REPUBLIC OF ZAMBIA

NATIONAL AIDS COUNCIL

ZAMBIA COUNTRY REPORT

Monitoring the Declaration of Commitment on HIV and AIDS and the Universal Access

Biennial Report

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Foreword

HIV and AIDS continues to be a major developmental challenge for Zambia, which still has one of the highest HIV prevalence rates in the world. Once again, it is time to assess and reflect upon the efforts that have been made in our multi-sectoral response to this challenge. The National AIDS Strategic Framework 2011-2015 (NASF 2011-2015) has been the cornerstone on which our response has been built over the past two years, and the targets set by Global Leaders at the United Nations in June 2011 have served as a beacon lighting our way. Several successes have been made in the midst of various challenges in the four priority areas that underpin the NASF 2011-2015.

In prevention, a major success between 2011 and 2013 has been in the prevention of mother to child transmission (PMTCT). For example, approximately 81,727 women living with HIV delivered in 2012 out of which 76,963 received efficacious ARVs for PMTCT. These efforts have translated into a drop in the HIV transmission rate from mother to child from 24% in 2009 to 12% in 2012. Other successes include an increase in uptake in HIV Counselling and Testing (HCT) with more people being tested than the targets set, and a significant increase in voluntary medical male circumcision results, where the number of males circumcised increased from 84,604 in 2011 to 221,845 in the first nine months of 2013.

Under treatment, care and support, more people living with HIV (PLHIV) are living longer given the successful implementation of the Antiretroviral Therapy (ART) rogramme. In recent years, AIDS-related mortality has dropped with increasing access to ART. By 2012, the number of health facilities dispensing ART (564) was already higher than the target of 500 set for 2015, and this is likely to make ARVs more accessible to People Living With HIV (PLHIV). With the introduction of Treatment as Prevention (TaSP) for some sub-populations such as TB/HIV co-infected patients and discordant couples, we expect significant gains to be made in lowering HIV transmission and incidence.

The interventions under impact mitigation have focused on strengthening the capacity of vulnerable households and individuals to cope with the socio-economic impacts of HIV and AIDS. PLHIV, Orphans and Vulnerable Children (OVCs), people with disabilities, and care-givers were recognized as the key vulnerable groups. The multi-sectoral approach of the NASF programmes, through formation of District AIDS Task Force (DATF) in districts countrywide has provided successful achievements in mobilizing a substantial number of community based organizations (CBOs) and other NGOs to respond to the needs of OVCs and vulnerable households by providing health related and other services.

Key milestones attained in the coordination and management of the national response (the fourth priority area of the NASF) include enhanced visibility, ownership and leadership of Government and the National AIDS Council in particular on coordinating the multi-sectoral national HIV and AIDS response.

All these successes have been achieved against a backdrop of cultural, political, social and economic challenges, and would not have been possible without the help of Development Partners. I would like to take this opportunity to express the gratitude of the nation to our partners, without whom many of these successes would not have been achieved.

As we make our presentations for this reporting round, several developments are taking place in the country which will assist us in dealing with the epidemic, including the execution of a demographic health study and the revision of the NASF in line with the Investment Thinking approach. We remain confident that we will continue to make positive strides towards achieving the targets set out both globally and in our own national plans.

Minister of Health
Ministry of Health
30th March 2014

Acknowledgements

The compilation of reports for the Global AIDS Response Progress Reporting (GARPR) is never an easy task, as it draws upon the efforts of, and occurs concurrently with the country's, quarterly and annual progress reporting obligation which ensures that indicators are compiled in line with definitions and that they are comparable between periods. This reporting round also coincides with the implementation of revised data capture instruments in the country and as part of the reporting round, the National Commitments and Policy Instrument (NCPI) was populated through a series of meetings and consultations with representatives from Civil Society organisations, bilateral agencies, UN Agencies and the Government. I would like to thank all the respondents who contributed to this process, too many to mention here, but whose names are listed in the Annex.

The reporting round was informed by the results of, a National AIDS Spending Assessment (NASA) for 2010, 2011 and 2012 conducted in 2013 and the updated Country Spectrum data which provided useful information on the outlook of the epidemic beyond 2015. The effort of various individuals, consultants and institutions in putting all this together is appreciated.

Special thanks go to the Joint United Nations Programme on HIV and AIDS (UNAIDS) – Zambia Country Office for providing financial and technical support to the process, and to Mr. Henry Damisoni, the Senior Strategic Information Advisor who provided day-to-day guidance.

I would also like to acknowledge and thank the Consultant, Mr. David Masengu, for his input into the data collection, modeling, analysis and compilation of the reports.

Finally, I want to express my sincere gratitude to the staff and management of the National AIDS Council, Ministry of Health and Ministry of Community Development Mother and Child Health for their commitment and tireless efforts in ensuring that our reporting deadlines were met.

Acting Director General
National HIV/AIDS/STIs/TB Council
30th March 2014

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Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ALHIV	Adolescents Living with HIV
ANC	Ante Natal Clinic
ANCSS	Ante Natal Clinic Sentinel Surveillance
ART	Antiretroviral Therapy
ARVs	Antiretrovirals
AZT	Azidothymidine
BCC	Behaviour Change Communication
CATF	Community AIDS Task Force
CBOs	Community Based Organisations
CHA	Community Health Assistant
CHBC	Community and Home Based Care
CPS	Combination Prevention Strategy
CSOs	Civil Society Organisations
CTX	Cotrimoxazole
DATF	District AIDS Task Force
DHS	Demographic and Health Survey
EID	Early Infant Diagnosis of HIV
FHI	Family Health International
FNDP	Fifth National Development Plan
GARPR	Global AIDS Response Progress Reporting
GDP	Gross Domestic Product
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GII	Gender Inequality Index
GIPA	Greater Involvement of PLHIV
GRZ	Government of the Republic of Zambia
HCT	HIV Counselling and Testing
HDI	Human Development Index
HIV	Human Immune-deficiency Virus
HMIS	Health Management Information System
HSV	Herpes Simplex Virus
IC	Infection Control
ICBT	Informal Cross Border Trade
IDUs	Intravenous Drug Users
IEC	Information, Education and Communication
IOM	International Organisation for Migration
IPT	Isoniazid Preventive Therapy
JMTR	Joint Mid Term Review
MCP	Multiple Concurrent Partners
MDGs	Millennium Development Goals
MOT	Modes of Transmission
MSM	Men having Sex with Men
NAC	National HIV/AIDS/STIs/TB Council
NASA	National AIDS Spending Assessment
NASF	National AIDS Strategic Framework
NCPI	National Commitments and Policy Instrument
NTP	National Tuberculosis Programme
NVP	Nevirapine
OI	Opportunistic Infection
OST	Opiod Substitution Therapy
OVC	Orphans and Vulnerable Children
PACA	Provincial AIDS Coordination Advisor
PEP	Post Exposure Prophylaxis
PEPFAR	President's Emergency Plan For AIDS Relief

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
RPR	Rapid Plasma Reagin
SADC	Southern African Development Community
SBC	Social and Behaviour Change
SBCC	Social and Behaviour Change Communication
SLAADAZ	Sign Language and Advocacy Awareness Development Association of Zambia
SNDP	Sixth National Development Plan
STIs	Sexually Transmitted Infections
SW	Sex Workers
TaSP	Treatment as Prevention
TB	Tuberculosis
TB DOTS	Tuberculosis Directly Observed Therapy
TPHA	Treponema Pallidum Hemaglutination Assay
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 on HIV and AIDS
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organisation
ZARAN	AIDSLAW Research and Advocacy Network
ZDHS	Zambia Demographic and Health Survey
ZNAN	Zambia National AIDS Network
ZSBS	Zambia Sexual Behaviour Survey

Executive Summary

As the 2015 deadline for achieving the targets laid out in the Political Declaration of the United Nations General Assembly Special Session (UNGASS) on HIV and AIDS by global leaders, renewed efforts and commitments towards achieving these targets continue to be made by Zambia and other countries which are signatories to this agreement.

The period between 2012 and 2013, the time span which this review report covers, has been marked with several successes in the midst of economic, social, and structural challenges amongst others. Significant progress has been made towards the achievement of the goals.

Zambia has a generalized epidemic driven by unprotected heterosexual activity. The key drivers of the HIV epidemic include behavioural, structural and biomedical factors and these have influenced the thrust of the HIV prevention response. These drivers include multiple and concurrent partners, low and inconsistent condom use, low levels of male circumcision, mobility and labour migration, sex workers and men who have sex with men, and mother to child transmission. It is estimated that 90% of adult infections are attributable to unprotected heterosexual activity either with a casual partner, a long-standing partner, or concurrent sexual partners. The reduction of sexual transmission of HIV therefore remains pivotal in interventions to reduce new HIV infections in the country. Zambia's national target for reducing sexual HIV transmission is to reduce new infections by 50% (from 82,000 to 40,000) by 2015. This target is in line with the HLM target and is a priority in the National AIDS Strategic Framework 2011-2015, which guides the national response. The priority strategies to achieve this were identified as social and behavioural change interventions; HIV counselling and testing; condom programming; medical male circumcision; prevention of mother-to-child transmission (PMTCT); PLHIV – promoting positive health, dignity and HIV prevention; post exposure prophylaxis; prevention and treatment of sexually transmitted infections (STIs); and ensuring blood safety.

In 2012, Spectrum projections indicated that adult HIV incidence was estimated at 0.8% translating into 46,000 adults newly infected with HIV. This would see the country achieving 2015 targets if this rate was actually achieved and sustained. Findings from the most recent demographic health studies conducted in 2007 indicated that prevalence of HIV among young people aged 15-24 declined from 7.8% in 2002 to 6.5% in 2007. The percentage of adults aged 15-49 who had sexual intercourse with more than one partner in the past 12 months was 2% for women and 20% for men. The percentage of adults aged 15-49 who had more than one sexual partner in the past 12 months who report use of a condom during their last intercourse was 33% for women and 28% for men.

A demographic health study is currently under way at the time of reporting, with results expected later during the year.

HIV counseling and testing has continued to show an increase in numbers, though not at the desired rate. As at December 2013, the number of people who received HIV counseling and testing in the past 12 months and know their results aged 15 and older was 2,066,216. Of these, women responded more, with 1,0274,726 out of the total, and only 791,490 men.

The scale-up of Voluntary Medical Male Circumcision (VMMC) is guided by a Country Operational Plan for the period 2012-2015 which was developed in April 2012. Although there has been an increase in the number of VMMCs, the figures have fallen short of annual targets. In 2012, a total of 173,992 out of a planned 200,000 VMMCs were done. In 2013, a further 294,466 procedures were carried out. The number of sites providing VMMC services increased from 135 in 2010 to 287 at the end of 2011.

Condom distribution and promotion is guided by the Comprehensive Condom Programming Strategy and Operation Plan 2010-2014. The goal of the strategy is to make quality condoms available, accessible and affordable to all sexually active individuals throughout Zambia by 2014. The target for 2011 to 2015 is to increase the percentage of females and males aged 15-49 who had more than one partner in the past 12 months who used a condom during their last sexual intercourse from 37% for females and 50% for males in 2007 to 55% for females and 70% for males by 2015.

In terms of PMTCT, the estimated number of pregnant women in 2012 was 723,436. Of these, 688,060 (94%) attended ANC services at least once and were tested for HIV. The number of women

living with HIV who delivered in 2012 was 81,727 out of which 88% received efficacious ARVs for PMTCT up from 58% in 2009. In 2013, this percentage increased further to 97%, with 75,165 women out of 77,772 receiving antiretroviral medicine to reduce the risk of mother-to-child transmission. The percentage of women testing for HIV and receiving ARVs has increased significantly and is one of the major success stories of the national HIV response.

Zambia is on track to meet the target of reducing the number of new HIV infections among children by 90% by 2015. However, there are some considerations that have a bearing on ensuring sustainable progress beyond 2015. A significant concern is the availability of resources for scaling up Option B+. A phased implementation of Option B+ is more realistic and will ensure scale-up based on available resources as well as integration of lessons learnt to new sites.

The country has made significant progress in increasing access to lifesaving anti-retroviral treatment and has already exceeded the Global target of 80% access. The target, as reflected in the NASF and the Joint eMTCT and ART Strategy, is to provide antiretroviral therapy to at least 95% of women, men and children living with HIV in need of treatment by 2015. The specific targets in the NASF are to increase the percentage of females and males with advanced HIV infection receiving ART from 68% in 2009 to 90% in 2015 as well as to increase the percentage of children receiving ART from 62% in 2009 to 95% in 2015. As at December 2013, the number of children and adults currently receiving antiretroviral therapy in accordance with the nationally approved treatment protocol was 580,118 out of 708,460 estimated living with HIV (81.9%).

Based on the current WHO guidelines, Zambia is implementing the initiation on ART for every HIV+ person that has TB, treating HIV+ partners in sero-discordant couples and all HIV+ children under the age of two. In an effort to address human resource challenges, HIV nurse practitioners have been trained to initiate patients on ART for patients with non-complicated HIV or no other major infections. General Nurses are only allowed to maintain patients on ART. Community Health Workers, known as Community Health Assistants (CHAs) can perform rapid HIV tests but are not licensed or allowed to re-supply patients with ARVs. However, the current legal framework does not allow nurses to prescribe drugs.

Survival rates and adherence have also improved. The percentage of adults and children with HIV known to be on treatment 12 months after initiating treatment among patients initiating ART has increased to 80.6 in December 2013, as compared to 76.5% in 2011 and 65.1% in 2010. The death rate from HIV and 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 and AIDS was 1.02% in this population group. In 2011, it was 0.34%, a reduction of 66.7% from its peak due to the concerted efforts of the Zambian Government and its Global partners in improving access to antiretroviral therapy. Similarly, the death rate due to HIV and AIDS among infants reduced from a peak of 1.51% in 1997 to 0.33% in 2011, a reduction of about 78.1% largely due to the introduction of the prevention of mother-to-child HIV transmission programme.

On the commitments and policies front, the multi-sectoral approach continues to operate with Civil Society involvement remaining at a steady NCPI index rating of 7 over the past four assessments. Efforts in strategic planning, political support and leadership, prevention, and treatment, care and support continue to attain high index scores of 8 and above. However, the index rating for human rights has continued it's downward plunge, steadily decreasing from a score of 7 in 2007 to a score of 1 in 2013.

Renewed efforts are required from all stakeholders involved in Zambia's multi-sectoral response if gains and successes achieved in the past are not to be overturned with the finishing line in sight. Zambia has made a notable contribution to global efforts towards achieving the bold global targets set by the United Nations General Assembly.

I. Status at a glance

(a) Country context

Population

Total[1]	:	13,092,666
Female	:	6,638,019 (50.7%)
Male	:	6,454,647 (40.3%)
Urban	:	5,173,450 (39.5%)
Rural	:	7,919,216 (60.5%)
% <15 years	:	45.4%
% living in severe poverty[2]	:	67 %
% unemployment	:	15%

Zambia is a land-locked sub-Saharan country with an area of 752,612 square kilometres. In 2010, the population of Zambia was recorded at 13,092,666 from 9,885,591 recorded in 2000. The average annual population growth rate between the years 2000 and 2010 was 2.8 per cent. At 0.395 in 2010, Zambia's HDI ranking was above the average of 0.389 for sub-Saharan Africa and also slightly above the average of 0.393 for low HDI countries[2]. Lusaka serves as the country's administrative capital, and is also the largest city in the country. The country is divided into 10 major administrative units known as provinces which are further sub-divided into 73 districts.

The country is classified as a lower middle income country and was ranked 164 out of 187 countries with a human development index value of 0.44. In 2013, the GDP per capita was USD1,751[3]. Zambia's economy is heavily dependent on mining, with agriculture playing an increasingly important role over the last decade. In the recent past, copper mining has accounted for about 95% of export earnings, making the country highly vulnerable to depressed commodity prices. Poverty is high, at 68.5 per cent, and this is underscored by extreme income inequalities. The income distribution is reflected by a high gini-coefficient of 0.575[4] in 2010, with 20 per cent of income shared by 70 per cent of the population.

In the 2012, Zambia's Gender Inequality Index (GII) stood at 0.623, ranking it 136 out of 148 countries. In Zambia, 11.5 percent of parliamentary seats are held by women, and 25.7 percent of adult women have reached a secondary or higher level of education compared to 44.2 percent of their male counterparts. For every 100,000 live births, 440 women die from pregnancy related causes; and the adolescent fertility rate is 138.5 births per 1,000 live births. Female participation in the labour market is 73.2 percent compared to 85.6 for men.

Despite a high population growth rate of 2.8 per cent per annum, both the quality and quantity of human capital in households are diminishing due to deaths, illness or children dropping out of school because they are orphans or need to help in household work. According to the 2010 Census of Population and Households, life expectancy at birth was 51 years. The total fertility rate for Zambia was 5.9, implying that, on average, each woman aged 15-49 years would approximately have 6 children in her entire reproductive period. Child mortality rate was 62 deaths of children aged 1 to 4 years per 1,000 live births, while that for infants was 76 deaths per 1,000 live births.

Although the prospects for attaining the Millennium Development Goals (MDGs) are perceived to have improved, HIV and AIDS remains a significant threat.

(b) Inclusiveness of stakeholders in the report writing process

All stakeholders involved in the Response were consulted in the preparation of this report. These stakeholders, from Civil Society Organisations, Government, and Cooperating Partners were

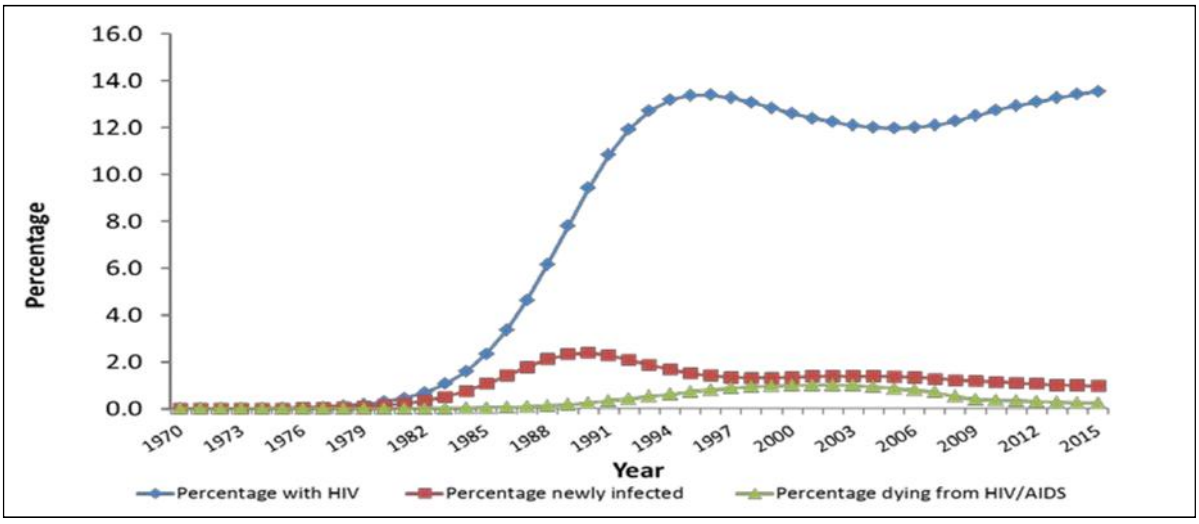
[1] Republic of Zambia Central Statistical Office. 2012. *"2010 Census of Population and Housing".* Lusaka
[2] UNDP and the Government of the Republic of Zambia. 2011. *"Zambia Human Development Report 2011: Service Delivery for Sustainable Human Development*". Lusaka.
[3] International Monetary Fund. October 2013.
[4] http://data.worldbank.org/indicator/SI.POV.GINI

furnished with and provided time in which to complete the National Commitments and Policy Instrument (NCPI) questionnaire. Upon completion, preliminary findings were presented at separate validation meetings for Civil Society Organisations and Government. Indicator data was also presented for validation at these meetings. A final validation meeting was then held to present the final draft report to all stakeholders, combining Civil Society Organisations, Cooperating Partners and Government in one meeting.

(c) Status of the epidemic in Zambia

The first case of AIDS was diagnosed in 1984. Zambia now has a generalized epidemic, with HIV spreading throughout the population as opposed to being concentrated in specific populations. Adult HIV prevalence peaked in the 1990s, and was estimated at 14.3%[5] in 2007 in the last Demographic and Health Study (DHS) with prevalence in women higher than in men (16.1% compared to 12.3%). A key finding of a modes of transmission study (MOT) conducted in 2009 is that the epidemic has stabilized at high levels, and 1.6 per cent of the adult population becomes newly infected each year[6].

Figure 1: HIV epidemic among population 15 years and older



Current statistics from the DHS, MOT and HMIS include:

i. A reduction in the percentage of young women 20-24 years infected with HIV from 16.3 per cent 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.

ii. 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.

iii. Among children born to mothers infected with HIV, the percentage of infants contracting HIV reduced from a peak of 7.72 per cent in 1997 to 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 universal levels.

iv. The percentage infected with HIV reduced among most groups by sex and area of residence. However, 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. Although the level of the epidemic in rural areas is much lower than in urban areas, the population affected is quite high since about 61 per cent of

[5] Republic of Zambia Central Statistical Office. 2009. *"Zambia Demographic and Health Survey 2007".* Lusaka.
[6] Zambia National HIV/AIDS/STI/TB Council. 2009. *"Zambia HIV Prevention Response and Modes of Transmission Analysis".* Lusaka

the population lives there.

v. More HIV infections take place among older adults than among young adults.

vi. The death rate from HIV/AIDS among the population 15 years and older has reduced from a peak of 1.02 per cent in 2002 to 0.34 per cent in 2011.

vii. 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.

viii. In 2011, 76.5 per cent of those enrolled on ART survived for 12 months, 67.4 per cent for 24 months and 49.4 per cent for 60 months.

ix. 90% of adults 15 years and older in need of ART were accessing it in 2011.

x. 28.1% of children under 15 years in need of ART were accessing it in 2011.

The Zambia National AIDS Strategic Framework (NASF) 2011-2015 listed the following practices as the key drivers of the epidemic:

Multiple and concurrent sexual partners (MCP): Reports of MCP behaviour indicate that it is prevalent among all sexually active age groups. Qualitative research and surveys indicated that transactional sex - the exchange of favours of money for sex – is common in Zambia, and relative wealth acting as a strong inducement to start multiple sexual relationships[7].

Low and inconsistent use of male and female condoms: Despite increased availability of both male and female condoms, condom usage remains low especially among regular and marital partners, therefore increasing risk of transmission among discordant couples. Condoms are also not easily accessible to vulnerable and most at risk populations such as prisoners or students in secondary schools. Although significant efforts have been made to empower women to take control of their sexual and reproductive health (RH), there is still evidence that women are less likely to negotiate and or demand the use of condoms with male partners[8].

Low levels of male circumcision in most provinces: As of 2007, male circumcision rates were low with only 13% of men aged 15-49 reporting having been circumcised[9].

Mother to Child Transmission (MTCT): Vertical transmission of the virus from mother to child at birth or during breastfeeding accounts for 90% of HIV infection in children aged 0-14 years. In the initial phases of the roll-out of services, uptake remained low due to stigma associated with HIV, gender-based violence, inadequate male involvement in PMTCT and opt-in approach to counselling which relied on women consenting to an HIV test. The opt-out approach is provider initiated and pregnant women who do not want to be tested can still refuse the test.

Mobility and labour migration: Labour migration is common in Zambia, most often in search for employment across the provinces. Provinces with highly mobile populations and many migrant labourers such as Lusaka and Copperbelt have higher HIV prevalence than provinces with less labour migration. The feminization of migration is evident in Zambia, and certain sectors attract women migrants in particular. Women who migrate are vulnerable to gender-based violence during their journey. Informal cross-border traders – who are usually women - are highly vulnerable to exploitation and abuse, in part because of their irregular migration status. Informal cross-border trade (ICBT) is estimated to make up about 30 to 40% of intra-Southern African Development Community (SADC) trade. Sexual exploitation puts female traders at a greater risk of contracting STIs and HIV.

The actions of Sex Workers (SW) and Men having Sex with Men (MSM): There is limited information and data available due to the legal status of people that could be labelled as SW or MSM.

[7] Zambia National HIV/AIDS/STI/TB Council. 2012. *"Zambia Country Report; Monitoring the Declaration of Commitment on HIV and AIDS, and the Universal Access".* Lusaka.
[8] Zambia National HIV/AIDS/STI/TB Council. 2013. *"Joint Mid-term Review of the National AIDS Strategic Framework 2011 – 2015".* Lusaka.
[9] Republic of Zambia Central Statistical Office. 2009. *"Zambia Demographic and Health Survey 2007".* Lusaka.

Cross-cutting themes which increased the risk of exposure or limited access to treatment services included alcohol abuse, gender inequality and gender based violence, stigma and discrimination, low levels of educational attainment and overall levels of poverty. Children are a particularly vulnerable group where 9% of 10-19 year olds had reported having traded sex for food or money.

(d) Policy and programmatic response

The Government response to HIV and AIDS started in 1984 when the first case of AIDS was diagnosed in Zambia. Since then the Government has systematically put in place plans and resources to address the challenges of HIV and AIDS. The National HIV/AIDS/STI/TB Council (NAC) was established in December 2002 to coordinate the national multi-sectoral response. In 2004, the Government of Zambia declared HIV and AIDS a national emergency that called for a comprehensive emergency response. A National HIV/AIDS Policy was formulated and published in 2005 to provide policy guidelines for the national multi-sectoral response.

The NASF 2011 – 2015 was the third such framework developed to guide implementation of the national response to HIV and AIDS. It's development coincided with the development of the 6th National Development Plan (NDP)and accelerated implementation of the National Decentralization Policy. This provided a greater opportunity to re-position and expand the scope of the national HIV and AIDS response.

Through a consultative process, Zambia articulated four national priorities for the multi-sectoral HIV and AIDS response. These were:

i. To accelerate and intensify prevention in order to reduce the annual rate of new HIV infections.

ii. To accelerate the provision of Universal Access (UA) to comprehensive and quality treatment, care and support for people living with HIV and AIDS (PLHIV), their caregivers and their families, including services for tuberculosis (TB), sexually transmitted infections (STIs) and other opportunistic infections (OIs).

iii. To mitigate the socio-economic impacts of HIV and AIDS, especially among the most vulnerable groups, orphans and vulnerable children (OVC), PLHIV and their caregivers and families.

iv. To strengthen the capacity for a well coordinated and sustainably managed HIV and AIDS multi- sectoral response.

The successful implementation of selected strategies targeting these priorities would contribute to the achievement of the Zambia Human Development Index, Millennium Development Goals (MDGs), and the objectives of Universal Access, in addition to the specific NASF impact results.

The impact level results were designed around four pillars:

Prevention: To accelerate and intensify prevention in order to reduce the annual rate of new HIV infections with special attention to addressing the root causes that sustain high levels of societal vulnerability. By 2015, the rate of annual HIV new infections to be reduced from 1.6% to below 0.8% (from 82,000 annual new infections to 40,000). Infants born of HIV positive mothers who are infected to be reduced to less than 5% by 2015.

Treatment, Care and Support: To accelerate the provision of universal access to comprehensive and quality treatment, care and support to people living with HIV and AIDS, their caregivers and their families, including services for TB, STIs and other opportunistic infections. PLHIV who are alive at 36 months after initiation of antiretroviral therapy to be increased to 85% by 2015.

Impact Mitigation: To mitigate the socio-economic impacts of HIV and AIDS especially among the most vulnerable groups, orphans and vulnerable children, PLHIV and their care givers / families.

Number of vulnerable households to be reduced by 50% by 2015.

Response Management: To strengthen the capacity for a well-coordinated and sustainably managed HIV and AIDS multi-sectoral response. The total NASF service coverage targets (output level results) that have been met in all four pillars to be increased to 50% by 2013 and 90% by 2015.

In addition to capacity strengthening, other NASF cross-cutting themes include advocacy, mainstreaming, gender, resource mobilization, monitoring, evaluation and research.

Guiding Principles intended to commit stakeholders to the manner in which the multi-sectoral response is implemented are embedded within the National HIV and AIDS and STI Policy. These represent the core values for the response:

i. *Adoption of a human rights approach*: The design and implementation of specific interventions respects fundamental basic human rights, and puts in place strategies to promote and protect them. By so doing the NASF is engendered, people-centred, culturally sensitive and pro-poor. The NASF aims to promote and support cultural practices and norms that contribute to the prevention of new HIV infections, and support HIV and AIDS services uptake.

ii. *Political leadership, commitment and engagement*: Zambia aims to strengthen and consolidate good governance, transparency and accountability around HIV and AIDS issues at all levels and in all sectors.

iii. *Greater Involvement of PLHIV (GIPA)*: The contribution of PLHIV in prevention and other services uptake has significantly increased the success of the national response. The aim here is to expand and strengthen GIPA.

iv. *Evidence and Results Based Planning*: To get value for money, the use of evidence and results-based planning among all stakeholders is encouraged and supported. The M&E system is being strengthened to generate the evidence required for decision making, policy formulation and resource allocation.

v. *Gender sensitivity*: Given the gender bias of the epidemic, gender dimensions are addressed in all programme areas and mainstreamed in all aspects of the response.

vi. *Strategic Partnerships and Alliances*: Zambia has adopted a multi-sectoral, decentralized and participatory approach to the implementation of the national response. Meaningful opportunities are being explored and created for all stakeholders to be part of the response based on their mandate and comparative advantage.

vii. *"Three-Ones" Principle*: Zambia is aiming at mainstreaming and consolidating the three ones concept to strengthen coordination and management of the national multi-sectoral response by having one national strategic framework (NASF), one national coordinating authority (NAC) and one national M&E framework.

viii. *Health and Community Systems Strengthening*: The success of the national response is largely dependent on effective and comprehensive health and community systems. A part of the NASF operational strategy is to strengthen these systems to ensure adequate and equitable distribution and access to services in line with principles of Universal Access (UA)

ix. *Decentralized Implementation*: The implementation of the NASF has been decentralized to provinces, districts communities and within sectors. Where possible, support is provided to implementers to develop their individual operational plans that are aligned to the national operational plan. The decentralization is in line with the National Decentralization Policy. Roles and responsibilities of the various coordinating structures and implementing partners at all levels of the response will be clarified.

The HIV and AIDS epidemic has many complex social and economic consequences that include declining life expectancy, reduced human productivity, reductions in household investment in education, weakened health systems, reduced agricultural output and limited sustainable human capital development. At the household level, the epidemic is competing for resources, reducing the ability of households to save and invest in addition to increasing household food insecurity. The epidemic threatens to destroy traditional community coping mechanisms and safety nets, making communities even more vulnerable. At the macro level, the epidemic is likely to reduce national and community capacity to absorb and utilize resources earmarked for socio-economic development, hence contributing to deepening poverty and deprivation of basic needs.

Addressing these consequences requires a comprehensive response anchored in broad national social and economic development frameworks with a clear focus on achieving the MDGs. Achieving the MDGs will also require accelerating UA and implementation of activities that contribute to the Declaration of Commitment on HIV and AIDS and the Universal Access (UNGASS). The core commitments are reflected in the results framework of the NASF.

The NASF aligns itself with the Zambia Decent Work Country Programme, given the informal sector has not been systematically mainstreamed into the national HIV and AIDS multi-sectoral response. Given the nature and scope of informal sector, HIV vulnerability is considered higher than in the formal sector and hence the urgent need to address HIV and AIDS in the informal sector.

For these reasons the NASF is aligned to Vision 2030, the MDGs and Sixth National Development Plan. The NASF is further designed to contribute to the achievement of Zambia's obligations in the context of the African Union Abuja and Maseru (SADC) declarations, and the SADC Protocol on Gender and HIV and AIDS.

The following table highlights how the NASF is directly linked to contributes to the achievement of these strategic frameworks.

Table 1: Alignment of the NASF with other Strategic Frameworks

Strategy	What does the strategy say	How the NASF contributes and/or complements to this strategic framework
Vision 2030	The vision aims to achieve a "nation free from the threat of HIV and AIDS by 2030"	NASF aims to reduce new HIV infections by 50 per cent by 2015, by addressing the drivers of the epidemic while implementing strategies that scale up treatment, care and support to 80 percent by 2015.
Sixth National Development Plan	The 6th NDP aims at generating wealth to improve the quality of life and reduce extreme poverty by 50% by 2015;, and accelerating comprehensive and quality treatment, care and support (including	The overall national impact level results of the NASF (improvement of human development index) contribute to the achievement of the NDP and MDG results.
Millennium Development Goals	Refer to the MDG results index	All the goals are addressed and specific results identified for NASF to be achieved by 2015.
UNGASS declaration	Aims to halt and begin to reverse the spread of HIV by 2015	The NASF aims to reduce new HIV infections by 50 per cent by 2015, bringing down the annual incidence to 0.8 per cent. This is a level that the epidemic is like to die.

Poverty Reduction Strategy	Aims to alleviate poverty among all people living under the poverty datum line	The NASF aims at providing effective prevention interventions to keep people from being infected and hence falling sick. The NASF also provides comprehensive and quality treatment and care of PLHIV to ensure that they remain economically productive. Key strategies have been put in place to reduce household poverty under impact mitigation
Gender Plan of Action	Aims to promote gender empowerment, reduce gender related HIV vulnerability	The NASF has mainstreamed gender. Most outcome and outputs are gender sensitive. The NASF includes specific output results on gender-based violence. Special attention has been paid to gender-related HIV and AIDS challenges facing women and girls. Strategies have also been developed to promote active male involvement in critical areas including HCT, PMTCT, and male circumcision.

The NASF's contribution to these policy frameworks is complemented by Public Sector, Civil Society, Private Sector, and Cooperating Partners' strategic plans. These include, but are not exclusive to: the HIV and AIDS Strategy for the Public Sector (2010-2015); Zambia Decent Work Country Programme; the MOH Strategic Plan; the National TB Strategic Plan; the National Strategy for the Child that includes OVC; and the National Gender Action Plan.

A Joint Mid-Term Review (JMTR) of the NASF was undertaken through August to the end of September 2013 and was mainly aimed at assessing the implementation of the NASF using a forward looking approach that would document achievements, lessons learnt, gaps, obstacles, challenges and opportunities at community, district, provincial and national level with regard to the four pillars including monitoring and evaluation and financing aspects of the NASF, and to make recommendations for strengthening and improving Zambia's national HIV response.

Eight key and high level recommendations were made in the JMTR. These were:

i. Review NASF indicators and targets to align them to High Level Meeting targets.

ii. Align the NASF interventions to the UNAIDS HIV Investment Framework.

iii. Conduct a NAC organization capacity assessment as the national response coordinator.

iv. Carry out decentralization by building effective capacity at PATFs, DATF, and CATFs to promote community-driven initiatives.

v. Strengthen general M&E capacity and capability at all levels.

vi. Increase programme efficiency and effectiveness.

vii. Enhance HIV mainstreaming into other sectors.

viii. Address human resources for health development.

At the time of reporting, the revision of the NASF and review of indicators had reached an advanced stage.

The following table provides an overview of indicator data.

Table 2: Overview of Indicator Data

Target	Indicator		Estimate	Date & Source
Target 1 Reduce sexual transmission of HIV by 50% by 2015	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	35.33%	ZDHS 2007
General population	1.2	Percentage of young women and men aged 15-24 who have had sexual intercourse before the age of 15	14.61%	ZDHS 2007
	1.3	Percentage of adults aged 15–49 who have had sexual intercourse with more than one partner in the past 12 months	7.85%	ZDHS 2007
	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	8.58%	ZDHS 2007
	1.5	Percentage of women and men aged 15-49 who received an HIV test in the past 12 months and know their results	15.39%	ZDHS 2007
	1.6	Percentage of young people aged 15-24 who are living with HIV	ND	Population survey
Sex workers	1.7	Percentage of sex workers reached with HIV prevention programmes	ND	Population survey
	1.8	Percentage of sex workers reporting the use of a condom with their most recent client	ND	Population survey
	1.9	Percentage of sex workers who have received an HIV test in the past 12 months and know their results	ND	Population survey
	1.10	Percentage of sex workers who are living with HIV	ND	Population survey
Men who have sex with men	1.11	Percentage of men who have sex with men reached with HIV prevention programmes	ND	Population survey
	1.12	Percentage of men reporting the use of a condom the last time they had anal sex with a male partner	ND	Population survey
	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	ND	Population survey
	1.14	Percentage of men who have sex with men who are living with HIV	ND	Population survey
Target 2 Reduce transmission of HIV among people who inject drugs by 50% by 2015	2.1	Number of syringes distributed per person who injects drugs per year by needle and syringe programmes	ND	Population survey
	2.2	Percentage of people who inject drugs who report the use of a condom at last sexual intercourse	ND	Population survey
	2.3	Percentage of people who inject drugs who reported using sterile injecting equipment the last time they injected	ND	Population survey
	2.4	Percentage of people who inject drugs that have received an HIV test in the past 12 months and know their results	ND	Population survey
	2.5	Percentage of people who inject drugs who are living with HIV	ND	Population survey
Target 3 Eliminate new HIV infections among children by 2015 and substantially reduce AIDS-related maternal deaths	3.1	Percentage of HIV-positive pregnant women who receive antiretrovirals to reduce the risk of mother-to-child transmission	96.65%	ANC/PMTCT & ART Register 2013
	3.1a	Percentage of women living with HIV receiving antiretroviral medicines for themselves or their infants during breastfeeding	ND	ART Register
	3.2	Percentage of infants born to HIV-positive women	71.58%	EID testing

		receiving a virological test for HIV within 2 months of birth		labs 2013
	3.3	Estimated percentage of child HIV infections from HIV-positive women delivering in the past 12 months	14.9%	Spectrum 2013
Target 4 Reach 15 million people living with HIV with life-saving antiretroviral treatment by 2015	4.1	Percentage adults and children currently receiving antiretroviral therapy among all adults and children living with HIV	81.9%	ART register 2013
	4.2a	Percentage of adults and children with HIV known to be on treatment 12 months after initiating treatment among patients initiating antiretroviral therapy	80.6%	ART register 2013
	4.2b	Percentage of adults and children with HIV known to be on treatment 24 months after initiation of antiretroviral therapy	ND	ART register
	4.2c	Percentage of adults and children with HIV known to be on treatment 60 months after initiation of antiretroviral therapy	ND	ART register
Target 5 Reduce tuberculosis deaths in people living with HIV by 50% by 2015	5.1	Percentage of estimated HIV-positive incident TB cases that received treatment for both TB and HIV	ND	ART register
Target 6 Close the global AIDS resource gap by 2015 and reach annual global investment of US$22 – 24 billion in low and middle income countries	6.1	Domestic and international AIDS spending by categories and financing sources	See NASA	
Target 7 Eliminating gender inequalities	7.1	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	ND	Population survey
Target 8 Eliminating stigma and discrimination	8.1	Discriminatory attitudes towards people living with HIV	ND	Population survey
Target 9 Eliminating travel restrictions	9.1	*No reporting needed*	N/A	
Target 10 Strengthening HIV integration	10.1	Current school attendance among orphans and non-orphans aged 10–14	ND	
	10.2	Proportion of the poorest households who received external economic support in the last 3 months	ND	

ND = No data available

The data provided in this table is based on latest available information. The last demographic health study was conducted in 2007, and one is currently underway at the time of reporting, with results expected later during 2014. Programme data is provided from various programme registers linked to the Health Management Information System (HMIS).

II. Overview of the AIDS epidemic in Zambia

Zambia has a mature, generalized epidemic in which HIV transmission primarily occurs heterosexually. In the 2007 DHS, HIV prevalence in adults aged 15-49 years was 14.3%. In the 2006-07 Antenatal Clinic Sentinel Surveillance for HIV and Syphilis (ANCSS), the mean site prevalence for pregnant women aged 15-49 years in 22 sites was 16.6%. Spectrum estimates of the HIV prevalence in adults aged 15-49 years suggest that the Zambian HIV epidemic has been fairly stable over the last 15 years with a very modest decline after the initial peak prevalence[10]. The latest Spectrum estimate for adult prevalence in 2013 is 12.62

The table below shows measured prevalence levels for adult women and men in the 2001/02 and 2007 DHS.

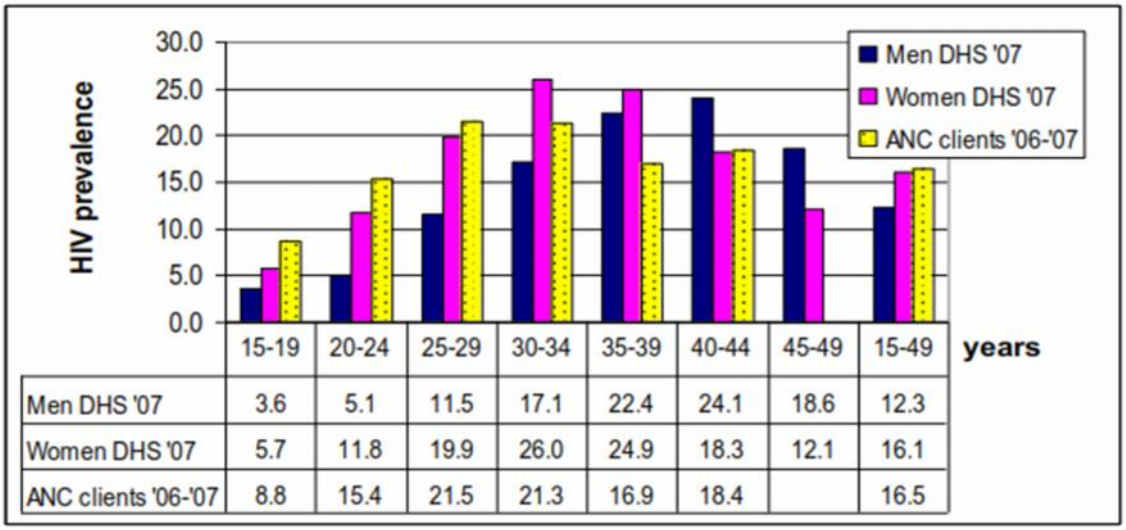
Table 3: HIV prevalence levels in adults aged 14-59 and in young women aged 15-19 in Zambia

	HIV prevalence 2001	HIV prevalence 2007	Chi^2 test (p-value)
Adult women (15-49)	17.8%	16.1%	3.14 (p=0.08)
Adult men (15-49)	12.9%	12.3%	0.45 (p=0.5)
Young women (15-19)	6.6%	5.7%	0.50 (p=0.48)
All	15.6%	14.3%	3.82 (p=0.051)

This shows prevalence in adults has slightly been declining since 2001. Accordingly, Zambia's overall generalised and stable epidemic has seen considerable heterogeneity by age, gender, geography, migration, education, marital status, couples and sub-populations. The following sections consider some of these factors.

(a) Age and gender-related heterogeneity

Figure 2: HIV prevalence by age and gender (2006/07)



	15-19	20-24	25-29	30-34	35-39	40-44	45-49	15-49
Men DHS '07	3.6	5.1	11.5	17.1	22.4	24.1	18.6	12.3
Women DHS '07	5.7	11.8	19.9	26.0	24.9	18.3	12.1	16.1
ANC clients '06-'07	8.8	15.4	21.5	21.3	16.9	18.4		16.5

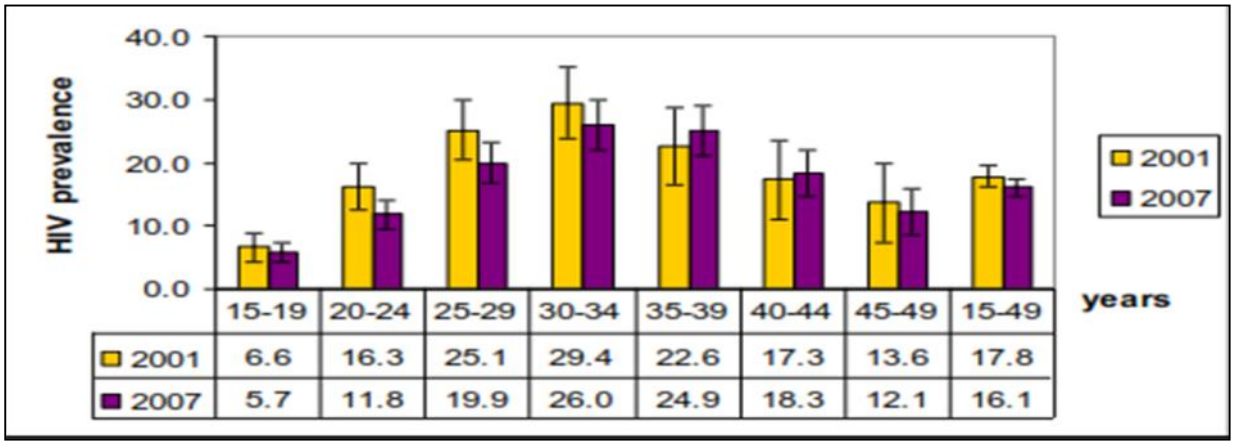
Sources: DHS 2007, table 14.38; and ANCSS 2006-07, table A2 in appendix 3 (23 sites, Mongu excluded).
Note: Data table shows HIV prevalence levels. For ANC clients. no data were available for the age group 45-49 years. The 16.7% in the right hand column is for the ANC age group 15-44 years.

Figure 2 illustrates that HIV prevalence in females is significantly higher than in men at younger ages, and significantly lower at older ages. Women aged 15-19 years have significantly higher HIV prevalence than their male age peers. The differential between female and male prevalence is very

[10] Zambia National HIV/AIDS/STI/TB Council. 2009. *"Zambia HIV Prevention Response and Modes of Transmission Analysis".* Lusaka

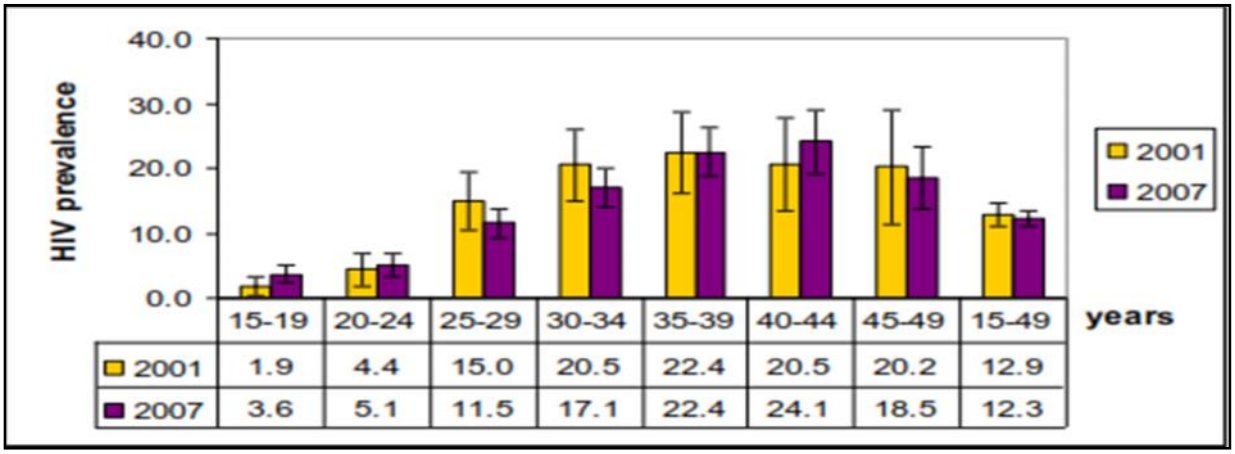
large in the age groups 20-24, 25-29 and 30-34 years. In the 35-39 year age group, male and female prevalence levels are similar. In the older age groups of 40-44 and 45-49, men have significantly higher HIV prevalence than women.

Figure 3: Trends in HIV prevalence in adults aged 15-49: women – ZDHS 2001/02 and 2007



	15-19	20-24	25-29	30-34	35-39	40-44	45-49	15-49
2001	6.6	16.3	25.1	29.4	22.6	17.3	13.6	17.8
2007	5.7	11.8	19.9	26.0	24.9	18.3	12.1	16.1

Figure 4: Trends in HIV prevalence in adults aged 15-49: men – ZDHS 2001/02 and 2007



	15-19	20-24	25-29	30-34	35-39	40-44	45-49	15-49
2001	1.9	4.4	15.0	20.5	22.4	20.5	20.2	12.9
2007	3.6	5.1	11.5	17.1	22.4	24.1	18.5	12.3

Figures 3 and 4 illustrate that trend analysis of HIV prevalence in 2001-02 and 2007 shows that overall, the proportion of PLHIV has decreased in the younger age groups up to 35 years of age and slightly increased in those aged 35-45 years. The decreasing trend observed in young women does not apply to young men: men aged 15-19 years had an HIV prevalence of 1.9% in 2001-02, which increased to 3.6% in the 2007 DHS. The figures also illustrate that the epidemic has matured over time, with peak prevalence shifting to older ages, probably due to aging of cohorts.

HIV prevalence in children aged 0-14 years follows a downward trend after reaching a maximum in about 2004. The Spectrum model estimates that a peak level was reached in 2004. The bulk of these infections arise from MTCT, and the scaling up of the PMTCT programme is steadily reducing the estimated number of infected children.

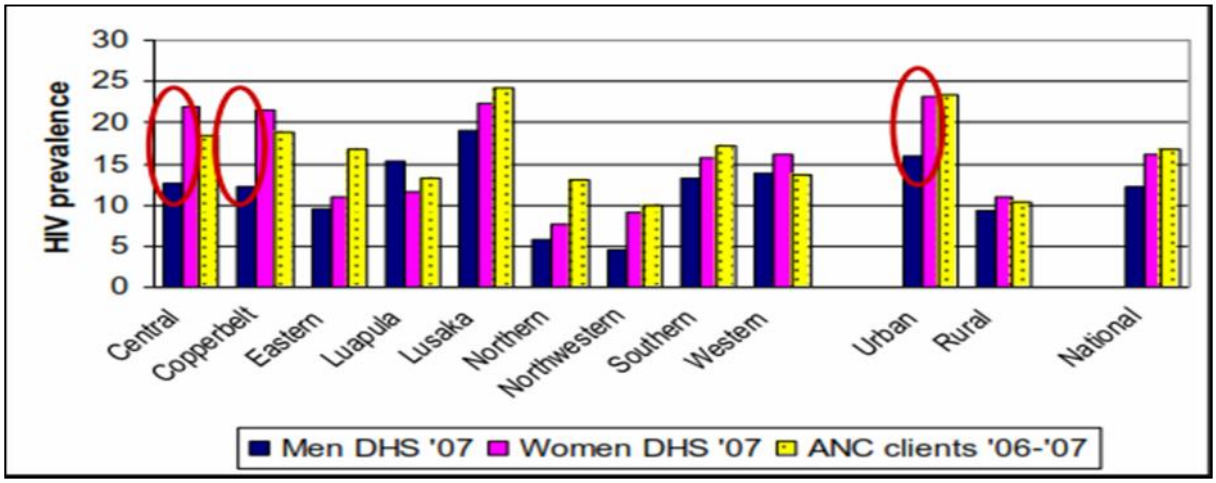
(b) Heterogeneity by geography

Provincial and district HIV prevalence levels show large variations. The DHS 2007 data show that the Zambian HIV epidemic is geographically heterogeneous with provincial prevalence levels ranging from 7% to 21%. The Northern and Northwestern Provinces have the lowest HIV prevalence levels at just below 7%. These are areas of low population density, with inhabitants who are mostly rural and have the highest levels of extreme poverty in the country. Other co-factors, such as the relatively low proportion of adults reporting multiple partners in Northern Province, and the relatively high male circumcision level in Northwestern Province, should also be taken into account. In contrast, Lusaka

Province as well as Central Province and the Copperbelt, much more densely populated provinces with large urban settlements, have very high HIV prevalences of 17% or higher.

There is equally a large and highly significant prevalence differential between residents of urban and rural areas. The DHS 2007 found that people living in urban areas are almost twice as likely to be HIV positive as people living in rural areas (19.7% vs. 10.3%).

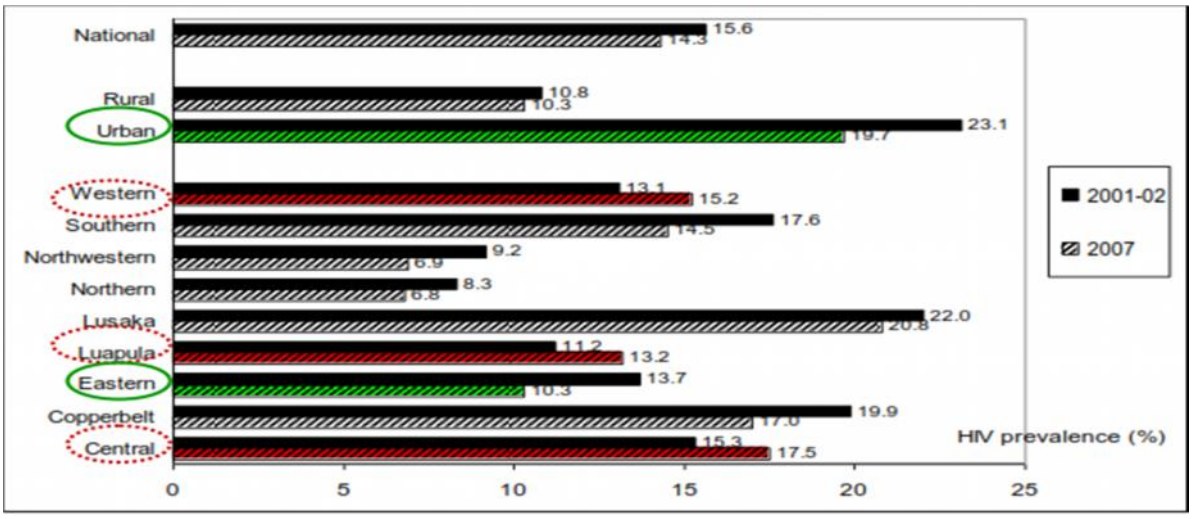
Figure 5: HIV prevalence levels by geographic zone 2006/07



Sources: ZDHS 2007 and ANCSS 2006/07

Comparisons between HIV prevalence levels in 2001-02 and 2007 show that the epidemic is contracting in urban areas with a significant prevalence decrease of 3.4% in the time period. The only other significant prevalence drop is in Eastern Province. HIV prevalence in three provinces was higher in 2007 than in 2001-02 (Central, Luapula, and Western), but the increases did not reach statistical significance. The rural HIV prevalence is virtually unchanged between the two DHSs.

Figure 6: HIV prevalence levels by geographic zone - DHS 2001/02 and 2007

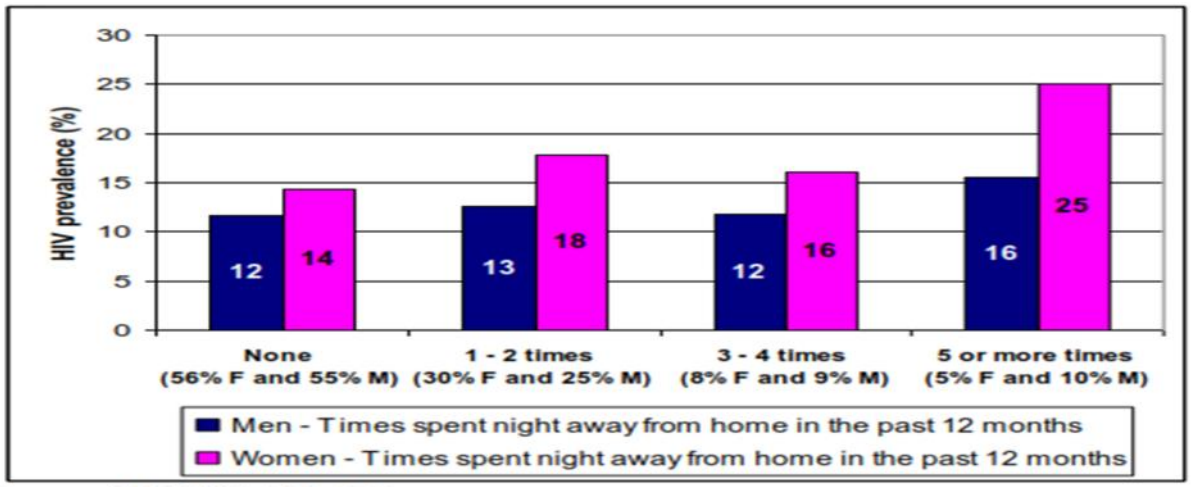


(c) Heterogeneity across mobility patterns

For partners, being away from each other poses higher risk for HIV infection. Figure 7 below, for example, shows that women who often travel and spend the night away from home have significantly higher HIV prevalence. This was to a lesser extent also the case for men, and is due to higher risk behaviour by the travelling partner, or the partner who stays at home. The ZDHS 2007 also found that women who were sometimes away from home in the last 12 months for one month or more at a time had higher HIV prevalence (19%) than those who were not away for such longer periods (14%), but

this was not the case for men. Overall, the pattern of HIV prevalence and mobility of women (ZDHS 2007 data) suggests that more frequent stays away from home increases women's risk of HIV infection.

Figure 7: HIV prevalence by number of times spent the night away from home - DHS 2007

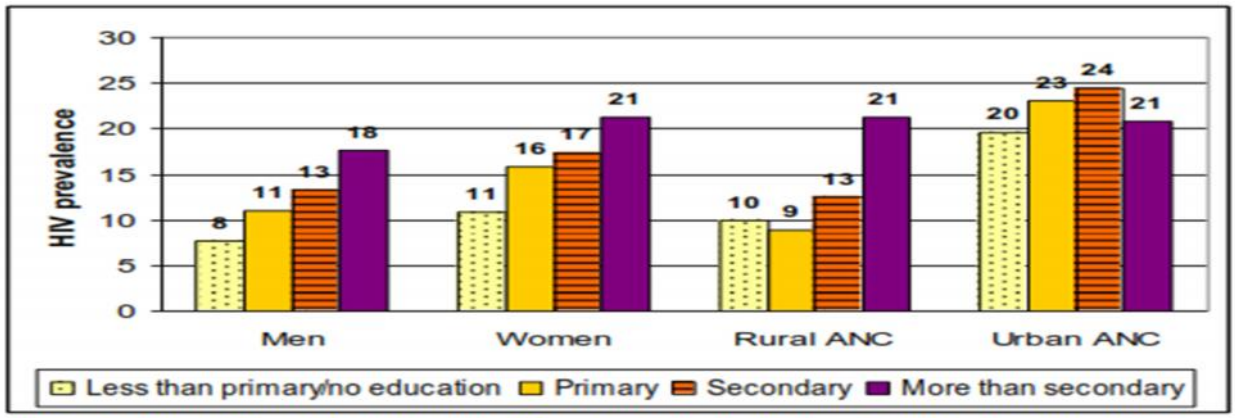


Source: DHS 2007, table 14.5

(d) HIV prevalence and education status

Men and women with higher education have higher HIV prevalence than those with lower education (see figure 8 below). In the DHS 2007 data, the higher the educational attainment, the higher the risk of HIV infection. The ANCSS 2006-07 also found this positive association between education and HIV in rural women, and to a lesser extent in urban women. More analysis is needed to understand the factors associated with having more education that increase HIV risk. A possible explanation is that rural women with higher education are more likely to have a history of travel and staying away from home for their studies or professional work (see previous figure showing a positive association between frequent stays away from home and HIV infection in women). Also, those with higher educational attainment are generally older than those with less education, and age may compound the HIV-education association.

Figure 8: HIV prevalence by education status (2006/07)

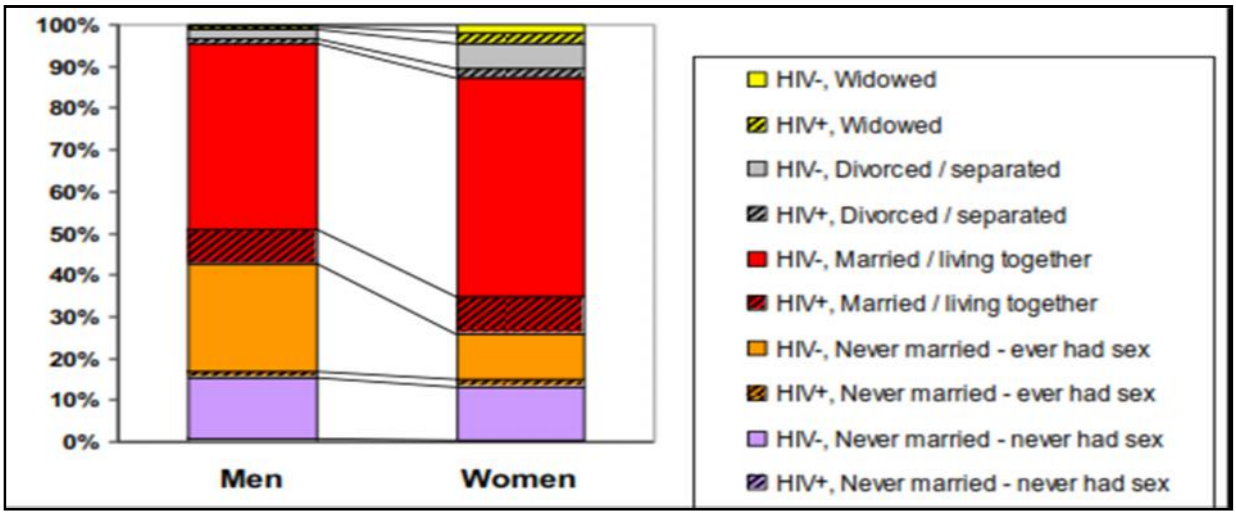


Sources: DHS 2007, table 14.4; and ANCSS 2006-07, tables A3 and A4 in appendix 3.
Note: Age groups – DHS '07: 15-49 years, ANCSS '06-_07: 15-44 years.

(e) HIV prevalence by marital status and type of marital union

People "married or living together" are the largest group with the most HIV infected people; HIV prevalence in these men is 16% (higher than average for men) and 15% in women (slightly lower than average for women). Although HIV prevalence of widowed and divorced or separated men and women is much higher, there are relatively few of these persons in the community (5% M and 13% F). Among never married women who have had sex (premarital sex), HIV prevalence is 15%.

Figure 9: HIV prevalence, marital status, and population share for men and women aged 15 and older – ZDHS 2007



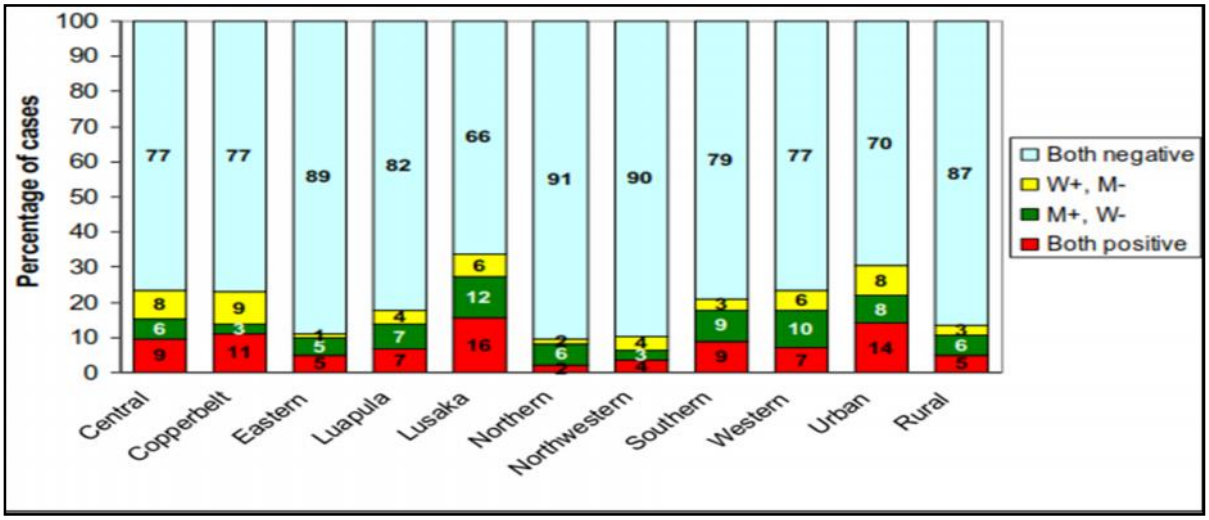
(f) HIV prevalence in married and cohabiting couples

In almost one in five couples, either one or both people are HIV positive. In the 2007 DHS, among couples living in the same household:

- 8% of couples were concordant positive (M+ F+)
- 11% of couples were discordant (6.6% M+ F- , 4.6% F+ M-)
- 81% of couples were concordant negative (M- F-)

The DHS 2007 also reported higher infection levels amongst couples in Lusaka Province (16% M+ F+, 18% M+ F- or F+ M-) than the national average.

Figure 10: HIV prevalence among couples living in the same household by geographic zone – ZDHS 2007

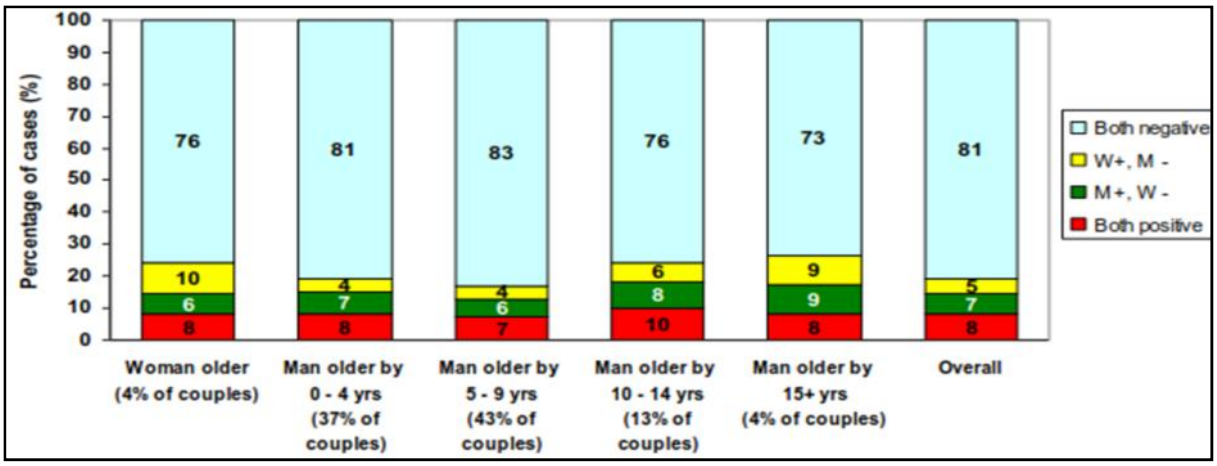


Geographical analysis of HIV prevalence in HIV infected couples shows the following:

- The percentage of couples with one or both HIV positive was highest in Lusaka Province (34%) and lowest in Northern Province (10%), and was also high in urban couples (31%).
- Discordance in HIV positive couples was highest in Northern Province (79%) and lowest in the Copperbelt (52%), but numbers in each category were small.
- In Northern and Eastern Provinces, more than three quarters of all discordant positive partners were men. In rural areas, 69% of discordant couples were male positive and female negative.
- In the Copperbelt, more than 75% of all discordant positive partners were women. Copperbelt has large seasonal and transient populations (pseudo regular couples with low condom use and higher than average level of female sex work).

Couples with large age gaps between partners have a higher risk of being HIV positive (figures 3 and 4 showed that male HIV prevalence peaks about 10 years later than female HIV prevalence). More of the 19% of couples in which the man is 10 or more years older than the woman are HIV positive than where the age difference is smaller. For the 4% of couples where the woman was older, HIV infection was also slightly higher due to the percentage of HIV positive females (F+ M-).

Figure 11: HIV prevalence among couples living in the same household by age gap – ZDHS 2007



(g) HIV prevalence in sub-populations

At the time of this report, little HIV prevalence data was available from sub-populations including those likely to be at high risk of acquiring HIV or of transmitting HIV. With the available HIV prevalence data on higher risk groups, it is not possible to determine HIV prevalence trends over time.

Table 4: HIV prevalence data in sub-populations

Population	HIV prevalence	Sources
Female sex workers	69% (Ndola, 1987-88, N=319) 65% (Ndola, 2005, N=283)	Buve *et al.* 1991 Kamanga *et al.* 2005
STI patients	Major urban sites: 57% (1990), 64% (1991), 58% (1993) Outside major urban sites: 45% (1990), 43% (1991)	UNAIDS ESF 200821
TB patients	Lusaka site: 61% (1990), 83% (1999) Rural site: 52% (1990)	UNAIDS ESF 2008
Prisoners	Kitwe, Kabwe, & Solwezi (prison sites Kamfinsa, Mukobeko, & Solwezi): 27% (1998-99, N=1566)	Simooya *et al.*, 2001
Police recruits	15.4% (Lusaka, 1991, N=312) 11.5% (Lusaka, 1992, N=87)	Msiska, R., 1992
Refugees	Kala Camp: 3.3% (2006, N=300), Mwange Camp: 2.4% (2006, N=295) Maheba Camp: 3.9% (2006, N=304)	ANC Sentinel Survey Report 1994-2006

Zambia has not systematically monitored HIV prevalence in populations usually at high risk of HIV, such as sex workers, men who have sex with men (MSM), prisoners, men in uniform and transport workers. The available HIV prevalence data confirm that female sex workers, STI and TB patients, MSM and prisoners are disproportionately infected with HIV in Zambia.

It is hoped that more evidence will be available in subsequent reporting periods to enhance programming and reporting as two major studies on key populations are in progress. The first is a Panos Institute of Southern Africa study on HIV prevention for sexual minorities was approved in 2011. The purpose of the study was to characterise key populations estimate HIV prevalence and identify opportunities for interventions. The study targeted men who have sex with men and women who have sex with women. The second is by the Population Council entitled “Formative assessment of HIV risk and size estimation using census and enumeration methods among sex workers (SWs) and their clients, men who have sex with men (MSM), and drug users in Zambia and integrated biological and behavioral survey among sex workers in Zambia”. Specific objectives for this study are to estimate the population sizes and distribution of key populations in Zambia; estimate HIV prevalence and incidence among key populations; identify and describe key characteristics of key populations which place them at risk of HIV infection; enhance local capacity to conduct formative assessments, mapping and population size estimates of key populations; support local capacity to conduct behavioral and biological surveillance of key populations.

III National response to the AIDS epidemic

The national response to the AIDS epidemic over the reporting period was guided by the NASF 2011-2015, as outlined in Section I of this report. This framework has 5 impact results targets (two in the prevention pillar and one each in the other three pillars), 23 outcome results targets, and 65 output results targets.

Table 5: Performance of impact level results indicators against NASF targets

Impact Level Result	2013 Target	2013 Status
Prevention		
1. By 20115, the rate of annual HIV new infections has reduced from 1.6% to below 0.8% (82,000 annual new infections to 40,000, by 2015)	40,000	46,000 (0.8%) [2012 EPP]
2. Infants born of HIV positive mothers who are not infected has reduced to less than 5% by 2015	5%	12% [2012 EPP]
Treatment, Care and Support		
1. PLHIV who are alive at 36 months after initiation of antiretroviral therapy has increased to 85% by 2015	85%	80% (2012 at 12 months after initiation of ART
Impact Mitigation		
1. Number of vulnerable households is reduced by 50% by 2015	*	*
Response Management		
1. The total NASF service coverage targets (output level results) that have been met in all four pillars has increased to 50% by 2013 and 90% by 2015	90%	*

Source: Joint Mid-term Review of the National AIDS Strategic Framework 2011 – 2015
* - No data available

A detailed outline of the results of programme implementation by intervention follows below.

(a) Prevention

The primary goal of this strategy was to reduce new infections from 82,000 in 2009 to 40,000 in 2015. There are nine intervention areas, 13 outcome results targets and 35 output target results.

The intervention areas included Social and Behaviour Change (SBC), HIV Counselling and Testing HCT), Condom marketing and distribution, Voluntary Medical Male Circumcision (VMMC), Prevention of Mother to Child Transmission (PMTCT), Prevention with the Positives, Post Exposure Prophylaxis (PEP), Sexually Transmitted Infections (STIs) and Blood safety.

To achieve a reduction in new rates of HIV infection, prevention interventions were implemented across the country by many implementing partners with support and leadership of the Ministry of Health and National HIV/AIDS/STI/TB Council. Key achievements at midpoint in 2013 are presented below[11]:

i. New HIV infections in adults aged 15 years and above have reduced from 1.6% in 2009 to 0.8% in 2012. In absolute figures, this translated into a reduction from 82,000 in 2009 to 46,000 in 2012.

ii. New HIV infections among children (0-14 years old) have declined from 19,000 down to 9,500 in 2012. This represents a decline of 51% from 2011 to 2012.

Progress on the prevention pillar was assessed against the backdrop of envisaged implementation through the adopted "combination prevention strategy" (CPS) which focused on prioritised epidemic

[11] Zambia National HIV/AIDS/STI/TB Council. 2013. *"Joint Mid-term Review of the National AIDS Strategic Framework 2011 – 2015".* Lusaka.

drivers. The interventions sought to address sexual behaviours, social norms, gender inequalities, poverty, stigma and discrimination, low levels of educational attainment, gender based violence and apply biomedical interventions, such as, VMMC, PMTCT, PEP, Prevention and Treatment of STIs. PEP coverage was aimed at both occupational and non-occupational settings, especially in the context of victims of rape and survivors of gender based violence (GBV).

According to the NASF, there were five inter-related prevention actions that would contribute to reducing the rates of new infections. These were:

i. Reduce exposure to HIV by building on past successes and continuing to change the sexual behaviours that have caused men and women to infect each other and by continuing to minimise the risk of HIV exposure in health care settings: (BCC, blood safety, HCT for couples, condom use during high risk sex).

ii. Reduce the biological probability of HIV transmission where exposure to HIV has occurred: (MC, PMTCT, PEP).

iii. Change community social and cultural norms as they relate to high-risk sexual practices and attitudes, stigma and discrimination against persons living with HIV.

iv. 'Plan with HIV in mind' in all sectors of society by, for example, offering girls incentives to remain in secondary school and empowering women to make the best possible decisions about their own sexual reproductive health and encouraging men to respect women's decisions.

v. "Making HIV money work better" by implementing proven cost-effective interventions and doing rigorous evaluations where such cost effectiveness evidence does not yet exist.

The following sections outline the status of the response in Zambia. The numbering is based on the numbering of the GARPR 2014 core indicators, and are therefore not necessarily chronological as only those indicators applicable to the Zambian response are included.

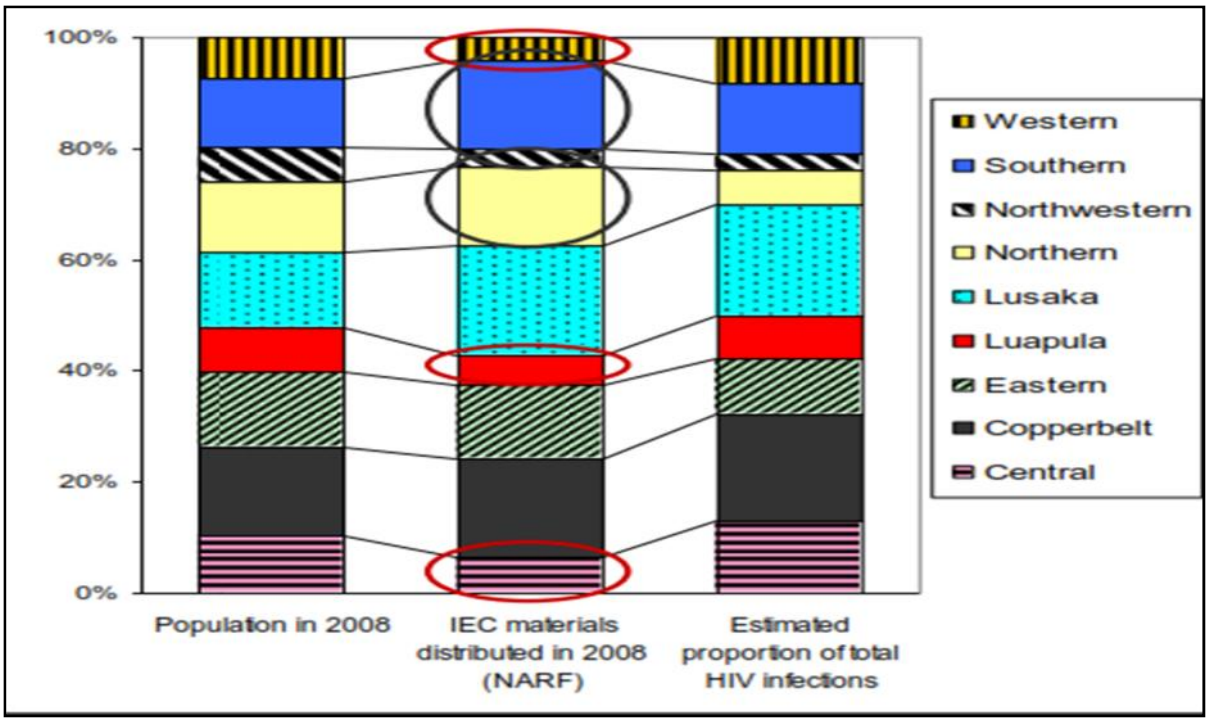
Target 1: Reduce sexual transmission of HIV by 50% by 2015

It is estimated that 90% of adult infections are attributable to unprotected heterosexual contact either with a casual partner, a long-standing partner, or concurrent sexual partners[12]. From the start of the national HIV response, SBC messages were meant to inform the public on the dangers of HIV, that it is mainly transmitted sexually and only changes in behaviour will ensure survival of the population.

Strategic objectives of behaviour change communication (BCC) have targeted key drivers of transmission and included promoting sexual abstinence among youth, faithfulness in marital or stable unions, and condom use during sexual intercourse. Messages on faithfulness implicitly aimed at partner reduction among men and women with multiple sexual partners, especially as multiple concurrent partnerships (MCP) is one of the key drivers of the Zambian HIV epidemic. Elevating knowledge levels among the general population has been a key strategy with a view to influence positive change in behaviour. Statistics indicate that general knowledge of HIV among the population consistently rose to 97% by 2009. Among many other strategies, information, education and communication (IEC) strategies have contributed to awareness creation and increased knowledge among the general population. IEC materials have been produced and distributed so that people can easily and readily access information.

In 2008, a total of 216,628 pieces of IEC materials were printed, and a total of 707,163 pieces were distributed across all provinces (NARF summary report 2008).

Figure 12: Provinces' population size, total IEC print material distributed and HIV infections (2008)



Sources: Population in 2008 from CSO website (http://zamstats.websitedesign.co.zm/media/projected_mid-tear_population.pdf); NARF summary report 2008; ZDHS 2007

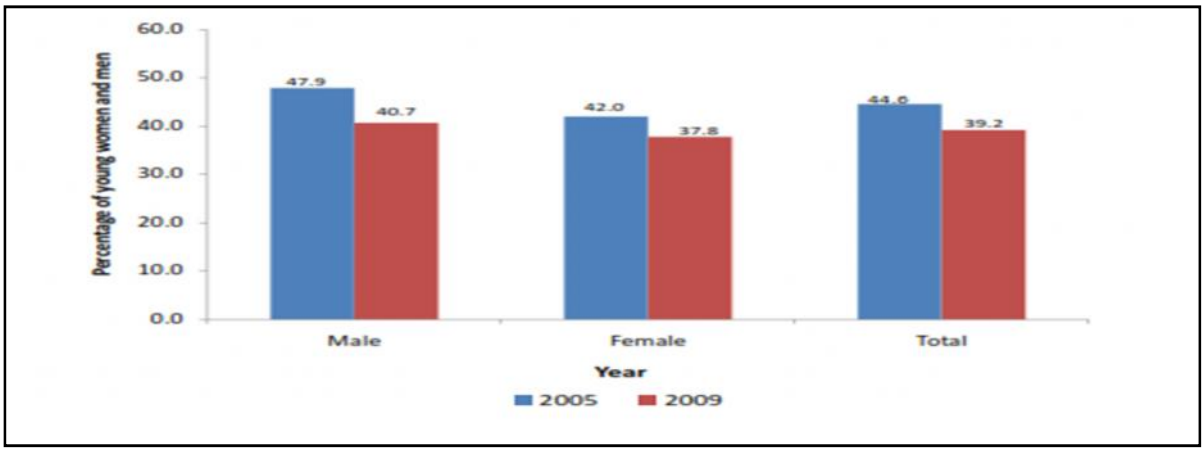
NAC data sources show that the number of materials produced in the fourth quarter of 2012 was 80,161 and first quarter of 2013 was 23,458 (NAC Website 2013). When materials are produced they have to be distributed to various end users and beneficiaries. The numbers of IEC materials distributed in the fourth quarter of 2012 were 311,094 and those distributed in the first quarter of 2013 were 158,838.

[12] Zambia National HIV/AIDS/STI/TB Council. 2009. *"Zambia HIV Prevention Response and Modes of Transmission Analysis".* Lusaka

1.1 Young People: Knowledge about HIV Prevention

Programmes targeting young people are critical and have great potential for reducing new HIV infections. According to the ZDHS, prevalence of HIV among young people aged 15-24 declined from 7.8% in 2002 to 6.5% in 2007. The JMTR 2013 highlights that more recent estimates indicate that the HIV incidence among young people (15-24 years) has also reduced slightly from 0.95% in 2009 to 0.71% in 2012. Among boys aged 15-24 years, incidence dropped from 0.6% in 2009 to 0.45% in 2012. A similar trend was also noted among girls aged 15-24 years, incidence levels declined from 1.32% in 2009 to 0.98% in 2012. Knowledge of HIV and AIDS is high among young people aged 15 - 24 years. More than 90% of them have heard about HIV. However, comprehensive knowledge[13] about HIV and AIDS remains low. Only 36% of women and 39% of men have comprehensive knowledge.

Figure 13: Percentage of young women and men aged 15-24 years with comprehensive knowledge about HIV/AIDS in the Zambia Sexual Behaviour Surveys



The number of in-school children (5-17 years) receiving life skills education has been on the increase for both boys and girls. During the fourth quarter of 2012, males and females who received life skills education were 207,908 and 231,762, respectively. During the first quarter of 2013, there were 318,281 males and 312,875 females who received life skills education. Similarly, young people aged 15-24 years receiving life skills education also increased. During the fourth quarter of 2012 and first quarter of 2013, there were 99,233 and 74,103 males that were reached in each respective quarter, whilst 81,569 and 86,978 females were reached during the same period (NAC Website 2013).

Over 556,000 adolescents in- and out-of-school were equipped with life skills and HIV prevention information in order to adopt safer sexual behaviors. Furthermore, UNICEF has continued to work with other partners to support the education sector to integrate HIV/AIDS education into the life-skills and sexuality education curriculum for teacher education curriculum. Life skills and peer education programmes have been shown to be effective in helping young people protect themselves from HIV, especially when they address gender relations (UNICEF, 2013). However, the complacency regarding HIV/AIDS knowledge, rising number of pregnancies and evidence of alcohol abuse among school-going children point to the need to intensify or adjust programming around life skills education.

Strategies have been implemented to contribute to the output results for preventing new HIV infection in young people. There have been efforts to scale-up campaigns on risk perceptions, reduction in multiple and concurrent sexual partnerships and increased condom use by young people. Implementing partners have also implemented interventions to protect girls and boys from the risks of

[13] A person is considered to have a comprehensive knowledge about HIV/AIDS when they say that use of condoms for every sexual intercourse and having just one uninfected and faithful partner can reduce the chance of getting HIV, that a healthy-looking person can have HIV, and when they reject the two most common misconceptions that HIV can be transmitted through mosquito bites and that a person can become infected with HIV by eating from the same plate as someone who has HIV.

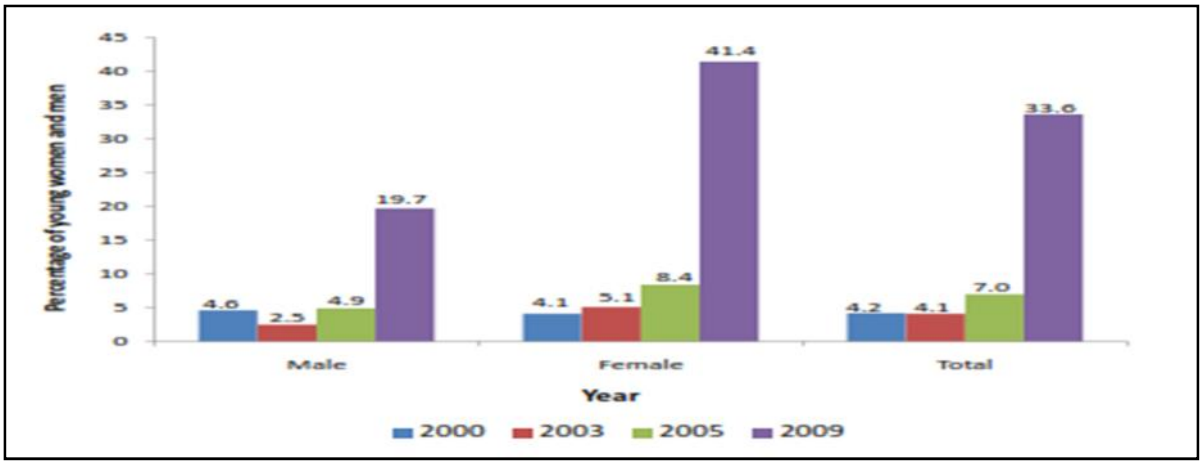
inter-generational infection and to strengthen interventions that facilitate and promote girls' completion of the basic education programme.

Working in collaboration with the Ministry of Education, HIV/AIDS implementing partners have made efforts towards integration of HIV in the mainstream school and college curricula (AVERT 2007).

In 2012, Zambia adopted an HIV strategy for advocacy, social and behavioural change communication (SBCC), and rolled it out through various strategies targeting adolescents. UNICEF supported the design and implementation of targeted SBCC campaigns through NAC to address social norms around condom use, HIV testing, multiple sexual partnership, gender-based violence and alcohol abuse among adolescent males using male celebrities as role models. These strategies continued through the reporting period.

Behavioural change indicators have improved since 2005 and this is expected to have a huge impact on reducing HIV infection in young people. Figure 14 below illustrates the 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).

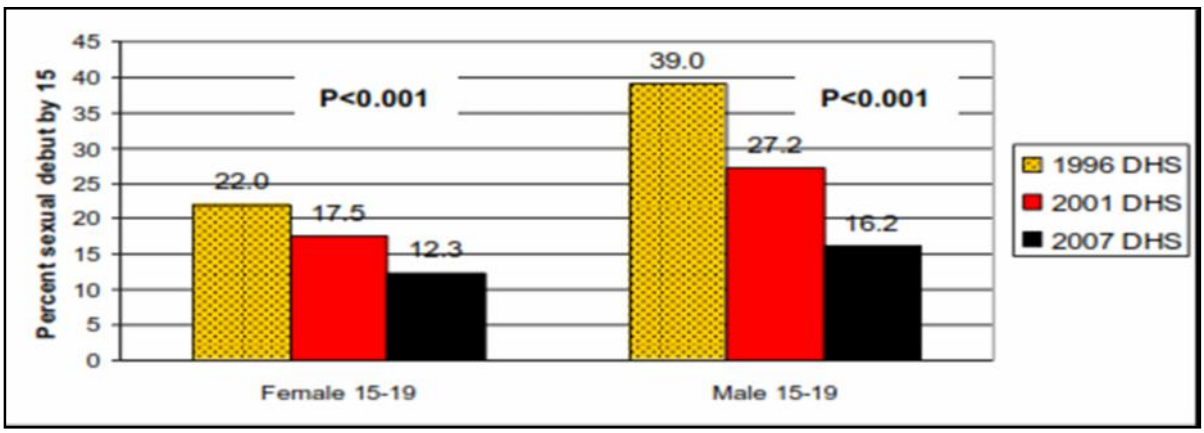
Figure 14: Percentage of young women and men aged 15-24 who received an HIV test in the last 12 months and who know their results in the Zambia Sexual Behaviour Surveys



1.2 Sex Before the age of 15

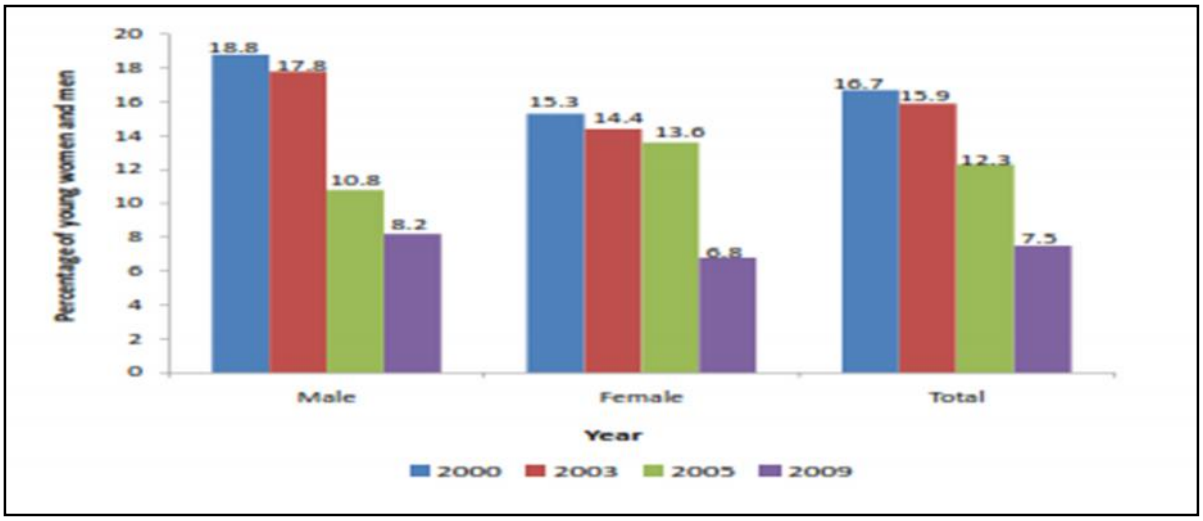
There are signs that more young people delay sexual debut and remain sexually abstinent for longer. A trend analysis over the last three DHS shows a significant decrease in the proportion of young females and males aged 15-19 years who reported having had sex by the age of 15 years.

Figure 15: Sexual debut by 15 years among young people aged 15-19 years



This is a constant trend shown again among the 15-24 age group in Zambia's sexual behavior studies.

Figure 16: Percentage of young women and men aged 15-24 who had sexual intercourse before the age of 15 in the Zambia Sexual Behaviour Surveys



Reported sexual debut is significantly earlier in rural women aged 15-24 than in urban women (2007 DHS). For men, age at first sex was only slightly earlier in rural residents than in urban residents. Since HIV prevalence is higher in urban areas, early sexual debut alone cannot be regarded as a major risk factor for HIV infection.

1.3 Multiple Sexual Partners

One of the targets was to reduce the percentage of females and males aged 15-49 in the general population who had concurrent sexual partnerships in the last 12 months from 35% for females and 70% for men in 2010 to less than 10% for females and 30% for men by 2015. The current status as at 2013 is hard to determine. This indicator is also collected through the ZDHS and ZSBS, so there is no data for the indicator for the period under review. However, a downward trend is noted from past studies as Figures 17 and 18 illustrate.

Figure 17: Adults 15-49 years with more than 1 partner in the past 12 months and condom use last sex (1996-2007)

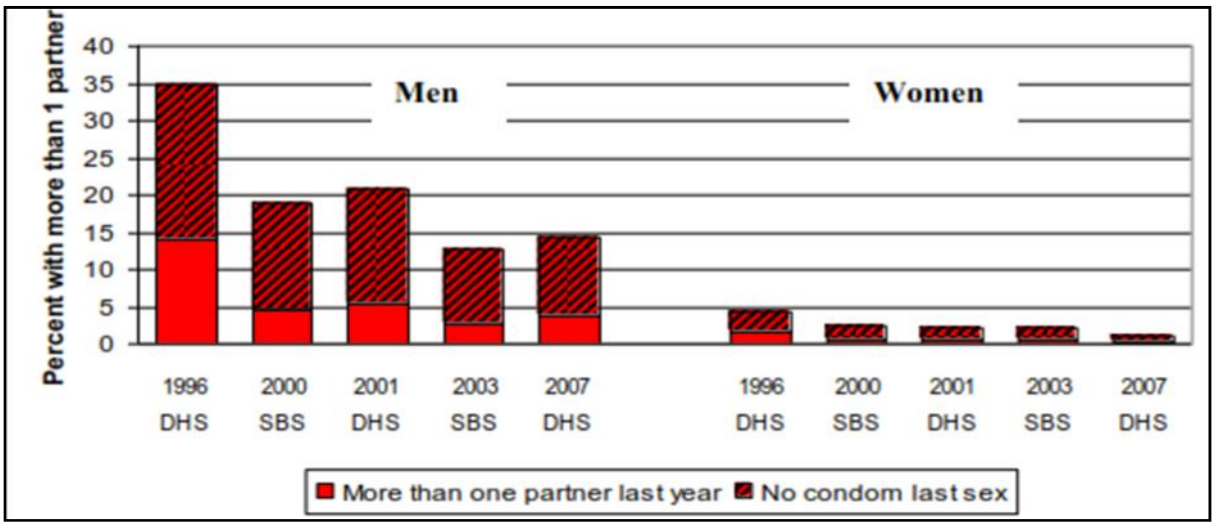
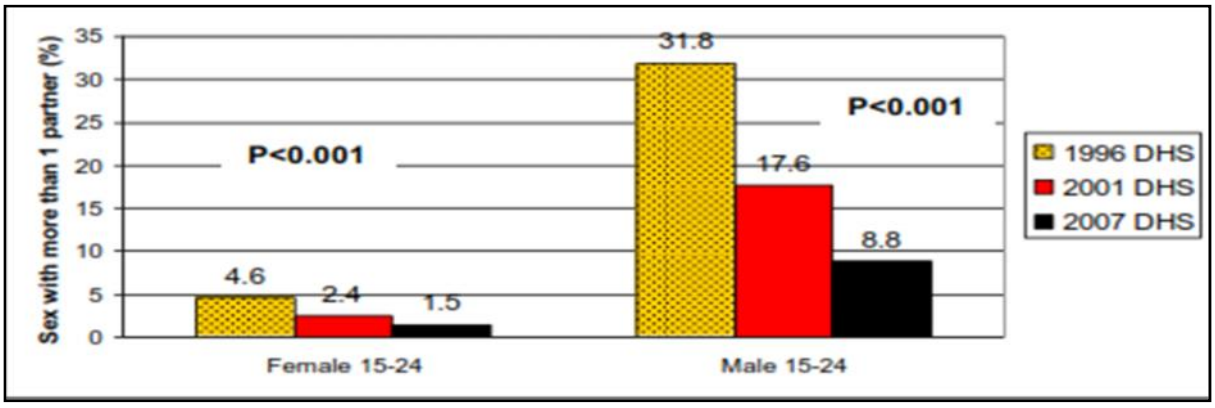


Figure 18: Percentage of young people aged 15-24 who report sexual intercourse with more than one partner in the past 12 months (1996-2007)



In Zambia, men consistently report a much higher frequency of multiple partnerships than women. In the 2007 DHS, 20% of men aged 15-49 years said that they had had more than one partner in the past 12 months, whereas only 1.6% of women reported more than one partner in this period. For men, the frequency was highest in the Southern Province (31%), but there was virtually no difference between rural and urban men regarding this variable. For women, the frequency was highest in the Western Province (4.1%), and was significantly higher in urban (2.1%) than in rural areas (1.3%).

A declining percentage of adults aged 15-49 report having more than one partner. In men, the frequency dropped from 29% (1996) to 14% (2007), and in women, it dropped from 3.6% (1996) to 1.2% (2007).

There were decreases in the mean number of reported partners in the past year between 1996 and 2007. In men, the mean number dropped from 1.5 (1996) to 0.94 (2007), and in women, it dropped from 0.8 (1996) to 0.76 (2007).

Frequencies of reported extramarital sex decreased in men and women, from 19% (1996) to 13% (2007) in men, and from 1.5% (1996) to 0.7% (2007) in women.

Multiple partners are reported less in the SBS than in the DHS, particularly by men. On the methodological differences of the two survey types, Slaymaker & Bruckner (2004) comment: "*The survey instruments were similar but not identical. It is possible that the changes were observed because respondents reacted in different ways to the different questionnaires. The DHS locates a different sample of men than the SBS, since different methods are used to select the men for the two types of survey. There may be a participation bias because agreeing to answer a survey about fertility and family formation could be easier than agreeing to a survey on sexual behaviour and HIV. On the other hand the DHS takes longer to complete, which might have deterred potential respondents*"[14].

From many other sexual behaviour surveys, it is widely suspected that reporting of concurrency is negatively affected by social desirability or self-reporting bias.

The MOT 2009 reported that in the DHS 2007, men reporting 2 or more partners were significantly more likely to be HIV infected (20% HIV positive) than men who reported one partner (13%) or no partner (11%) in the last 12 months. In women, the lowest HIV prevalence was among those reporting one partner in the last 12 months (16% HIV positive), followed by those reporting no partner (27%). Women reporting 2 partners in the last 12 months had the highest HIV prevalence (32%). The

[14] Zambia National HIV/AIDS/STI/TB Council. 2009. *"Zambia HIV Prevention Response and Modes of Transmission Analysis".* Lusaka

difference in HIV prevalence between those reporting one partner and those reporting 2 partners was statistically significant. Only three women reported three or more partners.

From this analysis, the conclusion was drawn that there is a linear relationship between the number of lifetime partners and HIV risk in both women and men (see Figures 19 and 20 below). There is a strong positive association between the number of reported sexual partners and HIV infection - the risk of HIV increases with more sexual partners.

Figure 19: Number of partners in the last 12 months and HIV prevalence – ZDHS 2007

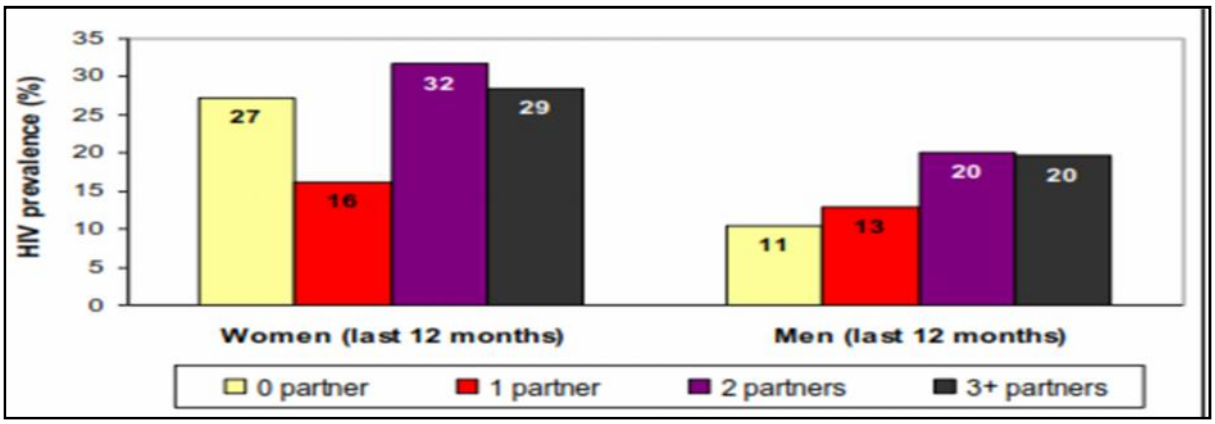
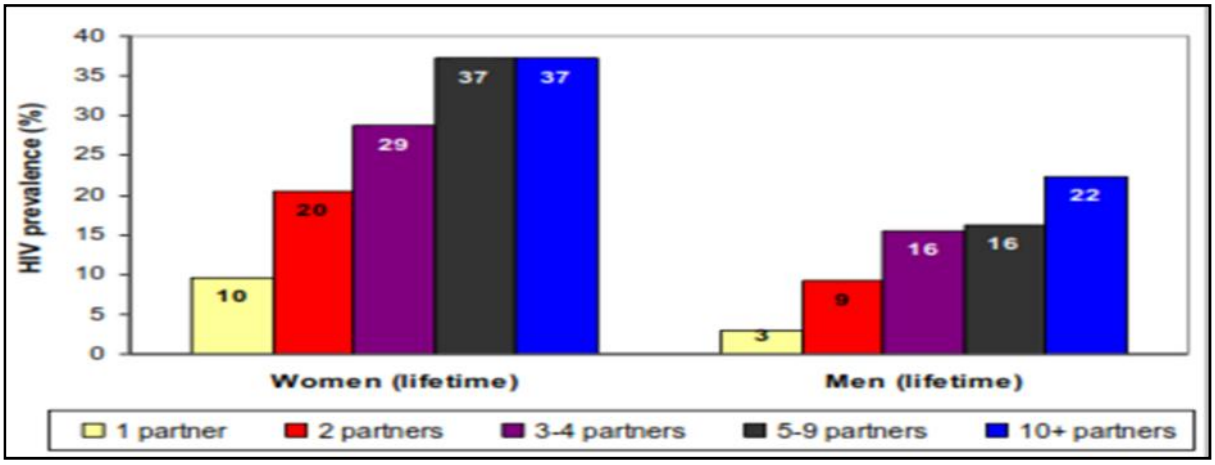


Figure 20: Number of lifetime partners and HIV prevalence – ZDHS 2007



The MOT 2009 further reported that people were generally aware of HIV-related risks including the importance of preventing infection through abstinence, mutual faithfulness, and condom use. However, despite the knowledge that those involved in MCP are at high risk of HIV infection, unprotected sex is common. Some men have a fatalistic attitude about HIV, dismissing the idea of changing their sexual practices to avoid contracting HIV. People feel protected if they use condoms, and this can result in having sex with many partners.

The practice of MCP in Zambian society is an example of how individual choices are shaped by social and cultural influences. Thus, a campaign to reduce MCP will need to focus not only on individuals, but also on families, communities and policy. This may mean challenging entrenched social and cultural norms. These norms include seeing involvement in MCP as acceptable for men and regarding women who are sexually proactive as likely to be having relationships with other men. It is also a common misconception in Zambian society that the woman is responsible if a couple is unable to conceive a child[15]*.*

[15] Zambia National HIV/AIDS/STI/TB Council. 2009. *"Zambia HIV Prevention Response and Modes of Transmission Analysis".* Lusaka

1.4 Condom Use During Higher-Risk Sex

Table 7 below illustrates that in Zambia, as is common elsewhere, condom use is higher with non-regular partners than with regular or primary partners.

Table 6: Population-based data on condom use with different types of sexual intercourse and partners

	Females	Males	Source
FIRST SEXUAL INTERCOURSE			
Youth aged 15-24 yrs	19%	23%	SBS 2005, table A.5.18
Youth aged 15-24 yrs	24%	22%	DHS 2007, table 13.17
PREMARITAL SEXUAL INTERCOURSE			
Never-married youth aged 15-24 yrs	39%	47%	DHS 2007, table 13.18
REGULAR PARTNER			
With marital partner, last sexual intercourse	5%	7%	SBS 2005, table A.3.3.
With marital partner, last sexual intercourse	7%	13%	DHS 2007
NON-REGULAR PARTNER			
Youth 15-24 yrs Reporting non-regular partner in last 12 months	26%	38%	SBS 2005, table A.5.21
Adults (F 15-49, M 15-59) Reporting non-regular partner in last 12 months	29%	38%	SBS 2005, table A.5.21
Sexually active adults aged 15-49 yrs Reporting 2+ partners in last 12 months	33%	27%	DHS 2007, tables 13.8.112
Sexually active adults aged 15-49 yrs Reporting higher-risk intercourse in last 12 months	37%	50%	DHS 2007, tables 13.8.112
Sexually active youth aged 15-24 yrs Reporting higher-risk intercourse in last 12 months	38%	48%	DHS 2007, tables 13.19.112
SEX WORKER (PAID SEX)			
Men 15-49 yrs reporting sex with SW in last 12 months	n1a	53%	SBS 2005, table A.3.13
Men 15-49 who report having paid for sex in last 12 months	n1a	55%	DHS 2007, table 13.9

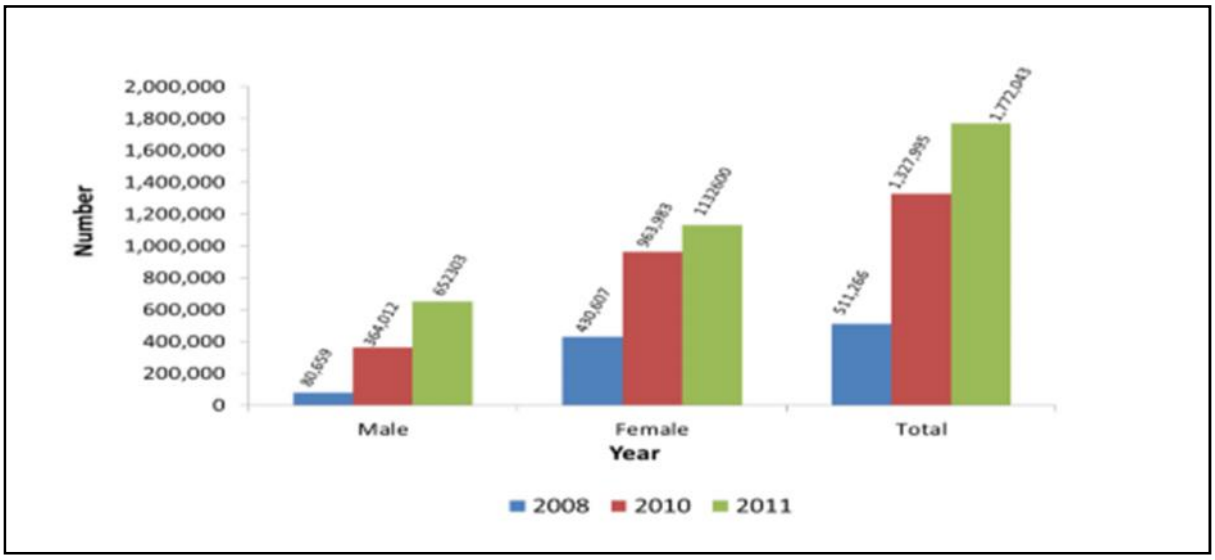
However, reported condom use increased with all types of partners for both sexes between 1996 and 2007. Reported condom use by people in multiple partnerships was still low at 33% for women and 27% for men (2007 ZDHS). The MOT 2009 reported that although the proportion of people who have multiple partners and unprotected sex has decreased over the years), there is still a large potential for more consistent condom use in this risk population.

1.5 HIV Testing in the General Population

In 2007, only 15% of Zambians had been counselled, tested and received results (ZDHS, 2007). Over the years, the demand for HCT has increased in support of programmes such as VMMC, PMTCT, PEP, STI and blood safety. This demand can only be met through improved and intensified coverage coupled with an organised strategy of recruitment, training and retention of HIV counsellors and testers (NASF 2011-2015). Although the number of people tested and received their results has remained low in the country, there has been an expansion in HCT services. Owing to the expansion, the number of HCT sites increased from 56 in 2001 to 1,800 in 2012. The number of people tested and received their results increased by 351.3% among males and by 123.9% among females from

2008 to 2010[16]. Under Round 8 of the Global Fund, the target was to test 1,803,891 by the end of 2012. This target was exceeded; the actual number tested was 2,138,961 giving an achievement of 119%[17]. Current data shows that 2,066,216 males and females were tested and received results by December 2013 (HMIS, 2013). This demonstrates both expansion and increased uptake.

Figure 21: Number of individuals aged 15 and older who received counseling and testing and know their results



HCT is the most utilized HIV service by young people and can serve as an entry point to biomedical HIV prevention intervention. There was an increase in the proportion of young people aged 15-24 who were tested and received HIV results between 2005 and 2009 from 7.0% to 33.6%. This increase was more among young women than men.

The NASF approach is to strengthen existing services and expand coverage especially in communities and workplaces. This has been possible using several strategies. Education and community mobilization have been intensified to create awareness about HCT especially that it is an entry point to other HIV services such as ART, VMMC, and PMTCT. HCT has been fully integrated with these services in order to maximise access and reach. Innovative strategies for reaching community members in hard to reach areas through mobile outreach have been implemented.

1.6 Reduction in HIV Prevalence

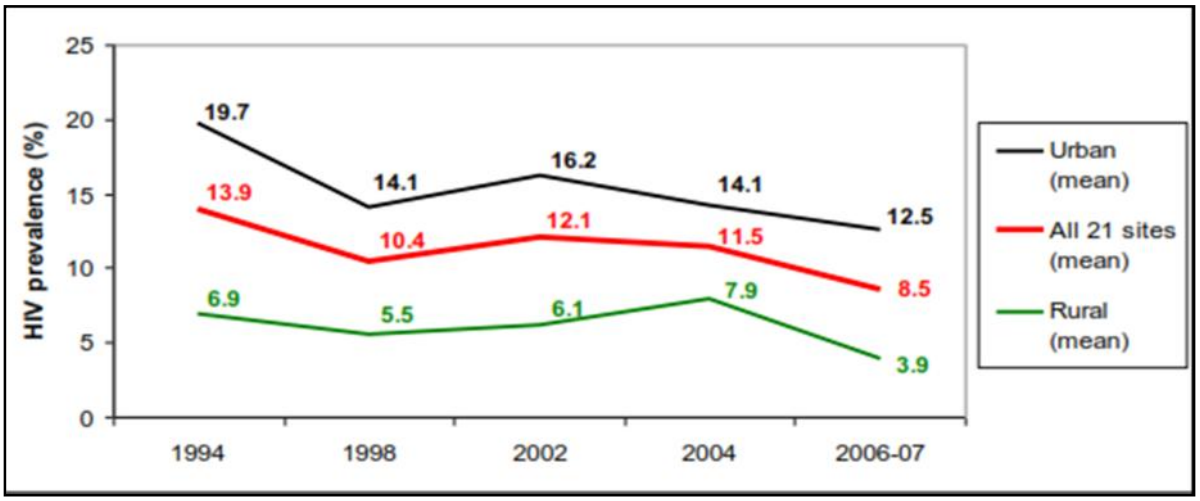
The core indicator utilized to measure HIV prevalence in the general population is defined as the percentage of young people aged 15-24 who are living with HIV.

As a proxy for new infections, HIV prevalence levels of ANC clients aged 15-19 were reviewed during the MOT 2009. It was reported that, between 1994 and 2006-07, average site prevalence decreased overall in 15-19 year old ANC clients (see Figure 22 below, red line). After the initial drop between 1994 and 1998, mean site prevalence levelled off and then showed another downturn in the ANCSS 2006-07. The decrease in the most recent ANCSS was larger in rural sites (3.9%, which is 4% down from 2004) than in urban sites (12.5%, which is 1.6% down from 2004).

[16] Zambia National HIV/AIDS/STI/TB Council. 2009. *"Zambia HIV Prevention Response and Modes of Transmission Analysis".* Lusaka

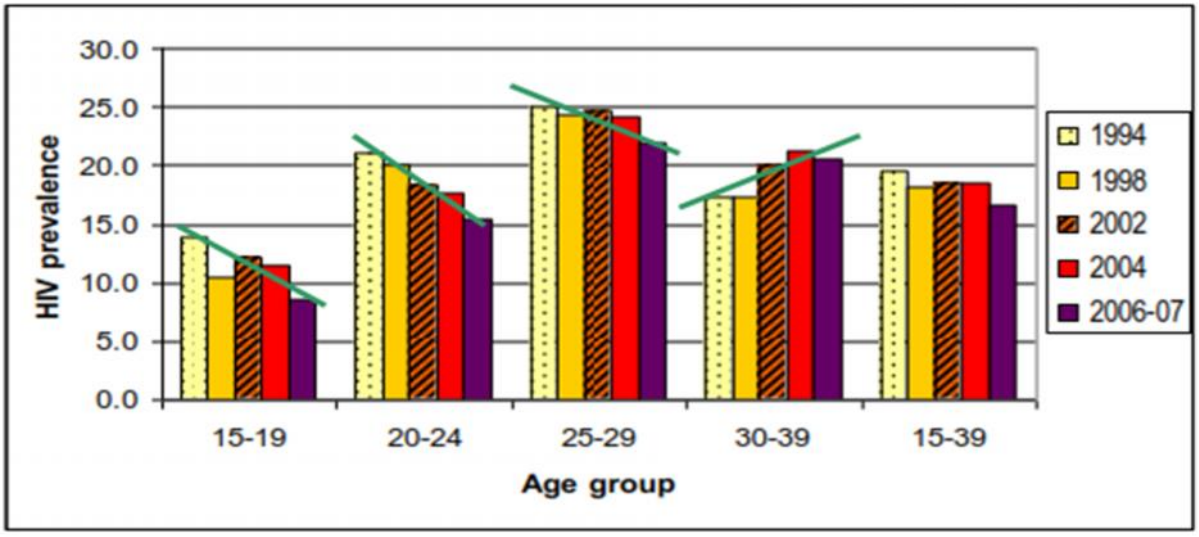
[17] Zambia Report , 2011 UN General Assembly Political Declaration on HIV/AIDS: 2013 Mid-Term Review of the 10 Targets and Elimination Commitment.

Figure 22: Incidence proxy – HIV prevalence trends in 15-19 year old ANC clients (2004-2007)



Observing trends in other ANC client age groups has produced similar results.

Figure 23: HIV prevalence trends in pregnant women (1994 to 2006/07) – ANCSS 1994-2006 Report, 21 sites excluding Mongu



The implementation of the response in Zambia has targeted other factors which are not identified by directly related core indicators:

PLHIV - Promoting Positive Health, Dignity and HIV Prevention

There are many reasons why the involvement of PLHIV is strategically important to the successful implementation of the national HIV response. Treatment alone cannot control the epidemic. For every two people who are started on ART, five others are newly infected, and infection can only be passed from an infected person to the uninfected. PLHIV also play a critical role in efforts to reduce stigma and discrimination, and hence they support strengthening of the enabling environment for HIV prevention. Therefore, prevention for PLHIV is increasingly becoming part of the routine care services both at facility and community levels as articulated in the NASF and Zambia National Treatment guidelines.

There are two indicators in this programme area whose purpose is to measure how well health facility-based and community-based programs were reaching PLHIV with a minimum package of prevention interventions and services designed to protect the health of the infected person and

reduce the spread of HIV to their sex partners and children. According to the guidelines, a minimum package of care should ensure that risk reduction (sexual and alcohol), condom promotion and distribution, partner testing, adherence counselling, family planning/safer pregnancy counselling, and STI management are integrated into the regular care of PLHIV. Data for these indicators was not available at MOH and NAC during the JMTR 2013. However data from other sources suggested that the number of people receiving services was increasing. In 2011, there were 577,156 PLHIV reached with a minimum package of care. The number increased to 702,922 PLHIV in 2012 (PEPFAR, 2013). The prevention services are delivered to PLHIV as part of their routine care. They are also offered to discordant couples both at community and facility levels. Some of the services are delivered through community outreach programs such as home-based care and support groups. Evidence also suggested that there were bidirectional linkages and referrals between facility/clinic and community settings with adherence counsellors taking a leading role at community level.

Alcohol Use

Several Zambian studies report alcohol use and risky behaviours under alcohol influence to be prevalent[18]:

- Sexual intercourse under the influence of alcohol takes place, especially in urban areas. In 2007, 14% of 15-24 year old Zambian respondents had sexual intercourse in the past 12 months when drunk or with a partner who was drunk (DHS 2007). The prevalence of intercourse while drunk was particularly high among the older men in this age bracket, and was higher in urban residents, men without education, and women with higher education or higher income. In the ZSBS 2003 (p27-28), 20% of males reported that they or their non-regular partners took alcohol during the last sexual intercourse. This percentage was much higher for urban males compared to rural males. Among females, 18% reported that alcohol was involved at last sex, and the urban-rural pattern was similar. Males are usually more likely to use alcohol than females and to drink more.

- Alcohol use increases sexual risk taking in Zambia. Magnani et al (2000) found that among youth in Zambia, alcohol and drug use was a risk factor for having sex, having multiple sexual partners and having more than one partner during the last three months. The same study also found that alcohol consumption decreased condom use. Mukuka (2000) found that male youth (no age specified) in Lusaka were frequent customers at places that sold illicit alcohol. In a study in Lusaka among students, Mbulo *et al.* (2007) conclude that drinking behaviour, alcohol-sexual expectations, educational level and religion are associated with lower use of condoms. Significantly more college students had consumed alcohol than high school students. The odds of college and university students engaging in unprotected sex after drinking were almost four times higher than for high schools students. The odds of students with multiple sexual partners engaging in unprotected sex after drinking were 3.6 times higher than for students with one sexual partner.

The table below outlines the ZDHS 2007 findings.

[18] Zambia National HIV/AIDS/STI/TB Council. 2009. *"Zambia HIV Prevention Response and Modes of Transmission Analysis".* Lusaka

Table 7: Drunkenness during sexual intercourse among young women and men aged 15-24 – ZDHS 2007

Among all young women and young men age 15-24, the percentage who had sexual intercourse in the past 12 months while being drunk and percentage who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk, by background characteristics, Zambia 2007

Background characteristic	Women age 15-24			Men age 15-24		
	%age who had sexual intercourse in the past 12 months when drunk	%age who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk	Number of women	%age who had sexual intercourse in the past 12 months when drunk	%age who had sexual intercourse in the past 12 months when drunk or with a partner who was drunk	Number of men
Age						
15-19	0.5	4.5	1,574	1.5	1.6	1,416
15-17	0.2	2.4	987	0.4	0.4	886
18-19	1.1	8.1	587	3.4	3.6	530
20-24	1.2	11.6	1,370	8.8	9.2	1,066
20-22	1.0	10.4	825	6.2	6.6	674
23-24	1.5	13.5	545	13.4	13.7	392
Marital status						
Never married	0.8	3.3	1,629	3.1	3.3	2,155
Ever married	0.9	13.5	1,315	14.9	15.2	328
Knows condom source						
Yes	1.0	8.6	2,223	5.1	5.3	2,181
No	0.4	5.4	721	1.4	1.5	328
Residence						
Urban	1.2	8.1	1,352	6.7	6.9	1,187
Rural	0.5	7.6	1,592	2.8	3.0	1,296
Province						
Central	0.9	4.0	274	2.8	2.8	221
Copperbelt	1.0	9.0	538	8.1	8.1	526
Eastern	0.2	7.6	359	2.1	2.1	306
Luapula	0.5	7.6	207	0.7	1.4	135
Lusaka	1.7	9.9	507	6.4	6.7	450
Northern	0.2	9.9	408	4.5	4.5	329
North-western	1.8	7.5	155	1.0	1.5	122
Southern	0.7	5.3	306	4.3	5.1	270
Western	0.6	4.9	189	2.5	2.5	122

Targeted behavioural interventions to address alcohol use among young adults have been implemented in the reporting period.

1.7 – 1.10 Key Populations

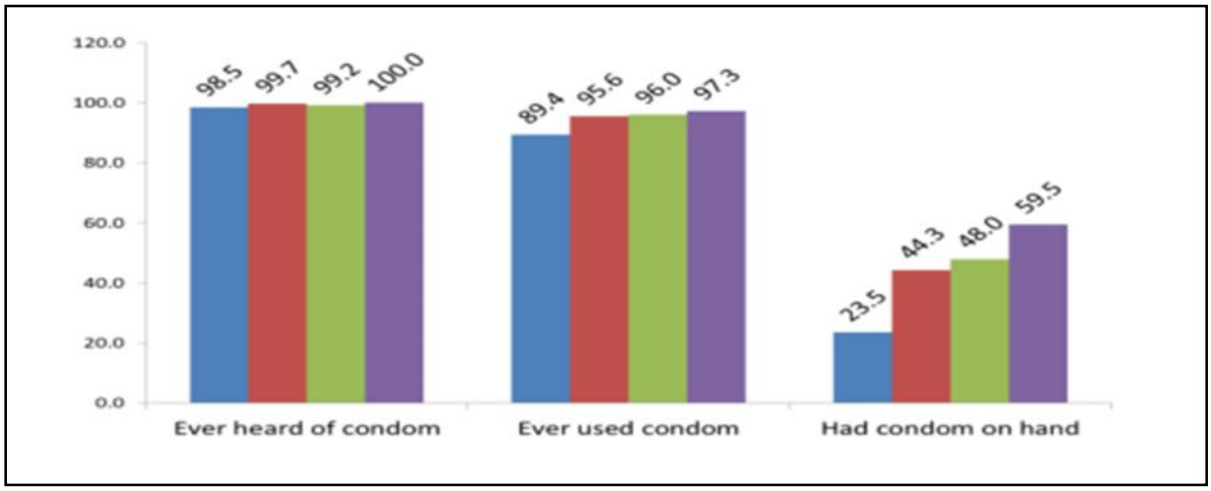
The MOT 2009 documented the existence of key populations in Zambia. Estimates suggest that these populations may be contributing to fuelling the HIV epidemic in the country. The NASF acknowledges sex workers (SW) and men who have sex with men (MSM) as HIV epidemic drivers in Zambia.

Sex Workers

Providing statistics and reporting on sex work is challenging as prostitution is illegal in Zambia. However, the MOT 2009 documents that Tasintha, an NGO that works with sex workers, estimates that there are at least 6,000 full-time sex workers in Zambia (IOM briefing note, undated). Other studies put the figure at 24,000 (7,000 in Lusaka and 17,000 in tourist locations, major highways, and border and trading towns) (Zambian NAC, Strategic Framework 2001-2003. Lusaka: Zambia.). Chirundu at the Zimbabwean border has Zambia's most explicit commercial sex industry, and sex work is the largest source of urban informal income in Chirundu (FHI, 2005). There are about 300 resident sex workers. Approximately 200 more transient sex workers visit Chirundu at peak periods, particularly at month's end, when the border is busiest. There is no street sex work except on the main highway.

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.

Figure 24: Trend in female sex workers ever heard, used and had a condom in on hand 2000-2009



Source: GARPR Zambia Country Report 2012

Table 8: Payment for sexual intercourse and condom use at last paid sexual intercourse among men – ZDHS 2007

Percentage of men age 15-49 reporting payment for sexual intercourse in the past 12 months, and among those, the percentage reporting that a condom was used the last time they paid for sexual intercourse, by background chracteristics, Zambia 2007

Background characteristic	Payment for sexual intercourse in the past 12 months		Condom use at last paid sexual intercourse	
	%age who paid for sexual intercourse	Number of men	%age reporting condom use	Number of men who paid for sexual intercourse in the past 12 months
Age				
15-24	5.0	2,482	49.7	124
15-19	4.3	1,416	46.1	61
20-24	5.9	1,066	53.1	63
25-29	6.4	977	63.3	62
30-39	4.6	1,671	54.6	77
40-49	2.3	865	(65.8)	20
Marital status				
Never married	5.7	2,553	52.6	146
Married or living together	3.3	3,168	58.5	105
Divorced/separated/widowed	11.8	274	55.5	32
Residence				
Urban	4.3	2,601	62.0	113
Rural	5.0	3,395	50.6	170
Province				
Central	7.3	559	(55.7)	41
Copperbelt	2.8	1,140	*	32
Eastern	5.3	795	(45.8)	42
Luapula	1.3	387		5
Lusaka	6.1	1,072	74.6	66
Northern	2.2	805	*	18
North-western	9.8	303	53.3	30
Southern	5.7	621	(57.2)	35
Western	4.8	315	(29.3)	15
Education				
No education	3.4		*	9
Primary	5.4		51.3	151
Secondary	4.6		59.8	116
More than secondary	1.7		*	8

Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

1.11 – 1.14 Men who have Sex with Men

Men who have sex with men (MSM) include homosexual/gay men, bisexual men, heterosexual men who engage in sex with other men (such as male sex workers), and transgendered men (Baral et al., 2007). The transmission efficiency of unprotected anal sex (especially for the receptive partner) is much higher than vaginal sex (receptive anal intercourse: Boily et al., 2009; male-to-male: De Gruttola et al., 1989, Vittinghoff *et al.*, 1999). Many MSM experience high levels of violence, especially sexual violence (Auvert *et al.* 2005, Onyango-Ouma *et al.*, 2005).

The majority of African MSM also have sex with women - two thirds or more, according to some studies (e.g. Caceres *et al.*, 2008; Baral *et al.*, 2009; Onyango-Ouma *et al.*, 2005). Once HIV is introduced into networks of MSM, the virus is therefore also likely to be transmitted to the men's female partners (given the typically low rates of condom use between regular partners), and subsequently to their newborn babies (van Griensven, 2007)[19].

In Zambia, the main source of data on MSM is a study among males aged 15-35 in Livingstone, Lusaka, Ndola, Kitwe and Nchelenge towns, conducted in 2004 (Zulu, 2004). Almost 3,000 interviews were conducted with self-identified MSM, prison inmates and ex-prisoners, and in- and out of school youth.

Male-to-male transmission is taboo in Zambia and little understood, but based on the available data, sex among men appears not to be a major factor in the Zambian epidemic[20]. Such data shows that the extent of male-to-male sex is not fully understood in Zambia. Nevertheless, it is probably correct to say that MSM behaviours are currently not a main contributor to annual HIV incidence. For 2008, an incidence model estimated about 732 new infections (or 1% of all new infections) to occur in MSM, and about 40 new infections (0.05% of all new infections) in female partners of MSM. A better understanding of the size of the MSM population, and their sexual practices and sexual networks is important to obtain more reliable estimates of the contribution of MSM to Zambia's HIV incidence.

1.16 Testing and Counselling

In 2007, only 15 per cent of Zambians had been counselled, tested and received results (ZDHS, 2007). Over the years, the demand for HCT has increased in support of programmes such as VMMC, PMTCT, PEP, STI and blood safety. This demand can only be met through improved and intensified coverage coupled with an organised strategy of recruitment, training and retention of HIV counsellors and testers. Although the number of people tested and received their results has remained low in the country, there has been an expansion in HCT services. Owing to the expansion, the number of HCT sites increased from 56 in 2001 to 1,800 in 2012. The number of people tested and received their results increased by 351.3% among males and by 123.9% among females from 2008 to 2010. Under Round 8 of the Global Fund, the target was to test 1,803,891 by the end of 2012. This target was exceeded; the actual number tested was 2,138,961 giving an achievement of 119%. Current data show that 2,066,216 males and females were tested and received results by September 2013 (HMIS, 2013). This demonstrates both expansion and increased uptake.

1.17 Sexually Transmitted Infections

In the 2007 DHS, 4% of women and 5% of men age 15-49 in Zambia were found to have syphilis. Of all eligible respondents aged 15-49 who were tested for syphilis, 7% were found to be positive on the screening test (RPR) and 4% were found to be positive on both the screening test and the confirmatory test (TPHA). In the 2001-2002 DHS, 9% of respondents had tested positive for syphilis on the screening test and 7% tested positive on the confirmatory test. Although prevalence of syphilis declined between the 2001-02 and the 2007 surveys, the difference is not statistically significant.

The population testing positive on both syphilis tests rises rapidly with age, from a low of 1% in the 15-19 age group to a peak of 8% in the 30-34 age group, then falls to 3% in the 35-39 age group, and varies among older age groups (2007 DHS table 14.17). The pattern varied slightly for women

[19] Zambia National HIV/AIDS/STI/TB Council. 2009. *"Zambia HIV Prevention Response and Modes of Transmission Analysis".* Lusaka

and men, peaking in the 40-44 age group for men.

Syphilis prevalence is similar for women in urban and rural areas (3 and 4%, respectively), and is the same (5%) for men in urban and rural areas (2007 DHS table 14.18). Southern (9%), Western and North-Western Provinces (6%), and Lusaka (5%) had prevalence levels above the national average. The lowest syphilis prevalence was among respondents with more than secondary education.

Men reporting higher-risk sex22 have higher syphilis prevalence (8.1%) than men not reporting higher-risk sex (3.8%) (2007 DHS table 14.20). Syphilis prevalence was much higher among men who paid for sex (12.6%) than those who did not (4.2%). In women, syphilis prevalence was only 1.6% in those reporting higher-risk sex, but 4.9% in those women not reporting higher-risk sex.

Syphilis tests are also performed in ANC clients within the ANCSS surveys. In 2006, the mean site syphilis prevalence among pregnant women aged 15-39 was 5.5%, which is similar to population prevalence. Sites with syphilis prevalence of 10% or higher were Solwezi/Northwestern Province (10%), Kalabo/Western Province (11%) and Nchelenge/Luapula Province (15%). A positive syphilis test was associated with never having had a live birth, stillbirth in last pregnancy, and interval since last birth of less than one year. Similar to the trend in the adult population, syphilis prevalence shows a slight downward trend in ANC clients. The mean site prevalence among pregnant women aged 15-39 was 7% in 2002 and 5.5% in 2006.

Herpes Simplex Virus-2 (HSV-2), which causes genital herpes, is widely prevalent in Zambia. A cross-sectional population-based study in Ndola found that HSV-2 prevalence levels of 55% in women and 36% in men (Weiss *et al.*, 2001). HSV-2 prevalence rose rapidly in teenage girls and young men in their 20s. In multivariate analysis, being married, divorced or separated, as well as having had higher numbers of lifetime partners, were significantly associated with HSV-2 infection in women and men. In contrast, age at first sex and male circumcision status did not seem to be linked to HSV-2 status. HSV-2 positive individuals were over four times more likely to also be HIV positive (statistically significant in men and women). Sadoki & Reid (2004) found in high risk HIV negative women in George and Matero compounds in Lusaka that 56% were seropositive for HSV-2. Among HIV positive women, 73% were seropositive for genital herpes. Commonly observed presentations of HIV-2 in these women were vulvar vesicles, gluteal vesicles, pustules, and ulcers, and cervicitis with vesicles, pustules and ulcers.

Respondents with a history of STIs or STI symptoms had substantially higher levels of HIV infection than those with no history of STIs or STI symptoms. Women who had an STI or STI symptoms in the past 12 months were twice as likely to be HIV positive (34%) as women who did not have an STI or STI symptoms (17%). Similarly, men who reported having an STI or STI symptoms in the past 12 months (30%) were more than twice as likely to be HIV positive as men who did not report an STI or STI symptoms (13%).

Table 9: HIV prevalence by other characteristics – ZDHS 2007

Percentage HIV positive among women and men age 15-49 who ever had sex and were tested for HIV, by whether they had an STI in the past 12 months and by prior testing for HIV, Zambia 2007

Characteristic	Women		Men		Total	
	%age HIV +ve	Number	%age HIV +ve	Number	%age HIV +ve	Number
STI in past 12 months						
Had STI or STI symptoms	33.9	244	30.4	271	32.0	515
No STI, no symptoms	17.1	4,518	12.7	3,897	15.1	8,415
Don't know/missing	*	21	*	15	(7.6)	37
Prior HIV testing						
Ever tested	21.1	2,107	18.1	1,024	20.1	3,131
Received results	21.1	1,902	18.2	928	20.2	2,831
Did not receive results	21.0	205	16.9	96	19.7	301
Never tested	15.5	2,655	12.5	3,147	13.9	5,802
Missing	*	22	*	12	(0.8)	33
Total	17.9	4,783	13.8	4,183	16.0	8,967

An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

1.22 – 1.23 Male Circumcision

Male circumcision offers biological protection against HIV acquisition. The NASF promotes MC for all young boys and adults aged one year and above; and for neonates. A national VMMC Programme was piloted in Zambia in 2007 and formally launched in 2009. The national target as laid out in the "Country Operational Plan for the Scale-up of VMMC in Zambia" is to achieve 80% coverage of VMMC among HIV-negative adult men aged 15-49. In absolute numbers, this translates to 1,949,000 VMMCs by 2015. It is estimated that if this target is achieved a total of 339,632 new HIV infections will be averted.

In Zambia, few males are circumcised. According to the ZDHS 2007, only 13% of Zambian men aged 15-49 had been circumcised. Since then, VMMC services in the country have significantly increased. Although the current national scale-up plan focuses on targeting adults 15-49, the service is offered to all age groups and a significant percentage of clients are young people and adolescents below 15 years (40% of total VMMCs). As of September 2013, a total of 563,726 VMMC had been completed[20]. Of these, 60% were adult men aged 15-19. This implies that a total of 338,236 adult men have undergone VMMC, representing 17.4% of the 2015 target. Although there is still a long way to go, this is a significant increase over 2010. At the end of 2010, only 83,235 men had undergone VMMC and only 49,971 (60%) are estimated to have been adults within the target age range. Increased VMMC uptake is partially attributed to the increase in service delivery coverage and involvement of local leadership and political leaders in the VMMC campaign. The number of sites providing VMMC services increased from 135 in 2010 to 472 as of April 2013, with 20 sites offering neonatal MC in PMTCT centres.

HIV prevalence in circumcised men is slightly lower - the 13% of men who report being circumcised have a HIV prevalence of 10.8% and the group of uncircumcised men have an HIV prevalence of 12.5%.

Table 10: HIV prevalence by male circumcision status – ZDHS 2007

Among men age 15-49 who were tested for HIV, the percentage HIV positive by whether circumcised, Zambia 2007

Background characteristic	Circumcised		Not circumcised	
	%age HIV +ve	Number of men	%age HIV +ve	Number of men
Age				
15-19	0.0	111	4.0	1,052
20-24	4.2	114	5.3	751
25-29	17.6	96	10.6	700
30-34	15.1	97	17.4	690
35-39	18.8	99	23.1	509
40-44	12.3	56	26.0	354
45-49	10.7	45	19.9	268
Residence				
Urban	16.2	273	15.9	1,875
Rural	6.5	345	9.8	2,449
Province				
Central	(7.3)	28	12.9	431
Copperbelt	15.1	123	11.9	826
Eastern	*	20	9.3	634
Luapula	(9.9)	31	15.9	287
Lusaka	19.8	95	18.9	783
Northern	*	22	5.5	640
North-western	2.9	175	8.1	75
Southern	(8.6)	20	13.4	493
Western	10.6	105	16.1	155

Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

[20] Zambia National HIV/AIDS/STI/TB Council. 2013. *"Joint Mid-term Review of the National AIDS Strategic Framework 2011 – 2015".* Lusaka.

The following is a table showing the trends of selected indicators by survey and sex.

Table 11: Estimates of selected indicators by survey and sex – MOT 2009

Indicator	sex	1992	1996	2000	2001	2003	2005	2007
1) Ever had sex	Men	-	89.0 (87.3-90.8)	86.7 (84.9-88.4)	90.6 (89.2-91.9)	85.4 (83.5-87.2)	84.8 (83.1-86.6)	85.1 (83.8-86.3)
	Women	87.9 (86.9-88.9)	88.2 (87.4-89.1)	87.5 (85.8-89.3)	88.2 (87.1-89.2)	88.1 (86.7-89.5)	86.8 (85.0-88.6)	86.7 (85.4-87.9)
2) Ever had sex, ages 15-24	Men	-	77.1 (73.7-80.5)	64.5 (60.8-68.1)	75.8 (72.6-79.1)	63.9 (59.9-67.8)	61.4 (57.6-65.2)	62.3 (59.7-65.0)
	Women	75.3 (73.4-77.1)	75.7 (74.1-77.3)	73.9 (70.5-77.3)	74.9 (73.0-76.9)	74.0 (71.0-77.0)	70.2 (66.2-74.1)	68.9 (66.2-71.5)
3) Had sex in last year	Men	-	89.9 (88.2-91.6)	86.8 (85.1-88.6)	89.1 (87.4-90.9)	84.5 (82.4-86.6)	88.8 (87.1-90.5)	87.4 (86.2-88.7)
	Women	92.1 (91.3-92.9)	86.8 (85.9-87.6)	82.6 (80.1-85.1)	83.4 (82.4-84.5)	81.8 (79.6-84.0)	83.5 (81.4-85.6)	85.7 (84.6-86.8)
4) First sex before age 15	Men	-	29.6 (27.2-32.0)	14.8 (13.2-16.5)	19.3 (17.3-21.4)	15.4 (13.8-16.9)	9.6 (8.0-11.2)	13.2 (12.2-14.2)
	Women	-	24.0 (22.9-25.1)	14.0 (12.1-15.9)	19.7 (18.6-20.8)	14.5 (12.8-16.1)	12.6 (10.8-14.4)	15.4 (14.3-16.5)
5) Pre-marital sex last year	Men	-	57.2 (52.6-61.6)	35.3 (31.1-39.5)	51.7 (47.5-55.9)	33.8 (29.1-38.5)	34.5 (30.4-38.7)	37.6 (34.7-40.4)
	Women	-	36.4 (33.9-39.0)	26.1 (22.1-30.0)	31.5 (29.1-33.8)	28.6 (24.2-32.9)	25.4 (20.7-30.2)	28.8 (26.1-31.4)
6) Had a non-cohabiting partner in last year	Men	-	49.6 (46.7-52.4)	28.9 (25.9-32.0)	42.4 (39.6-45.1)	29.3 (26.7-31.9)	27.3 (24.4-30.3)	35.0 (33.2-36.8)
	Women	-	23.5 (22.1-24.9)	15.6 (12.8-18.4)	17.6 (16.2-19.0)	15.8 (13.5-18.2)	15.6 (13.3-17.9)	16.9 (15.6-18.2)
7) Sex with more than 1 partner in last year	Men	-	29.0 (26.4-31.6)	16.6 (14.5-18.7)	20.7 (18.8-22.7)	12.8 (11.1-14.5)	13.7 (11.8-15.5)	14.2 (13.0-15.3)
	Women	-	3.6 (3.1- 4.0)	2.1 (1.4- 2.7)	2.1 (1.7- 2.5)	2.1 (1.5- 2.8)	2.5 (1.8- 3.2)	1.2 (0.9- 1.5)
8) Mean number of partners in last year	Men	-	1.5 (1.3-1.6)	1.0 (0.9-1.1)	1.2 (1.1-1.4)	0.87 (0.83-0.9)	0.97 (0.91-1.02)	0.94 (0.91-0.97)
	Women	-	0.8 (0.79-0.83)	0.74 (0.71-0.78)	0.79 (0.75-0.83)	0.74 (0.72-0.77)	0.76 (0.73-0.79)	0.76 (0.74-0.77)
9) Mean number of lifetime partners	Men	-	-	-	-	-	4.62 (4.28-4.97)	5.08 (4.79-5.36)
	Women	-	-	-	-	-	1.85 (1.73-1.98)	1.72 (1.66-1.77)
10) Extra-marital sex in last year	Men	-	19.2 (16.6-21.9)	11.6 (9.4-13.8)	20.0 (17.5-22.4)	8.6 (6.7-10.5)	8.3 (6.5-10.1)	13.3 (12.0-14.5)
	Women	-	1.5 (1.1- 1.9)	1.7 (0.8- 2.6)	1.8 (1.4- 2.3)	1.5 (0.9- 2.2)	2.4 (1.4- 3.4)	0.7 (0.4- 1.0)
11) Condom used at most recent marital sex	Men	-	7.9 (5.9- 9.9)	6.3 (4.7- 7.9)	9.5 (7.7-11.3)	8.1 (6.3- 9.9)	6.5 (5.1- 8.0)	12.8 (11.4-14.2)
	Women	-	5.0 (4.3- 5.8)	4.5 (3.1- 5.8)	7.6 (6.6- 8.6)	7.4 (6.0- 8.9)	4.6 (3.5- 5.8)	6.8 (6.0- 7.7)
12) Had non-cohabiting partner in last year & no condom used on the most recent occasion	Men	-	23.6 (21.5-25.7)	13.3 (11.3-15.3)	19.4 (17.4-21.3)	12.4 (10.7-14.2)	12.6 (10.6-14.5)	13.1 (12.0-14.1)
	Women	-	14.5 (13.5-15.4)	7.6 (6.0- 9.1)	8.7 (7.9- 9.4)	7.5 (6.3- 8.7)	8.0 (6.5- 9.4)	7.9 (7.2- 8.5)
13) Condom used at most recent sex with non-cohabiting partner	Men	-	40.5 (36.9-44.0)	39.1 (33.7-44.6)	43.6 (39.3-47.9)	41.6 (36.6-46.6)	39.0 (33.5-44.5)	49.8 (47.0-52.7)
	Women	-	19.8 (17.4-22.3)	33.0 (25.5-40.5)	33.3 (29.8-36.8)	34.6 (28.3-40.9)	29.3 (22.5-36.2)	37.4 (33.8-41.1)
14) Sex with >1 partner in the last year and did not use a condom at most recent sex	Men	-	21.0 (18.9-23.2)	14.0 (12.0-16.1)	15.4 (13.8-17.0)	10.2 (8.7-11.8)	11.1 (9.4-12.8)	10.3 (9.3-11.3)
	Women	-	2.9 (2.5- 3.3)	2.0 (1.3- 2.6)	1.6 (1.3- 1.9)	1.6 (1.0- 2.2)	1.9 (1.2- 2.6)	0.8 (0.6- 1.0)
15) Condom used at last sex with extra-marital partner	Men	-	47.3 (40.0-54.6)	39.4 (30.5-48.4)	44.6 (38.1-51.0)	46.9 (37.2-56.6)	47.4 (37.0-57.9)	55.8 (50.8-60.7)
	Women	-	35.9 (25.7-46.1)	16.7 (1.5-31.9)	30.4 (18.7-42.1)	30.0 (8.4-51.6)	13.3 (-0.6-27.2)	42.2 (17.8-66.7)

Target 2: Reduce transmission of HIV among people who inject drugs by 50% by 2015

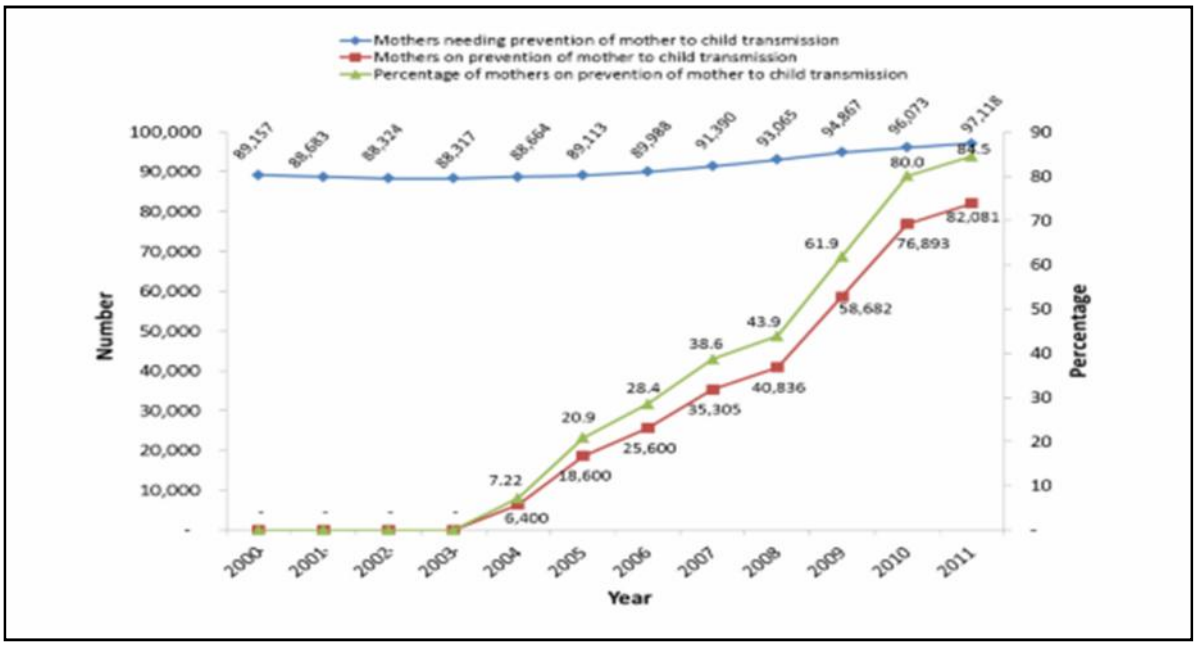
There are no indications that this is an important route of HIV transmission in Zambia. There is no verified data in Zambia about the transmission of HIV via this route.

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

3.1 Prevention of Mother-to-Child-Transmission

The transmission of HIV from an HIV positive mother to her child during pregnancy, delivery or breastfeeding is one of the key drivers of the HIV epidemic in Zambia. Reducing the number of women newly infected with HIV can reduce HIV exposure to their children. Women acquiring HIV infection (15-49 years old) reduced from 25,000 in 2011 to 22,000 in 2012. The estimated number of pregnant women in 2012 was 723,436. Of these, 688,060 (94%) attended ANC services at least once and were tested for HIV. The number of women living with HIV who delivered in 2012 was 81,727 out of which 76,963 received efficacious ARVs for PMTCT. 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 pregnant women on a triple or dual prophylaxis in 2011 compared to 9,178 on a single prophylaxis, translating to 11.4 per cent of women still on a single prophylaxis. About 89% of eligible pregnant women are receiving HIV treatment for their own health. However, 5 in 10 women or their infants did not receive antiretroviral medicines during breastfeeding to prevent mother to child transmission. HCT has been critical in the achievement of these rates. There was also an improvement in the percentage of male partners of pregnant women that were tested for HIV from 4.2 per cent in 2008 to 32.2% in 2011. However, in some facilities there are insufficient client spaces to accommodate men who accompany their pregnant partners. High levels of coverage of antiretroviral medicines have halved the rates of HIV transmission from mother to child, and they can be cut further by providing antiretroviral medicines during the breastfeeding period. Coverage increased from 53% in 2009 to 95 per cent in 2012.

Figure 25: Women needing and accessing PMTCT by year



Source: GARPR Zambia Country Report 2012

The number of new HIV infections among children has been declining in the country. New HIV infections among children (0-14 years old) declined from 19,000 in 2009 to 11,000 in 2011 and to 9,500 in 2012. HIV transmission rate from mother to child, including during breastfeeding declined from 24% in 2009 to 12% in 2012. This represented a 51% decrease in the number of new HIV infections among children between 2009 and 2012. In 2012, 47% (48,188) of infants received early infant diagnosis (EID) by eight weeks. The percentage of infants tested for HIV at two months of age increased from 21% in 2010 to 57% in 2012. The percentage of eligible children (0-14 years old) receiving antiretroviral therapy increased from 23% in 2009 to 38% in 2012.

Key indicators for the access of PMTCT services are shown in Table 13.

Table 12: Key indicators for the universal access of PMTCT of HIV in 2008, 2010 and 2011

	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

Source: UNGASS, 2011 Zambia Country Report

(b) Treatment, Care and Support

Target 4: Have 15 million people living with HIV on antiretroviral treatment by 2015

More people living with HIV (PLHIV) are living longer given the successful implementation of the antiretroviral therapy (ART) programme. Zambia is seeing the benefits of the rapid scaling-up of PMTCT and access to ART, safe blood supply, and behaviour change communication that appears to be showing results in some groups, notably more educated men and women in urban areas, and young women attending antenatal care. The peak number of annual AIDS-related deaths among adults was in 2003 with 66,272 deaths. In recent years, AIDS-related mortality has dropped with increasing access to ART (219,576 adults and children with advanced HIV infection were receiving ART by end 2008). Estimated AIDS-related mortality in children under 14 years peaked in 2003 (14,681 deaths) and decreased to about half (7,282 deaths estimated for 2009). This decline is a combination of lower fertility, the PMTCT programme and Paediatric ART[21].

To ensure that more PLHIV access treatment, care and support, the NASF 2011 - 2015 is aimed at:

- Intensifying Provider Initiated Counselling and Testing (PICT).
- Improving the referral system and training service providers to maximize use of the referral system to ensure that people who test positive are able to access facility and community-based treatment, care and support services.
- Ensuring that Pre-ART services include among others screening and treatment of OIs, provision of prophylaxis, treatment literacy, counselling, and nutrition and consistent monitoring of viral load.
- Accelerating the implementation of the "Three Is" strategy" of intensified case finding (ICF), provision of Isoniazid Preventative Therapy (IPT), and TB Infection Control (IC).
- Strengthening Community and home based care (CHBC) and integrate palliative care into CHBC.

In 2012, a total of 564 health facilities were dispensing ARVs in Zambia, which is an increase from 509 in 2011 (HMIS, 2013), and which is higher than 2013 and 2015 targets of 400 and 500, respectively.

According to the 2012 annual antiretroviral drugs forecasting and quantification based on the 2010 WHO guidelines, the estimated number of adults needing treatment is 535,760 for 2013, 639,232 for 2014 and 731,546 for 2015 (HMIS, 2013). However, by fourth quarter of 2013, out of 541,560 adults eligible for ART, 503,420 (92%) accessed the lifesaving drugs. 88,881 were newly initiated in 2012 and 81% of adults and children with HIV were known to be alive 12 months after initiating antiretroviral therapy (PEPFAR). No data was available for the number of adults and children receiving Cotrimoxazole (CTX).

The proportion of infants born from HIV positive mothers and tested for HIV by two months of age increased to 57% in 2012 from 21% in 2010 (NAC, 2013). Zambia had increased the number of children and younger adolescents (<15 years) on ART from 18,040 in 2008 to 34,084 in 2012 yet this only represents 34% of children and adolescents (<15years) in need of treatment. About 36.8 % of infants born to HIV-infected women started Cotrimoxazole prophylaxis within two months of birth in 2011. Overall, an estimated 86% reduction in mortality rate due to AIDS among children (<15 years) was noted between 1997 and 2011.

The following tables and figures showcase the results of the ART programme in Zambia.

[21] Zambia National HIV/AIDS/STI/TB Council. 2013. *"Joint Mid-term Review of the National AIDS Strategic Framework 2011 – 2015".* Lusaka.

Table 13: Number and percentage coverage of the population by age group and sex that were on ART 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

Figure 26: Adults and children with HIV still alive and known to be on treatment 12 months after initiation of antiretroviral therapy in 2010 and 2011

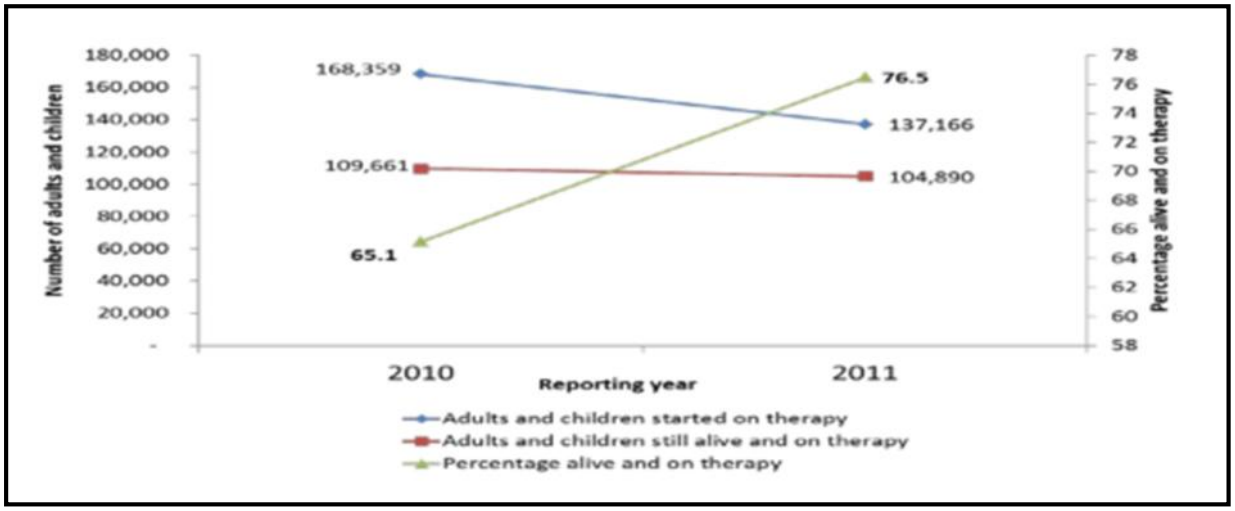


Figure 27: Adults and children with HIV still alive and known to be on treatment 24 months after initiation of antiretroviral therapy

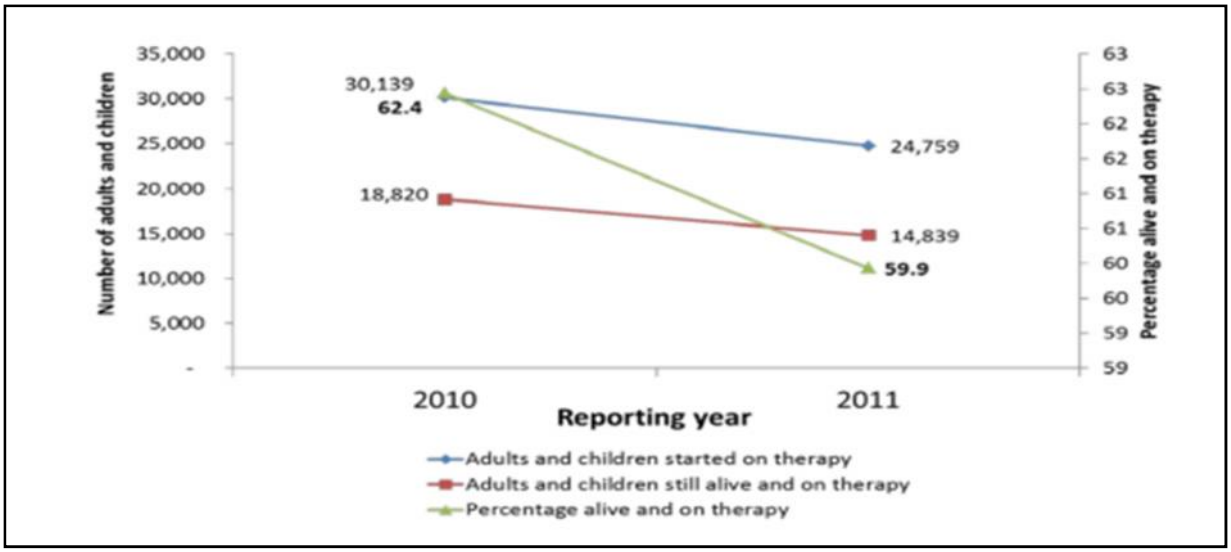


Figure 28: Adults and children with HIV still alive and known to be on treatment 60 months after initiation of antiretroviral therapy

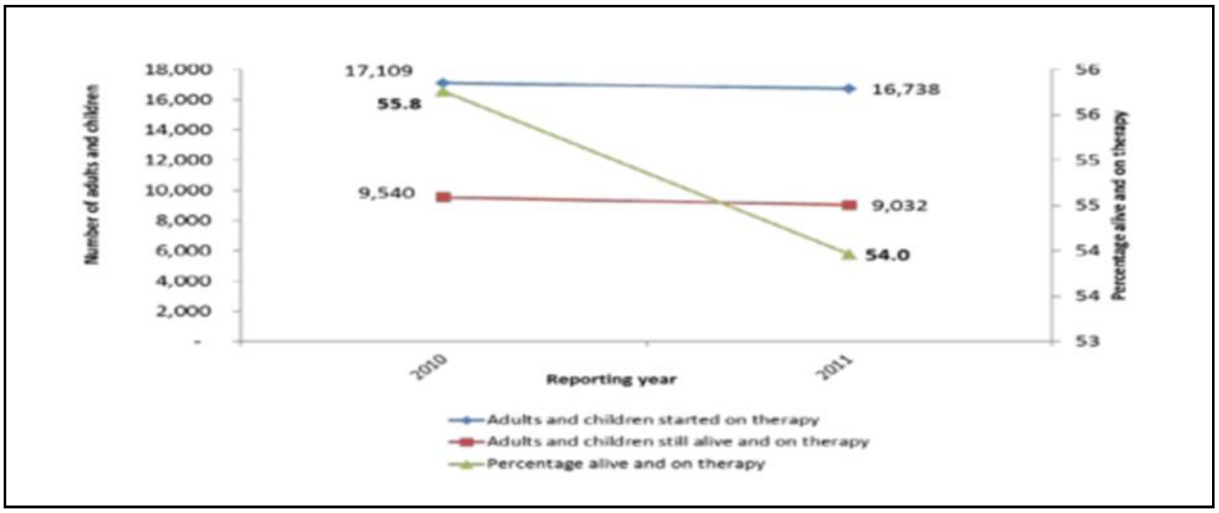


Figure 29: Percentage of eligible adults receiving ART in 2011 and 2013

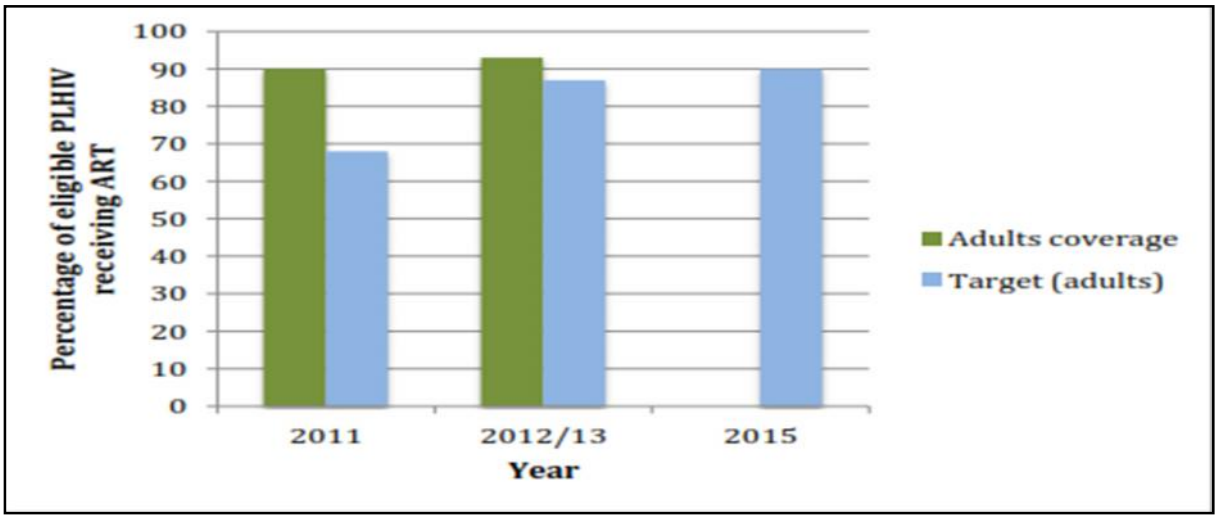
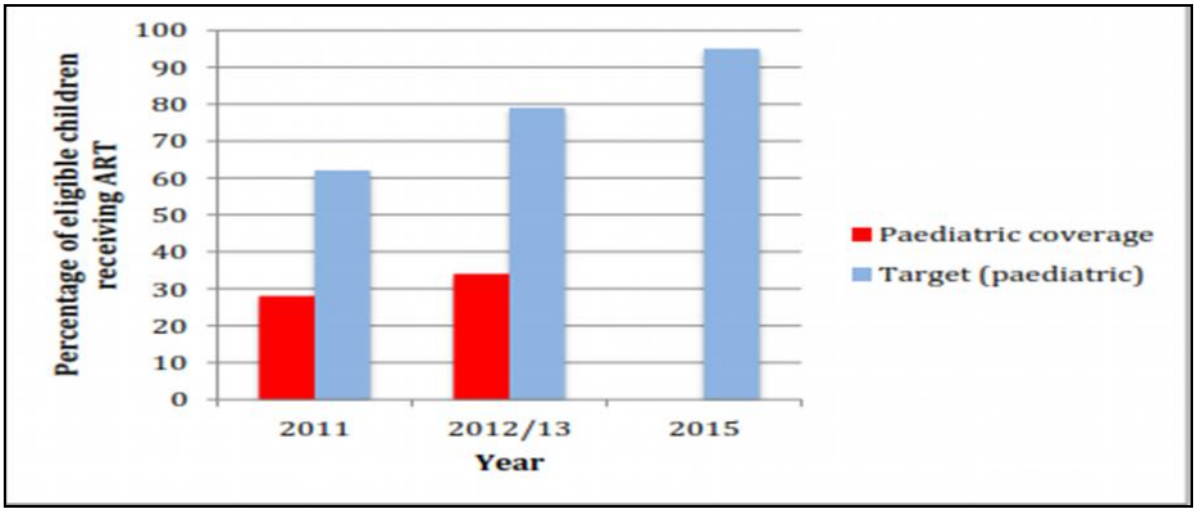


Figure 30: Percentage of eligible children receiving ART in 2011 and 2013

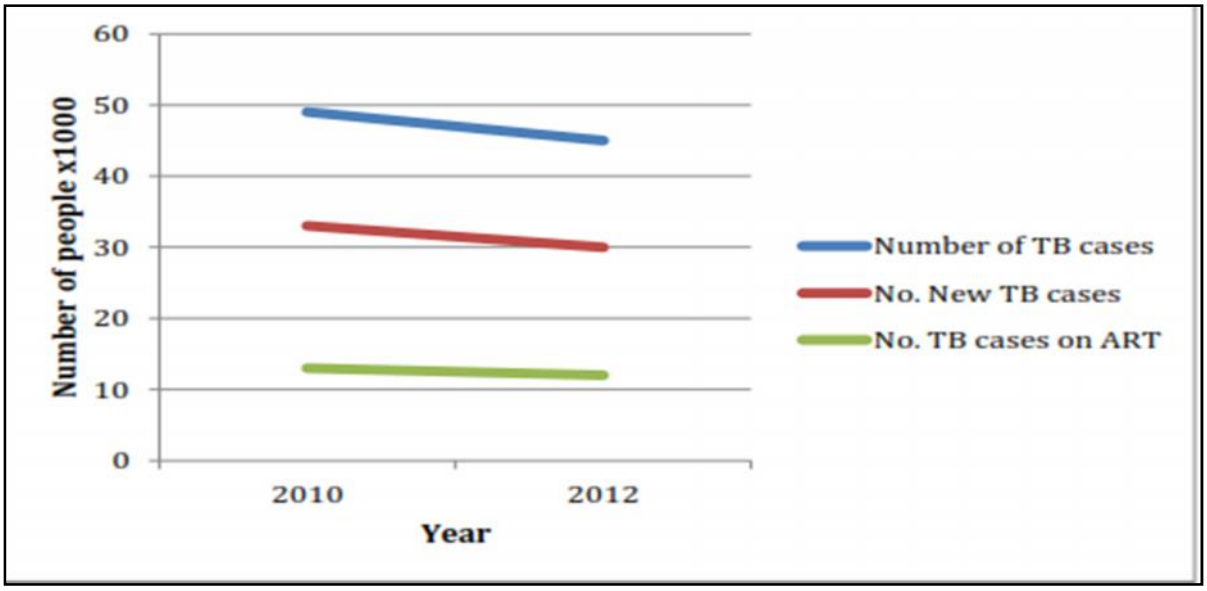


Target 5: Reduce tuberculosis deaths in people living with HIV by 50% by 2015

Zambia has made significant progress in addressing Tuberculosis (TB). A review of the National TB Program (NTP) in 2010 revealed that Zambia had a treatment success rate of 86% surpassing the WHO target of 85%. Zambia was the first country in the region to achieve the target. The report further revealed that there was universal coverage of TB DOTS services in all provinces and the introduction of fixed dose combination drugs had led to a reduction in the number of defaulters and the number of TB cases had been declining since 2005 (MOH, 2011). Despite the progress in addressing TB, it is still the leading cause of death in PLHIV. Lack of comprehensive data on treatment of the TB/HIV co-infections makes it difficult to evaluate the performance of this indicator in the NASF. Specifically, it is difficult to compare the treatment coverage for TB/HIV co-infected individuals with the NASF 2011-2015 targets because of the lack of information on the appropriate denominator.

Indications are, however, that the total number of TB cases and reporting of new cases had been reducing on an annual basis. The total number of TB cases had reduced from 48,616 in 2010 to 45,269 in 2012. 29,695 new cases were reported in 2012 compared to 33,051 in 2010. In addition, available data on the number of HIV-positive TB patients on ART shows a decline from 13,000 in 2011 to 12,000 in 2012. This drop in notifications could be due to successful TB interventions and increase in access to ART. It could also be the result of poor case finding and recording, as there has been no national research done to explain the decline. There is an opportunity to address this gap. The Ministry of Health is undertaking a national TB prevalence survey to provide data to further inform the national TB response.

Figure 31: Change in number of TB cases in 2010 and 2012



The available data shows that the proportion of HIV positive TB cases that received treatment for both HIV and TB was 41% at the end of 2012, short of the 2013 target of 60%.

Target 6: Reach a significant level of annual global expenditure (US$22-24 billion) in low and middle income countries

The main sources of funds for HIV and AIDS in Zambia are Government (local revenues), multilateral agencies such as the GFATM and UN, PEPFAR and other bilateral agencies, international NGOs, and private sector spending from local businesses, households and individuals. Expenditures on HIV and AIDS are estimated through the National Health Accounts (NHA) and The National AIDS Spending Assessment (NASA). The most recent NASA conducted in Zambia was completed in 2014, and covered the year 2012. The previous assessment covered the years 2005 and 2006.

The table below demonstrates that the national response is primarily funded by donors, with the vast majority of funds coming from external sources.

Table 14: Sources of funds for actual expenditure – NASA

Source	2005 USD	% of total	2006 USD	% of total	2012 USD	% of total
PEPFAR	41,778,767	29%	101,364,173	48%	236,475,097	84%
Other Bilateral	23,254,378	17%	14,243,529	7%	3,387,598	1%
Multilateral	64,298,363	46%	53,591,496	26%	13,614,736	5%
Other international	5,485,943	4%	9,625,639	5%	9,828,537	3%
Public	5,749,195	4%	29,084,407	14%	15,829,478	6%
Private					3,083,180	1%
Total	**140,566,646**	**100%**	**207,909,244**	**100%**	**282,218,626**	**100%**

Total spending on HIV and AIDS has increased from USD 140,566,646 in 2005 to USD 282,218,626 in 2012 as can be seen from above.

The Government allocation for HIV has increased from USD 6 million in 2011 to USD 10 million in 2012 and USD 38.4 million in 2013[22]. According to Yellow Book estimates, in fiscal year 2011/12, the Government spent USD 12.6 million on HIV programmes, an increase from USD 6.5 million in 2010/2011. In 2012/2013, Government funding rose to USD 38.4 million, and this is estimated to increase steadily every year.31. About 90% of the Government allocation is for ARVs.

Out of a resource envelope of USD 245,866,254 in 2011/2012, the domestic budget was USD 12,631,671 accounting for 4% of the total budget. For 2012/2013, the domestic allocation of USD 38,481,571 out of a total envelope of USD 267,955,536 accounted for 10%. The health budget for 2013 was 12% of the national budget representing a slight increase from 11% in 2012 and 10.5% in 2010. A conservative estimate places the annual Government contribution to HIV to increase by 3% from 2014 to 2015.

The Government of Zambia has been exploring options for increasing domestic financing. In April 2011, a report on "Sustainable Financing for AIDS in Zambia" was done. The report explored how the Government could approach long term financing for AIDS up to 2020. Alternative financing options presented in the report included private sector contributions, public sector mainstreaming, general taxation, borrowing and social health insurance. Discussions on alternative funding mechanisms are ongoing. Over the last three years, much work went into a feasibility study and subsequent design of a National HIV Trust Fund. However, current discussions are leaning towards the establishment of a Social Health Insurance Scheme that would cover broader health issues and integrate HIV into a general National Health Fund. The modalities for the Health Fund are yet to be defined.

[22] Zambia National HIV/AIDS/STI/TB Council. 2013. "*2011 United Nations General Assembly Political Declaration on HIV and AIDS Mid-term Review of the 10 Targets and Elimination Commitments Zambia Report*".

Target 7: Eliminating gender inequalities

Gender-based discrimination means that girls and women do not have the same opportunities as boys and men for education, meaningful careers, political influence, and economic advancement. Many other aspects of daily life can be affected by gender-based discrimination, such as access to health care, and decision power at family and community level.

Sub-Saharan Africa is the only region in the world where more women are HIV positive than men, highlighting the vast gender disparities of the epidemic. There are important differences between women and men in the underlying mechanisms of HIV infection and in the social and economic consequences of HIV and AIDS.

These originate from biological and socially constructed gender differences between women and men. Patriarchal societies such as Zambia that socialise men to be dominant and women submissive create enormous power imbalances within a relationship. This inequality influences, among many other things, the extent to which a woman is able to negotiate safe sexual practices with her partner. Fox *et al.* (2007) showed that even when women were aware of HIV prevention, they identified unsafe sexual behaviour of their partners (i.e. multiple partners and minimal condom use) as a risk factor for HIV over which they had limited control.

Zambia's population comprises more than 70 Bantu-speaking ethnic groups of both matrilineal and patrilineal systems of descent. In areas where social structure is traditionally polygamous, and in the patrilineal and partrilocal systems, values and norms have been developed to uphold men's privileges and constrain women's autonomy.

The prevailing gender attitudes and status of Zambian women can be illustrated with the following local data:

- In the CIET baseline survey (analysed by Andersson *et al.*, 2007), 34% of Zambian women and 38% of Zambian men said that in their culture it is acceptable for a man to beat his wife.

- In the 2007 DHS, it was found that among currently married women, the degree of sole decision-making ranged from 14% in decisions on major household purchases to 60% for daily household purchases. In 44% of cases, the husband mainly decided large household purchases, and in 34% of cases, the husband mainly decided on the spouse's health care. More educated women and those with cash incomes had much higher levels of participation in decision making within the couple.

The following tables illustrate attitudes towards women's empowerment and equality based on the ZDHS 2007 findings:

Table 15: Women's control over their own earnings and those of their husband – ZDHS 2007

Percent distributions of currently married women age 15-49 with cash earnings in the past 12 months by person who decides how the woman's cash earnings are used and of currently married women age 15-49 whose husbands have cash earnings by person who decides how the husband's cash earnings are used, according to the relation between woman's and husband's cash earnings, Zambia 2007

	Person who decides how the wife's cash earnings are used:							Person who decides how husband's cash earnings are used:						
Women's earnings relative to husband's earnings	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number of women	Mainly wife	Husband and wife jointly	Mainly husband	Other	Missing	Total	Number of women
More than husband/partner	44.7	39.1	15.8	0.3	0.0	100.0	231	26.6	42.7	29.9	0.8	0.0	100.0	230
Less than husband/partner	39.4	38.7	21.6	0.2	0.0	100.0	1,195	13.7	51.9	33.9	0.4	0.0	100.0	1,195
Same as husband partner	18.8	57.1	24.1	0.0	0.0	100.0	216	7.9	64.1	27.6	0.4	0.0	100.0	216
Husband/partner has no cash earnings/did not work	45.9	42.0	12.1	0.0	0.0	100.0	65	na	na	na	na	na	na	0
Woman has no cash earnings	na	na	na	na	na	na	0	8.5	36.0	54.8	0.3	0.4	100.0	861
Woman did not work in past 12 months	na	na	na	na	na	na	0	12.1	43.7	43.4	0.4	0.4	100.0	1,688
Don't know/missing	(38.7)	(11.1)	(21.0)	(0.0)	(29.2)	100.0	25	*	*	*	*	*	100.0	24
Total	37.8	40.8	20.8	0.2	0.4	100.0	1,732	12.5	45.4	41.4	0.4	0.3	100.0	4,215

Note: An asterisk indicates that an estimate is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

Table 16: Women's participation in decision-making according to women

Percent distribution of currently married women age 15-49 by person who usually makes decisions about four kinds of issues, Zambia 2007

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Missing	Total	Number of women
Own health care	31.7	33.0	34.0	0.8	0.2	0.2	100.0	4,402
Major household purchases	13.7	41.8	43.7	0.4	0.2	0.2	100.0	4,402
Purchases of daily household needs	60.3	19.0	20.1	0.3	0.1	0.2	100.0	4,402
Visits to her family or relatives	22.8	43.5	33.2	0.1	0.3	0.2	100.0	4,402

Table 17: Women's participation in decision-making according to men

Percent distribution of currently married men age 15-49 by person they think should have a greater say in making decisions about five kinds of issues, Zambia 2007

Decision	Wife	Wife and husband equally	Husband	Don't know/ depends	Missing	Total	Number of men
Major household purchases	4.0	43.5	52.2	0.0	0.3	100.0	3,168
Purchases of daily household needs	66.4	15.9	17.5	0.0	0.3	100.0	3,168
Visits to wife's family or relatives	7.5	38.3	53.7	0.3	0.3	100.0	3,168
What to do with the money wife earns	26.8	34.8	37.2	0.9	0.3	100.0	3,168
How many children to have	3.1	49.3	46.4	0.9	0.3	100.0	3,168

Table 18: Attitudes towards wife-beating (women) – ZDHS 2007

Percentage of all women age 15–49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Zambia 2007

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number of women
Age							
15-19	31.4	43.2	40.6	42.8	25.9	61.4	1,574
20-24	34.9	45.7	45.4	45.5	39.3	65.0	1,370
25-29	32.2	42.6	43.3	41.5	37.9	61.6	1,363
30-34	34.8	43.3	41.9	43.8	41.2	63.4	1,056
35-39	32.9	41.5	39.0	39.9	40.3	58.7	747
40-44	31.7	42.8	41.2	40.3	38.0	60.9	561
45-49	31.8	38.7	42.8	40.9	38.6	58.7	475
Employment (past 12 months)							
Not employed	32.8	43.8	41.3	42.6	35.1	63.1	3,250
Employed for cash	32.3	43.1	41.4	40.5	36.9	59.5	2,591
Employed not for cash	34.8	41.4	46.6	46.7	38.3	64.1	1,299
Marital status							
Never married	28.1	39.2	35.5	39.2	24.0	57.0	1,856
Married or living together	34.8	44.2	45.1	44.0	40.5	63.9	4,402
Divorced/separated/widowed	33.5	45.5	42.2	42.7	41.5	62.2	888
Number of living children							
0	28.4	40.0	35.5	38.7	25.7	57.0	1,855
1-2	34.2	44.7	44.6	43.4	37.8	63.1	2,150
3-4	34.1	43.6	45.6	43.9	40.8	63.8	1,642
5+	35.6	44.0	43.6	44.8	42.4	64.3	1,499
Residence							
Urban	26.7	40.9	33.4	35.5	29.8	55.7	3,009
Rural	37.5	44.7	48.7	47.7	41.0	66.4	4,137
Province							
Central	35.3	49.7	61.1	57.8	44.4	71.7	659
Copperbelt	37.9	59.8	47.1	43.0	41.7	70.6	1,264
Eastern	20.9	16.4	22.1	20.9	23.0	44.1	971
Luapula	54.0	68.9	70.6	68.1	57.7	84.6	530
Lusaka	14.0	24.1	14.6	23.3	18.1	39.9	1,172
Northern	51.8	64.8	59.8	60.8	49.0	79.9	966
North-Western	31.2	35.3	34.4	36.3	35.2	51.4	365
Southern	35.9	40.9	47.1	48.6	37.5	65.4	727
Western	22.6	27.6	43.8	42.6	32.8	57.0	492
Education							
No education	36.3	38.6	41.8	42.2	41.3	61.6	744
Primary	38.4	48.0	48.4	47.4	42.7	68.3	3,891
Secondary	26.6	41.2	37.4	39.2	28.1	57.7	2,140
More than secondary	5.8	11.1	7.1	11.9	6.7	20.5	371
Wealth quintile							
Lowest	33.9	39.1	46.1	43.5	38.0	64.7	1,240
Second	38.8	48.0	50.2	48.9	44.8	67.6	1,283
Middle	43.3	50.8	53.0	52.6	43.7	70.6	1,280
Fourth	34.4	46.9	43.0	44.0	36.6	64.9	1,567
Highest	19.3	33.4	25.4	28.8	23.5	47.0	1,776
Total	32.9	43.1	42.3	42.6	36.3	61.9	7,146

Note: Total includes 6 women with information missing on employment status.

Table 19: Attitudes towards wife-beating (men) – ZDHS 2007

Percentage of all men age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Zambia 2007

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number of men
Age							
15-19	18.8	33.6	35.0	38.6	19.7	54.8	1,416
20-24	15.5	32.1	33.8	36.1	18.1	51.6	1,066
25-29	15.6	30.4	32.4	34.7	17.9	51.7	977
30-34	12.9	29.5	31.8	31.9	16.5	46.7	954
35-39	9.9	25.1	30.1	27.2	14.6	43.1	717
40-44	9.7	22.4	30.6	29.7	14.6	42.9	475
45-49	12.8	24.7	26.9	28.5	18.8	43.3	390
Employment (past 12 months)							
Not employed	15.3	24.9	28.4	31.0	15.0	45.7	1,214
Employed for cash	13.0	27.9	31.0	32.0	16.7	47.2	3,357
Employed not for cash	17.9	38.3	39.4	40.3	21.7	57.8	1,414
Marital status							
Never married	16.9	31.3	33.1	36.0	18.4	52.3	2,553
Married or living together	12.3	28.2	31.5	31.5	16.4	46.5	3,168
Divorced/separated/widowed	19.0	32.5	36.6	38.3	22.5	55.1	274
Number of living children							
0	16.6	31.4	33.0	35.7	18.1	52.0	2,697
1-2	12.6	29.0	31.0	31.1	17.1	48.0	1,235
3-4	13.9	27.4	31.9	32.9	16.1	45.8	1,085
5+	12.3	28.5	33.0	32.5	18.2	47.8	978
Residence							
Urban	10.0	25.1	25.6	27.4	11.4	42.7	2,601
Rural	18.1	33.2	37.6	38.5	22.3	54.4	3,395
Province							
Central	14.6	39.7	45.3	46.2	22.6	63.2	559
Copperbelt	10.9	31.4	27.7	28.5	11.2	46.3	1,140
Eastern	7.8	14.5	15.2	17.1	13.8	30.4	795
Luapula	18.5	43.8	45.8	44.4	25.3	64.3	387
Lusaka	8.7	18.7	22.3	25.4	11.5	38.6	1,072
Northern	26.7	40.9	45.0	44.9	27.2	62.7	805
North-Western	17.8	34.0	35.5	34.4	23.5	49.4	303
Southern	24.8	39.3	45.9	49.6	23.0	65.4	621
Western	5.9	12.1	26.0	26.8	10.4	36.2	315
Education							
No education	11.5	22.9	30.0	28.4	18.6	43.4	267
Primary	19.0	35.9	38.6	39.6	23.3	56.5	2,775
Secondary	12.2	27.5	29.9	31.6	13.8	47.5	2,512
More than secondary	2.0	7.1	9.1	11.7	2.4	19.0	441
Wealth quintile							
Lowest	16.0	29.7	32.9	34.8	22.6	49.2	1,114
Second	20.0	34.8	40.9	41.6	23.5	57.2	869
Middle	22.0	39.5	43.1	42.4	24.4	60.3	1,097
Fourth	13.2	31.2	32.5	34.5	16.0	52.4	1,381
Highest	6.4	18.5	19.5	21.4	7.0	34.4	1,534
Total 15-49	14.6	29.7	32.4	33.7	17.5	49.3	5,995
Men 50-59	8.1	19.9	20.5	20.9	14.4	34.9	505
Total men 15-59	14.1	28.9	31.5	32.7	17.3	48.2	6,500

Note: Total includes 9 men with information missing on employment status.

With regard to the laws to reduce violence against women, the 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 in conjunction 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 ore 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.

Target 8: Eliminating stigma and discrimination

Stigma reduction programmes are a major critical enabler, as are programmes that mobilize communities to know their rights and relevant laws in the context of HIV and to use these to make HIV-specific demands for prevention and treatment. Programmes to train health care workers in non-discrimination, informed consent, duty to treat and confidentiality and to help them protect themselves from HIV also critically enable the basic programmes these health care workers are delivering. Health care services that are client-friendly, accepting and supportive, rather than judgmental and coercive, are more efficient. Service providers need not be judgmental but rather supportive to such populations by ensuring that all PLHIV have access to treatment, care and support, regardless of their social status, if universal access is to be achieved.

Target 9: Eliminating travel restrictions

No reporting needed.

(c) Impact Mitigation

The interventions in this pillar of the NASF have focused on strengthening the capacity of vulnerable households and individuals to cope with the socio-economic impacts of HIV and AIDS. The array of interventions envisaged included micro-credit schemes, backyard and community gardens, small livestock and poultry initiatives, training in various business aspects (marketing, project and financial management). The interventions were executed within the context of a broader social protection framework (implementation of sustainable livelihoods, improving household food security, strengthening systems that provide social security, and reducing household risks and vulnerability). People living with HIV (PLHIV), orphans and vulnerable children, people with disabilities, and care givers were recognized as the key vulnerable groups.

The findings of the JMTR 2013 were that out of the 7 impact mitigation outputs, 42.8 % (3/7) had been achieved, which shows that the impact mitigation progress against the targets can thus be considered relatively successful.

Target 10: Strengthening HIV integration

The multi-sectoral approach of the NASF programme, through formation of District AIDS Task Force (DATF) in districts countrywide has provided successful achievements in mobilizing substantial number of community based organizations (CBOs) and other NGOs to respond to the needs of orphans and vulnerable children (OVC) and vulnerable households by providing services. The following are some of the main successful achievements observed:

Provision of Education support for OVC

There are some Community Based Organizations (CBOs) and international NGOs that have shown persistent commitment to provide education support for OVC who are working alongside with the Government sectors, demonstrating the invaluable response to OVC education support in the country. The coverage of education support was expanding for few prominent NGOs, such as the Camfed, CHAZ, FAWEZA and World vision. The main success has been through their contribution for the provision of bursaries to orphans in schools. However, challenges in the increase of orphans in some provinces to meet their basic needs have remained problematic in districts, even though there is evidence that numbers of orphans have declined.

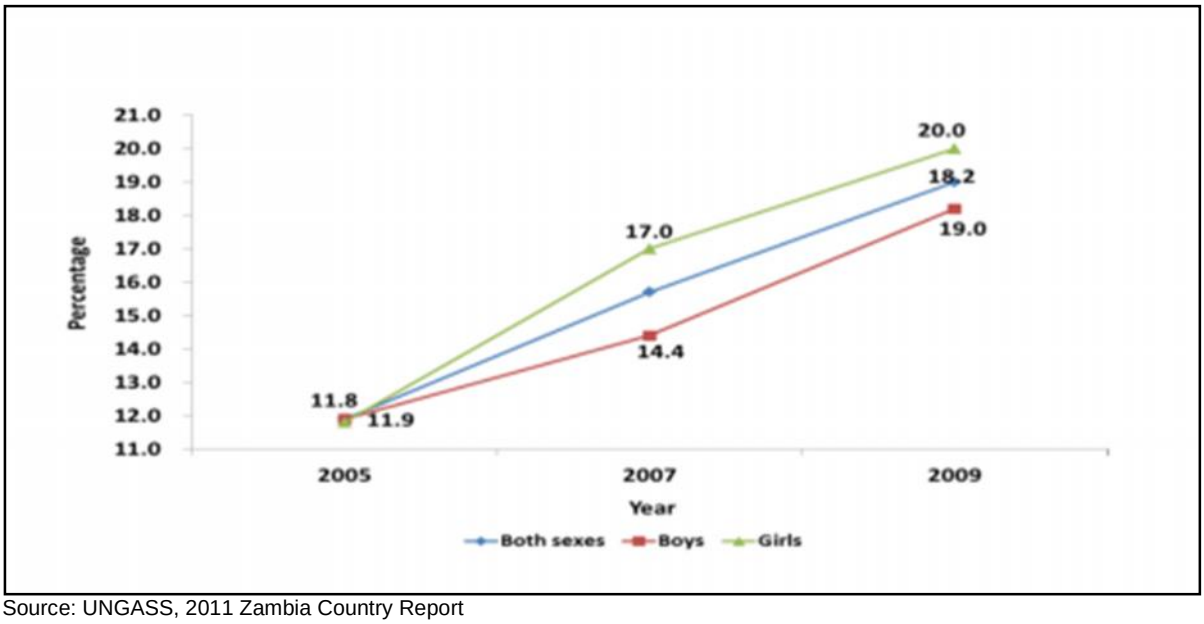
Government Commitment to OVC support

The role being played by the Government sectors in provision of education support to orphans is another achievement of maintaining sustainable measure of commitment and ownership of OVC support.

The Social Welfare Department for the Ministry of Community Development, Mother and Child Health and the Ministry of Education, Science, Vocational Training and Early Education were the key Ministries involved in the provision of education support among the OVCs. The JMTR 2013 found that more children had started going to school under the support of the Social Welfare Assistance Scheme than it used to be before, even though the demand was high. The education support to OVC has proven to be quite effective, through provision of bursary to the needy children. This was demonstrated by the overwhelming number of OVC seeking support despite other organizations providing assistance in a similar manner when compared with funds allocated. It was reported that over 500 pupils for 2013 were enrolled under the Social Welfare Assistance Scheme support to give an increase of over 200 children per year. In addition, 100 per cent of bursary recommendations by the Department of Social Welfare were funded for the periods 2012 and 2013 respectively.

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 illustrated in Figure 32 below. 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 32: Percentage of orphaned and vulnerable children aged 0-17 years whose households received free basic external support in caring for the child



Source: UNGASS, 2011 Zambia Country Report

In terms of vulnerable households, the table below shows support received by adults aged 18-59 who were chronically ill or died after a chronic illness during the year before the 2007 ZDHS.

Table 20: External support for very sick persons

Percentage of women and men age 18-59 who have been either very sick or who died within the last 12 months after being very sick whose households received certain free basic external support to care for them within the last year, by background characteristics, Zambia 2007

	:Percentage of very sick persons whose households received						
Background characteristic	Medical support at least once a month during illness	Emotional support in the last 30 days[1]	Social/ material support in the last 30 days[2]	At least one type of support in the last 30 days	All three types of support in the last 30 days	None of the three types o f support	Number of persons
Age							
15-19	20.0	28.6	15.9	41.9	0.0	58.1	10
20-29	30.5	20.4	6.3	42.2	3.3	57.8	110
30-39	26.5	24.7	10.3	39.9	5.9	60.1	140
40-49	30.7	26.0	7.3	39.5	6.7	60.5	96
50-59	31.9	28.6	10.0	48.4	7.8	51.6	53
Sex							
Male	25.7	26.2	6.0	39.1	5.1	60.9	186
Female	32.0	23.1	10.9	43.6	5.8	56.4	223
Residence							
Urban	28.0	26.1	6.7	43.5	3.3	56.5	186
Rural	30.1	23.2	10.2	40.0	7.4	60.0	223
Province							
Central	30.6	19.6	8.6	36.8	6.2	63.2	49
Copperbelt	21.2	36.2	2.5	50.0	2.5	50.0	69
Eastern	36.1	29.4	17.5	45.4	15.5	54.6	37
Luapula	24.9	22.2	4.7	30.9	4.7	69.1	28
Lusaka	27.2	17.2	4.7	33.2	1.6	66.8	96
Northern	18.9	41.2	15.4	46.8	7.7	53.2	40
North-Western	38.8	27.3	13.3	49.6	10.8	50.4	11
Southern	25.9	13.3	14.2	33.8	7.5	66.2	50
Western	63.7	19.3	7.6	66.5	3.9	33.5	28
Wealth quintile							
Lowest	29.2	19.9	10.2	35.8	6.3	64.2	67
Second	33.0	30.1	9.3	51.0	5.3	49.0	65
Middle	29.2	19.8	8.5	36.5	6.6	63.5	81
Fourth	37.8	24.1	13.3	47.6	7.6	52.4	100
Highest	17.4	28.3	2.5	37.3	2.1	62.7	96
Total	29.1	24.5	8.6	41.6	5.5	58.4	409

Note: Table is based only on women and men who usually live in the household and who were very sick (unable to work or do normal activities) in the last 12 months or who died in the last 12 months and were very sick at least 3 of the 12 months before death. Support refers to the past 30 days for living persons and in the 30 days preceding death for deceased persons. [1] Support such as companionship, counseling from a trained counselor or spiritual support for which there was no payment
[2] Support such as help with household work, training for a caregiver, legal services, clothing, food or financial support for which there was no payment.

The social cash transfer scheme is another model of achievement for impact mitigation being tested in some selected districts of Central, Eastern and Southern provinces, with high poverty levels and increased vulnerability among the aged and children. It was introduced by the Government as a response to the growing HIV and AIDS epidemic, which had led to a growing number of households with no productive adults and households being headed by the aged members, too sick, or too young (Ministry of Community Development and Social Services 2011). It is an alternative payment in cash, ranging from ZMW40 to ZMW60 to vulnerable individuals or households with or without children being supported by the Ministry of Community Development and Social Services.

The health status of the social cash transfer beneficiaries had shown some improvement due to adequate nutrition. In Kalomo District in the Southern Province, for example, the cases of self-reported illnesses in a month had dropped from 43% to 35% due to improved disease resistance on account of improved nutrition (Ministry of Community Development and Social Services 2011).

IV Best Practices

i. Enhancement of program and social enablers

Zambia has integrated and made efforts towards creating both program and social enablers of HIV prevention services. Critical enablers create gateways to HIV prevention, support the successful scale up of HIV prevention activities, and create an enabling environment in which the impact of such activities is maximized. In Zambia, critical enablers include treatment of other STIs, programs to address GBV and the social norms that support it; mass media focused on creating an enabling environment; structural activities to strengthen and enforce supportive policies at the national, regional and local levels; and stigma reduction activities. PLHIV have been instrumental in the reduction of stigma to create enabling environments conducive for people to access HIV services. Communities and traditional leaders have been mobilised to create social and normative conditions for HIV prevention including stigma reduction. Although key informant interviews during this review suggested that stigma and discrimination were declining, the stigma reduction index study found that HIV related stigma in the country was prevalent and an on-going part of the lives of PLHIV (NZP+ 2011). In spite of these observations, there is scope for improvement in the fight against stigma. Working hand in hand with PLHIV, implementing partners constantly strive to reduce stigma and discrimination in an effort to change hostile and risky environments in order to improve access to and uptake of HIV prevention services. One good examples of effective utilization of social enablers in the Zambian HIV prevention programme is HIV counselling and testing. Community mobilization and outreach activities have been conducted by numerous implementing partners including MOH hospitals and health centres across the country. Many times, these activities are carried out in conjunction with community members and leadership. Innovative outreach approaches such as door to door HCT have been lauded for increasing the numbers of individuals in the country who have tested and know their HIV status. All these activities are implemented to accomplish the goals of the NASF as well as the 'know your response'.

ii. Clinical Mentorship[23]

Under the USAID-funded Zambia Integrated Systems Strengthening Program, the country has recently supported the formation of Clinical Care Teams (CCTs) in several districts. The CCTs are multi-disciplinary teams with competencies necessary for effective quality patient care. In addition to providing mentorship to clinicians in their districts, they also run performance improvement processes focused on patient case management at all levels of the health care delivery system. This has resulted in significant improvement in the quality of ART by refining clinicians' case management and clinical skills. Furthermore, clinicians are adhering to the scheduled review dates for monitoring baseline investigation and assessment recommended review periods. The clinicians are now able to identify and treat other infections in ART clients. This has resulted in fewer referrals for diseases such as sexually transmitted infections. In addition, CCTs support task-shifting in ART by ensuring quality ART care is provided by lower level qualified cadres who are available.

iii. Early Infant Diagnosis of HIV

Through Project Mwana, Zambia embraced technology to address HIV infections among infants. This health project uses mobile phones to improve early infant diagnosis of HIV and postnatal follow-up and care. A customized text messaging (SMS) application transmits infant HIV test results from central laboratories located in two main cities to all rural health facilities. In 2012, the project covered 268 health facilities, mostly located in remote and hard to reach areas. More than 10,000 test results have been delivered so far and turnaround times have been halved. While success cannot yet be linked to early access to antiretroviral treatment for HIV positive children, Project Mwana has promoted equitable access to diagnosis and has facilitated SMS appointment reminders from health workers and birth registrations for clinic and community births.

[23] USAID, ZISSP. *"The power of clinical mentorship to improve quality of care".*

V Major Challenges and Remedial Actions[24]

(a) Prevention

The prevention program has experienced some obstacles along the way which have hampered speedy progression towards achieving desired impact results. One of the biggest obstacles is that of human resources. There is a shortage of trained staff in some of the departments and units of the health delivery system. The capacity of existing trained staff is limited by the available numbers. HIV has increased workload exposing the health sector to systemic weaknesses. One solution is to accelerate community mobilization, which is a key element of the investment framework and has been recognized as a cornerstone of HIV programmes. It leads to improved uptake of HIV services and promotes local-level ownership and accountability, as well as relieving some pressure in human resource constraints.

Despite progress towards universal access to HIV services, the uptake of HCT is still low including low rates of couples counselling and testing. There is still limited coverage of prevention with positives (PwP) or prevention services for PLHIV especially for pre-ART clients. In concert with a combination prevention strategy, HIV/AIDS awareness and sensitization campaigns have been expanded resulting in improved health seeking behaviour. Through the campaigns, the demand for biomedical HIV prevention services has increased.

The other obstacle to prevention services is the fragmented nature of the interventions and efforts. There is a duplication of efforts by implementing organizations leading to inefficient use of limited resources. Similarly, HIV prevention messages are not often harmonized to ensure that clear and non-conflicting messages are disseminated to community members including young people.

In the Zambian national response, interventions that attempt to address structural factors have been weak. For example there are limited sustainable livelihood strategies targeting vulnerable groups such as women and young people. Enabling environments for vulnerable groups who are found HIV positive to access continuum of care services are not conducive.

The Legal and Policy environment has not been conducive for implementing HIV prevention programmes for some vulnerable and key populations in Zambia. It is hoped that more evidence will be available in subsequent reporting periods to enhance programming and reporting as two major studies on key populations are in progress. The first is a Panos Institute of Southern Africa study on HIV prevention for sexual minorities was approved in 2011. The purpose of the study was to characterise key populations estimate HIV prevalence and identify opportunities for interventions. The study targeted men who have sex with men and women who have sex with women. The second is by the Population Council entitled “Formative assessment of HIV risk and size estimation using census and enumeration methods among sex workers (SWs) and their clients, men who have sex with men (MSM), and drug users in Zambia and integrated biological and behavioral survey among sex workers in Zambia”. Specific objectives for this study are to estimate the population sizes and distribution of key populations in Zambia; estimate HIV prevalence and incidence among key populations; identify and describe key characteristics of key populations which place them at risk of HIV infection; enhance local capacity to conduct formative assessments, mapping and population size estimates of key populations; support local capacity to conduct behavioral and biological surveillance of key populations.

(b) Treatment, Care & Support

There are a number of challenges identified in treatment care and support for PLHIV and TB patients who are HIV positive:

Inadequate HIV testing facilities: In certain health centres diagnosis for HIV is only done on specific days of the week and therefore limits the accessibility of VCT. In addition screening of PLHIV for TB is limited by the lack of diagnostic equipment. There is also insufficient reporting on IPT. Most rural health centres depend on general hospitals for TB diagnosis. ICF for TB in PLHIV is not active in most rural areas. In addition, some rural health centres do not stock TB drugs.

[24] JMTR 2013 findings

All these contribute to making TB the leading cause of death in PLHIV.

The limited numbers of ART centres in rural areas:. For example, out of 36 health centres in Petauke district in the Eastern Province, only 3 static sites provide ART services.

The limited implementation of the task shifting of ART initiative:. The policy only allows doctors and clinical officers to initiate ART, not nurses. In an effort to address human resource challenges, HIV nurse practitioners have been trained to initiate patients on ART for patients with non-complicated HIV. However, the current legal framework does not allow nurses to prescribe drugs (NAC, 2013). The General Nurses are only allowed to maintain patients on ART. Community Health Workers can perform rapid HIV tests but are not licensed or allowed to re-supply patients with ARVs.

Low stock levels of ARV drugs were experienced by majority of health centres in Zambia in the past 12 months:. The country-wide low stock levels were mainly for AZT, NVP, and Truvador, leading to drug rationing to avoid stock outs. During this period the rate of defaulting was higher than usual among the clients. In certain instances patients were given drugs to last them only five days, and some of them never came back after five days for more drugs due to long distances from home to health facility. Some patients were switched to other regimens, which was reported as impacting adherence. Some patients have not yet been switched to the new drug regimens because of stock-outs of appropriate regimens. Stock-outs of pediatrics formulations were also common during the period under review. In some cases adult ARV tablets were given to children by breaking them into halves and the child takes one half at a time.

Services for Adolescents Living with HIV/AIDS (ALHIV) are not meeting the needs of adolescents in most areas of the country: This is because in most instances their services are combined with those of adults. This makes them shy to attend services with adults and therefore stay away. Similarly the lack of adolescent's days at the ART clinics means they have to queue up together with adults, and this makes some of them to stay away completely. Other ALHIV will still go to the health facility but because of the queuing up time they will eventually go late to school. This eventually results in adolescents just staying away from the health facility. This contributes to the number of ALHIV not receiving treatment and care. There is also scarcity of youth counselors and youth friendly corners at most health facilities, which keeps the youths away because of stigma.

Although uptake of HIV testing among adolescents is increasing, it remains insufficient to meet the national target of having 70% of adolescents knowing their HIV status by 2015. Bottlenecks for HCT among adolescents include low coverage of HCT sites mainly in rural areas, limited mobile/outreach HCT campaigns targeting schools and youths in general; the need for parental authorization for adolescents aged below 16 years; the limited availability of adolescents' friendly HCT sites.

Inadequate tracking system of PLHIV on treatment in certain areas: Several factors underlie the inadequate tracking of patients, including lack of transport for health facility workers to distant places, shortage of adherence supporters, change of residence by PLHIV on treatment without notifying the health facility, and lack of designated financial resources by health facilities for tracking patients on treatment.

Loss to follow-up. Despite having 93% of adult PLHIV being on ART in 2012, the proportion of people lost to follow up is considerable. Overall, 80% of PLHIV initiated on treatment were still on treatment in 2012, 12 months later. However, loss to follow up in 12 months after initiation is as high as 47% in certain parts of Zambia. Some of the contributing factors to loss to follow-up are stigma, denial of HIV status by patients, excessive alcohol consumption by patients on treatment, inadequate counselling for those needing continued counselling, high poverty levels, migration to other areas, and claims of a cure for AIDS being available in Tanzania. In certain rural areas geographical barriers like perennial streams as well as fear of wild animals in areas near game parks are also responsible for defaulting.

Poor integration of TB and HIV services in health facilities, and thus the need to address the challenges of how to effectively integrate HIV and TB services. This, in part, is due to inadequate trained health workers in TB/HIV management, lack of coordination between the TB section staff and the HIV clinic staff, and lack of a strong referral system between the two sections.

(c) Impact Mitigation

Impact mitigation has made considerable gains and successes, but has also faced a few challenges in implementation:

- Stakeholders involved in the provision of the food pack service and beneficiaries have faced challenges of insufficient food security packs to meet the needs of the vulnerable people.

- Accessibility to community catchment with areas of 16 km radius was constrained due to lack of transport to cover wide areas of communities for distribution of the required resources and to monitor on the use of pack was further observed as the major obstacle.

- Limited storage facilities in rural areas caused damage to seeds and fertilizer as some were being stored at different places at a cost.

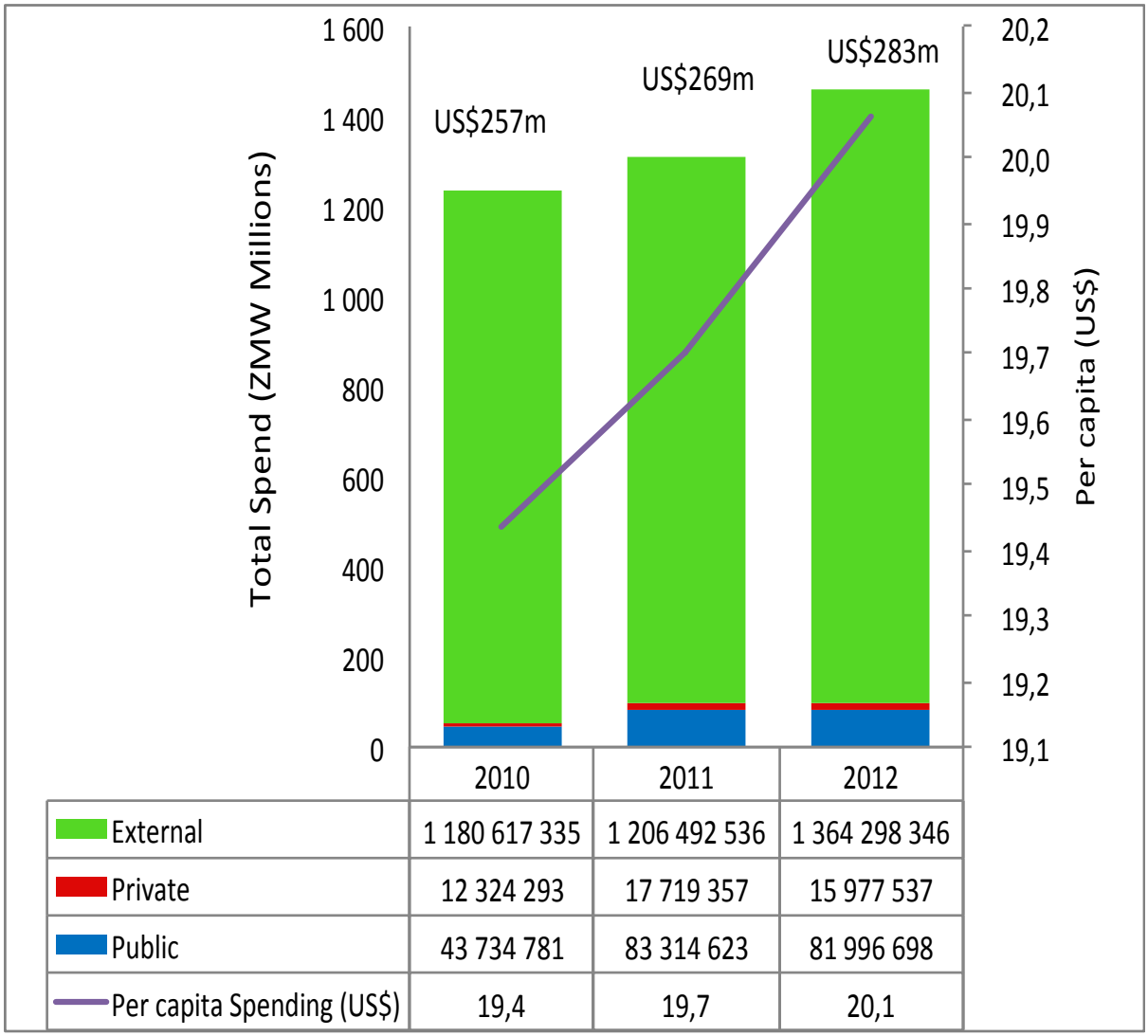
  Limited financing after the demise of ZNAN which entailed scaling down on a number of impact mitigation programmes
- Increases in the number of orphans in some provinces to meet their basic needs have remained problematic in some districts.

VI Support from Zambia's Development Partners

The national response to HIV/AIDS is still characterized by a disproportionate dependence on donor funding as the response in Zambia receives a major part of its resource requirements from development partners and other donors (see findings of NASA, indicator 6.1 in this report).

Support from partners accounts for the majority of spending on HIV and AIDS in Zambia as illustrated below.

Figure 33: Total and Per Capita Spending on HIV in Zambia by Source 2010 - 2012



	2010	2011	2012
External	1 180 617 335	1 206 492 536	1 364 298 346
Private	12 324 293	17 719 357	15 977 537
Public	43 734 781	83 314 623	81 996 698
Per capita Spending (US$)	19,4	19,7	20,1

Source: Zambia National AIDS Spending Assessment 2010-2012 draft

Table 21: Zambian External Sources for HIV 2010-2012

Bilateral	ZMW (2010)	US$ (2010)	Share of Total External Aid (%)	ZMW (2011)	US$ (2011)	Share of Total External Aid (%)	ZMW (2012)	US$ (2012)	Share of Total External Aid (%)
Govt of Germany	221 688	46 060	0,0%	138 528	28 451	0,0%	3 749 996	724 497	0,3%
Govt of Ireland	6 641 796	1 379 970	0,6%	4 178 424	858 169	0,3%	4 747 017	917 121	0,3%
Govt of Japan	3 945 250	819 707	0,3%	6 048 050	1 242 154	0,5%	4 292 700	829 347	0,3%
Govt of Norway	1 529 089	317 700	0,1%	3 050 359	626 486	0,3%	3 100 604	599 035	0,2%
Govt of Sweden	1 969 360	409 175	0,2%	801 452	164 603	0,1%	1 589 019	306 997	0,1%
Govt of United Kingdom	243 491	50 590	0,0%	0	0	0,0%	0	0	0,0%
Govt of USA	903 804 597	187 784 043	76,6%	1 014 772 838	208 415 042	84,1%	1 224 941 087	236 657 861	89,8%
Other Govmt agencies	0	0	0,0%	109 000	22 387	0,0%	430 000	83 076	0,0%
Total Bilateral Aid	**918 355 271**	**190 807 245**	77,8%	**1 029 098 651**	**211 357 291**	85,3%	**1 242 850 423**	**240 117 933**	91,1%

Multilaterals	ZMW (2010)	US$ (2010)	Share of Total External Aid (%)	ZMW (2011)	US$ (2011)	Share of Total External Aid (%)	ZMW (2012)	US$ (2012)	Share of Total External Aid (%)
European Union	1 915 599	398 005	0,2%	1 253 117	257 366	0,1%	850 137	164 246	0,1%
ILO	745 874	154 971	0,1%	584 310	120 006	0,0%	181 157	34 999	0,0%
Global Fund	135 638 277	28 181 649	11,5%	70 640 557	14 508 227	5,9%	67 488 118	13 038 663	4,9%
UNAIDS	835 168	173 523	0,1%	881 645	181 073	0,1%	959 972	185 466	0,1%
UNICEF	835 963	173 689	0,1%	151 316	31 077	0,0%	687 035	132 735	0,1%
UNHCR	716 896	148 950	0,1%	133 133	27 343	0,0%	61 763	11 933	0,0%
UNODOC	139 290	28 940	0,0%	285 106	58 555	0,0%	243 647	47 072	0,0%
World Bank	3 395	705	0,0%	0	0	0,0%	0	0	0,0%
WHO	817 383	169 828	0,1%	218 137	44 801	0,0%	0	0	0,0%
Other Multilaterals	59 383 500	12 338 147	5,0%	0	0	0,0%	0	0	0,0%
Multilateral Total	**201 031 345**	**41 768 407**	17,0%	**74 147 321**	**15 228 450**	6,1%	**70 525 049**	**13 625 396**	5,2%

International Foundations	ZMW (2010)	US$ (2010)	Share of Total External Aid (%)	ZMW (2011)	US$ (2011)	Share of Total External Aid (%)	ZMW (2012)	US$ (2012)	Share of Total External Aid (%)
International HIV/AIDS Allia	3 871,00	804	0,0%	0,00	0	0,0%	0,00	0	0,0%
Bill and Melinda Gates Fou	8 360 393	1 737 044	0,7%	1 750 568	359 533	0,1%	1 768 828	341 736	0,1%
Plan International	119 731	24 877	0,0%	236 923	48 659	0,0%	172 257	33 280	0,0%
World Vision	0	0	0,0%	66 485	13 655	0,0%	3 900	753	0,0%
International Planned Pare	0	0	0,0%	4 392	902	0,0%	0	0	0,0%
International foundations (	7 338 861	1 524 800	0,6%	69 115 623	14 195 035	5,7%	14 896 539	2 878 002	1,1%
International for profit orga	11 202	2 327	0,0%	6 800	1 397	0,0%	11 050	2 135	0,0%
JFA (pooled sources)	45 396 661	9 432 092	3,8%	32 065 773	6 585 700	2,7%	34 070 300	6 582 361	2,5%
Internat. Foundations & C	**61 230 719**	**12 721 945**	5,2%	**103 246 564**	**21 204 881**	8,6%	**50 922 874**	**9 838 268**	3,7%
Total External Aid	**1 180 617 335**	**245 297 597**	100,0%	**1 206 492 536**	**247 790 621**	100,0%	**1 364 298 346**	**263 581 597**	100,0%

Source: Zambia National AIDS Spending Assessment 2010-2012 draft

Table 22: Zambian HIV Spending Activities by source – 2011 and 2012

Activities (ZMW, 2011)	Public funds	Private Funds	External funds	Totals (ZKw'000s)	% Share
Prevention	34 758 371	5 185 531	179 946 249	219 890 151	16,8%
Treatment	48 100 462	11 376 628	439 629 396	499 106 486	38,2%
OVC support	14 000	185 296	49 540 540	49 739 836	3,8%
Nat.Sys.Strngth & Pgm.Coord.	411 200	970 675	431 924 117	433 305 992	33,1%
HR Devmt Training / CB	21 591	1 227	27 663 743	27 686 561	2,1%
Social protection & social services (excluding OVC)	-	-	7 740 589	7 740 589	0,6%
Enabling environment	9 000	-	56 812 305	56 821 305	4,3%
Research	-	-	13 235 600	13 235 600	1,01%
Totals	**83 314 624**	**17 719 357**	**1 206 492 539**	**1 307 526 520**	**100,0%**

Activities (ZMW, 2012)	Public funds	Private Funds	External funds	Totals (ZMW)	% Share
Prevention	17 742 013	5 428 780	221 016 279	244 187 072	16,7%
Treatment	63 589 958	8 843 062	459 551 871	531 984 891	36,4%
OVC support	96 000	189 985	44 470 446	44 756 431	3,1%
Nat.Sys.Strngth & Pgm.Coord.	480 182	1 226 486	513 847 410	515 554 078	35,3%
HR Devmt Training / CB	88 545	1 227	33 068 187	33 157 959	2,3%
Social protection & social services (excluding OVC)	-	-	13 204 488	13 204 488	0,9%
Enabling environment	-	-	63 695 882	63 695 882	4,4%
Research	-	288 000	15 443 785	15 731 785	1,08%
Totals	**81 996 698**	**15 977 540**	**1 364 298 348**	**1 462 272 586**	**100,0%**

Source: Zambia National AIDS Spending Assessment 2010-2012 draft

The major part of support from development can be seen to have been in the areas of treatment, prevention and national systems strengthening and programme control.

VII Monitoring and Evaluation Environment

(a) Overview of monitoring and evaluation system

In accordance with the "Three Ones Principle", Zambia developed a National Monitoring and Evaluation Plan which is a comprehensive narrative document that clearly articulates all monitoring and evaluation activities for the national HIV Response. The plan is being used to measure progress in achieving the results set out in the NASF 2011-2015 based on defined indicators at various levels. The plan is complimented by the existence of the Research Agenda which provides guidance on all research to be under in the HIV and AIDS sector. Data collection and analysis is currently being undertaken using the following tools:

NACMIS and E-Mapping System: E-Mapping (www.zambianacmisonline.org) is an online Stakeholder Management and Activity Reporting system, which helps NAC and its partners to understand a number of M & E information details. The development of the E-mapping system has been supported throughout by NAC, the United Nations Joint Team, the World Bank and VOC. The system also includes an online National AIDS Reporting Form (NARF) tool that automatically generates graphs which compare the NARF data (at district, provincial and national levels) against the Millennium Development Goals (MDG) for Zambia.

The Zambia Demographic and Health Survey (ZDHS): This is a robust instrument for tracking changes in knowledge and behaviours at a national level. It is conducted every 5 years, with the last having been conducted in 2007. At the time of reporting, the ZDHS is underway and is hoped to be completed in 2014.

Health Management Information System (HMIS): This is the largest and most important M&E tool in Zambia. It provides for all clinical health related data on all diseases including HIV and AIDS. This tool has in the recent past been undergoing some upgrading to conform to latest developments in data capture and indicator tracking.

National AIDS Council Activity Report System: This refers to a generation of information from standard forms received by NAC on a regular basis from sub-national structures, including PATFs, DATFs, and Government line ministries implementing HIV and AIDS interventions. The relevance of the form arises out of the fact that it summarises the coverage achieved by organisations implementing HIV and AIDS interventions in the areas of prevention, care and support, M&E, impact mitigation and coordination and management. These forms, which are generic data reporting forms for HIV and AIDS activities, are collated at district, provincial and national levels on a quarterly basis.

Cohort Studies: Cohort studies are conducted for various purposes to monitor a group of individuals with similar characteristics to monitor the effectiveness of a service delivery programme or behaviours that may occur to a particular group of individuals when exposed to a specific even or situation.

Education Management Information Systems (EMIS): The EMIS system collects HIV and AIDS information. The primary output is the percentage/proportion of teachers who have been trained in life skills education and who taught it during the previous academic year.

National Commitments and Policy Instrument (NCPI): The NCPI covers four broad areas of policy, strategic planning, prevention, human rights, and care and support. A separate index is calculated for each policy area using specific policy indicators and calculating the overall percentage score. The relevance of this tool is in the computation of the National Composite Policy Index covering gender, workplace stigma and discrimination, human rights, CSO involvement, prevention, TCS, integration, mitigation services and M&E.

Sentinel Surveillance Surveys: Biological surveillance of HIV has been primarily tracked through surveillance of sentinel populations. Surveillance data is collected from a sample of urban, rural and transitional rural sentinel sites in the country distributed throughout the provinces. Specified minimum samples for each type of site are set in advance and vary from year to year. Blood samples are drawn, and testing for syphilis is done on site while the rest of the samples are sent to the University Teaching Hospital and the Tropical Diseases Research Centre (TDRC) for HIV

testing. These surveys are relevant because they help in the determination of the incidence and prevalence of syphilis in women of reproductive age group in sentinel populations.

Financial Expenditure Tracking: Financial surveys are useful for showing how efficiently and effectively HIV and AIDS funds are utilised to achieve set national targets.

Workplace Surveys: These surveys provide information on the extent to which workplaces develop policies to protect and mitigate the impact of HIV and AIDS on their respective employees. These surveys, which are relevant and critically important for the preservation of people's human rights, are conducted on an annual basis.

Zambia Health Facility Survey (ZHFS): The ZHFS is conducted to better understand provider/household linkages, provider performance, costs, quality and effectiveness, links between providers, and Government-provider linkages, where the relevance lies.

Zambia Sexual Behavioural Survey (ZSBS): The ZSBS is carried out to monitor the extent to which the programmes to prevent HIV are successful.

Quarterly SARF Report: NAC produces the Quarterly SARF Report to provide information on coverage statistics per HIV programme area. The production of this report also ensures that NAC meets the Global Fund to Fight Tuberculosis, AIDS and Malaria (GFTAM) requirements in terms of minimum reporting standards and reports to its other basket donors.

Biennial GARPR Report: The Biennial GARPR Report is prepared to report on 17 specific indicators in a manner defined in the *UNAIDS Guidelines for the Construction of Core Indicators.* The report is one fulfillment of Zambia's signatory status to the 2001 Declaration of Commitment on HIV/AIDS at the United Nations Special Assembly Session on HIV/AIDS (UNGASS).

The Joint Annual Review Process (JAPR): The JAPRs bring the Government of the Republic of Zambia, NAC, and its partners together to review, on a regular basis, the performance of the national HIV response. The last review was conducted in 2013.

SPECTRUM: SPECTRUM is a suite of easy to use policy models which provide policymakers with an analytical tool to support the decision making process. Spectrum as a software has seven sub-components - *DemProj*, *FamPlan*, *Project Child Survival*, *AIDS Impact Model*, *Costs Implementing an HIV/AIDS programme*, *Resources for the Awareness of Population Impacts on Development*, and *the Safe Motherhood Model.* The Spectrum tool is relevant in the determination of the indicators with respect to determining the number of new infections annually.

(b) Challenges faced in the implementation of a comprehensive M&E system

Despite the existence of a number of programmes targeted at strengthening the M&E and strategic information component of the NASF, there were a number of operational challenges with regards to the monitoring of the NASF indicators for the period under review:

- A national M&E capacity assessment with support from the World Bank revealed that, although the national system was functional in line with the 12 component framework, there were still some gaps mainly at district and community levels such as inadequate M&E capacity, inadequate data harmonization, data quality issues, weak feedback loops and poor data use culture.

- Inadequate human resources and financial capacities for effective monitoring of the national response were evident.

- The obsolete nature of most of the equipment and vehicles provided limitations in the monitoring of the response.

- Weak M&E system linkages at the national and sub national level exist.

- A large listing of indicators coupled with complexities in the formulation of some of the indicators

in the NASF made it difficult to determine progress as at 2013 for a number of indicators. Accordingly, issues of data quantity and quality were also noted.

(c) Remedial actions planned to overcome challenges

- The revision of the NASF 2011-2015 has allowed for the revision of indicators to enhance measurement of these indicators and allow for improvements in the quality of data.
- Strengthening of the M&E mandate of NAC at sub-national levels.
- Advocacy for more Government budgetary allocation to HIV and AIDS M&E programmes.
- Provision of a regulatory framework on M&E based on the NAC Act.
- Procurement and distribution of equipment to support web-based M&E activities.
- Provision of mechanisms to support evaluation and results based M&E activities.
- Enhancing collaborative activities between MoH and NAC, and strengthening the harmonisation and alignment of Cooperating Partners' M&E systems and the national M&E systems. Regular quarterly meetings will be re-instituted.
- Institutionalising the PATFS and DATFS in the provincial administration and NAC respectively, and enhancing resource mobilization efforts for regular meetings.
- Development of a performance-based funding mechanism for the establishment aimed at attracting and sustaining staff.
- Strengthening of HR capacities for M&E.
- Strengthening supportive supervision and data auditing. This will be done by facilitating the signing of an MoU for collaboration between MoH and the private sector; training the private sector in HIV and AIDS HMIS data management; printing updated PMTCT/VCT/ART supervision tools and guidelines; disseminating PMTCT/VCT/ART supervision tools and guidelines; conducting quarterly data reconciliation and data audits at national and sub-national levels; establishing quarterly data reconciliation and data audits for provincial multi-sectoral committees; conducting quarterly supervisory and data audit visits to sub-national levels, and conducting external national data quality audits.

Conclusion

Zambia has continued to address challenges related to the implementation of activities in the response to HIV and AIDS. It would appear that the country is on target to meet most of the targets. The major challenge is probably related to financing of the HIV response; addressing this challenge will require a high level of local mobilization of resources for investment in HIV and health.

This and other issues were recognized during the HLM MTR, and the country will endeavor to address all challenges in an effort to stay on track to meet its targets.