of the cultural, political and socio-economic challenges. At this stage of dealing with the epidemic, lessons have been learnt and capacities have been improved-both in terms of human resources and institutional capacities for a multi-sectorial approach of interventions. We are now at a stage where we are confident of what we can do and knowing what should be done and how to overcome potential obstacles such as cultural barriers.

As we take stock of delivering on our commitments to deal with the HIV epidemic, it is also an opportunity to reflect on whether we could have done better. The generalised HIV epidemic in Zambia is such that all prongs of interventions should be at full scale and half measures in some areas would cause little overall impact to be made in reversing the epidemic. Positive gains are there to see, but are they sufficient in the areas where they are to compensate for the little gains and reversals in some areas so that we achieve a major reversal in the epidemic? Some worrisome areas include the increase in the percentage infected among men 15-49 years in rural areas from 8.9 to 11.0 between 2001 and 2007 while it reduced in the rest of the population groups by sex and residence, and the very low percentage of 28.2 put on antiretroviral therapy among children aged 0-14 years compared to 90.0 per cent among adults 15 years and older. Imagine the lives of those children with HIV but not on therapy-frequent aches, less laughter and little play. Tremendous effort is required on them just as on adults.

The stage for resolving this dilemma has been set at the Global level where Zambia joined fellow member countries of the United Nations in expressing the will to reverse the HIV epidemic and mitigate for its effects. Since doing this in a major way beginning with the Millennium Declaration in 2000, then the watershed 2001 United Nations General Assembly Special Session on HIV and AIDS (UNGASS) and followed up with other reinforcing resolutions to these at the Global, Continental and Regional levels, these expressions of will were shortly found not to be enough without setting binding and sufficiently ambitious targets to attain the expressed will to reverse the HIV epidemic. In June 2011, Global Leaders met at the United Nations headquarters in New York where they reviewed the achievements in reversing the HIV epidemic over the previous decade. At this meeting, the Leaders decided to embolden their resolve to reverse the epidemic, not merely by expressing to do so, but by setting very ambitious targets on what should be exactly done in order to do so. The emboldened will at the Global level should permeate to all levels of implementing HIV interventions in Zambia as well.

To start with, there should be no national targets which are below Global Targets in the 2011-2015 HIV Interventions Strategic Plan. All targets should be sufficiently ambitious to deliver the service to all and for the country to full fill its commitment to the rest of the World. Strategic Leaders and Programme Managers should not set targets in their comfort zones. Inspiration can be taken from the emboldened targets of the Global Declaration of 2011 and from what we have learnt and achieved so far.

Honourable Dr Joseph Kasonde

Minister of Health

Ministry of Health

30th March 2012

Acknowledgements

Reporting on the state of interventions being made against HIV and AIDS is a huge collective effort. The UNGASS and Universal Access report draws upon the efforts of quarterly and annual reporting for the national and sector plans. In the first place, I would like to acknowledge the efforts of dedicated staff in the various sectors who compile these indicators on a quarterly and annual basis.

In addition, to some of the data and indicators of the national and sector performance assessments, extra indicators have to be generated for the UNGASS and Universal Access reporting. Most of the extra newly conceptualized indicators will eventually be integrated into the national performance assessment systems.

To facilitate the compilation of these reports, a working group was constituted under the Monitoring and Evaluation theme group of the National HIV/AIDS/STIs/Tb Council. This was chaired by the Director of Monitoring and Evaluation of the Council, Mr Oswald Mulenga working with Mr Bwalya Mubanga, Mr Harold Witola, Mr Newani Soko and Mr Patrick Ngulube. We remain entirely grateful to the advice provided by specialist from our Cooperating Partners, particularly Dr. Michael Gboun, the Monitoring and Evaluation Advisor from UNAIDS, Dr Landray Ltsague, HIV/AIDS Specialist from UNICEF, and Mr Francis Mbilima, HIV and AIDS Programme Specialist from UNDP.

A task team was also constituted by the Ministry of Health to compile and validate data from the Health Management Information System for the construction of some indicators specific to the UNGASS and Universal Access Indicators. This team was led by Dr. Crispin Moyo, the National Antiretroviral Coordinator. Other members included Dr. Wezi Kaonga, HIV/STI Specialist, Dr. Izukanji Sikazwe, the Medical Technical Advisor to the National antiretroviral programme, Mr. Patrick Amanzi, Senior Health Management Information Specialist, Mr. Boniface Mwanza, HIV and AIDS Monitoring and Evaluation Officer, and Ms. Gwen M. Yondela, the Prevention of Mother to Child Transmission, Monitoring and Evaluation Officer. This was done with the guidance of the Director of Public Health Dr. Elizabeth Chizema.

I would like to also acknowledge, the consultants for their input into the data collection, compilation, analysis and modeling; Kumbutso Dzekedzeke, Malala Mwondela and Benjamin Chi of the Centre for Diseases and Infectious Research in Zambia. Lastly but not the least, a special gratitude to the staff in health facilities, district health offices and provincial health offices who had to put in an extra effort to deliver the data before deadlines for the UNGASS and Universal Access reporting. I also thank the participants to the national validation workshop of this process. Those who are not listed here, are listed in the Annex.

I look forward to the re-shaping and improvements in the delivery of interventions as a result of the findings presented in this report.

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Director General

National HIV/AIDS/STIs/Tb Council
29th March, 2012

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Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Therapy
ARVs	Antiretrovirals
CSOs	Civil Society Organisations
DATF	District AIDS Task Force
FNDP	Fifth National Development Plan
GRZ	Government of the Republic of Zambia
HIV	Human Immune-deficiency Virus
HMIS	Health Management Information System
IDUs	Intravenous Drug Users
MDGs	Millennium Development Goals
NAC	National HIV/AIDS/STIs/Tb Council
NASF	National AIDS Strategic Framework
NCPI	National Commitments Policy Index
OST	Opioid Substitution Therapy
OVC	Orphans and Vulnerable Children
PACA	Provincial AIDS Coordination Advisor
PITMEO	Provincial Information Technology and Monitoring and Evaluation Officer
PLHIV	Persons Living with HIV
PMTCT	Prevention of Mother to Child Transmission
PPAZ	Planned Parenthood Association of Zambia
SLAADAZ	Sign Language and Advocacy Awareness Development Association of Zambia
SNDP	Sixth National Development Plan
STIs	Sexually Transmitted Infections
Tb	Tuberculosis
TFR	Total Fertility Rate
UA	Universal Access
UN	United Nations
UNAIDS	Joint United Nations Programme on AIDS
UNDP	United Nations Development Programme
UNESCO	United Nations Education, Scientific and Cultural Organisation
UNGASS	United Nations General Assembly Special Session (typically referring to the watershed one on HIV and AIDS in 2001)
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing
VCT	Voluntary Counselling and Testing
WHO	World Health Organisation
ZARAN	AIDSLAW Research and Advocacy Network
ZDHS	Zambia Demographic and Health Surveys
ZNAN	Zambia National AIDS Network
ZSBS	Zambia Sexual Behaviour Surveys

Executive Summary

Combating HIV and AIDS and its impacts requires political commitment and appropriate effective policies. This was the essence of the June 2001 Political Declaration of the United Nations Special Session on HIV and AIDS by Global Leaders which they emboldened in June 2011 during the session for the ten year review.

It is therefore instructive that during the 2011 review of assessing the commitment to the UNGASS Targets in Zambia, stakeholders rated the political commitment in Zambia to have been lower in 2011 than in 2009. They also downgraded the commitments to the Human Rights approach from the 2009 level. This aspect also scored the lowest on the National Commitments Policy Index (4 out of 10). Civil Society involvement remained at 7, the same level in 2011 as in 2009. Commitments to prevention and to treatment and care improved, scoring the highest at 8 and 9 and other indicators in these two areas also tell. The downward trend for monitoring and evaluation continued. The score in 2011 was 5. In 2007, it was 8 and in 2009 it was 6.

The multi-sectorial intervention against the HIV and AIDS epidemic in Zambia was launched with the 2002-2005 Strategic Intervention Plan followed by the 2005-2010 National AIDS Strategic Framework.

The multi-sectorial interventions against the HIV and AIDS epidemic were in six thematic areas. These were:

- i. Intensifying prevention of HIV infections
- ii. Expanding treatment, care and support for people affected by HIV and AIDS
- iii. Mitigating the socio-economic impact of HIV and AIDS
- iv. Strengthening the decentralised response and mainstreaming HIV and AIDS
- v. Improving the monitoring of the multi-sectorial response
- vi. Integrating advocacy and coordination of the multi-sectorial response

Successes have been achieved in all the thematic areas. There were indications that the HIV epidemic was being reversed. Indications that the HIV epidemic was being reversed were;

- i. A slight reduction in the percentage of the adult population infected with HIV from 15.6 in 2001-2002 to 14.3 per cent in 2007.
- ii. A significant reduction in the percentage of young women 20-24 years infected with HIV from 16.3 in 2001-2002 to 11.8 per cent in 2007. In the antenatal sentinel surveillance the percentage of pregnant women infected in this age group dropped from 34.3 per cent in 1994 to 28.1 per cent in 2008-2009.
- iii. There was a reduction in the percentage of young men aged 20-24 years infected with HIV from 11.4 per cent in 2001-2002 to 8.7 per cent in 2007.
- iv. Among children born to mothers infected with HIV, the percentage of infants contracting HIV reduced from about a peak of 7.72 per cent in 1997 to about 1.99 per cent in 2011 because of the reduction of HIV infection among pregnant women and the prophylaxes administered to those who are infected in the prevention of mother to child transmission of HIV. National coverage for this programme in 2011 at about 80 per cent was approaching near universal levels.
- v. Although the percentage infected with HIV reduced among all the groups by sex and area of residence, it increased among men 15-49 years in rural areas from 8.9 per cent in 2001-2001 to 11.0 per cent in 2007. In fact, the gains in rural areas where the level of the epidemic can be said to be about half of that in urban areas were modest. Although the level of the epidemic in rural areas is much lower than in urban areas, the population affected is quite high since about 65 per cent of the population lives there. Therefore, it is very important that the rural areas do not lag behind.

However, the pace seems off on some of the UNGASS commitments such as;

- i. Reduce sexual transmission of HIV by 50 per cent by 2015
- ii. Eliminate mother-to-child transmission of HIV by 2015 and substantially reduce AIDS related maternal deaths
- iii. Attain universal access to antiretroviral therapy⁷

The window of hope driven prevention strategies focussing on preventing infections in young people with the hope that they would remain HIV free appears to have succeeded. More would be achieved with the scaling-up of male circumcision which was started at a slow pace in 2009.

The reduction in HIV prevalence was much more among young people especially women. This was more so among women in urban areas followed by women in rural areas and men in urban areas. This success was not apparent among all men in rural areas and the total percentage infected with HIV in this group went up between the 2001-2002 and 2007 Zambia Demographic and Health Surveys. Continuous reduction in HIV prevalence in five year age groups starting with the age group 15-19 years to the age group 25-29 years were observed in this period among women in urban areas. This was also observed among men in urban areas in the age groups 25-29, 30-34 and 35-39 years.

More HIV infections take place among older adults than among young adults since the HIV prevalence among young adults has never been higher than among older adults. Take for instance, among the women in urban areas; the percentage infected in the age group 30-34 years at 42.5 per cent was more than twice as high as in the age group 20-24 years at 18.7 per cent in 2007. In rural areas, there was a similar doubling in the same comparison. In the same comparison among men, the percentage infected more than tripled between these age groups in both urban and rural areas. The antenatal sentinel surveillance among pregnant women also shows a reduction among young pregnant women aged 15-19 years and 20-24 years in urban areas. It also shows an increase in both urban and rural areas among women 30-39 years. Clearly, most infections take place among older adults making the HIV epidemic in Zambia to be an older adult epidemic where prevention efforts should be focussed and not just in the young adult age groups. However, a similar intensity in HIV prevention efforts among older adults as in younger ones was not there. Probably the scale-up of male circumcision would change the situation since it might be an effective prevention even in adulthood. More focus on prevention should also be placed on all the males in rural areas where the epidemic increased and to women in rural areas as well where the reduction was not as much as among their urban counterparts.

The death rate from HIV/AIDS among the population 15 years and older has reduced from the peak it reached in 2002. At its peak, the death rate from HIV/AIDS was 1.02 per cent in this population group. In 2011, it was 0.34 per cent, a reduction of 66.7 per cent from its peak due to the concerted efforts of the Zambian Governments and its Global partners in improving access to antiretroviral therapy. Similarly, the death rate due to HIV/AIDS among infants reduced from a peak of 1.51 per cent in 1997 to 0.33 per cent in 2011, a reduction of about 78.1 per cent largely due to the introduction of the prevention of mother to child HIV transmission programme.

Further reductions would be achieved by improving the effectiveness of antiretroviral therapy. In 2011, 76.5 per cent of those enrolled on the therapy survived for 12 months, 67.4 per cent for 24 months and 49.4 per cent for 60 months. Comparatively, 65.1 per cent survived for 12 months on therapy in these same treatment sites, an improvement of about 10 per cent between 2010 and 2011. There was a large variation in the survival rate by treatment sites suggesting that improvements in programme management such as encouraging people to test regularly and start therapy early and stay on it would improve survival prospects and therefore lessen the HIV/AIDS death rate further even under the current intervention regimen.

In 2011, most of the adults 15 years and older, about 90 per cent of those in need of antiretroviral therapy were accessing it hence the reduction in the percentage dying from AIDS and HIV related causes. It is sad that only 28.1 per cent of the children aged 0-14 years in need were on antiretroviral therapy. This is an injustice to these children as they definitely find it difficult to lead full quality lives. Tremendous effort is needed to before 2015 otherwise the target of putting all on antiretroviral therapy by then would not be achieved.

1 Country Background

Zambia is a Sub Saharan country of 753,612 square kilometres. In 2010, its population was 13,046,508 with 61 per cent (7,978,274) in rural areas and 39 per cent (5,068,234) in urban areas¹. The average annual population growth rate between 2000 and 2010 was 2.8 per cent. The major administrative units were provinces which were sub-divided into districts. Within the districts, the administrative units were Chiefdoms and Constituencies. Constituencies were made up of Wards. The political system is openly democratic with multi-party elections for the Presidency, Constituencies and Wards held simultaneously every five years. The last of these elections were in 2011. Chiefs are selected through clan and family lineages within the ethnic groups.

Like many poor countries, Zambia is pre-occupied with improving its economic well-being. This was boosted by reaching the Completion Point under the Heavily Indebted Poor Countries (HIPC) initiative in 2005 which also qualified the country in the same year to the Group of 8 Countries initiative, in which 100 per cent of all concessional debts owed to the International Monetary Fund, the African Development Bank and the World Bank were cancelled. These reduced the foreign debt from US \$7.1 billion at the end of 2004 to around US \$500 million at the end of 2005². The debt reduction availed more public resources for expenditure on infra-structure and social services. This was also boosted by a rapid increase in foreign direct investment and the Government divestitures of its holdings in the mines and other companies which were a colossal drain on the national treasury from subsidies. The annual economic growth rate improved during the FNDP period, 2006-2010 averaging 6.1 per cent per annum compared with an average of 4.8 per cent during the Transitional National Development Plan (TNDP) of 2002-2005³.

2 Overview of the HIV Epidemic in Zambia

As in other parts of the world, the HIV epidemic in Zambia came to the fore in the 1980s⁴. The HIV epidemic was generalised i.e. HIV was spreading throughout the population and not only in specific population groups⁴. Most of the HIV transmission was by heterosexual contact and mother-to child transmission during pregnancy, at birth and through breastfeeding.

In the epidemiological synthesis of the epidemic, it was estimated that most of the new infections among adults were in individuals whose partners had casual heterosexual sex (37 per cent), followed by individuals reporting casual heterosexual sex (34 per cent), those reporting low risk heterosexual sex i.e. mutual monogamy (21 per cent), and clients of female sex workers (4 per cent)⁵. One per cent of new infections were estimated to occur in sex between men through unprotected anal sex and 3 per cent from other causes. About 10 per cent of babies born to mothers infected with HIV got infected with HIV⁵. Other means of infection contributed an estimated less than 0.5 per cent each to the transmission of HIV among adults and children. Transmission through medical injections was estimated to contribute only about 0.2 per cent⁵. The size of the population of Intravenous Drug Use (IDU) in Zambia is not known and neither is the frequency of drug injection or sharing of injecting equipment known. Unsafe tattooing and scarification could also be taking place. Traditional socio-cultural and religious practices, which involve exchange of saliva and other bodily fluids, could also harbour small risks. Transmission through unsafe blood transfusions could have been responsible for a tiny fraction of new infections, probably as low as 0.02 per cent of all new infections⁵. There may be occasions where unscreened, HIV contaminated blood is transfused in emergency situations, but these cases are not documented

Reflecting the practice of females preferring older sexual partners than themselves and vice-versa, the age-sex structure of the epidemic has cross over patterns with the percentage infected at younger ages higher among females than among males⁶⁻⁸. See Figure 2-1. Intergenerational sex was reported by 4.5 per cent of women aged 15-19 years (with a non-marital, non-cohabiting man who was more than 10 years her senior). In 2007, the highest level was found in the Copperbelt Province (10.9 per cent)⁸.

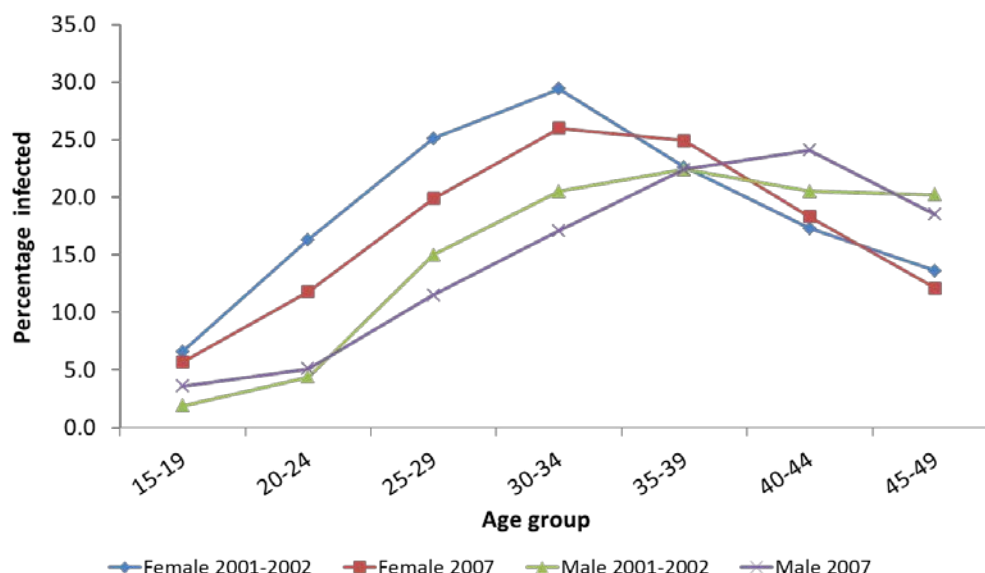


Figure 2-1: Crossover pattern of the percentage infected with HIV by sex and age group, Zambia 2001-2002 and 2007

The percentage infected in the country was consistently about twice as high in urban than in rural areas⁹⁻¹². It was also higher among females than among males^{4, 7, 8}. See Figure 2-2 for this pattern from nationally representative population based sero-testing surveys. The estimates in Figure 2 also show that the percentage infected with HIV reduced among all the groups by sex and area of residence, except among men aged 15-49 years in rural areas. The percentage in this group increased from 8.9 per cent in 2001-2002 to 11.0 per cent in 2007⁸.

The epidemic was also correlated with the level of in-migration. In the most recent estimates for 2007, the percentage of adults 15-49 years infected in urban areas was 23.1. It was 10.8 in rural areas⁷. Among the provinces, the highest percentage of the population 15-49 years with HIV in 2007 was in the most urbanised province, Lusaka^{7, 8}. The lowest was in one of the least urbanised provinces, Northern^{7, 8, 13}. The percentage in Lusaka was estimated at 20.8 and in Northern, 6.8⁸. This was a reduction from the level estimated in a similar nationally representative survey in 2001-2002 when the ranks were also the same. In 2001-2002, the percentage infected was 22.0 in Lusaka and 9.2 in Northern. The lowest level of HIV in Zambia in Northern Province was attributed to its uniqueness in that the matrilineal culture there unlike the predominant patrilineal set-up in other provinces resulted in a society where men were not very dominant and therefore both men and women were less likely to engage in extra marital sex¹⁴. Gender inequality with male domination and other forms of inequality are considered to be the key driver of the sexual transmission of HIV¹⁴⁻¹⁶. Underlying factors such as the prevailing level of the epidemic, the lack of universal circumcision and the level of ulcerative sexually transmitted infections like herpes were also important.

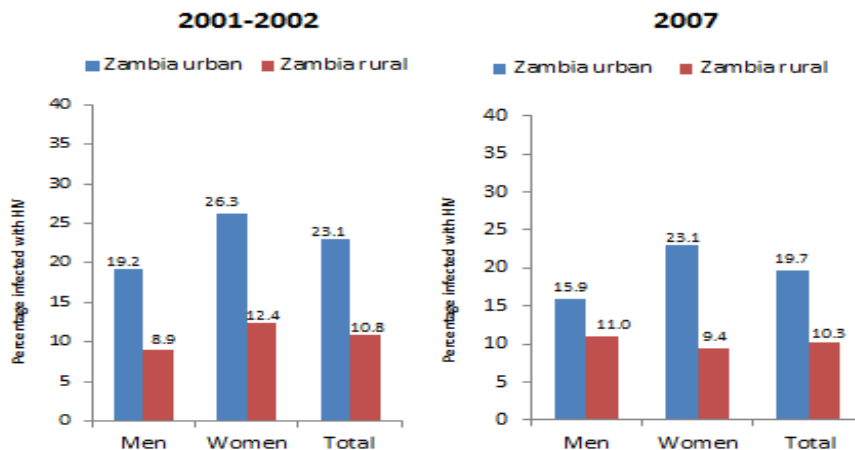


Figure 2-2: Percentage of women and men 15-49 years infected with HIV in 2001-2002 and 2007 by sex and area of residence, Zambia

The country has experienced a high level HIV epidemic for close to two decades. Although the overall HIV epidemic appears to be trending down, it is not yet significant. A disease significantly wanes if there are fewer new infections than deaths from the disease. However, HIV prevention efforts have not yet succeeded in reducing the infection rate below the death rate i.e. new infections below 0.2 per cent per year. See Figure 2-3. Although the rate of new infections had stabilised, the absolute number of new HIV infections increased due to the growing population emphasising the urgent need to reduce the rate of new infections to below 0.2 per cent per year. The rate of new infections in 2011 in the population 15 years and older was estimated at 1.10 per cent in the total population, 0.86 per cent among males and 1.12 per cent among females.

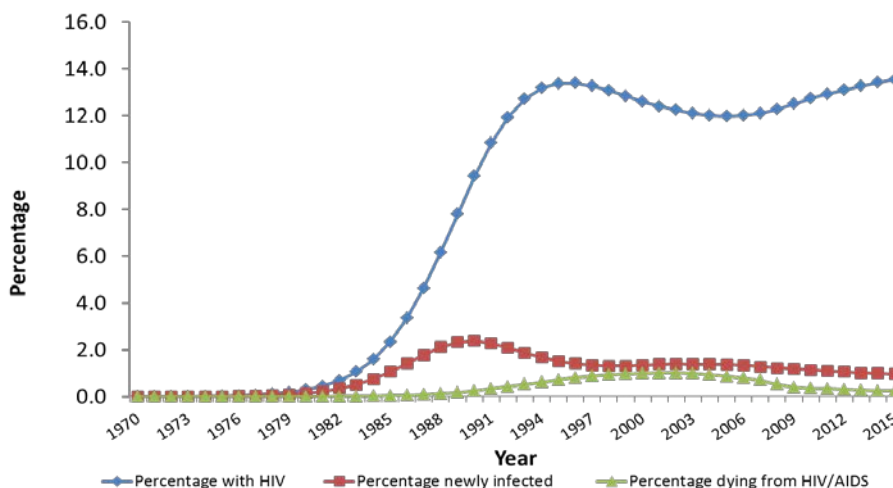


Figure 2-3: Snapshot of rates of the HIV epidemic among the population 15 years and older in Zambia

In the only nationally representative population based sero-surveys, the percentage infected among adults 15-49 years reduced from 15.6 in 2001-2002 to 14.3 in 2007. See Figure 2-4. The reduction appears higher among men than among women but men were more likely to refuse to be tested than women. Figure 2-5 and Figure 2-6 show that this reduction was in more age groups among women and in urban areas. HIV infection increased among young men in urban areas but it decreased among young women. The antenatal sentinel surveillance among pregnant women also shows a reduction among young pregnant women aged 15-19 years and 20-24 years in urban areas. It also shows an increase in both urban and rural areas among women 30-39 years. See Figure 2-7.

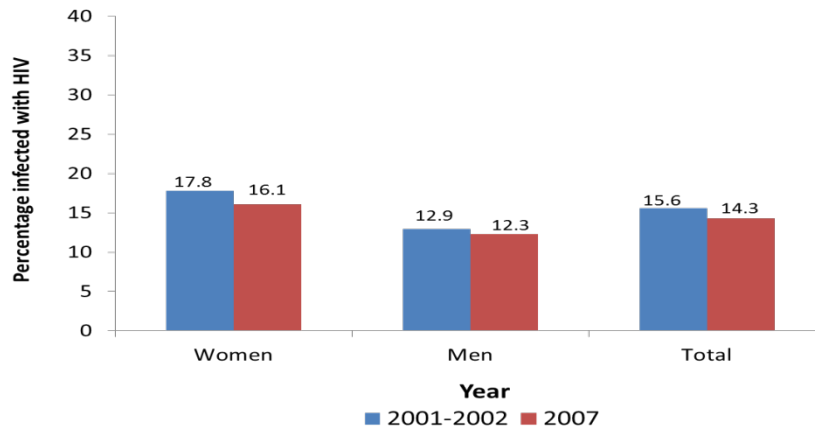


Figure 2-4: Percentage of women and men 15-49 years infected with HIV in 2001-2002 and 2007, Zambia

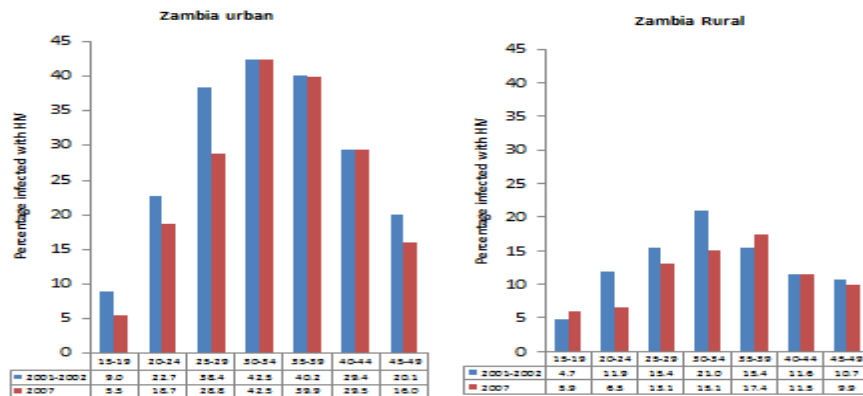


Figure 2-5: Percentage of women 15-49 years with HIV in the Zambia Demographic and Health Surveys

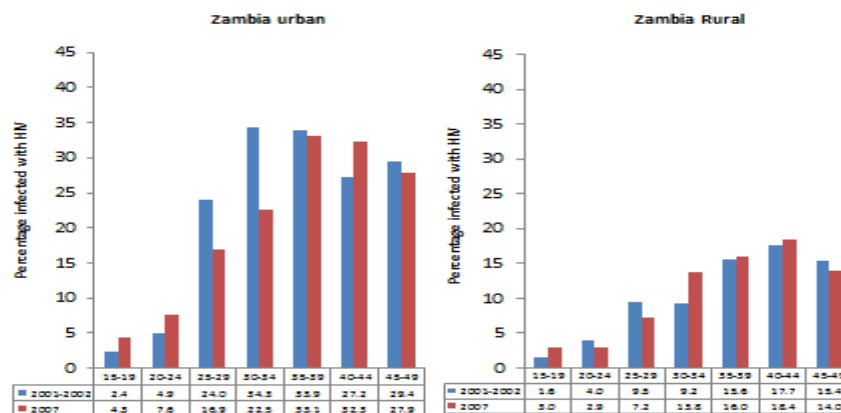


Figure 2-6: Percentage of men 15-49 years with HIV in the Zambia Demographic and Health Surveys

Estimated HIV prevalence in children aged 0-14 years is trending down after reaching a maximum in about 2004. HIV prevalence in women aged 15-49 was significantly higher than in men aged 15-49 (16.1 per cent versus 12.3 per cent). The female to-male prevalence ratio for young people aged 15-24 dropped from 3.7 in 2001-02 to 1.6 in 2007 (fewer new infections in young women, more in young men).

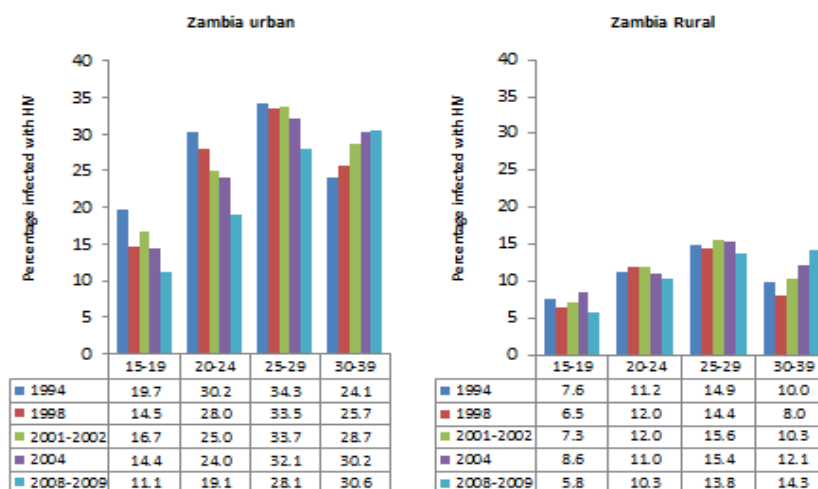


Figure 2-7: Percentage of women 15-39 in the HIV and syphilis antenatal sentinel surveillance survey with HIV, Zambia

In infants, the estimated number of new infections went down dramatically since its peak of 27,978 in 2000 and 5,520 in 2009 among children 1-4 years. This is a combined effect of decreasing incidence in women and the introduction of the PMTCT programme. The estimated number of new infections in infants and children aged 1-4 years were 9,726 and 2946 respectively in 2011.

At the individual and couple level, important positive changes were observed in factors that determine the risk of sexual transmission of HIV.

Fewer survey respondents report multiple partners and/or non-cohabiting partners and more report just one (usually married or cohabiting) partner. Condom users have increased as a proportion of the whole population, especially among those married or reporting just one partner in the last year. There are signs that more young people delay **sexual debut** and remain sexually abstinent longer.

Regarding **multiple and/or concurrent partners (MCP)**, in all surveys, far more men than women reported MCPs (14% vs. 1.2%, 2007 DHS). The mean number of reported partners reduced to 0.94 (men) and 0.76 (women) in 2007. The percentage of men and women reporting extramarital sex also decreased (men: 13%, women: 0.7% in 2007). However, data from qualitative assessments on MCP behaviours strongly suggest that MCP and extramarital affairs are underreported in surveys, especially by women. There was a strong positive association between the number of reported sexual partners and HIV infection. The analysis identified many economic, cultural, social and psychological factors leading to or encouraging MCP behaviours.

Reported condom use increased with all types of partners for both sexes between 1996 and 2007, and was higher with pre-marital, non-regular and commercial sex partners than with marital or regular partners. Reported condom use in people who had MCPs was relatively low at 33 per cent for women and 27 per cent for men. Dry sex practices are not conducive to condom use. Condoms play an increasing but still small role in contraception. Knowledge on sexual transmission increases condom use for HIV protection in contexts where childbearing is not expected (e.g. extramarital affairs). Regular income by a woman was significantly associated with condom use, but more education was not.

Male circumcision was low in Zambia. Only 13 per cent were circumcised and mostly accounted for by the 71 per cent in North-Western Province and the 40 per cent in Western Province. In the rest of the provinces, less than 14 per cent were circumcised. However, an ambitious programme to scale up male circumcision was rolled out. Its acceptance was high, both in traditionally circumcising and non-circumcision areas of the country although there were fears about it especially in non-circumcising communities.

Comprehensive **AIDS knowledge was** highest in women and men with the highest school education, but HIV prevalence was also the highest in these groups suggesting that structural factors such as socio-economic and gender inequality and cultural factors were more important than individual factors in the dynamics of the HIV epidemic in Zambia.

Qualitative research and surveys indicated that **transactional sex** - the exchange of favours of money for sex – was common, and relative wealth was a strong inducement to start multiple sexual relationships. In 2005, 22 per cent of males and 11 per cent of females reported that money was exchanged at last sex with a non-regular partner. In another study, 9 per cent of the 10-19 year old youth reported having traded sex for food or money, and the figure was higher among married youth.

Commercial sex and sex houses were illegal and there was no credible estimate of the size of the population of sex workers. HIV prevalence in Zambian men reporting transactional sex, including paid sex with sex workers tended to be higher than among those that did not.

Sexual violence against females is a problem in Zambia. Most females know the perpetrators of the act of violence. Also, domestic violence at the hands of their husbands and intimate partners, and the fear of such violence, could have harmful impact on their ability to start and continue antiretroviral therapy.

There is a body of local evidence showing that **alcohol abuse** leads to increased sexual risk taking, including multiple concurrent partners and lower condom use.

3 National Response against the HIV Epidemic

The GRZ is committed to control the HIV/AIDS epidemic. Since HIV transmission is not a random event but profoundly influenced by the surrounding social, economic and political environment, HIV/AIDS programmes were incorporated in all the social, economic and political programmes. In the just ended 2006-2010 FNDP, and the recently launched 2011–2015 SNDP, HIV/AIDS and Gender were the major cross-cutting issues in all the programmes of the plan^{2, 3}. This demonstrated GRZ commitment to the international declarations including UNGASS in which Global Leaders pledged to do all in their power to reverse the spread of HIV.

The GRZ has made its commitment to availing universal access of HIV prevention, treatment and mitigation services to the people of Zambia. This commitment is affirmed in the development of comprehensive framework strategies and the subscription to major international declarations in this regard. In 2003, the Government launched its national policy of providing free and universal access to antiretroviral therapy, which was expanded in 2005 to include all related services.

Currently the national response against the epidemic is guided by the 2011-2015 NASF. The first major comprehensive framework was developed for 2001-2003 with subsequent revisions incorporating newly evolved best practices and impact targets for the periods 2002-2005 (replaced the one for 2001-2003); and 2006-2010. The vision of the 2011-2015 NASF is “A nation free from the threat of HIV and AIDS”¹⁷. The 2011-2015 NASF was developed through a consultative process and included representation from civil society, PLHIV, government institutions, development institutions, the private sector and development partners. Consultations with groups such as sex workers, traditional leaders and others were done through representative organizations. The process included a review of progress of the NASF 2006-2010, the state of the epidemic and the national response. Gaps and challenges were also identified in order to establish the priorities for the 2011-2015 Framework. The NASF articulates four national priorities:

- i. To accelerate and intensify prevention in order to reduce the annual rate of new HIV infections with special attention to addressing root causes that sustain high levels of societal vulnerability
- ii. To accelerate the provision of universal access to comprehensive and quality treatment, care and support for people living with HIV and AIDS, their caregivers and their families, including services for tuberculosis, sexually transmitted infections and other opportunistic infections
- iii. To mitigate the socio-economic impacts of HIV and AIDS especially among the most vulnerable groups, orphans and vulnerable children, Persons Living with HIV and AIDS and their caregivers or families
- iv. To strengthen the capacity for a well-coordinated and sustainably managed HIV and AIDS multi-sectorial response

The focus on prevention in the 2011-2015 NASF is guided by the National Strategy for the Prevention of HIV and STIs of 2009 which had four main areas of focus namely:

- i. Prevention of sexual transmission of HIV and STIs
- ii. Prevention of mother to child transmission of HIV
- iii. Counselling and testing
- iv. Prevention of HIV in health care settings

The National Strategy for Prevention also places emphasis on the prevention of infections in the populations most at risk of infection such as sex workers and mobile populations like commercial drivers. Although these only account for a small part of the epidemic, they could be an important group in the dynamics of the epidemic. A monitoring and evaluation plan for the NASF was also developed.

4 The framework for HIV and AIDS interventions in Zambia over the reporting period

The goal of the 2006–2010 NASF was to halt and to begin to reduce the spread of HIV and STIs by increasing access to quality HIV/AIDS and STIs interventions. Its core strategy was prevention of HIV infection. The policy framework was supportive of universal access to prevention, treatment, care and support, for all including the most-at-risk populations. Access targets were developed for these four areas and scale-up coverage targets of up to 80 per cent were made. Twenty-eight strategies to be integrated in all sector programmes were made. However, this was only completely done in the health sector with the Ministry of Health and the Ministry of Youth, Sport and Child Development taking the lead. Nine of the twenty-eight strategies were stated in the 2006–2010 National Health Strategic Plan, namely¹⁸.

1. Scale-up prevention activities through increased promotion and support to ABC programmes and cultural sensitive information education and communication;
2. Increased access to HIV counselling and testing in health facilities and at community level;
3. Strengthen PMTCT activities through integration with reproductive and child health and routine HIV testing in antenatal clinics;
4. Develop and implement HIV/AIDS work place policies at the provincial and district levels
5. Expand access to antiretroviral therapy for eligible adults and children;
6. Strengthen and scale home based care activities;
7. Expand access to STIs interventions;
8. Further strengthen the national blood transfusion services so as to ensure equitable and affordable access to adequate safe blood and blood products; and
9. Facilitate the strengthening of the multi-sectorial response to HIV/AIDS

The indicators for monitoring these strategies also comprise the majority of the “Global Universal Access” indicators.

The target outputs for these strategies were ten, namely;

1. Increase the number of counselling and testing centres in health facilities and at community level from 420 in 2005 to 840 by 2010
2. Increase the number of health centre catchment areas with a functional home based care programme from 300 in 2005 to 750 by 2010
3. Implement HIV/AIDS at work place programmes in all districts
4. Increase the number of AIDS patients on antiretroviral therapy from 40,000 in 2005 to 210,000 by 2010
5. Increase the percentage of the adult population using voluntary counselling and testing from a cumulative 13 per cent in 2005 to a cumulative 30 per cent by 2010
6. Increase the number of AIDS patients treated for opportunistic infections from 50 per cent of AIDS patients in 2005 to 80 per cent of patients in 2010
7. Increase access of pregnant women with HIV to PMTCT from 22,500 (25 per cent) in 2005 to 61,600 (70 per cent) in 2010
8. Increase number of AIDS patients accessing home based care from 57,000 in 2005 to 200,000 by 2010
9. Increase the coverage of STI treatment from 50 per cent in 2005 to 80 per cent by 2010
10. Increase the number of blood units collected from 63,000 units per year in 2005 to 80,000 units by 2010 and ensure that all units of blood are adequately screened for HIV in accordance with national and WHO guidelines and standards.

These national targets also took cognisance of global targets such as Millennium Development Goals, United Nations General Assembly Twenty-sixth Special Session (UNGASS) on HIV/AIDS¹⁹, the Maputo Declaration²⁰ and the Abuja Declaration²¹.

In September 2000, building upon a decade of major UN conferences and summits, world leaders committed to a new global partnership to reduce extreme poverty and set out a series of time-bound targets - with a deadline of 2015 - that have become known as the MDGs. Of the eight goals, Goal Six was “Combat HIV/AIDS, Malaria and other diseases”. On HIV/AIDS there were two stated aims. One was to “To have halted by 2015, and begun to reverse the spread of HIV/AIDS” and the other was; “Achieve by 2010 Universal Access (UA) to treatment for HIV/AIDS for all those who need it”, i.e. “providing antiretroviral drugs to those with advanced HIV infection”¹⁹.

In 2001, from 25-27 June, the UNGASS on HIV and AIDs was held at the end of which a wide agenda for reducing the spread of HIV/AIDS and alleviating its impact was made by the Heads of State and Governments of the member States of the United Nations²². In 2006, Global Leaders reaffirmed to provide universal access to HIV prevention, treatment, care and support services to all those in need by 2010²³. In the ten year review of the 2001 UNGASS declaration in June 2011, they emboldened their declaration unanimously. They declared to reduce sexual transmission of HIV and HIV infection among people who inject drugs by half, to increase the number of people on treatment to 15 million, to halve tuberculosis-related deaths in people living with HIV, and to eliminate new HIV infections among children by 2015²⁴.

In the Abuja Declaration adopted at the 24-27 April 2001 summit, African leaders declared that "AIDS is a state of emergency in the continent" and pledged to place the fight against HIV/AIDS at the forefront and as the highest priority issue in national development plans²¹. At the Second Ordinary Session of the African Union Assembly in Maputo, Mozambique, 10 -12 July 2003, the Heads of State and Government of the African Union meeting devoted a special session to review and debate the current status of the HIV/AIDS, Tuberculosis, Malaria and other related infectious diseases in Africa. They reaffirmed the Abuja Declaration and Framework Plan of Action on HIV/AIDS, Tuberculosis and other related infectious diseases and reiterated their commitment to intensify and consolidate efforts for their implementation²⁰.

5 Towards Universal Access in Zambia

Under the guidance of the strategic frameworks and with the financial and technical support of Cooperating Partners, of which major ones were the United States Government through the United States President's Emergency Plan for AIDS Relief (PEPFAR), the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), the United Kingdom Government Department for International Development (Dfid) and the Bill and Melinda Gates Foundation, many interventions for attaining universal access were implemented in prevention, treatment, care and support.

Standard delivery of interventions was achieved by using guidelines to train implementation staff in health facilities, community peer and support groups, Government Ministries, companies, factories, farms and so on, on how to deliver HIV and AIDS interventions country wide. This ensured that there was a similar standard of knowledge and reference. It also facilitated cascade training so that peer and fellow staff members could be orientated by those who attended the initial training. In this way, knowledge was spread to many more than could have. Capacity to deliver interventions against HIV can now be found in almost all the health facilities and communities in Zambia.

Delivering standardised interventions guided mainly by the Ministry of Health and the Ministry of Youth and Sport promoted equity in delivery of service by ensuring that all target populations received the same packaged intervention irrespective of which agency delivered it. It also enabled standardised programming, coordination and reporting for the one national strategic plan and monitoring and evaluation system.

However, there have been cases of some agencies not delivering the interventions in the prescribed manner especially in VCT where many CSOs have been supported directly by foreign based entities without the endorsement, guidance or any sort of oversight by the entrusted regulatory authority. These efforts have undermined some interventions like in some cases where people are tested and told they are HIV positive without linking them to a treatment channel or performing further support counselling and other acceptable ethical etiquettes. The public outcries from these situations have undermined HIV intervention efforts. In these cases, returns are also not filed thereby undermining the monitoring and evaluation efforts of the coordinated national intervention programmes by causing intervention efforts and successes to be under-reported.

Major topics on which manuals were developed and trainings carried out were on behaviour change and communication (with emphasis on local communities adaptation), prevention of HIV transmission in health care settings, treatment of sexually transmitted infections, intensified tuberculosis case-finding and isoniazid preventive therapy for people living with HIV, paediatric tuberculosis, multi-drug resistance tuberculosis, tuberculosis infection prevention, counselling and testing for HIV, all aspects of prevention of HIV transmission from mothers to children and all aspects of antiretroviral therapy.

A public health approach of delivering HIV and AIDS interventions was also adopted. HIV and AIDS services in Zambia can now be obtained from virtually all public health facilities. The services can also be obtained in the communities through the public outreach programmes coordinated by the health facilities in their catchment areas.

The starting point in improving access was to integrate HIV and AIDS services in the comprehensive health care package that is provided, consummate with the level of the health care facility. In this regard, the number of health facilities that were providing HIV and AIDS services to various degrees was increased between 2008 and 2010 by 8.1 per cent. At the end of 2010, there were 1,690 health facilities providing HIV and AIDS services of which 1,471 were public and 240 were private. The total increased to 1,769 in 2011. See Figure 5-1.

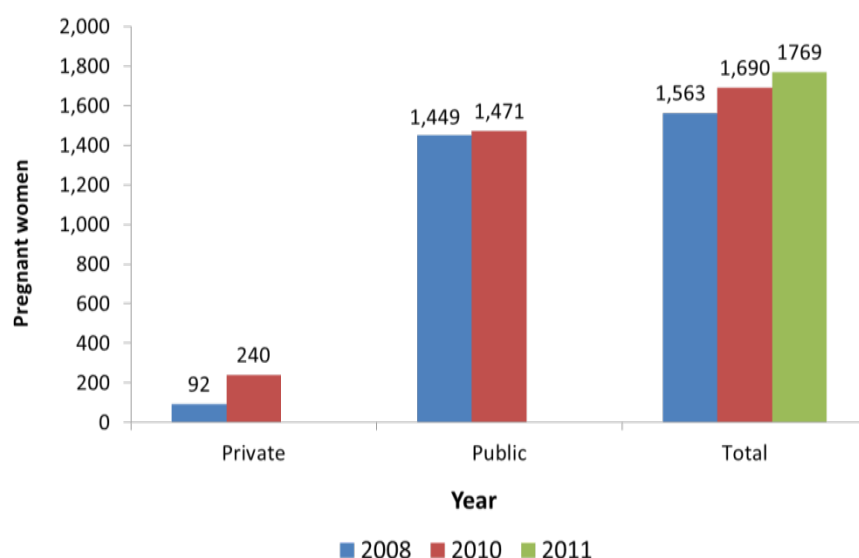


Figure 5-1: Health facilities providing HIV and AIDS services to various degrees by type of ownership in 2008 and 2010

Free antiretroviral drugs were introduced in 2003 starting with the University Teaching Hospital in the capital city, Lusaka in Lusaka Province and Ndola Central Hospital, in another city in Copperbelt Province. In 2009, the number of health facilities providing antiretroviral therapy had been scaled up to 332 spread across almost all the districts. By the same year, a laboratory infrastructure for the basic assessment and monitoring of HIV positive patients had been set up in almost all the provincial hospitals. In addition, the number of health facilities providing HIV testing and counselling services had been increased to 1,563 in 2008 from the 1,083 in September 2007. Health facilities providing PMTCT services reached 936 at the end of 2008.

In 2008 and 2010, more HIV and AIDS services were being offered. The number and the proportion of the health facilities providing these services were also increased with the exception of the proportion that provided virological testing services of HIV in infants on site or from dried blood spots. Arguably, the cornerstone of HIV interventions are counselling and testing services. Slightly more than two thirds of the health facilities in Zambia provided these in 2010 which was an increase over the level in 2008 and exceeded the target of the 2006–2010 National HIV and AIDS Strategic Plan to increase the number of counselling and testing facilities in health facilities and communities from 420 in 2005 to 840 by 2010. Since those that are found to have HIV should be provided with antiretroviral therapy, health facilities that provided counselling and testing services were also able to test for CD4. Provision of paediatric HIV and AIDS services lags behind the provision of adult services. See Table 3.

Table 1: Health facilities providing selected HIV and AIDS services in 2008 and 2010.

Selected Universal Coverage Indicator	Estimated number of health facilities in Zambia		Percentage that were providing HIV and AIDS services		Percentage change 2008–2010
	2008	2010	2008	2010	
Health facilities providing antenatal care that also provide CD4 testing on site	1,563	1,784	59.9	67.3	7.4
Health facilities providing antenatal care that also provide HIV testing and counselling for pregnant women	1,563	1,784	59.9	67.3	7.4
Health facilities that offer antenatal care that also offer HIV counselling, provide HIV testing and antiretroviral therapy to prevent HIV transmission from mothers to babies	1,563	1,784	59.9	67.3	7.4
Health facilities that offer antiretroviral therapy	1,563	1,784	21.2	25.4	4.2
Health facilities that offer paediatric antiretroviral therapy	1,563	1,784	21.2	25.4	4.3
Health facilities that provide virological testing services of HIV in infants on site or from dried blood spots	1,563	1,784	30.1	25.4	-4.7

6 Approach for compiling the UNGASS and Universal Access indicators

Since the UNGASS declaration in 2001, four country reports for Zambia reporting on the achievements towards the declaration have been made. First was in 2004, then 2006, 2008 and 2010. In 2012 as before, a consensus building stakeholder driven consultative process was carried out in February and March in 2012 to compile indicators and achievements made towards the declaration.

In order to monitor the epidemic and the performance of interventions, a single harmonised monitoring and evaluation system was created in Zambia which is periodically reviewed alongside the review of HIV and AIDS strategic plans. Data and indicators were obtained from this source. In addition, already compiled indicators were also obtained from surveys reports, mainly from the ZDHS and the ZSBS. The surveys collect information on both the interventions delivered (cases or enumerators) and the population to be covered (denominators). The data obtained and used to compile the UNGASS and Universal Access indicators were reviewed together with the indicators derived from them by represented stakeholder institutions of the national HIV and AIDS interventions strategic plan comprising Donors, Civil Society Organisations, Government of the Republic of Zambia and Public Institutions and ordinary members of the public. The list of those present at the final ratification conference is shown in Annex I.

There are seven targets for the UNGASS.

1. Reduce sexual transmission of HIV by 50 per cent by 2015
2. Reduce transmission of HIV among people who inject drugs by 50 per cent by 2015
3. Eliminate mother-to-child transmission of HIV by 2015 and substantially reduce AIDS related maternal deaths
4. Have 15 million people living with HIV on antiretroviral treatment by 2015
5. Reduce tuberculosis deaths in people living with HIV by 50 per cent by 2015
6. Reach a significant level of annual global expenditure (US\$22-24 billion) in low- and middle-income countries
7. Critical enablers and synergies with development sectors

The indicators to monitor these targets significant to the generalised epidemic in Zambia are shown in Table 1. Almost all the indicators in Zambia have improved over time. A detailed presentation of these indicators is done in the rest of the report

Table 2: UNGASS Targets emboldened in 2011 and whether they exist with similar targets in the 2011-2015 National AIDS Strategic Framework for Zambia

Target Number	2011 Emboldened UNGASS Targets	Equivalent 2011-2015 Zambia National Strategic Plan Target	Comment on disparity if any	No.	Assessment Indicators
Target 1	Reduce sexual transmission of HIV by 50 per cent by 2015	Reduce the annual rate of new infections by 50 per cent (from an estimated 82,000 in 2009 to 40000) by 2015	None	1.1	Percentage of young women and men aged 15–24 who correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission
				1.2	Percentage of young women and men aged 15-24 who have had sexual intercourse before the age of 15
				1.3	Percentage of adults aged 15–49 who have had sexual intercourse with more than one partner in the past 12 months
				1.4	Percentage of adults aged 15–49 who had more than one sexual partner in the past 12 months who report the use of a condom during their last intercourse
				1.5	Percentage of women and men aged 15-49 who received an HIV test in the past 12 months and know their results
				1.6	Percentage of young people aged 15-24 who are living with HIV
				1.7	Percentage of sex workers reached with HIV prevention programmes
				1.8	Percentage of sex workers reporting the use of a condom with their most recent client
				1.9	Percentage of sex workers who have received an HIV test in the past 12 months and know their results
				1.10	Percentage of sex workers who are living with HIV
				1.11	Percentage of men who have sex with men reached with HIV prevention programmes
				1.12	Percentage of men reporting the use of a condom the last time they had anal sex with a male partner

General population

Sex workers

Men who have sex with men

Table 2: UNGASS Targets emboldened in 2011 and whether they exist with similar targets in the 2011-2015 National AIDS Strategic Framework for Zambia

Target Number	2011 Emboldened UNGASS Targets	Equivalent 2011-2015 Zambia National Strategic Plan Target	Comment on disparity if any	No.	Assessment Indicators
				1.13	Percentage of men who have sex with men that have received an HIV test in the past 12 months and know their results
				1.14	Percentage of men who have sex with men who are living with HIV
Target 2	Reduce transmission of HIV among people who inject drugs by 50 per cent by 2015	None	Injecting drug users hardly exist in Zambia	2.1	Number of syringes distributed per person who injects drugs per year by needle and syringe programmes
				2.2	Percentage of people who inject drugs who report the use of a condom at last sexual intercourse
				2.3	Percentage of people who inject drugs who reported using sterile injecting equipment the last time they injected
				2.4	Percentage of people who inject drugs that have received an HIV test in the past 12 months and know their results
				2.5	Percentage of people who inject drugs who are living with HIV
Target 3	Eliminate mother-to-child transmission of HIV by 2015 and substantially reduce AIDS related maternal deaths ⁷	Virtual elimination of mother to child transmission by 2015. Successful PMTCT intervention will directly contribute to the attainment of Millennium Development Goals (MDG) 4, 5 and 6	National Target more ambitious than Global Target	3.1	Percentage of HIV-positive pregnant women who receive antiretrovirals to reduce the risk of mother-to-child transmission
				3.2	Percentage of infants born to HIV-positive women receiving a virological test for HIV within 2 months of birth
				3.3	Mother-to-child transmission of HIV (modelled)

Table 2: UNGASS Targets emboldened in 2011 and whether they exist with similar targets in the 2011-2015 National AIDS Strategic Framework for Zambia

Target Number	2011 Emboldened UNGASS Targets	Equivalent 2011-2015 Zambia National Strategic Plan Target	Comment on disparity if any	No.	Assessment Indicators
Target 4	Have 15 million people living with HIV on antiretroviral treatment by 2015	Ensure universal access to treatment, care and support. Current threshold for provision of ART is a CD4 count of 350. The ambition eventual is to just diagnose and treat based on a well-being assessment even if the CD4 count is not known. This will enable almost all public health facilities to provide therapy and therefore ensure universal access as the treatment will then be within reach of everyone who needs it.	National Target more ambitious than Global Target	4.1	Percentage of eligible adults and children currently receiving antiretroviral therapy*
				4.2	Percentage of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy
Target 5	Reduce tuberculosis deaths in people living with HIV by 50 per cent by 2015	Scale up implementation of WHO" Three I's strategy that entails Intensified Case finding, provision of Isoniazid Preventive Therapy and Tuberculosis Infection Control.	No Global Target in Zambia programme but aim is to treat 80 per cent of those with tuberculosis who have HIV by 2015	5.1	Percentage of estimated HIV-positive incident TB cases that received treatment for both TB and HIV
Target 6	Reach a significant level of annual global expenditure (US\$22-24 billion) in low- and middle-income countries		About 85 per cent of HIV and AIDS interventions in Zambia were funded by Donors. PEPFAR was the biggest contributor.	6.1	Domestic and international AIDS spending by categories and financing sources
Target 7	Critical Enablers and Synergies with Development Sectors	Multi-sectorial response continuously being scaled up in cognisance of political and cultural dispensations.	Cultural and Political factors would make it difficult to work with commercial sex workers, men who have sex with men and intravenous drug users	7.1	National Commitments and Policy Instruments (prevention, treatment, care and support, human rights, civil society involvement, gender, workplace programmes, stigma and discrimination and monitoring and evaluation)

Table 2: UNGASS Targets emboldened in 2011 and whether they exist with similar targets in the 2011-2015 National AIDS Strategic Framework for Zambia

Target Number	2011 Emboldened UNGASS Targets	Equivalent 2011-2015 Zambia National Strategic Plan Target	Comment on disparity if any	No.	Assessment Indicators
				7.2	Proportion of ever-married or partnered women aged 15-49 who experienced physical or sexual violence from a male intimate partner in the past 12 months
				7.3	Current school attendance among orphans and non-orphans aged 10-14
				7.4	Proportion of the poorest households who received external economic support in the last 3 months

7 SPECTRUM Version 4.47 modelling for deriving some denominators for estimating coverage indicators for UNGASS and Universal Access reporting

The exact size and pace of trend of the HIV epidemic at national and global level is not known. An indication of the size and trend of the epidemic is obtained by modelling. The modelled indicators are also used as denominators for assessing the coverage of numerous interventions. The quantity of each intervention is the numerator into which the denominators are divided into in order to obtain the coverage estimates.

Data for the enumerators is compiled in the agreed upon monitoring and evaluation systems of the HIV epidemic in Zambia which include the mainstream monitoring and evaluation system with indicators mainly from the HMIS and periodic population and institutional surveys, the antenatal HIV prevalence surveillance surveys and behavioural surveillance surveys of most at risk populations such as sex workers, truck drivers and other mobile workers/populations. Most of the denominators for estimating coverage of the scale-up in this report were derived by HIV Epidemiological and SPECTRUM modelling. These are shown in Table 2.

Assumptions for SPECTRUM modelling in Zambia are described elsewhere⁴. In addition to these assumptions, the fertility reducing routine due to HIV infection in the SPECTRUM modelling was not applied when deriving denominators for the 2011 UNGASS and UA reporting for Zambia. While compiling indicators from various sources, it was observed that the net fertility reducing effect of HIV infection was minimal if any because of the near universal scale-up of the PMTCT programme and the system wide effects of the massive HIV and AIDS interventions on reducing infecundity levels even among people (both males and females) without HIV.

As shown in Figure 7-1, the TFR reduced throughout the period in Lusaka province. It also reduced in Copperbelt province up to 2001-2002 and then it increased between 2001-2002 and 2007. The reduction in fertility could have been precipitated by the high level of the HIV epidemic in urban areas²⁵⁻²⁷. In addition, the PMTCT programme could have accelerated the fertility reduction in the early stages of its scale-up as those who knew that they were infected opted not to have any more children due to fears and stigma²⁸. Hence with the near universal scale up of the PMTCT programme in Copperbelt and Lusaka Provinces in which over 90 per cent of the populations live in urban areas, the TFR rebounded in Copperbelt Province between 2001-2002 and 2007 as initial fears and stigma waned somewhat with the consistent universal coverage and uptake of PMTCT.

In Figure 7-2, it is shown by a consistent direct method of estimating the TFR that it increased in rural areas and that it reduced in urban areas resulting in little change in the TFR between 1992 and 2007 in the whole country as the reduction in urban areas was compensated for by the increase in rural areas where about 60 per cent of the population of Zambia has been living since the mid-1970s. Also as shown in Figure 7-1, the increase in the TFR in rural areas could have been due to an increase in the TFR in predominantly rural provinces of North-Western and Western Provinces. In the past, there were indications of higher levels of infecundity in these provinces as the women and men attained much lower fertility than they desired compared to their counterparts in other provinces²⁹⁻³². As new generations entered the reproductive ages, this would have waned as they abandoned some reproductive and sexual practices that could have caused infecundity. Coupled with the system wide benefits of HIV and AIDS interventions, the biological or medical causes of infecundity in the previous generations would also be less likely to take hold in the new reproductive generation. Figure 7-3 confirms that the overall impact of HIV infection on the fertility levels in Zambia might not be substantial because of the rapid scale-up of HIV interventions in Zambia where coverage levels of over 80 per cent were attained within a short period.

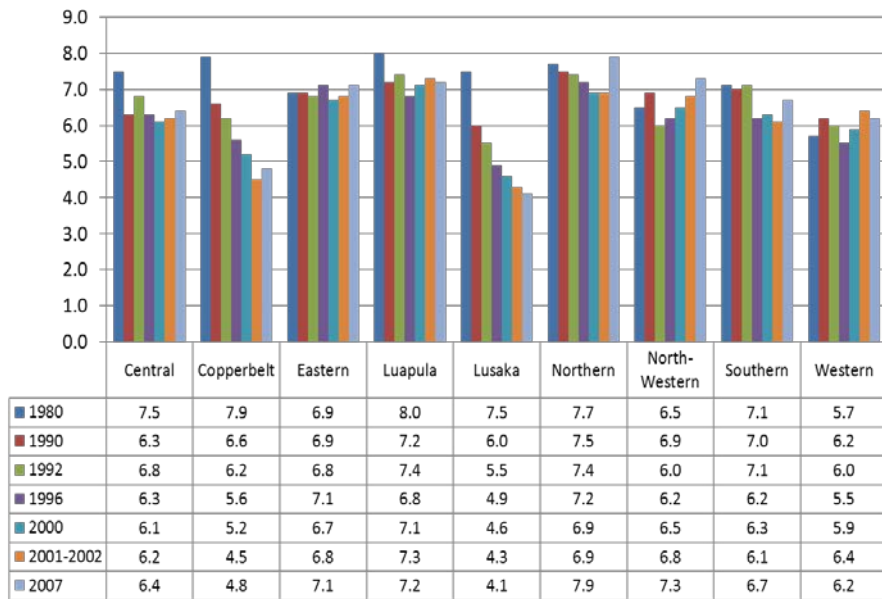
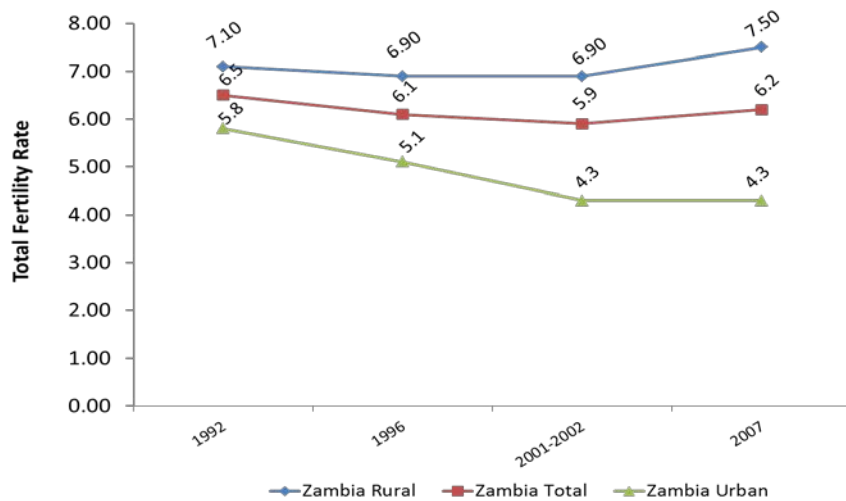


Figure 7-1: Trends in the Total Fertility Rate (the number of children a woman would have if she maintains the current rate of fertility) by province in Zambia from 1980 to 2007 using both direct and indirect sources of the estimates.



Source: Zambia Demographic and Health Surveys

Figure 7-2: Trend in the Total Fertility Rate (the number of children a woman would have if she maintains the current rate of fertility) as measured directly in the Zambia Demographic and Health Surveys for Zambia and its urban and rural areas

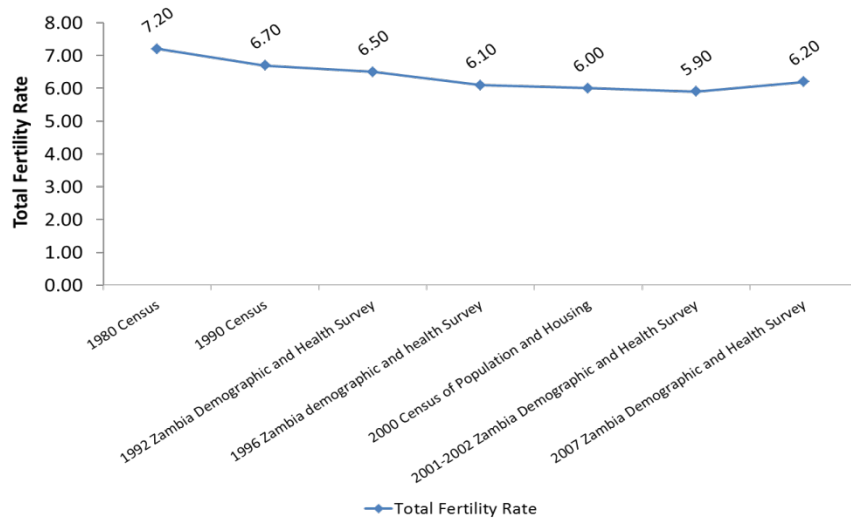


Figure 7-3: Trend in the Total Fertility Rate (the number of children a woman would have if she maintains the current rate of fertility) for the whole Zambia as measured indirectly from Censuses of Population and Housing and directly from the Zambia Demographic and Health Surveys

As shown in Figure 7-4, Figure 7-5, Figure 7-6 and Figure 7-7, the removal of the fertility reducing effect of HIV mainly affects the denominators (demand for HIV and AIDS intervention services) among children and pregnant women. Table 2 shows the denominators used for the 2011 UNGASS and Universal Access Reporting for Zambia.

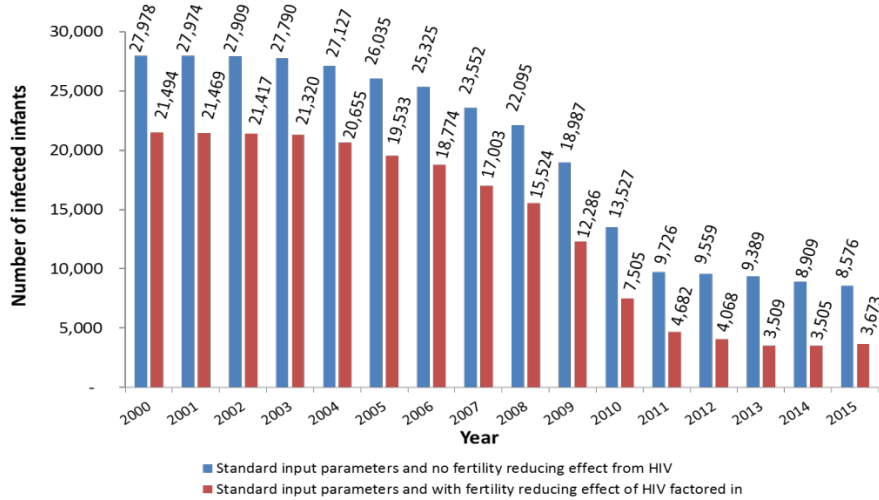


Figure 7-4: Comparison of estimates of number of infant HIV infections with and without the fertility reducing effect of HIV infection, Zambia

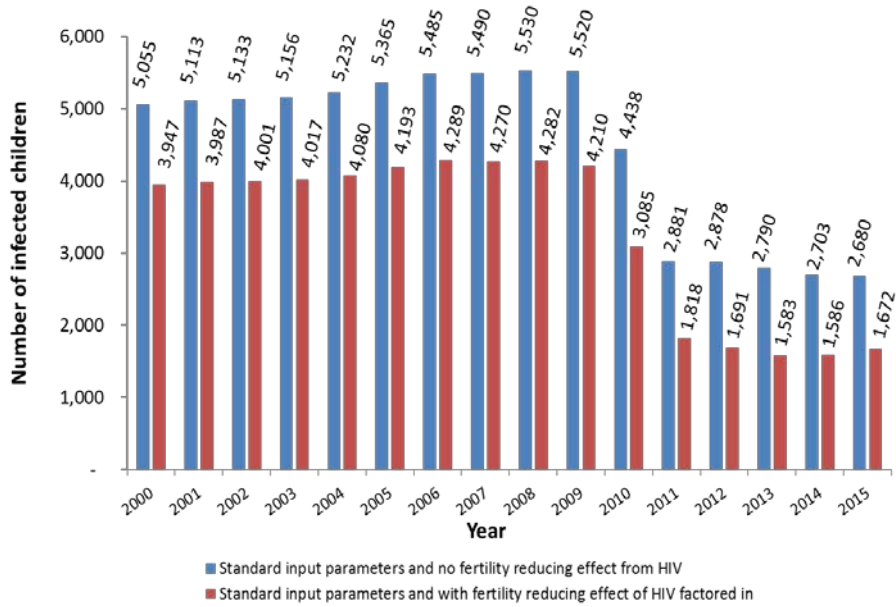


Figure 7-5: Comparison of estimates of the number of HIV infections in children aged 1-4 years with and without the fertility reducing effect of HIV infection, Zambia

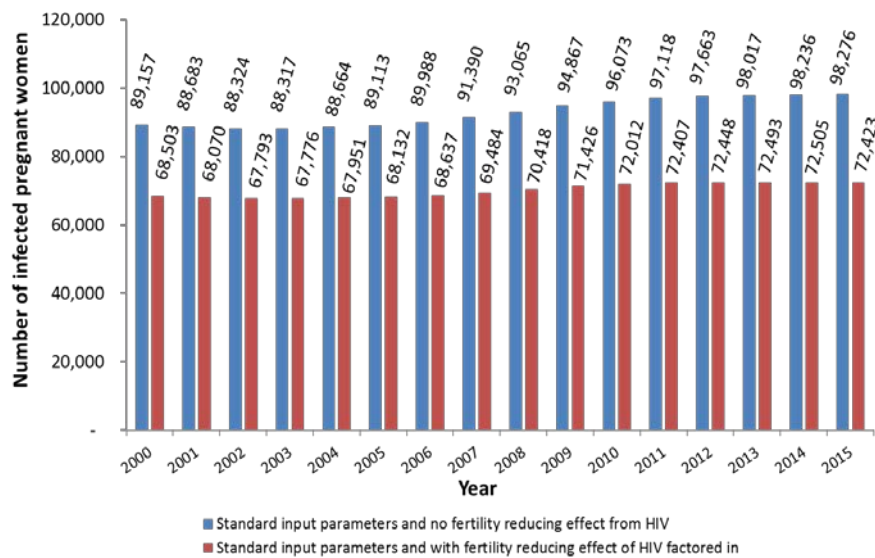


Figure 7-6: Comparison of estimates of number of pregnant women requiring Prevention of Mother to Child Transmission of HIV infections with and without the fertility reducing effect of HIV infection, Zambia

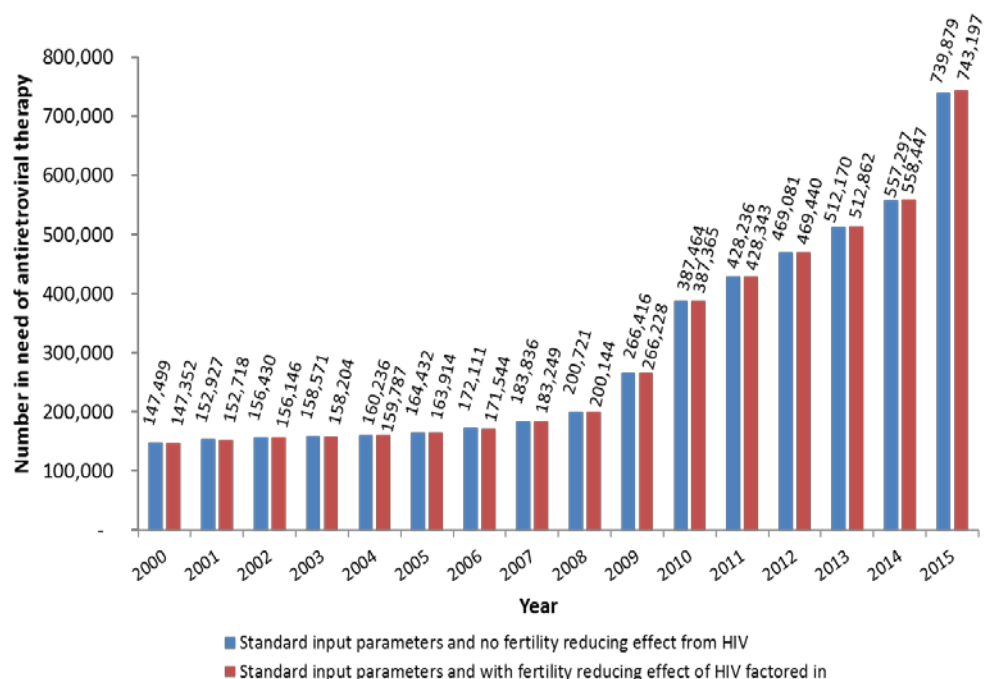


Figure 7-7: Comparison of estimates of number of adults 15 years and older in need of antiretroviral therapy with and without the fertility reducing effect of HIV infection, Zambia

Table 3: Denominators for assessing coverage of some indicators for the UNGASS and Universal Access report for Zambia for 2011 as modelled in SPECTRUM Version 4.47

Indicator	Year					
	2010	2011	2012	2013	2014	2015
Population with HIV-adults and children-male	471,104	483,270	496,382	510,588	525,638	541,264
Population with HIV-adults and children-female	613,404	631,201	651,225	670,635	692,166	714,422
HIV 15+ male	372,554	389,327	406,317	424,092	442,555	461,252
HIV 15+ female	516,089	538,403	561,247	585,178	610,081	635,368
HIV population- children 0-14 male	98,550	93,943	90,065	86,496	83,083	80,012
HIV population- children 0-14 female	97,315	92,798	89,978	85,457	82,085	79,054
New HIV infections- adults 15+ male	30,705	30,334	29,726	29,577	29,588	29,668
New HIV infections- adults 15+ female	38,435	37,938	37,163	36,981	37,015	37,150
New HIV infections- infants	13,527	9,726	9,559	9,389	8,909	8,576
New HIV infections- children 1-4 years	4,438	2,946	2,877	2,790	2,703	2,680
Need for ART- Adult (15+)-males	163,923	181,305	198,678	216,960	236,133	312,195
Need for ART- Adult (15+)-females	223,541	246,931	270,405	295,214	321,172	427,696
Need for ART- Children 0-14 years	115,820	107,205	103,189	101,552	101,205	120,015
Need for ART- Children 1-4 years	43,562	37,729	32,211	29,247	27,738	29,111
Need for ART- infants	10,916	7,620	8,188	8,606	8,637	8,024
Mothers needing PMTCT	96,073	97,118	97,664	98,018	98,237	98,276
All orphans due to HIV/AIDS	700,474	672,508	641,341	607,656	573,722	541,747
HIV+ pregnant women in need of ART	61,990	30,700	28,159	26,895	25,734	28,016

9 Target 1. Reduce sexual transmission of HIV by 50 per cent by 2015

Prevention strategies were at the core of reducing the sexual transmission HIV. At the end of the Fifth (2002–2005) National HIV and AIDS strategic framework, HIV-prevention coverage was considered to be extremely low. Only a fraction of people at risk of HIV exposure had meaningful access to basic prevention services. Very few adults aged 15–49 years had access to voluntary counselling and testing and an even smaller proportion of pregnant women were offered services for preventing mother-to-child HIV transmission. A major commitment was made to close this gap in the sixth strategic framework, 2006–2010. In the 2006–2010 National HIV and AIDS strategic framework, eight areas of focus within the prevention theme were defined:

1. Prevent sexual transmission of HIV with a special emphasis on youth, women and high risk behaviours;
2. Prevent mother to child transmission;
3. Prevent HIV transmission through blood and blood products;
4. Prevent HIV transmission in health care and other care settings and promote access to post exposure prophylaxis treatment;
5. Improve access to and use of confidential counselling and testing;
6. Mitigate stigma and discrimination against HIV;
7. Prevent HIV transmission through intravenous drug use; and
8. Support development and participation in HIV vaccine clinical trials.

The prevention policies and strategies were based on the latest available evidence and global best practices. A specific HIV prevention policy with male circumcision as the core strategy was also launched in 2009 but for most of the period from 2006–2010, prevention activities were guided by the 2006–2010 National HIV and AIDS strategic framework.

Closing the gap in prevention services required major recommitment of resources. Grassroots programmes which were more acceptable to the local populations were developed through health facility driven community programmes such as SMAGs. The messages and activities developed at the grassroots level were much more effective in encouraging the population to under-go community and health facility based counselling and testing.

There were also tailor made prevention and mitigation policies for work places. The mining, banking, agriculture, public service and the defence and security forces launched their tailor made policies which took cognisance of the unique work place environments to minimise the exposure of workers to situations which made them vulnerable to HIV infection. In the public sector, 40 ministries and institutions finalised their HIV/AIDS policies at places of work and in seventeen of them, the policies were being implemented.

The tendency by mainstream society to disapprove of, and sometimes harshly punish, behaviour such as illicit drug use, sex between men, and sex work has been a major constraint in implementing some prevention activities. This societal disapproval has meant that people engaged in these behaviours are not adequately covered by programmes and epidemiological surveillance systems, even though they are among the most likely to be exposed to HIV³³. This remains a problem in Zambia although non-governmental organisations are increasingly making efforts to reach heterosexual sex workers and men engaged in sodomy in prisons. The Drug Enforcement Commission in its programmes to re-habilitate drug addicts has also incorporated HIV prevention. All these were being done in a way that does not draw the ire of the mainstream society which implies an inadequate effort on these groups.

9.1 Prevention in young people

This was anchored by improving access to education by building new schools of one kind or another in all districts. Since the 1970s, this rate of building schools had not happened because of the economic doldrums of the 1980s, 1990s and 2000s. With increased educational levels, vulnerability to HIV infection among young people would also be reduced. This was coupled by the intensified behavioural change programmes organised for the health centres catchment areas by the Ministry of Health and the Ministry of Youth, Sport and Child Development in collaboration with Cooperating Partners and some Non-Governmental Organisations.

HIV and AIDS education was also made part of the curriculum for primary and secondary schools teacher training institutions. As far back as 2005, 60 per cent of schools had teachers who had been trained in life skills education and taught it at school. The curriculum used locally constructed components of the general outline which overlapped with those promoted by public health programmes in the country and internationally. In this way the curriculum was responsive to local culture and to on-going or existing health education initiatives in Zambia.

Stigma was a major challenge for the population to utilise the HIV and AIDS services offered in the health facilities. One way in which stigma was reduced was by introducing counselling and testing services in all public health centres, in the facility itself and through community programmes such as the youth peer programmes. Now, HIV counselling and testing is accessible to young people in the communities. Counselling is done and a dried blood spot collected for testing.

These prevention activities have borne positive results. Behavioural change indicators have improved since 2005 and this is expected to have a huge impact on reducing HIV infection in young people. As shown in Figure 9.1-1, there was a drastic increase in the percentage of young people aged 15-24 who were tested and received their HIV test results between 2005 and 2009 from 7.0 per cent to 33.6 per cent. This increase was mainly among young women than among young men. This 380 per cent increase happened despite a reduction in the percentage of young people aged 15-24 years who had comprehensive knowledge about HIV/AIDS as shown in Figure 9.1-2. Despite not universally having comprehensive knowledge, young people seem aware about critical aspects of prevention.

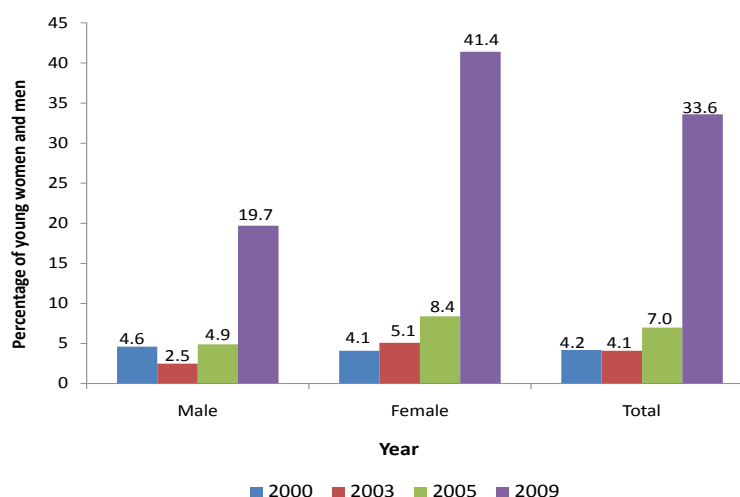


Figure 9.1-1: Percentage of young women and men aged 15-24 who received an HIV test in the last 12 months and who know their results in the Zambia Sexual Behaviour Surveys

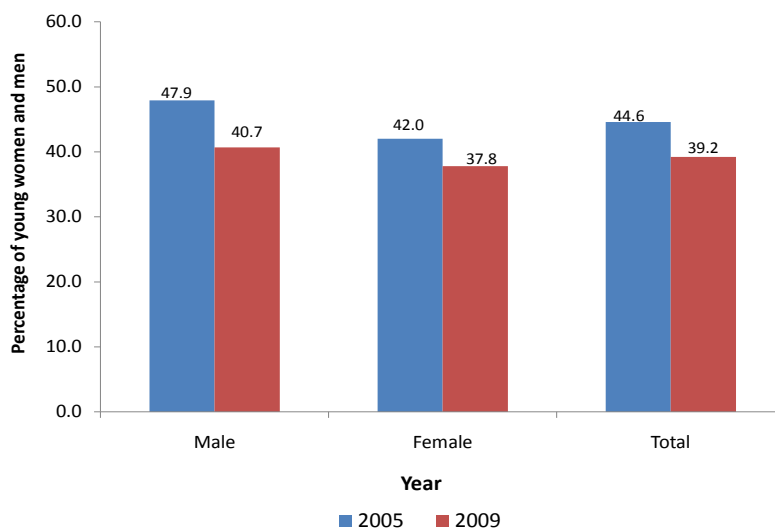


Figure 9.1-2: Percentage of young women and men aged 15-24 with comprehensive knowledge about HIV/AIDS in the Zambia Sexual Behaviour Surveys

Figure 9.1-3 shows that the percentage of young people who had sex before 15 years drastically reduced by 55.1 per cent from 16.7 in 2000 to 7.5 in 2009. The margin of the reduction of 56.4 per cent among young men and 55.6 per cent among young women was about the same.

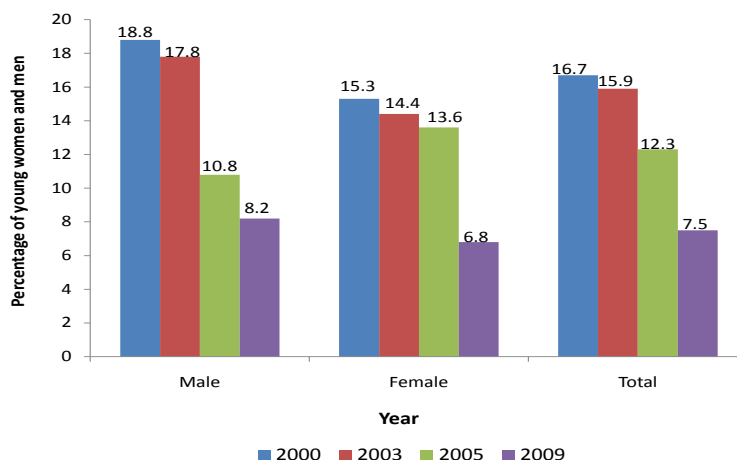


Figure 9.1-3: Percentage of young women and men aged 15-24 who had sexual intercourse before the age of 15 in the Zambia Sexual Behaviour Surveys

It was also found that HIV prevalence had reduced among young people who had spent more years in school^{11, 34-36}. In the whole country, HIV prevalence among young people aged 15-19 years hardly changed between 2001-2002 and 2007 from 4.6 per cent to 4.7 per cent⁸. However, it reduced among those aged 20-24 years by 23.7 per cent from 11.4 per cent to 8.7 per cent over the same period⁸. In the age group 15-24 years, it reduced by 16.6 per cent over this period from 7.8 per cent to 6.5 per cent⁸. See Figure 9.1-4. At the UNGASS, in June 2001, member states committed themselves to achieving a 25 per cent reduction in HIV prevalence among young people aged 15 to 24 years by 2005 in the most affected countries and by 2010 in all other countries.

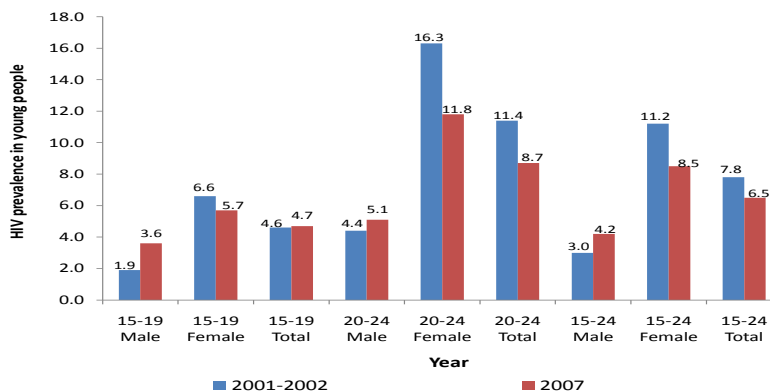


Figure 9.1-4: HIV prevalence in young people in 2001-2002 and in 2007 in from the Zambia Demographic and Health Surveys

9.2 Increasing the number counselled and tested among adults

An important step in prevention and accessing HIV and AIDS services is for each person to know their current HIV status. Counselling and testing is also the principle entry point for accessing interventions against HIV and AIDS. The national policy on HIV testing and counselling stipulates that the service be free of cost for users and encourages provider-initiated counselling and testing (which is an important entry point for treatment). Screening for general employment purposes is prohibited.

The number of individuals 15 years and older that received HIV counselling and testing and knew their results more than doubled between 2008 and 2010. Figure 9.2-1 shows that the number of males who were counselled and tested for HIV was much less than the number of females. In 2008, the number of male counselled and tested was 22 per cent that of females. The gap somewhat closed in 2010 with the number of males counselled and tested increasing to 45 per cent of that of females. The number increased by 351.3 per cent among males and by 123.9 per cent among females from 2008 to 2010. Among both sexes, it increased by 159.7 per cent. The total percentage increase between 2010 and 2011 slowed down. It was 25.1 per cent from 1.3 million to 1.8 million persons 15 years and older.

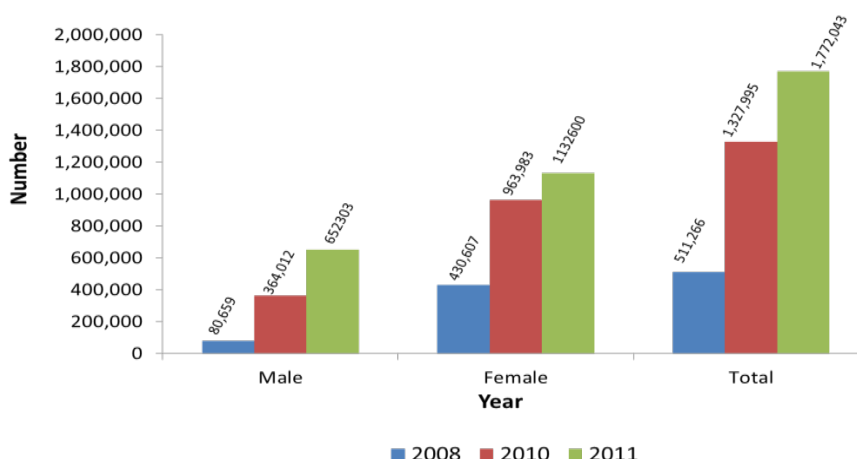


Figure 9.2-1: Number of individuals aged 15 years and older who received HIV testing and counselling and know their results

Given that the projected population 15 years and older in 2010 was 7,326,449 million³⁷ then 18.1 per cent of this population was tested in public health facilities in 2010. In 2008, the projected population 15 years and older was 6,901,711 million³⁷ implying that 7.4 per cent were tested in public health facilities. Therefore, the percentage tested in public health facilities more than doubled between 2008 and 2010.

Overall in the general population 15-49 years old, the proportion tested in 2009 was estimated to be 22.8 per cent. The percentage was higher among females than among males. The percentages also increased by a large margin over the levels in 2005. This is shown in Figure 9.2-2.

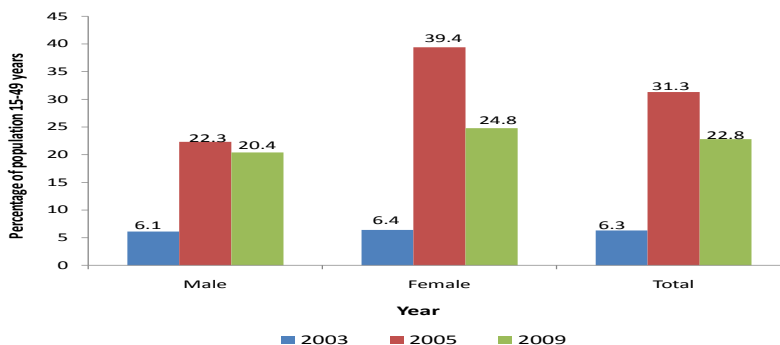


Figure 9.2-2: Percentage of people aged 15-49 who have ever voluntarily requested an HIV test and received their results in the Zambia Sexual Behaviour Surveys

9.3 Condom usage with multiple sex partners

Worryingly, condoms are rarely used in multiple sexual relationships. In about 80 per cent of the multiple sexual relationships condoms were not used. This has remained so for a long period into the epidemic. Only 21.4 per cent of the women and men 15-49 years used a condom in multiple sexual relationships over a period of 12 months in 2005³⁸. That is about 1 in 5 and it does not bode well for controlling the epidemic. In 2009, this had hardly changed with 19.1 per cent³⁸ implying that the rate of sexual transmission in multiple sexual relationships might not have reduced. As a result, male circumcision was made the core strategy for preventing the spread of HIV infection in 2009.

Among sex workers in their behavioural sites, condom usage has been improving since 2009. Commercial sex workers also consistently have condoms for use with their paying clients. See Figure 9.3-1.

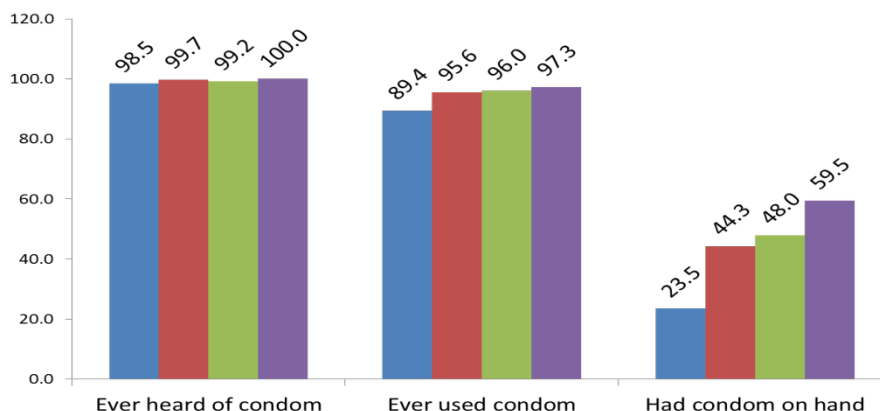


Figure 9.3-1: Trend in female sex workers ever heard, used and had a condom on hand, 2000-2009

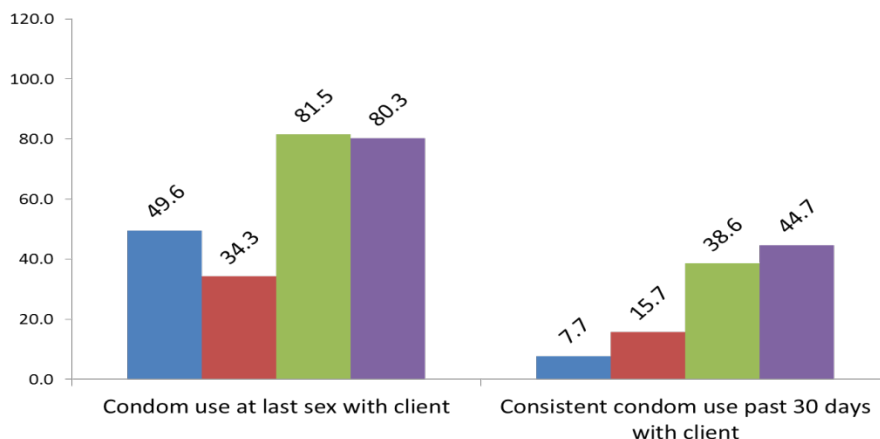


Figure 9.3-2: Proportion who used condom at last sex and consistent use with paying sex partners with paying sex partners, 2000-2009

With the positive behavioural trends elaborated above, the rate of transmission has been trending downwards. The percentage of the population infected with HIV in various population groups in Figure 9.3-1 have been reducing. Among women attending antenatal care, the percentage infected reduced from a peak of 18.7 per cent in 1994 to 16.3 per cent in 2008. Among women participating in the prevention of mother to child HIV transmission programme, the percentage infected reduced from 23.9 per cent in 2003 to 12.3 per cent in 2010. Among the general population aged 15-49 years, the percentage infected reduced from 15.6 in 2001-2002 to 14.3 per cent in 2007.

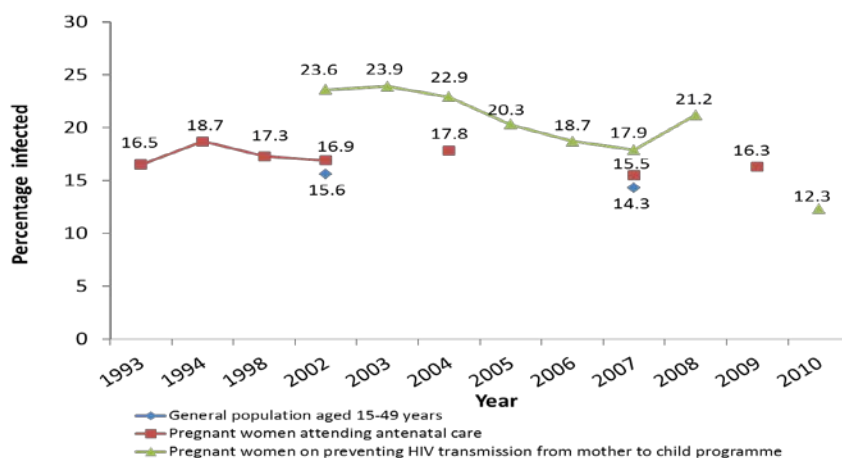


Figure 9.3-3: Trends in the percentage of the population estimated to have HIV in nationally representative population groups

The trends in the percentage of the population infected with HIV in Figure 9.3-4 imply that the rate of new infections in the adult population modelled in SPECTRUM reduced from a peak of 2.06 among males and 2.71 among females in 1990 to 1.20 among males and 1.58 among females in 2001 and 0.96 among males and 1.25 among females in 2011. There was a 53.4 percentage reduction in the rate of new infections among males and 53.9 among females between 1990 and 2011. Since the UNGASS declaration in 2001, the percentage reduction among males was 20.0 and among females, 20.9. In order to attain the UNGASS declaration target of halving the rate of new infections by 2015, the pace of reduction of new infections in Zambia should be doubled up. This can only be done by reducing the high rate of new infections in the older adult populations. The scaling-up of male circumcision in young adults would also contribute towards this direction. Also see Table 7.

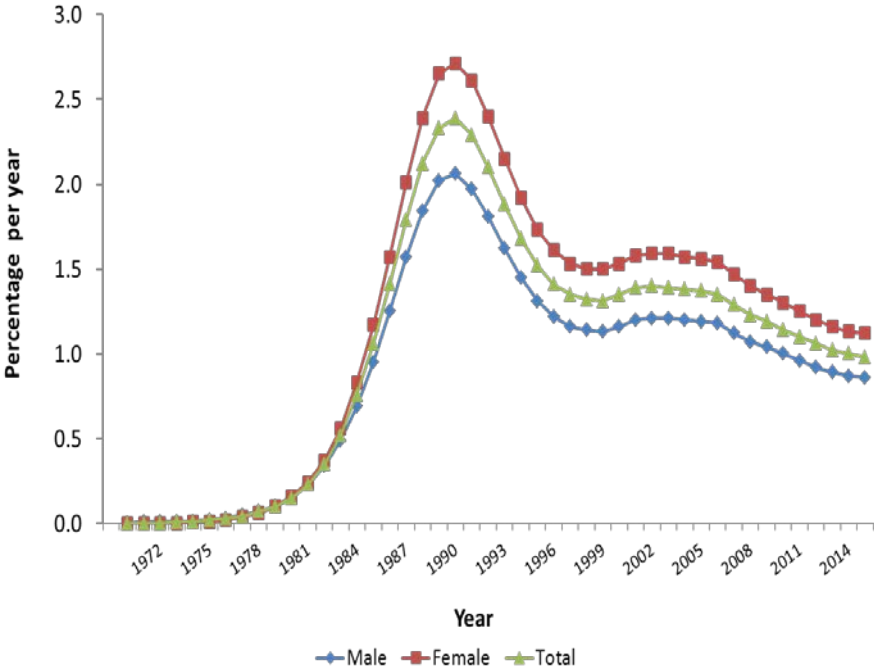


Figure 9.3-4: Trend in the per cent rate of new HIV infections in the adult population 15 years and older by sex, Zambia

10 Target 2. Reduce Transmission of HIV among people who inject drugs by 50 per cent by 2015

There are no indications that this is an important route of HIV transmission in Zambia. There are no verified data in Zambia about the transmission of HIV via this route.

11 Target 3. Eliminate mother-to-child transmission of HIV by 2015 and substantially reduce AIDS-related maternal deaths

Another major entry point for accessing interventions against HIV and AIDS is the PMTCT programme. There are three possible drug regimens pregnant women infected with HIV before or during a pregnancy can receive in order to minimise the transmission of HIV from mothers to babies. The regimens recommended by the World Health Organisation are shown in Table 4. Long overdue steps are being carried out to eliminate the usage of the very less effective single dose nevirapine.

In evaluating PMTCT coverage, the critical denominator is the number of pregnant women in the general population of the country that is estimated to be infected with HIV which carries a pregnancy until a baby is born. In HIV epidemiological and SPECTRUM modelling, this number was estimated to be 93,065 in 2008, 94,867 in 2009, 96,073 in 2010 and 97,118 in 2011.

Table 4: Possible regimens for HIV-positive pregnant women to reduce mother-to-child transmission according to the Guidelines of the World Health Organisation

Category	Description	Examples
a) antiretroviral therapy for HIV-positive pregnant women eligible for treatment	Triple antiretroviral regimen used primarily to improve mother's health and also to fully suppress viral replication fully before and during delivery and postpartum. It is given as a lifelong mother's therapy with the additional benefit of reducing mother-to-child transmission during pregnancy and postpartum periods.	<ul style="list-style-type: none"> • AZT + 3TC + NVP or • AZT + 3TC + EFV or • TDF + 3TC (or FTC) + NVP or • TDF + 3TC (or FTC) + EFV
b) maternal triple ARV prophylaxis;	Triple antiretroviral regimen used to prevent vertical HIV transmission, It is given from 14 weeks of pregnancy until cessation of breastfeeding,	<ul style="list-style-type: none"> • Triple ARV (from 14 weeks until cessation of breastfeeding)** • AZT + 3TC + LPV-r • AZT + 3TC + ABC • AZT + 3TC + EFV • TDF + 3TC (or FTC) + EFV <p>**stop ARV 1 week after complete exposure to breast milk.</p>
c) maternal AZT;	AZT used as antiretroviral prophylaxis. It is given from 14 weeks of pregnancy.	<ul style="list-style-type: none"> • Antepartum AZT (from 14 weeks of pregnancy) • sd-NVP at onset of labour* • AZT + 3TC during labour & delivery* • AZT + 3TC for 7 days postpartum* <p>*sd-NVP and AZT-3TC can be omitted if mother receives > 4 weeks AZT antepartum.</p>
d) single-dose nevirapine only	A single dose of nevirapine administered during labour, as antiretroviral prophylaxis.	Single-dose nevirapine.

The first three are recommended for HIV-positive pregnant women for the prevention of mother-to-child transmission. single-dose nevirapine only is not recommended but should be recorded until it is phased out

Key indicators for the access of PMTCT interventions are shown in Table 5. There was a huge improvement in coverage of PMTCT between 2008 and 2011. This happened because of the booster funds availed by the United States Government through the Presidents Emergency Fund for AIDS Relief (PEPFAR). In addition to existing commitments for HIV and AIDS intervention, an additional about US\$50 million was pumped into the PMTCT programme to rump up coverage. More than 80 per cent of the PMTCT sites in Zambia were supported by PEPFAR. To a great extent, the booster made up for the feared drop in coverage after the suspension of support by the Global Fund to Fight HIV, AIDS and Malaria (GFTAM). The booster facilitated the expansion of PMTCT coverage to almost all the health facilities providing antenatal care. Since antenatal care coverage was nearly universal in Zambia, PMTCT coverage became nearly universal as well. The percentage of pregnant women put on prophylaxes to avert transmission of HIV to the baby increased from 61.9 per cent in 2008 to 84.5 per cent in 2011.

Among the pregnant women that attended antenatal care at least once, 98.9 per cent were counselled and tested for HIV and all of them received the results in 2010 and in 2011. This was an improvement over 2008 when 84.1 per cent of them received their test results. The percentage of pregnant women in the PMTCT programme that was found with HIV in 2010 was 12.3. This was much lower than the 21.2 per cent in 2008. Barring an artefact of data, the interventions against HIV transmission could have reduced the percentage of pregnant women with HIV between 2008 and 2010. However, it more likely that some of the women who know that they have HIV have opted not to have any more children or are spacing the births wider. Although quite unlikely, some of them could have decided not to attend PMTCT because they feel the antiretroviral therapy they are undergoing is sufficient to prevent HIV transmission to their babies without exposing their status frequently by participating in the PMTCT programme.

There was also an improvement in the percentage of male partners of pregnant women that were tested for HIV from 4.2 in 2008 to 32.2 in 2011. One major challenge faced by the programme is that almost half the births are delivered outside the health facilities despite almost all pregnant women making at least one antenatal visit over the course of the pregnancy⁸. Pregnant women that are found to have HIV are given a dose of prophylaxes to take at various stages of the pregnancy. They can do that even if they don't deliver in the health facility. However, if they don't deliver in a health facility, the baby cannot be put on a prophylaxis or eliminated from the need for it by testing it for HIV. If the male partner is also enrolled in the programme, it makes it easier to ensure that the baby is born in a health facility and that the baby is put on a prophylaxis if need be, even if the birth was outside a health facility. Therefore, increasing male participation in PMTCT and ensuring that delivery is done in health facilities is cardinal for improving the quality of the PMTCT programme.

Measured against national targets, many other successes in preventing mother to child transmission were achieved. In the 2006-2010 National HIV/AIDS/STIs/TB strategic framework, the target was to have put 61,600 (about 70 per cent) of pregnant women with HIV on prophylaxis to prevent mother to child HIV transmission^{18, 39}. This target was exceeded. Table 5 shows that 76,893 pregnant women with HIV were put on prophylaxes in 2010 and 82,081 in 2011 representing a coverage of 80.0 per cent in 2010 and 84.5 per cent in 2011. Also see Figure 11-1. Apart from an increase in the number of pregnant women on prophylaxes to prevent them from transmitting HIV to their baby, more of them were receiving the more efficacious prophylaxes. There were 71,429 on a triple or dual prophylaxis in 2011 compared to 9,178 on a single prophylaxis. See Figure 11-2. In 2004, only a single dose prophylaxis was offered. In 2011, 88.6 per cent were either on a dual or triple prophylaxis. However, 11.4 per cent were on a single prophylaxis. See Figure 11-3.

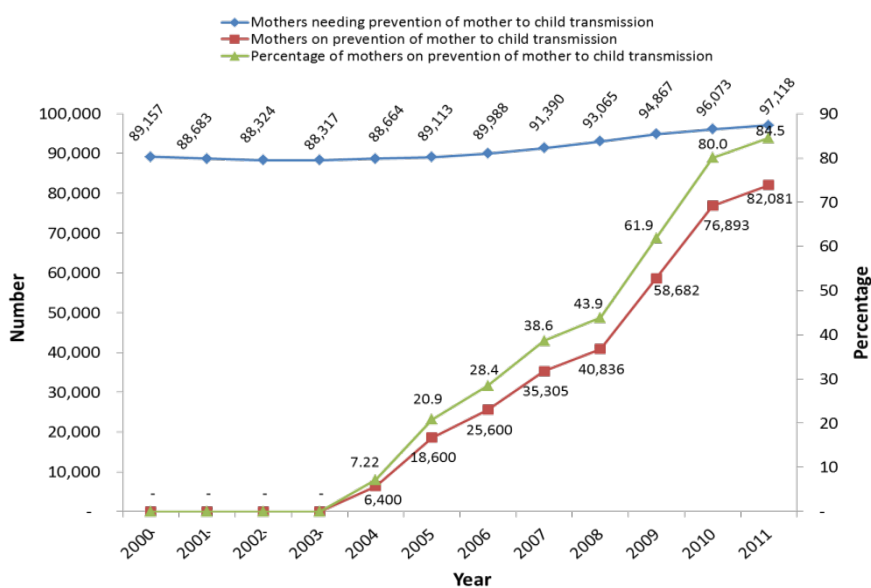


Figure 11-1: Women needing and accessing prevention of mother to child transmission by year, Zambia (assuming no net effect of fertility reduction from HIV)

Table 5: Key indicators for the universal access of prevention of mother to child transmission of HIV in 2008, 2010 and 2011 in Zambia

	Estimated population to cover or assess			Number covered or accessing service			Percentage		
	2008	2010	2011	2008	2010	2011	2008	2010	2011
Attended antenatal care clinic at least once in the last 12 months	524,263	628,280	704,439	491,234	588,690	645,395	93.7	93.7	91.6
Tested for HIV	491,234	588,690	645,395	364,331	582,180	623,870	74.2	98.9	96.7
Tested for HIV and received results	364,331	582,180	623,870	306,510	582,180	623,870	84.1	100.0	100.0
Tested HIV positive	306,510	582,180		65,072	71,374		21.2	12.3	
Pregnant women whose male partner was tested for HIV in the last 12 months	491,234	610,129	645,395	20,407	156,131	207,835	4.2	25.6	32.2
Pregnant women put on prophylaxis to avert transmission of HIV to baby	94,867	96,073	97,118	58,682	76,893	82,081	61.9	80.0	84.5
Babies exposed to HIV from mothers put on prophylaxes	60,814	81,662	82,550	24,026	44,897	29,589	39.5	55.0	35.8
HIV-infected pregnant women assessed for ART eligibility through either clinical staging or CD4 testing	60,814	76,893	82,081	36,517	44,125	82,081	60.0	60.5	100.0
Infants born to HIV-infected women started on Cotrimoxazole prophylaxis within two months of birth in the preceding 12 months	60,814	76,893	82,081	19,040	29,439	30,208	31.3	38.3	36.8
Infants born to HIV-infected women receiving a virological test for HIV within two months of birth in the preceding 12 months	60,814	81,662	82,550	20,774	22,258	22,603	34.2	27.3	27.4

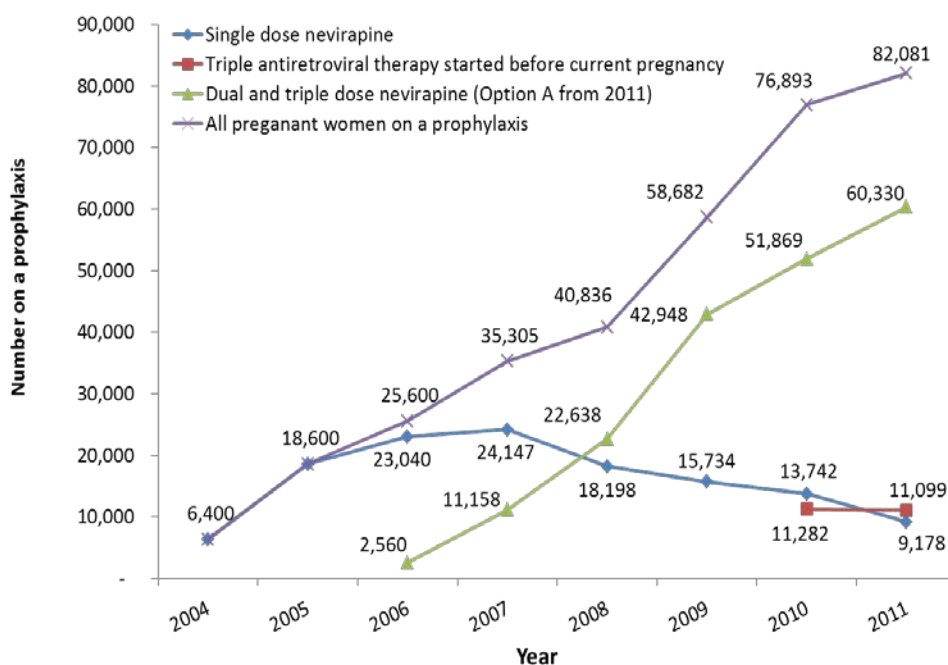


Figure 11-2: Number of pregnant women on Prevention of Mother to Child Transmission Programme by type of prophylaxis and year, Zambia

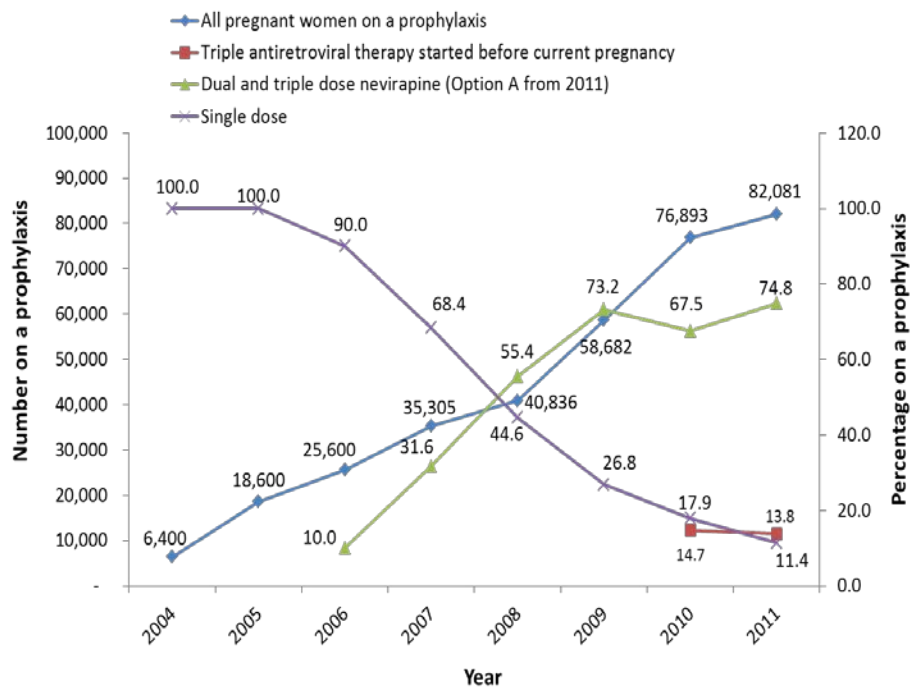


Figure 11-3: Percentage of pregnant women on Prevention of Mother to Child Transmission Programme by type of prophylaxis and year, Zambia

12 Target 4. Have all people living with HIV on antiretroviral treatment by 2015

After prevention interventions, antiretroviral therapy is the most important interventions against the HIV epidemic. It was also especially singled out in the Millennium Declaration i.e. "Achieve by 2010 universal access to treatment for HIV/AIDS for all those who need it". However, "Universal Access" was not attained in this stated target year in Zambia as set out in the Millennium Development Goals. Table 6 shows that coverage had reached 28.1 per cent of children less than 15 years and 90.0 per cent of the population 15 years and older. This was short of the Universal Access Target to put all those in need on treatment by 2010.

However a total of 344,407 adults and children were on therapy exceeding the national target of 210,000 by 2010. Although it fell short of the Millennium Declaration Goal, all persons who need antiretroviral therapy can be provided with it, free of charge to the patient, if they turned up at a public health facility in Zambia. Due to many factors, it is not practical for all those who need it, to access antiretroviral therapy even if the health facilities are geared to do so.

Coverage for antiretroviral therapy was higher among females than among males for adults. This would be expected. Females have more access to HIV facilities than males because of the PMTCT programme. Among children, coverage was almost the same among both sexes. This would be expected because both are under the care of the same parents. The slightly higher mortality from other causes among boys than girls could account for the slightly lower coverage among boys because it could slightly reduce the time to get them on therapy relative to the girls.

Table 6: Number and percentage coverage of the population by age group and sex that were on antiretroviral therapy in 2011

Population Group	Population needing antiretroviral therapy*				Population on antiretroviral therapy**				Percentage of the population in need, on antiretroviral therapy			
	2005	2008	2010	2011	2005	2008	2010	2011	2005	2008	2010	2011
Under 15 years												
Male	39,568	48,233	58,194	54,049			12,687					21.8
Female	39,118	47,715	57,626	53,543			12,701					22.0
Total	78,686	95,948	115,820	107,592	5,400	18,040	25,388	30,187	6.9	18.8	21.9	28.1
15 years and older												
Male	71,136	86,272	163,923	181,305			133,035					81.2
Female	93,296	114,448	223,541	246,931			185,984					83.2
Total	164,432	200,720	387,464	428,236	51,764	200,891	319,101	385,498	31.5	100.1	82.4	90.0
All ages												
Male	110,704	134,505	222,117	235,354			145,722					65.6
Female	132,414	162,163	281,167	300,474			198,685					70.7
Total	243,118	296,668	503,284	535,828	57,164	219,576	344,407	415,685	23.5	74.0	68.4	77.6

* National HIV/AIDS/STIs Council, HIV and AIDS Epidemiological Estimates, 2012 Revision

**Obtained from the Health Management Information System Indicators

Although antiretroviral therapy can prolong life, it might not do so if it is not started early and maintained consistently. Among the clients followed-up for up-to 12 months in any period before 2010, 65.1 per cent of them were known to be still alive and on therapy. This is shown in Figure 26. A total of 168,359 adult and child clients were followed-up and 109,661 of them were known to be still alive. The percentage known to be alive and on treatment for up to 12 months in any period before 2011 improved to 76.5 signifying a major improvement in the retention and survival of the newer cohorts. Retention/survival deteriorates with time as shown in Figure 29.

Figure 27 shows and Figure 28 show that survival/retention was lower in the 24 month cohorts than in the 12 month cohorts and in the 60 month cohorts than in the 24 month cohorts. Between 2010 and 2011, survival/retention in the 24 month and 60 months cohorts did not change much. The steep dips shown in Figure 27 and Figure 28 are not significant percent changes but might appear to be so due to scaling necessities of the dual axis graphs.

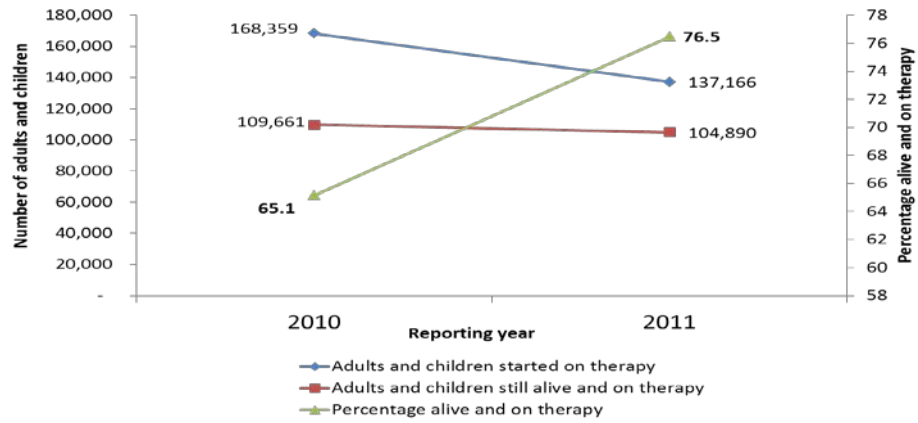


Figure 12-1: Adults and children with HIV still alive and known to be on treatment 12 months after initiation of antiretroviral therapy in 2010 and 2011

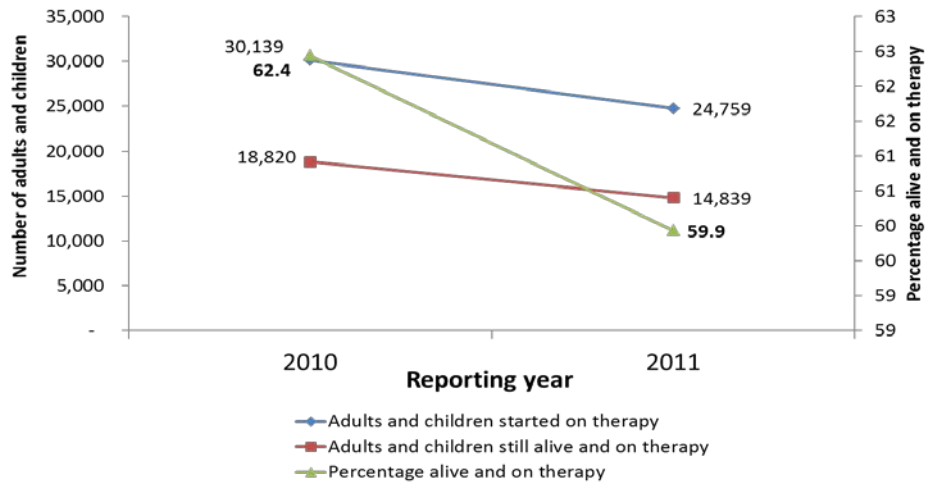


Figure 12-2: Adults and children with HIV still alive and known to be on treatment 24 months after initiation of antiretroviral therapy

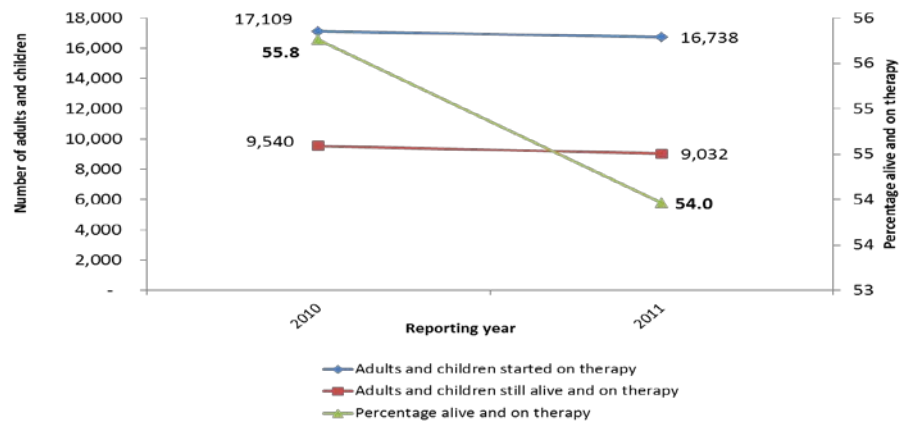


Figure 12-3: Adults and children with HIV still alive and known to be on treatment 60 months after initiation of antiretroviral therapy

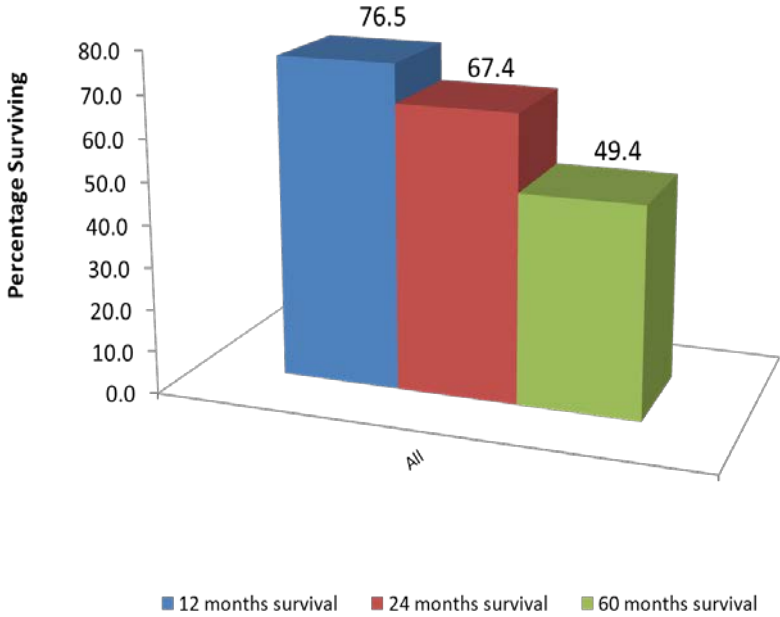


Figure 12-4: Percentage of all patients Children and adults enrolled on antiretroviral therapy surviving at 12, 24 and 60 months in Zambia by 2011

Figure 30 shows that there was less variation in survival by treatment sites for the 12 month cohorts but the variation increased at 24 months (Figure 31) and at 60 months-5years (Figure 32). The differences in the number of cases enrolled by treatment site and the differences in the composition of the patients by sites i.e. the differences in composition of cases by site in terms of advancement of HIV infection at the time of enrolment, should account for most of the variation. In the 60 month cohorts, many sites especially the rural ones would not have enrolled enough cases to be able to observe outcomes with statistical validity after 5 years. Same thing applies to the 24 month cohorts but to a lesser extent. Near universal acceptability of antiretroviral therapy and universal coverage is only just being attained.

However, some of the variation could also be due to the differences in the management of patients by the treatment sites. So in the current therapy regimen, there is still scope of improvement if regular testing to enable timely uptake of therapy and maintaining it consistently was improved to similar levels across all sites. So treatment sites should do more outreach work in their catchment areas to promote regular testing, early uptake and retention.

A frequently cited reason for the variation in retention cited in stakeholder validation of the report was that most people who drop out find it difficult to stay on therapy because they cannot afford regular meals or improve on their nutrition. Without good nutrition, it is difficult to continue taking the therapy.

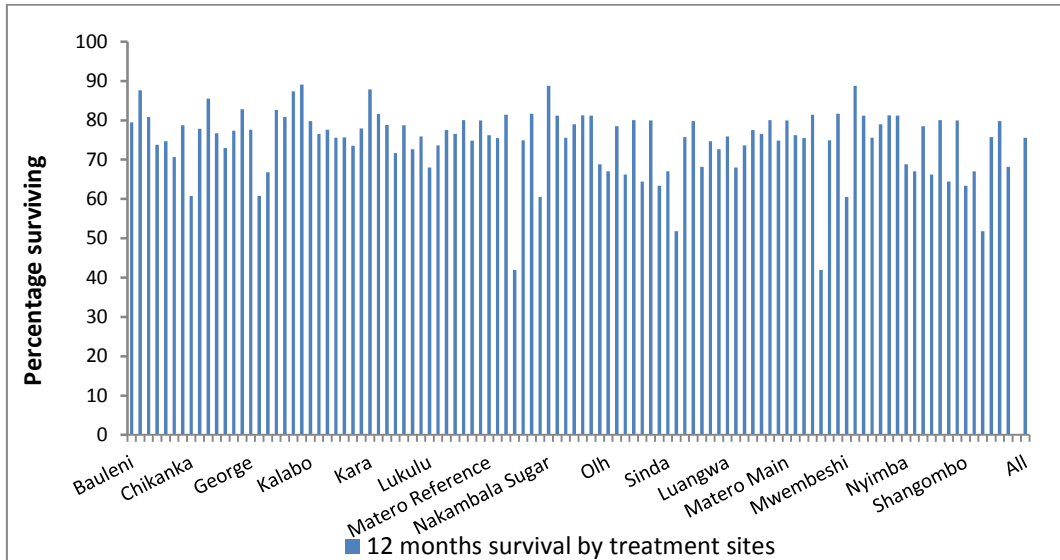


Figure 12-5: Less variation in percentage surviving at 12 months on antiretroviral therapy in selected treatment sites in Zambia

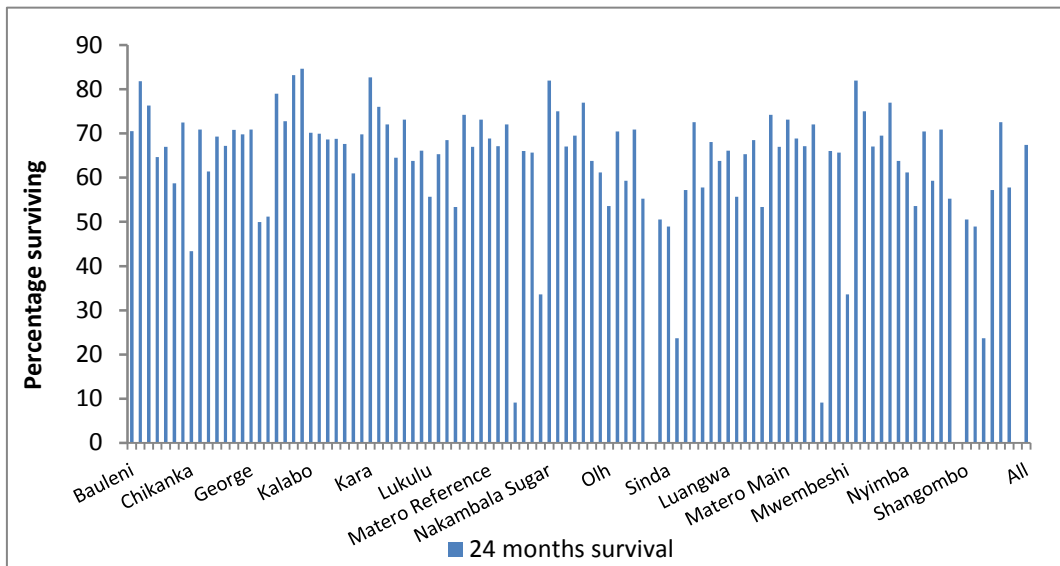


Figure 12-6: More variation in percentage surviving at 24 months on antiretroviral therapy in selected treatment sites in Zambia

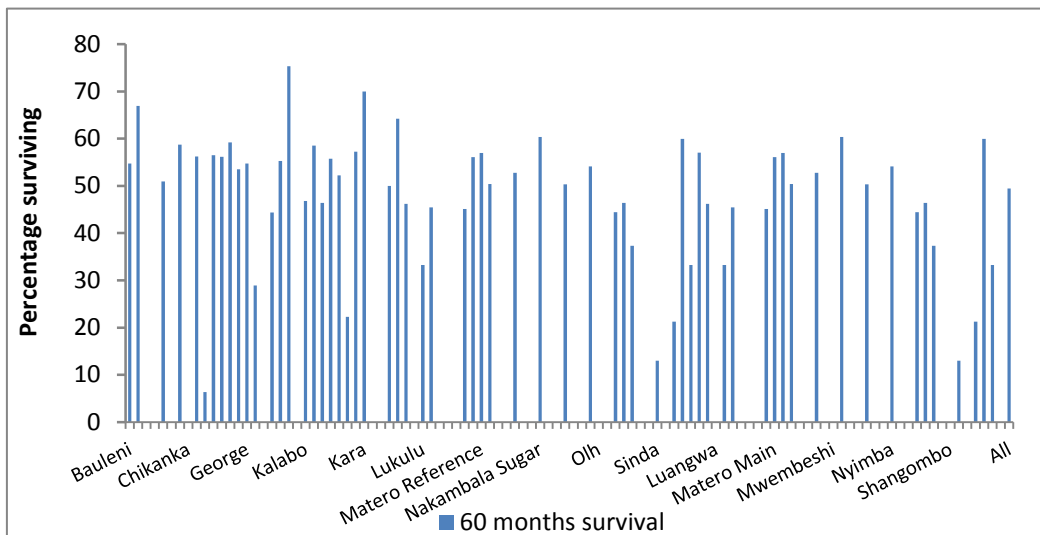


Figure 12-7: Much more variation in percentage surviving at 60 months on antiretroviral therapy in selected treatment sites in Zambia

Due to the scale-up in antiretroviral therapy, the death rate from HIV/AIDS among the population 15 years and older has reduced from the peak it reached in 2000 and 2001. At its peak in these two years the death rate from HIV/AIDS was 1.01 per cent in this population group. In 2011, it was 0.34 per cent, a reduction of 66.3 per cent from its peak due to the concerted efforts of the Zambian Governments and its Global partners in improving access to antiretroviral therapy. Similarly, the death rate due to HIV/AIDS among infants reduced from a peak of 1.80 per cent in 1997 to 0.38 per cent in 2011, a reduction of about 86 per cent. Also see Figure 12-8 and Table 7.

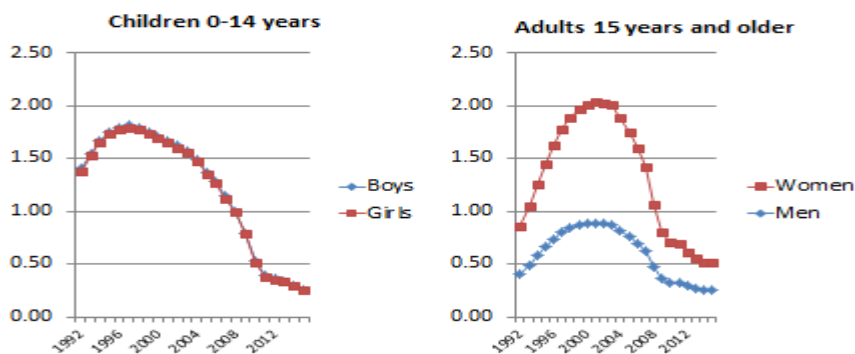


Figure 12-8: Comparison of the reducing trend in the death rate due to HIV/AIDS as a result of various interventions including antiretroviral therapy, Zambia

Table 7: Estimated percentages newly infected with HIV and dying from HIV/AIDS among adults 15 years and older and among infants by sex since 1970, Zambia

Year	Percentage newly infected with HIV among adults 15 years and older			Percentage dying from HIV/AIDS among adults 15 years and older			Percentage newly infected with HIV in infants			Percentage dying from HIV/AIDS in infants		
	Men	Women	All Adults	Men	Women	All Adults	Boys	Girls	All infants	Boys	Girls	All infants
1970	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1971	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1972	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1973	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1974	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1975	0.02	0.01	0.02	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
1976	0.03	0.02	0.03	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00
1977	0.05	0.04	0.04	0.00	0.00	0.00	0.02	0.02	0.02	0.00	0.00	0.00
1978	0.07	0.06	0.07	0.00	0.00	0.00	0.04	0.04	0.04	0.01	0.01	0.01
1979	0.10	0.10	0.10	0.00	0.00	0.00	0.06	0.06	0.06	0.01	0.01	0.01
1980	0.15	0.16	0.15	0.01	0.00	0.00	0.10	0.10	0.10	0.02	0.02	0.02
1981	0.23	0.24	0.23	0.01	0.01	0.01	0.16	0.16	0.16	0.03	0.03	0.03
1982	0.34	0.37	0.35	0.01	0.01	0.01	0.26	0.25	0.26	0.05	0.05	0.05
1983	0.49	0.56	0.52	0.02	0.02	0.02	0.40	0.40	0.40	0.08	0.08	0.08
1984	0.69	0.83	0.76	0.03	0.03	0.03	0.61	0.61	0.61	0.13	0.13	0.13
1985	0.95	1.17	1.06	0.04	0.04	0.04	0.91	0.91	0.91	0.19	0.19	0.19
1986	1.25	1.57	1.41	0.06	0.06	0.06	1.32	1.32	1.32	0.28	0.28	0.28
1987	1.57	2.01	1.79	0.09	0.09	0.09	1.85	1.85	1.85	0.39	0.40	0.40
1988	1.84	2.39	2.12	0.13	0.13	0.13	2.48	2.48	2.48	0.53	0.54	0.54
1989	2.02	2.65	2.33	0.18	0.19	0.19	3.20	3.20	3.20	0.69	0.70	0.70
1990	2.06	2.71	2.39	0.24	0.26	0.25	3.93	3.93	3.93	0.86	0.87	0.87
1991	1.97	2.61	2.29	0.32	0.35	0.34	4.61	4.61	4.61	1.03	1.04	1.03
1992	1.81	2.40	2.10	0.40	0.45	0.43	5.20	5.20	5.20	1.18	1.19	1.18
1993	1.62	2.15	1.88	0.49	0.56	0.53	5.69	5.68	5.68	1.30	1.31	1.30
1994	1.45	1.92	1.68	0.58	0.67	0.63	6.04	6.04	6.04	1.39	1.40	1.40
1995	1.31	1.73	1.52	0.67	0.78	0.72	6.28	6.28	6.28	1.46	1.47	1.46
1996	1.22	1.61	1.41	0.74	0.88	0.81	6.40	6.40	6.40	1.49	1.50	1.50
1997	1.16	1.53	1.35	0.80	0.97	0.88	6.43	6.43	6.43	1.50	1.51	1.51
1998	1.14	1.50	1.32	0.84	1.04	0.94	6.38	6.38	6.38	1.49	1.50	1.50
1999	1.13	1.50	1.31	0.87	1.09	0.98	6.28	6.28	6.28	1.47	1.48	1.47
2000	1.16	1.53	1.35	0.89	1.12	1.00	6.14	6.14	6.14	1.44	1.45	1.44
2001	1.20	1.58	1.39	0.89	1.14	1.01	6.00	6.00	6.00	1.40	1.41	1.41
2002	1.21	1.59	1.40	0.89	1.14	1.02	5.86	5.86	5.86	1.37	1.38	1.37
2003	1.21	1.59	1.39	0.88	1.13	1.00	5.72	5.72	5.72	1.33	1.34	1.34
2004	1.20	1.57	1.38	0.83	1.07	0.95	5.48	5.48	5.48	1.27	1.28	1.27
2005	1.19	1.56	1.37	0.77	0.99	0.88	5.17	5.17	5.17	1.16	1.17	1.17
2006	1.18	1.54	1.35	0.70	0.90	0.80	4.95	4.95	4.95	1.10	1.11	1.10
2007	1.12	1.47	1.29	0.63	0.80	0.71	4.52	4.52	4.52	0.97	0.98	0.98
2008	1.07	1.40	1.23	0.48	0.58	0.53	4.16	4.16	4.16	0.86	0.87	0.87
2009	1.04	1.35	1.19	0.37	0.44	0.40	3.52	3.52	3.52	0.69	0.69	0.69
2010	1.00	1.30	1.14	0.33	0.38	0.35	2.48	2.48	2.48	0.46	0.47	0.47
2011	0.96	1.25	1.10	0.32	0.37	0.34	1.70	1.70	1.70	0.33	0.33	0.33
2012	0.92	1.20	1.06	0.29	0.33	0.31	1.71	1.71	1.71	0.32	0.32	0.32
2013	0.89	1.16	1.02	0.27	0.29	0.28	1.67	1.67	1.67	0.29	0.30	0.29
2014	0.87	1.13	1.00	0.25	0.27	0.26	1.57	1.57	1.57	0.26	0.26	0.26
2015	0.86	1.12	0.98	0.25	0.27	0.26	1.49	1.49	1.49	0.23	0.23	0.23

13 Target 5. Reduce tuberculosis deaths in people living with HIV by 50 per cent by 2015

Persons with HIV/AIDS are prone to opportunistic infections such as tuberculosis. National guidelines for tuberculosis treatment require that patients of tuberculosis are offered an HIV test and put on antiretroviral therapy if need be. Similarly, persons found with HIV are also offered regular checks for tuberculosis and treated for every episode. About 16,953 cases with both HIV and tuberculosis were estimated for Zambia in both 2008 and 2010. Out of these, 40.6 per cent were treated for tuberculosis in 2008. In 2010, 73.7 per cent were treated. This is shown in Figure 34.

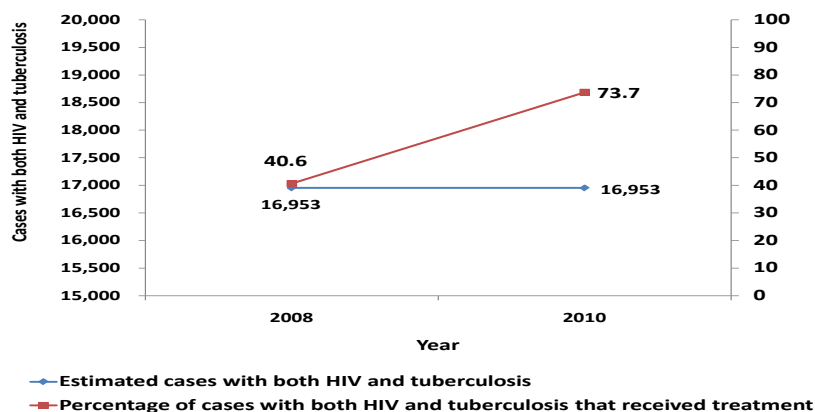


Figure 13-1: HIV-positive incident tuberculosis cases that received treatment for tuberculosis and HIV

14 Target 6. Reach a significant level of annual global expenditure in low- and middle-income countries

Data were collected but the processing and analysis was still going on at the time the report was due.

15 Target 7. Critical enablers and synergies with development sectors

In the multi-sectorial 2011-2015 NASF, integration of HIV and AIDS interventions in all facets of activities in Zambia is one of the pillars of the framework. Particularly, 2011-2015 frame work has improved from the previous ones on the integration of interventions in activities outside the health sector but which impinge on the structural factors such as political support, and individual vulnerabilities to HIV infection and upholding of basic and human rights of those infected.

15.1 National Commitments Policy Instrument

The NCPI measures progress in the development and implementation of national-level HIV and AIDS policies, strategies and laws. This represents the framework within which the national response is anchored.

15.1.1 National AIDS Strategic Framework

The 2011-2015 NASF is the third HIV and AIDS intervention strategic plan being implemented in Zambia. It follows the 2006-2010 intervention framework. Adoption of a human rights approach and gender sensitivity are two of the nine guiding principles of the 2011-2015 NASF. The NASF acknowledges that an enabling legal and policy environment is central to the promotion of a rights-based approach to HIV and AIDS. It contributes to reducing vulnerability to infection, mitigating the impact of HIV and empowering communities to respond appropriately. To ensure that the NASF had a strong gender perspective throughout the development process, consultations were held with the Gender Steering Committee including the Gender in Development Division. Apart from the focus on gender and human rights, the NASF reflects a strong evidence base and focuses on results.

The NASF addresses issues of key populations and vulnerable groups. These include but are not limited to men who have sex with men, people who inject drugs, sex workers, women and girls and people with disabilities. Key settings such as prisons, schools and workplaces are also taken into account. Cross cutting issues related to human rights protection, stigma and discrimination, gender inequality, poverty and involvement of people living with HIV (PLHIV) feature prominently in the NASF. In addition to highlighting the vulnerabilities of these groups, the NASF outlines specific strategies such as creating public awareness of stigma and discrimination and the legal barriers that prevent key populations from accessing and utilising services appropriately.

Given the multi-sectorial nature of the NASF, it covers sectors such as education, health, labour, military, transport, gender, young people, agriculture, finance and social welfare. All of these have earmarked budgets.

The NASF has a national operational plan for the period 2011 to 2013, commonly known as the NOP. The NOP has clear programme goals, clear targets and milestones, detailed costs for each programmatic area and an indication of funding sources.

The overall rating of strategy planning efforts in Zambia's HIV programmes in 2011 has remained at 7 out of 10. It was at 7 and 8 in 2009 and 2007 respectively.

15.1.2 Political Support and Leadership

The government has demonstrated a significant level of support for the national HIV response. The Cabinet Committee of Ministers on HIV and AIDS has called for more ambitious targets including eliminating rather than reducing mother to child transmission of HIV.

The national health budget for 2012, announced at the end of 2011, is 45 per cent higher than the 2011 budget in absolute terms. However, in proportion to the national budget, the health budget is still below the 15 per cent Abuja commitment. In addition the GRZ has increased its budget for ARVs from USD 5 million in 2011 to USD 10 million in 2012.

Despite these successes, challenges still remain with regard to sustaining the interest for HIV among politicians. Another major challenge is the sustainability of the national HIV response given the overwhelming donor dependence as well as the lack of sufficient mobilisation of local resources. The establishment of the National AIDS Trust fund and other mechanisms for local mobilisation are therefore critical in this regard. The NASF reflects the need to develop sustainability mechanisms. To this end, a feasibility study for the establishment of such a fund has been done and recommendations have been made. The GRZ is committed to enhancing domestic financing of the response, and especially establishing an AIDS fund in view of the declining support from traditional partners.

The overall rating for political support for HIV and AIDS programmes in 2011 stands at 6. It was at 7 and 6 in 2007 and 2009 respectively.

15.1.3 Human Rights

The National HIV/AIDS/STI/TB Policy of 2005 acknowledged that HIV/AIDS negatively impacts fundamental human rights and has the protection of human rights and prevention of stigma and discrimination as one of its cross cutting policy objectives. For instance, the policy discourages mandatory testing for HIV for scholarships or employment. Despite this, the Defence Forces continue to screen for HIV at recruitment and do not employ PLHIV. For PLHIV that are already in the Defence Forces a comprehensive policy for mitigating the impact of HIV is in place.

The Constitution of Zambia, the Industrial and Labour Relations Act and the Disabilities Act prohibit discrimination within certain contexts. These are general laws with no specific reference to HIV and AIDS. However, the Citizens Economic Empowerment Act of 2006 specifically prohibits discrimination based on HIV status in companies defined as citizen empowered companies. While these laws are not specific to HIV, they have been used to protect the rights of people living with HIV. A notable case is the 2010 judgment in the matter of Kingaibe and Chookole Vs the Attorney General. The Judge in the High Court ruled that mandatory testing for HIV was unconstitutional.

With regard to the laws to reduce violence against women, the long awaited Anti Gender Based Violence Act was enacted in 2011. It outlaws gender-based violence which is defined broadly to include physical, sexual, economic and psychological violence. Among other things, it obligates the government to create shelters for victims of violence. Read with the Penal Code, the Act criminalises wilful HIV transmission. This is due to the fact that the Act defines Sexual Abuse to include “the engagement of another person in sexual contact, whether married or not, which includes sexual conduct that abuses, humiliates or degrades the other person or otherwise violates another person’s sexual integrity, or sexual contact by a person aware of being infected with HIV or any other sexually transmitted infection with another person without that other person being given prior information of the infection”. Overall, the enactment of the Anti-Gender Based Violence Act is one of the major achievements in terms of legal reform. The implementation of the Act will contribute to reducing violence against women which often increases vulnerability to infection.

There are laws unlike the Anti-Gender Based Violence Act that present obstacles to effective HIV prevention, treatment, care and support for key populations and vulnerable groups. These are laws that criminalise same sex relations, sex work and injection drug use. The illegality of these activities has been used to prevent research on and provision of services to key populations and vulnerable groups. The Penal Code, CAP 87 of the Laws of Zambia classifies same sex relationships as unnatural offences and punishable by law. Section 19 of the Prisons Act, CAP 97 of the Laws of Zambia classifies committing sodomy as a major prison offence. The Narcotic and Psychotropic Substances Act lists methadone, buprenorphine and naloxone as controlled substances thereby preventing IDUs access to OST which is a critical component of the comprehensive package for preventing HIV among IDUs. The Act further limits any harm reduction interventions for IDUs as specified in the comprehensive package for HIV prevention and refers to harm reduction as “aiding and abetting”.

Evidence-based best practice highlights how such discriminatory laws/beliefs impact on people’s ability to access effective and ‘friendly’ HIV prevention, treatment, care and support. The NASF is therefore on course in terms of addressing legal barriers that prevent key populations from accessing and utilising services adequately.

In the event of human rights abuses against people living with HIV, the main mechanisms for recording, documenting and addressing cases of discrimination are through the Victim Support Unit, the Courts of Law, the Human Rights Commission and the ZARAN.

The overall rating of the efforts to implement human rights related policies, laws and regulations in 2011 at 4. This is the same as 2009 and lower than 2007 which was at 5

15.1.4 Civil Society Involvement

The contribution of civil society to strengthening political commitment of top leaders and national strategy/policy formulations has been high. Civil society has provided checks and balances and held the political leaders to account. Civil society has also participated in the development of key documents such as the NASF, the 2011-2013 National Operational Plan and the Communication and Advocacy Strategy.

A diversity of civil society representatives were involved in the development of the NASF 2011-2015. This included participation in consultations and reviewing the drafts. There was not much involvement of civil society in the budgeting for the NASF. One of the challenges is that civil society is fragmented. More can be done to ensure that civil society engagement is not tokenistic. This includes but is not limited to ensuring that there is sufficient notice for engagement as well as involving civil society in discussions with bilateral/multilateral partners and in discussion of national budgets. This is where the voice of civil society is crucial. With the demise of the ZNAN – which effectively drove the civil society efforts in Zambia, civil society remains defragmented and uncoordinated in this area. Civil society is further weakened by the dwindling of resources that are available for HIV work.

One of the major achievements in civil society involvement in 2011 was the development of the Civil Society Framework to coordinate and enhance civil society's response to HIV and AIDS, TB and Malaria in Zambia

Efforts to increase civil society participation in 2011 are rated at 7. This is the same as the rating for 2009 but higher than 2007 which was at 5.

15.1.5 Prevention

The National Strategy for the Prevention on HIV and STIs of 2009 has four main focus areas. These are prevention of sexual transmission of HIV and STIs, prevention of mother to child transmission of HIV, counselling and testing and prevention of HIV in health care settings. In addition, the six key drivers of HIV in Zambia have been identified. They were identified using research as well as consultative meetings. The National Strategy for Prevention may need to be revised and updated to be more consistent with the strategies in the NASF particularly, around key populations at high risk of infection.

The National Prevention Strategy, the National HIV/AIDS/STI/TB Policy and the 2006-2011 NASF acknowledge the importance of information, education and communication in HIV prevention. However, given the high number of pregnancies among school going youth, there is need to increase sexuality education in schools as well as address the policy on non-distribution of condoms in schools.

One of the major achievements has been the scale up of male circumcision. More resources are required to scale up other prevention interventions.

The overall rating of efforts in the implementation of prevention is 8 compared to 7 in both 2009 and 2007.

15.1.6 Treatment Care and Support

Addressing HIV treatment, care and support are key components of the NASF 2011-2015. According to the NASF, priority interventions in this area include increasing access and enrolment on antiretroviral therapy, providing treatment for TB/HIV co-infection and community and home-based palliative care. Since 2009, there has been a lot of progress in the area of treatment including more people being able to access ART, the adoption of the test and treat strategy for discordant couples, the adoption of the WHO 2010 guidelines and the availability of treatment for prisoners. Some challenges still remain with regard to treatment for opportunistic infections, low testing rates, long distance to antiretroviral therapy centres especially in hard to reach areas such as the wetlands and unpredictability of funding.

With regard to OVC, the major achievement has been the development of OVC standards of care. The NASF focuses on strategic needs of OVC such as protecting their human rights and ensuring access to adequate food, shelter, basic education and health services, and providing an enabling environment to eliminate gender based violence. The major challenges noted are the continuous increase in OVC, poor data collection and record tracking of OVC as well as too many uncoordinated efforts.

The overall rating of efforts in the implementation of HIV treatment, care and support groups is 9 compared to 7 for both 2009 and 2007.

15.1.7 Monitoring and Evaluation

There is a national monitoring and evaluation plan for the intervention strategy of 2011-2015. As with the intervention strategy, this is coordinated by the NAC through its Monitoring and Evaluation Unit. Not all key partners have aligned and harmonised their monitoring and evaluation with the national. Among the reasons cited, some partners feel that the plan is too generic. Others noted that different partners have different interests and data uses and they don't see their place in the national system. Although mechanisms are in place for all key partners to submit their data and other returns, there are many challenges in getting the information such as untimely and inconsistent submission of reports, high cost of collecting and sending data from sub-national levels as well as some partners feeling that "they are too powerful" to report to NAC. There is need to compel all partners to report to NAC. In order to improve transparency in monitoring and evaluation, NAC with the help of partners, have developed an e-mapping tool through which all players in the interventions will be present on the internet. In this way, there will be a reference point for everyone such that everyone can be an agent of oversight if they veer away from their approved mandate or do not comply.

CSOs are members of the Monitoring and Evaluation Technical Working Group at NAC. Apart from attending meetings for this Group, few CSOs are involved in monitoring and evaluating the interventions.

The overall rating of HIV-related monitoring and evaluation is 5 compared to 6 and 8 in 2009 and 2007 respectively.

In conclusion, there is a good policy and strategy framework for interventions against HIV and AIDS in Zambia. The challenge remains that of ensuring effective and comprehensive implementation. More political will is required to mobilise resources for the response as well as deal with some of the challenges such as the needs of key populations at high risk of infection. The legal framework and mechanisms for ensuring the protection of rights need to be strengthened in order to protect the rights of people living with and affected by HIV and AIDS. A strengthened and well-coordinated civil society sector is also critical to the success of the HIV and AIDS interventions in Zambia.

15.2 Mitigation for orphaned and vulnerable children

Children orphaned by the HIV/AIDS epidemic and others orphaned by other causes are vulnerable to HIV infection. Other children are also vulnerable due to poverty and other causes. Such children should have their vulnerability militated against. Supporting their livelihoods and ensuring that they have an education are two of the important ways for doing so.

Figure 25 shows that most of the vulnerable children were still not receiving adequate free basic external support in caring for the child. The percentage of households with vulnerable children that received free basic external support marginally increased from 11.9 per cent in 2005 to 19.0 per cent in 2009. Therefore, about 80 per cent of households with vulnerable children were still not receiving basic external support. This shows that some of the mitigation programmes are not been taken advantage of. The Ministry of Education has a school health programme to identify children in need of health care services and food supplementation and facilitate access to these services. The Ministry of Community Development and Social Services has a cash transfer programme to vulnerable households in rural areas. The Ministry of Agriculture supports households with free inputs which contributed to a food surplus for almost all subsistence farming households in 2009 and 2010. It could be that, for one reason or another, vulnerable households do not appreciate some of the support they receive from their Government.

The total ratio of both girls and boys that were currently attending school stayed almost the same in 2005, 2007 and 2009. That for girls appeared to reduce while that for boys appeared to increase. The reduction in the ratio for girls is a major cause of concern. This is shown in Figure 26. Without education, sexual behaviour change and equity would be difficult to attain. This is critical to reverse the high level HIV/AIDS epidemic that has obtained in Zambia since the 1990s.

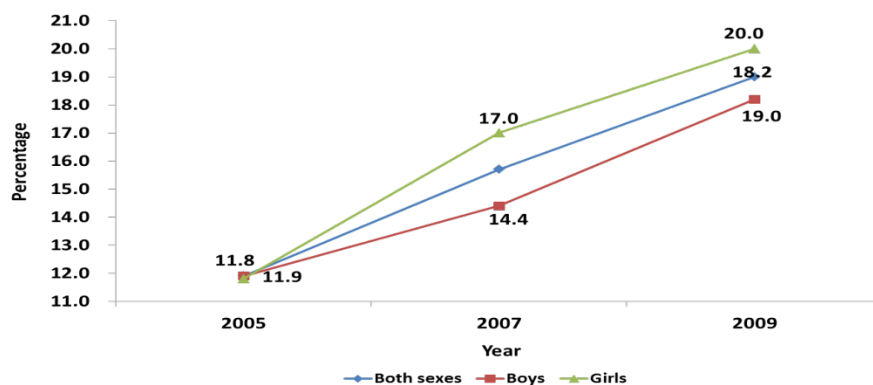


Figure 15.2-1: Percentage of orphaned and vulnerable children aged 0-17 years whose households received free basic external support in caring for the child

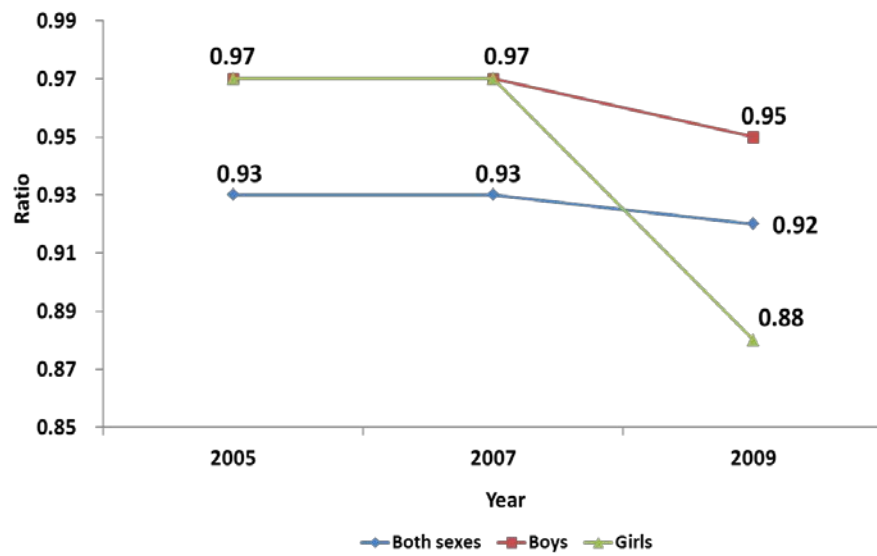


Figure 15.2-2: Ratio of orphaned children aged 10-14 years who are currently attending school to non-orphaned children the same age who are attending school

References

1. Zambia. Central Statistical Office. 2010 Census of population and housing preliminary report. Lusaka: Republic of Zambia, Central Statistical Office; 2011.
2. Zambia. Ministry of Finance and National Planning. Fifth National Development Plan 2006 - 2010. Lusaka: Ministry of Finance and National Planning; 2006.
3. Zambia. Ministry of Finance and National Planning. Sixth National Development Plan 2011 - 2015. Lusaka: Ministry of Finance and National Planning; 2011.
4. Zambia. National HIV/AIDS/STIs/TB Council. HIV and AIDS Epidemiological Estimates 2009 Revision. Lusaka, Zambia: National HIV/AIDS/STI/TB Council; 2009.
5. Zambia. National HIV/AIDS/STIs/TB Council. Zambia HIV Prevention Response and Modes of Transmission Analysis. Lusaka, Zambia: National HIV/AIDS/STI/TB Council; 2009.
6. Fylkesnes K, Musonda RM, Sichone M, Ndhlovu Z, Tembo F, Monze M. Declining HIV prevalence and risk behaviours in Zambia: evidence from surveillance and population-based surveys. *Aids*. 2001; **15**(7): 907-16.
7. Zambia. Central Statistical Office, Zambia. Central Board of Health, ORC Macro. MEASURE/DHS+ (Programme). Zambia demographic and health survey, 2001-2002. Lusaka, Zambia. Calverton, Md., U.S.A.: Central Statistical Office: Central Board of Health: MEASURE DHS+, ORC Macro; 2003.
8. Zambia. Central Statistical Office, Zambia. Ministry of Health, Zambia. Tropical Diseases Research Centre, University of Zambia, Macro International Inc. Zambia demographic and health survey 2007. Calverton, Maryland, USA: Central Statistical Office and Macro International Inc.; 2009.
9. Fylkesnes K, Ndhlovu Z, Kasumba K, Mubanga Musonda R, Sichone M. Studying dynamics of the HIV epidemic: population-based data compared with sentinel surveillance in Zambia. *Aids*. 1998; **12**(10): 1227-34.
10. Fylkesnes K, Musonda RM, Kasumba K, Ndhlovu Z, Mluanda F, Kaetano L, et al. The HIV epidemic in Zambia: socio-demographic prevalence patterns and indications of trends among childbearing women. *Aids*. 1997; **11**(3): 339-45.
11. Sandoy IF, Kvale G, Michelo C, Fylkesnes K. Antenatal clinic-based HIV prevalence in Zambia: declining trends but sharp local contrasts in young women. *Trop Med Int Health*. 2006; **11**(6): 917-28.
12. Dzekedzeke K, Fylkesnes K. Reducing uncertainties in global HIV prevalence estimates: the case of Zambia. *BMC Public Health*. 2006; **6**(1): 83.
13. Fylkesnes K, Musonda RM, Luo NP, Msiska R. HIV infection among antenatal women in Zambia, 1990-1993. *Aids*. 1996; **10**(5): 555-6.
14. Kimuna S, Djamba Y. Wealth and extramarital sex among men in Zambia. *Int Fam Plan Perspect*. 2005; **31**(2): 83-9.
15. Fenton L. Preventing HIV/AIDS through poverty reduction: the only sustainable solution? *Lancet*. 2004; **364**(9440): 1186-7.
16. Gillespie S, Greener R, Whiteside A, Whitworth J. Investigating the empirical evidence for understanding vulnerability and the associations between poverty, HIV infection and AIDS impact. *AIDS*. 2007; **21** Suppl 7: S1-4.
17. Zambia. National HIV/AIDS/STD/TB Council. National AIDS strategic framework, 2011-2015. Zambia: National HIV/AIDS/STI/TB Council; 2006.
18. Zambia. Ministry of Health. National health strategic plan, 2006-2011 : "towards the attainment of the millennium development goals and national health priorities". Lusaka: Republic of Zambia, Ministry of Health; 2005.
19. United Nations. United Nations Millennium Declaration, General Assembly Fifty-fifth session. Resolution adopted by the General Assembly [without reference to a Main Committee (A/55/L.2)] 55/2. New York: United Nations; 2000.
20. African Union. Assembly of the African Union, Second Ordinary Session, Assembly/AU/Decl.4- 11 (II), 10 - 12 July 2003. Maputo: African Union; 2003.
21. African Union. Abuja Declaration on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases. OAU/SPS/Abuja/3. 27 April, 2001. Abuja: African Union; 2001.
22. United Nations. Dept. of Public Information., Joint United Nations Programme on HIV/AIDS. Declaration of Commitment on HIV/AIDS : United Nations General Assembly, Special Session on HIV/AIDS, 25-27 June 2001. [New York]: United Nations; 2001.
23. Joint United Nations Programme on HIV/AIDS (UNAIDS). Universal Access to HIV Treatment, Prevention, Care and Support. Roadmap and next steps for 2010 and beyond. Geneva: UNAIDS; 2010.
24. Joint United Nations Programme on HIV/AIDS (UNAIDS). Global AIDS Response progress reporting: monitoring the 2011 political declaration on HIV/AIDS: guidelines on construction of core indicators: 2012 reporting. Geneva: UNAIDS; 2011.

25. Glynn JR, Buve A, Carael M, Kahindo M, Macauley IB, Musonda RM, et al. Decreased fertility among HIV-1-infected women attending antenatal clinics in three African cities. *J Acquir Immune Defic Syndr*. 2000; **25**(4): 345-52.
26. Zaba B, Gregson S. Measuring the impact of HIV on fertility in Africa. *AIDS*. 1998; **12 Suppl 1**: S41-50.
27. Zaba B, Terceira N, Mason P, Gregson S. The contribution of HIV to fertility decline in rural Zimbabwe, 1985-2000. *Popul Stud (Camb)*. 2003; **57**(2): 149-64.
28. Wilson N. *Fertility Responses to Prevention of Mother-to-Child Transmission of HIV*. Williamstown, MA, U.S.A; 2011.
29. Sunil TS, Pillai VK. Sterility in zambia. *Ann Hum Biol*. 2002; **29**(4): 414-21.
30. Mitchell CJ. Differential Fertility amongst urban Africans in Zambia. *The Rhodes-Livingstone Journal*. 1965; (XXXVII): 1-25.
31. Dzekedzeke K, Nyangu N. Fertility Patterns and their Dterminants in Zambia: Findings from the Zambia Demographic and Health Survey. Macro International Inc Fertility Trends and Determinants in Six African Countries. Calverton, Maryland; 1994. p. 121-44.
32. World Bank. Population Health and Nutrition Dept., Hill A. The demography of Zambia. [Washington, D.C.]: Population, Health & Nutrition Dept., World Bank; 1985.
33. UNAIDS. 2004 report on the global HIV/AIDS epidemic: 4th global report. Geneva: UNAIDS; 2004.
34. Michelo C, Sandoy IF, Dzekedzeke K, Siziya S, Fylkesnes K. Steep HIV prevalence declines among young people in selected Zambian communities: population-based observations (1995-2003). *BMC Public Health*. 2006; **6**: 279.
35. Michelo C, Sandoy IF, Fylkesnes K. Marked HIV prevalence declines in higher educated young people: evidence from population-based surveys (1995-2003) in Zambia. *Aids*. 2006; **20**(7): 1031-8.
36. Sandoy IF, Michelo C, Siziya S, Fylkesnes K. Associations between sexual behaviour change in young people and decline in HIV prevalence in Zambia. *BMC Public Health*. 2007; **7**: 60.
37. Zambia. Central Statistical Office. Zambia : HIV/AIDS epidemiological projections,1985-2010. Lusaka: Central Statistical Office; 2005.
38. Zambia. Central Statistical Office., Ministry of Health., University of Zambia., University of North Carolina at Chapel Hill. MEASURE Evaluation. Zambia sexual behaviour survey, 2009. Lusaka, Zambia: Zambia. Central Statistical Office; University of North Carolina at Chapel Hill. MEASURE Evaluation; 2010.
39. Zambia. National HIV/AIDS/STD/TB Council. National HIV and AIDS strategic framework, 2006-2010. Zambia: National HIV/AIDS/STI/TB Council; 2006.

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