The Global Fund
To Fight AIDS, Tuberculosis and Malaria

TB AND HIV CONCEPT NOTE

Investing for impact against Tuberculosis and HIV

Countries with overlapping high burden of tuberculosis (TB) and HIV must submit a single concept note that presents each specific program in addition to any integrated and joint programming for the two diseases.

In requiring that the funding requests be presented together in a single concept note, the Global Fund aims at maximizing the impact of its investments to make an even greater contribution towards the vision of a world free of the burden of TB and HIV. Enhanced joint HIV and TB programming will allow to better target resources, to scale-up services and to increase their effectiveness and efficiency, quality and sustainability.

All concept notes should articulate an ambitious, strategically focused and technically sound investment, informed by the national health strategy and the national disease strategic plans (NSPs).

The concept note for TB and HIV is divided into the following sections:

Section 1: The description of the country's epidemiological and health systems context including barriers to access, the national response to date, country processes for reviewing and revising the response, and plans for further alignment of the NSPs, policies and interventions for both diseases.

Section 2: Information on the national funding landscape, additionality and sustainability

Section 3: The funding request to the Global Fund, including a programmatic gap analysis, rationale and description of the funding request, as presented in the modular template.

Section 4: Implementation arrangements and risk assessment.

IMPORTANT NOTE: **Applicants should refer to the TB and HIV Concept Note Instructions to complete this template.**

Country	**Zambia**		
Funding Request Start Date	**1 January 2015**	**Funding Request End Date**	**31 December 2017**
Principle Recipient(s)	**Ministry of Health (MOH); Churches Health Association of Zambia (CI**		
If the programs are to be managed as separate grants:			
Funding Request Start Date for HIV	**1 January 2015**	**Funding Request End Date for HIV**	**31 December 2017**
Principal Recipient(s) for HIV	**MOH; CHAZ**		
Funding Request Start Date for TB	**1 January 2015**	**Funding Request End Date for TB**	**31 December 2017**
Principal Recipient(s) for TB	**MOH; CHAZ**		

FUNDING REQUEST SUMMARY TABLE

A funding request summary table will be automatically generated in the online grant management platform based on the information presented in the programmatic gap table and modular templates.

SECTION 1: COUNTRY CONTEXT

This section requests information on the country context, including descriptions of the TB and HIV disease epidemiology and their overlaps, the health systems and community systems setting, and the human rights situation.

1.1 Country Disease, Health Systems and Community Systems Context

With reference to the latest available epidemiological information for TB and HIV, and in addition to the portfolio analysis provided by the Global Fund, highlight:

a. The current and evolving epidemiology of the two diseases, including trends and any significant geographic variations in incidence or prevalence of TB and HIV. Include information on the prevalence of HIV among TB patients and TB incidence among people living with HIV.

b. Key populations that may have disproportionately low access to prevention, treatment, care and support services, and the contributing factors to this inequity.

c. Key human rights barriers and gender inequalities that may impede access to health services.

d. The health systems and community systems context in the country, including any constraints relevant to effective implementation of the national TB and HIV programs including joint areas of both programs.

A. Introduction:

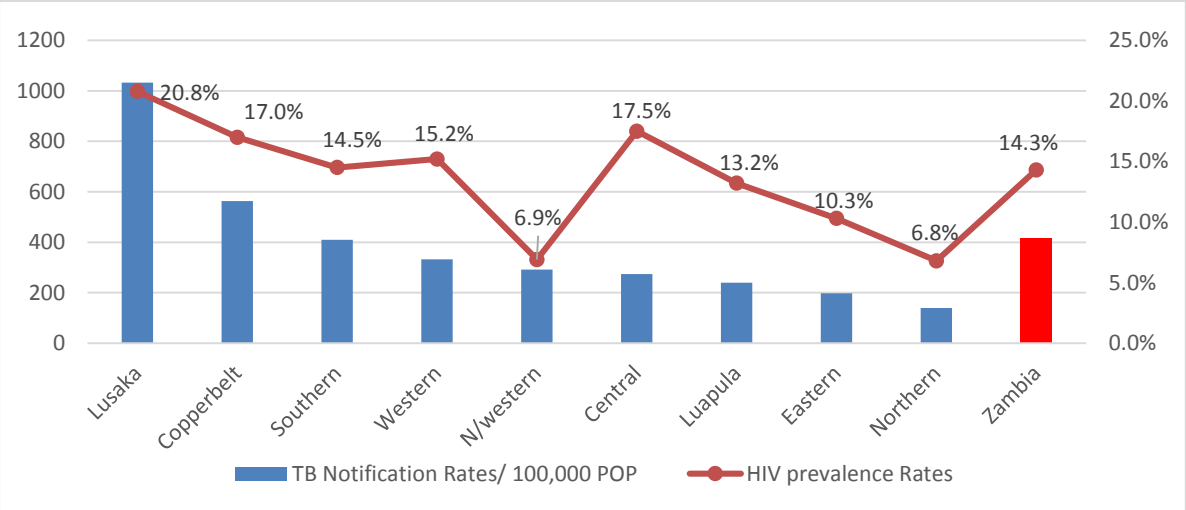
The epidemiological analysis in this concept note is based on data from the following sources: Zambia Demographic Health Survey (ZDHS), 2007; Zambia Sexual Behavior Survey (ZSBS), 2008; Antenatal Sentinel Surveillance (ANCSS) 2009/2010; Modes of Transmission Study, 2009; Epidemiological Review and Impact Assessment for TB in Zambia (2014); routine program reports from the Health Management Information System (HMIS); National TB reporting and recording registry; the WHO Global Tuberculosis report; and, the latest spectrum estimates. Also, Zambia currently is conducting its fifth DHS, and the preliminary findings will be disseminated in late 2014. Also ongoing is the first National Tuberculosis Prevalence Survey, and analysis of the 2012 Antenatal Clinic Sentinel Survey. The National TB and HIV epidemiological profile will be updated when the data from these three surveys becomes available.

B. Epidemiology of HIV and TB

HIV and TB in Zambia share common epidemiological patterns, which present opportunities for joint programming.

Geographical Similarities: The provinces with the highest HIV prevalence rates are also the provinces with the highest TB case notifications, namely Copperbelt, Lusaka, and Southern.

Figure 1: TB case notification rates compared to HIV prevalence by provinces - 2007



Age: The age group with the highest HIV prevalence is adults aged 15-49 (women 16.1%, and men 12.3%, DHS 2007 page 234), and most TB notifications are highest in this age group. The peaks for TB notification correlate with those for HIV prevalence in the 33-45 year age group.

Co-morbidity: In 2013 62% of TB patients were co-infected with HIV (NTP Program Data, 2013). The TB prevalence rate in PLHIV is unknown.

Under-served populations: The HIV and TB epidemics share similarities in the two populations that are underserved: prison inmates and children. Access to care in both groups is sub-optimal, as evidenced by the ART coverage at 52% in 2013, and TB notifications at 8% of the total notifications.

Death rates: Data available for two years, 2009 and 2010, shows that death rates were higher than the national average death rates for TB patients among the HIV-infected TB patients: 10% in 2009 and 9% in 2010, against a national average of 5%.

C. Epidemiology of HIV in Zambia

HIV prevalence and modes of transmission:

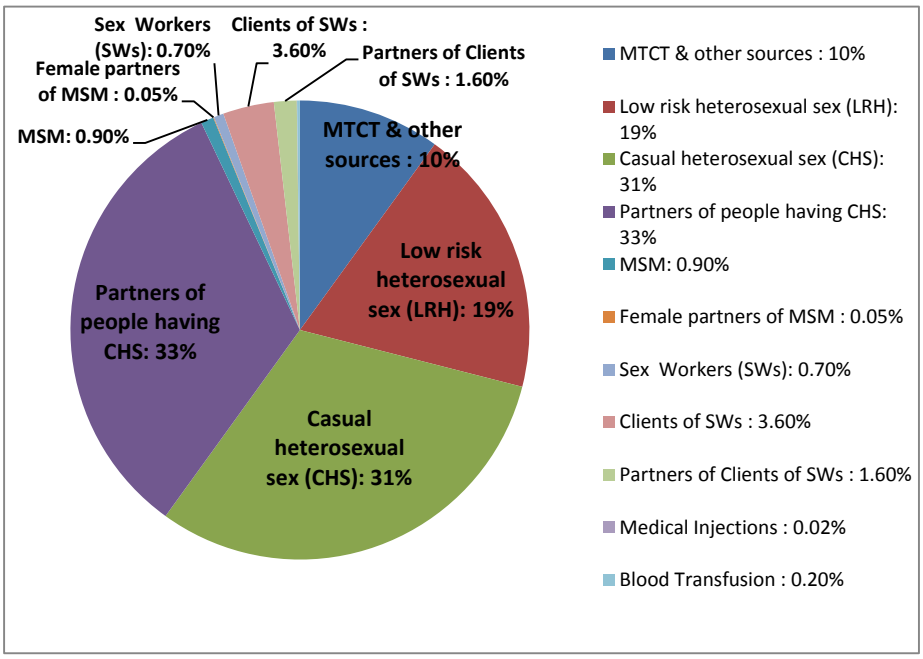
Zambia has one of the highest HIV burdens in sub-Saharan Africa. According to the 2007 Demographic and Health Survey (DHS), HIV prevalence in Zambia for adults aged 15-49 was estimated at 14.3%. However, HIV prevalence is higher among females (16.1%) compared to males (12.3%). In 2009, data from the 21 antenatal sentinel surveillance sites showed a mean site HIV prevalence rate of 16.3% among pregnant women aged 15-44.[1]

According to the Modes of Transmission Study in 2009, six key drivers of the HIV epidemic were identified, including: multiple and concurrent sexual partnerships (MCP), low condom use, low medical male circumcision, mobile and migrant labour, marginalized groups, and mother-to-child transmission (MTCT) of HIV. These drivers are further confounded by the lack of gender equity, gender-based violence (GBV), alcohol and substance use, poverty and income inequalities, stigma and discrimination, cultural practices increasing infection vulnerability, and human rights violations.

The 2009 Modes of Transmission Study provides insights into the potential sources of new infections and the expected incident cases projected to result from the transmission modes identified. The figure below depicts the results of these estimations and indicates that having sex with multiple partners and with partners who are neither spouses nor cohabiting ("casual heterosexual sex") are the main sources of new infections, accounting for 71% of all new infections. The model also predicts that "low risk" sex between monogamous partners leads to a considerable number of new infections (21% of all new infections in 2008).

[1] Republic of Zambia Ministry of Health, 2010. Zambia Antenatal Clinic Sentinel Surveillance Report, Lusaka

Figure 2: Sources of new infections -MOT 2009

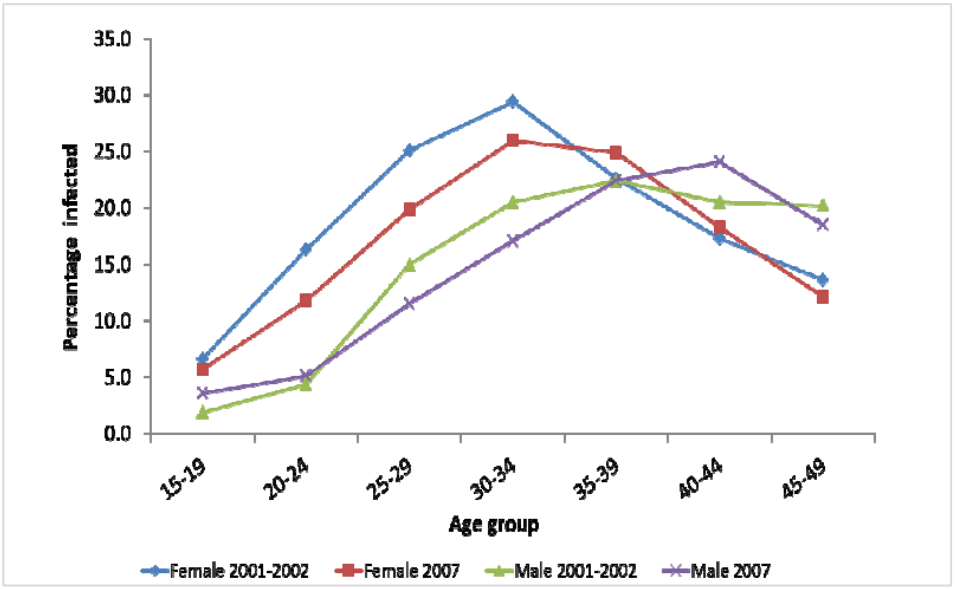


There is a need for more recent epidemiological data, and a Demographic and Health Survey is currently underway. Findings from this and other studies will be used to inform future strategy shifts to further improve the response to the current HIV epidemic.

The age and sex distribution of the HIV epidemic:

The epidemiological synthesis of the epidemic using available data shows that HIV prevalence peaks in the 30-34 age group for females and in the 35-44 age group for males. The HIV prevalence rate is consistently higher in females compared to males in the younger age groups up to the age group of 30-34. The difference between female and male prevalence rates is very significant in the 15-19 age group at 3.6% HIV prevalence in males versus 5.7% in females; in the 20-24 age group at 5% HIV prevalence in males versus 12% in females; in the 25-29 age group at 12% HIV prevalence in males versus 20% in females; and, in the 30-34 age group at 17% HIV prevalence in males versus 26% in females. However, in the 35-39 year age group, male and female prevalence rates are similar. In the older age groups of 40-44 and 45-49, men have significantly higher HIV prevalence than women.[2] See the figure below.

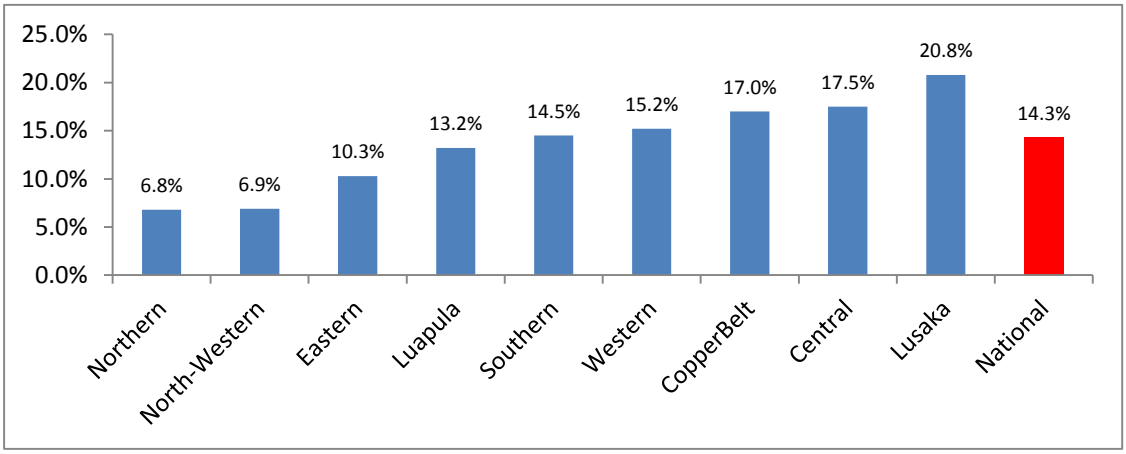
Figure 3: HIV prevalence by age and sex



Source: Zambia DHS, 2007

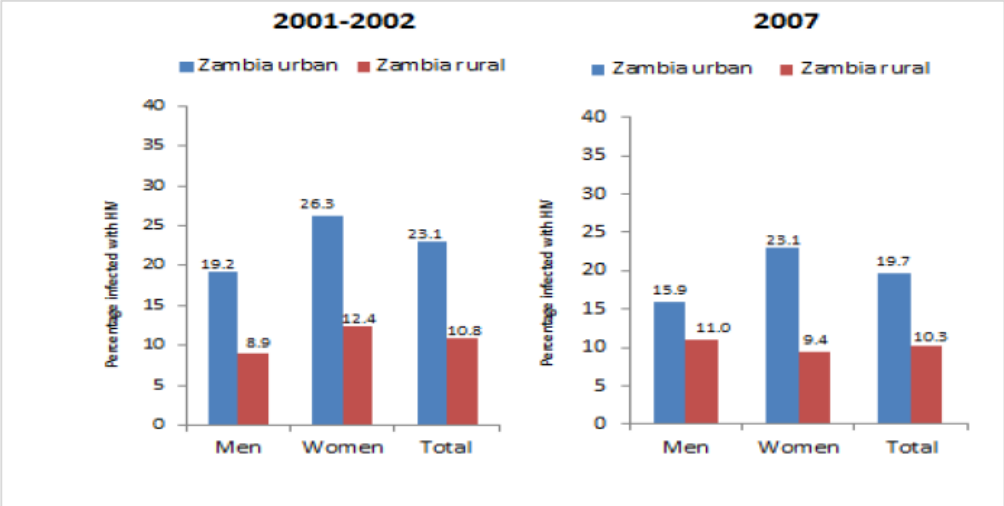
Geographical characteristics of the HIV epidemic:
The 2007 DHS data show that the Zambian HIV epidemic is geographically heterogeneous, with provincial HIV prevalence rates ranging from 7% to 21%. Higher prevalence rates among men and women aged 15-49 years were noted in the provinces of Lusaka, Central, Copperbelt, Western and Southern (20.8%, 17.5%, 17%, 15.2%, and 14.5%, respectively). Northern and North-Western provinces had relatively lower prevalence rates in the same age and gender bands (6.8% and 6.9%, respectively).

Figure 4: HIV prevalence by provinces-DHS 2007



Rural-urban heterogeneity:
The 2007 DHS revealed significant differences based on rural–urban classifications. The HIV prevalence rate is consistently higher in urban areas compared to rural areas as shown in the figure below.

Figure 5: HIV prevalence by urban-rural residence



Source: Zambia DHS 2007

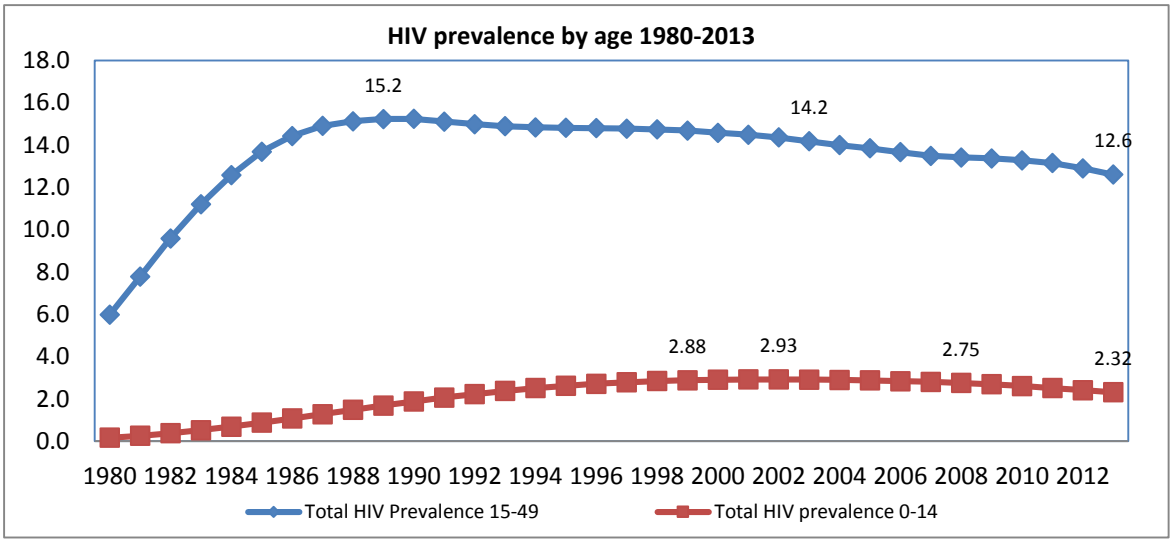
HIV prevalence and incidence projections:
The latest Spectrum estimates of the HIV prevalence rate in adults aged 15-49 years suggest that the Zambian HIV epidemic has been fairly stable over the past 15 years, with a very modest decline after the initial peak prevalence.[3] According to Spectrum estimates, adult HIV prevalence peaked in the

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

early 1990s at about 15.2% and has slowly declined to just above 12.6% in 2013.[4] Likewise, HIV incidence has declined from 1.81% in 2000 to 0.7% in 2013.

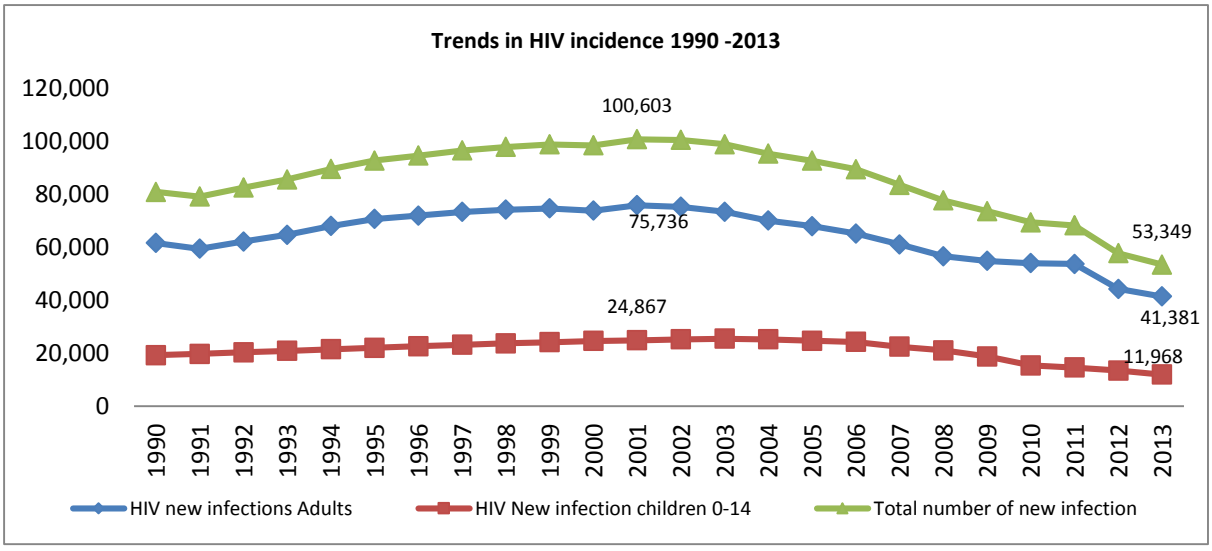
For children aged 0-14 years, HIV prevalence reached peak levels in early 2000 and has remained fairly stable over the last ten years with a very modest decline. This inference is drawn the from Spectrum model estimates which indicate that HIV prevalence in children aged 0-14 years declined from 2.9% in early 2000 to around 2.32% in 2013.[5]

Figure 6: Spectrum projection of HIV prevalence by age



Source: *Spectrum Policy Modelling System: Zambia Model, March 2014*

Figure 7: Projected HIV incidence trends 1990 - 2013



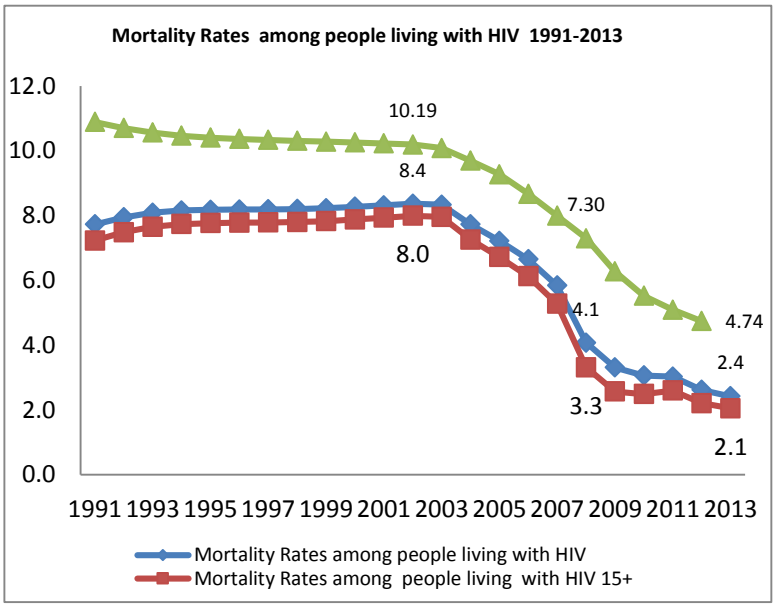
There has been a steady decline in HIV incidence over time. Between 2000 and 2013, there was a 61% decline in incidence. Moreover, between 2009 and 2013, adult HIV incidence declined by 50%.

[4] *Spectrum Policy Modelling System, Version* 5.03_500 (2014); Zambia Model March 2014
[5] *Spectrum Policy Modelling System, Version* 5.03_500 (2014); Zambia Model March 2014

HIV mortality trends:

The Vital Registration System in Zambia is not optimally functional. While it is up-to-date with registering births, the registration of deaths is a serious challenge and gap. In the absence of reliable mortality data from the Vital Registration System, estimates from Spectrum are used to plot HIV-related mortality trends.

Figure 8: Projected mortality rates among PLHIV 1991-2013



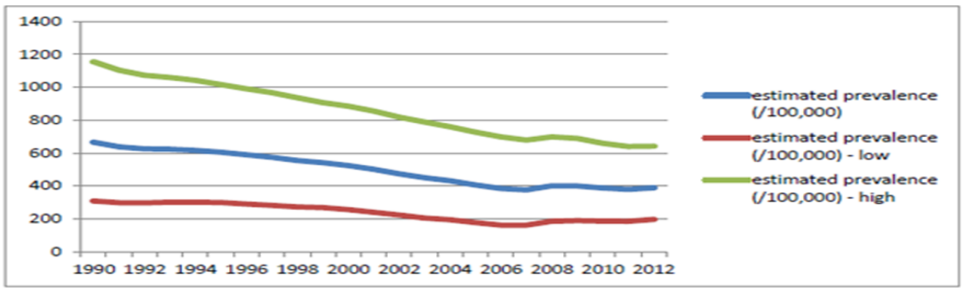
The estimated mortality rate from AIDS in adults aged 15 years and older has decreased from a peak of 8% in 2002 to 2.1% in 2013. As the ART program is scaled up, HIV-related mortality is expected to decline. Currently, survival and retention of people on ART at 12 months has increased from 65% in 2010 to 81% in 2013.[6] Similarly, mortality attributable to AIDS in infants reduced from a peak of 10.19% in 2003 to 4.74% in 2013.[7] This reduction in mortality and increase in survival and retention in care is due to a large extent to the concerted efforts of the Zambian Government and its partners in improving access to ART.

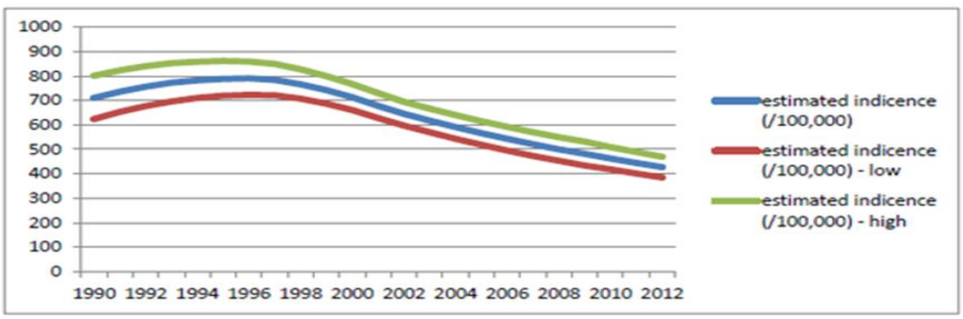
D. *Epidemiology of Tuberculosis in Zambia*

Prevalence and incidence of TB in Zambia:

Zambia currently is conducting a National TB Prevalence Survey. A preliminary report will be available in late 2014. However, WHO estimates for Zambia indicate that the TB prevalence per 100,000 population has been on the decline from 665 in 1990, to 512 in 2000, to 388 per 100,000 in 2012. The country's number of TB cases has remained relatively stable over the past decade. Incidence also has declined over the same period 2000-2012.

Figure 9: TB prevalence and Incidence estimations 1990 -2012 (WHO)





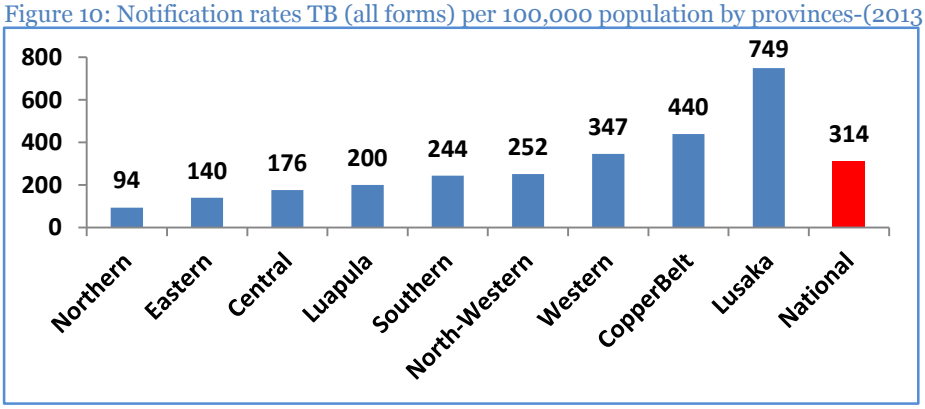
Source: WHO database.

[6] Ministry of Health: Health management information system
[7] *Spectrum Policy Modelling System, Version* 5.03_500 (2014); Zambia Model March 2014

National TB notification and geographical variations:

In the past five years, the TB notification rates in Zambia have decreased from 376 per 100,000[8] in 2009 to 314 per 100,000 in 2013. There is a regional variation between the provinces with more cases in the urbanized provinces than the rural ones. Copperbelt, Southern, and Lusaka provinces have accounted for two-thirds of the country's TB notifications in the past. It has been noted that these high notification rates occur in high-density provinces with higher than national average HIV prevalence rates. However, in recent years some of the rural provinces have experienced an increase in notifications, notably Western and North-Western provinces (see figure below).

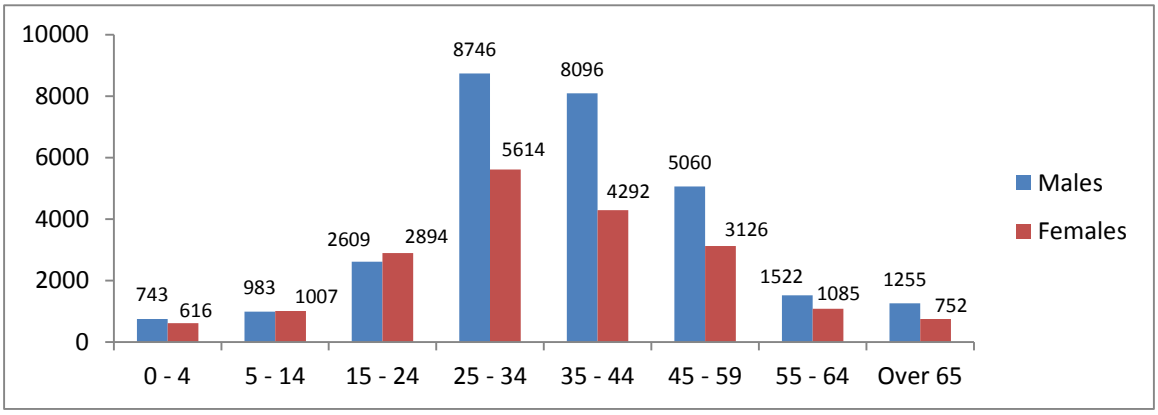
Figure 10: Notification rates TB (all forms) per 100,000 population by provinces-(2013 NTP data)



Age-sex characteristics of TB notification:

Males have higher notification rates than females in almost all age groups apart from the 5-14 year age group. In 2013 national data showed that 60% of all notifications were males and 40% were females.[9] National data reveals that notification rates in both men and women are highest in the 35-44 year age group, and this trend has been replicated over the 2011-2013 period.

Figure 11: TB notification by age and sex (2013)



TB mortality trends:

Zambia does not have reliable TB mortality data due to the challenges with the Vital Registration System. Current efforts are underway to strengthen this system, and this application has resources earmarked to further support strengthening of the system.

Prevalence of drug-resistant TB:

The last TB Drug Resistance Survey was conducted in 2008. The results of the survey indicated that the levels of multidrug resistant-TB (MDR-TB) remained low at 1.2% of notified cases compared to 1.8% in the survey conducted in 2000. In the survey, there were no MDR cases detected among new TB cases, while there was 6.9% MDR among previously treated patients. In the same survey, there was no resistance detected to second-line drugs (kanamycin or ofloxacin).

[8] N. Kapata et al: Trends of Zambia's tuberculosis burden over the past two decades; Tropical Medicine and International Health, volume 16 no 11 pp 1404-1409 November 2011

[9] TB Epidemiological Assessment Report for Zambia, 2013

C. Key Populations, Human Rights Barriers and Gender Inequalities

In Zambia, key populations have been defined as **"People living with HIV, women and children, adolescents (10-14), young people (15-24), people with disabilities, prisoners, sex workers and their clients, migrant and mobile populations."**[10] The expanded list is a deliberate attempt by Zambia to ensure that populations with historical and disproportionate lack of service access are identified and considered for programming.

Major factors contributing to this inequity include the following:

- Very limited data is available regarding several of these key populations. Although Zambia recognises that factors such as age, gender, education status, social mobility and the environment in which people live may increase the vulnerability of individuals and groups to HIV and its consequences, vulnerability is a fluid concept and can change over time depending on the opportunities or challenges faced by individuals and different groups. Based on two studies designed to address current data limitations that will be forthcoming in late 2014/2015, more evidence will be available for some key populations at high risk of infection to enhance programming and reporting. Reprogramming based on this fresh evidence will then be undertaken after designing appropriate and effective interventions for specific key populations.
- In Zambia, activities relating to sex work, sex among same-sex couples, and drug use are illegal. However, Zambian law grants universal access to health services for all citizens, and programs are designed with no exclusivity. Special programs specifically designed for these populations have to be developed and brought to scale to help ensure that equity is increased. Support from Government in realising and protecting rights is a strategy that will be used going forward, which will be complemented by civil society efforts to further advocate for the health rights of affected sub-populations. Despite the current lack of legal frameworks for prevention activities for sex workers and MSM, Zambia has allowed groups to lobby support for these populations and some development partners have implemented programs for these groups. Concurrently, efforts are being undertaken to scale up HIV services for key populations using a public health approach to ensure universal access.
- Other barriers exist, such as the prohibition of condom distribution in school settings below the tertiary level. This prohibition affects adolescents who have been identified as a high-risk group and should have access to any means of prevention. While the Zambian Constitution precludes discrimination based on a wide variety of factors, much work still needs to be done to redress the exclusion of groups who have heightened vulnerability to HIV infection.
- Domestic violence and social norms on masculinity serve as other barriers to the uptake of HIV prevention and treatment services. While these barriers are present in various forms, including cultural acceptance, there is a need for programs that target these societal challenges, particularly those to address the unequal power relations between men and women in relationships. For example, a 2007 baseline study by CIET showed that 34% of Zambian women and 38% of Zambian men said that in their culture it was acceptable for a man to beat his wife[11].
- In Zambia, the TB program has identified mining communities, prisoners, the urban poor, children, as well as people living with HIV as key and vulnerable populations in respect to TB control. At present there are 56 prisons with an estimated 18,000 inmates. The estimated TB prevalence in Zambian prisons is 6.6%, and HIV prevalence is 21.6% (unpublished data, S.Reid: WHO 3Is Protocol 2012).
- The relatively poor service coverage for children aged 0-14 years is a challenge linked to equity in the national response to the two diseases. ART coverage, as noted earlier, is low in this age group, and new TB case notifications in this age group have declined from 10% in 2009 to 8% in 2013.
- According to key findings from the PLHIV Stigma Index, stigma remains a challenge in Zambia.[12] Individuals have reported experiencing stigma in a variety of settings, and about 30% of men and 36% of women have reported exclusion from social activities. Some 16.5% of the respondents had been refused employment due to their HIV status, and 39.9% reported losing a job or some source of income at least once on account of their HIV status.

D. Health and Community Systems

[10] The NAC Council 8th February 2014 (Ministry of Education, Ministry of Health, Ministry of Youth Sports and Child Health and Ministry of Community Development Mother and Child Health)

[11] N. Andersson, et al: Gender-based violence and HIV: relevance for HIV prevention in hyperendemic countries of Southern Africa, AIDS 2008, 2 (suppl 4): S73-S86.

The following analysis is based on WHO's six building blocks of health systems as it relates to the capacity to implement a joint HIV and TB program.[13]

Block one: Service Delivery Mechanisms

In Zambia, health services are provided by Government institutions, church institutions, mining and other industrial companies. The National Health Strategic Plan (NHSP) of 2006-2010 defines the framework within which both public and private service delivery is organized, based on the Zambia Basic Health Care Package (CBoH, et al., 2003). This package is delivered through a system comprising the 5 levels of health care as follows:

a) Third-level hospitals also called Specialist or Tertiary and are the highest referral hospitals in Zambia. They cater for a catchment population of 800,000 and above and offer sub-specialization services (e.g., Paediatrics, Obstetrics & Gynaecology, Psychiatry, training, etc.). All complicated cases not attended to at second-level hospitals are referred to these hospitals. In 2012, there were 6 third-level hospitals in the country.
b) Second-level hospitals are also referred to as Provincial or General Hospitals. These are found at the provincial level and cater for catchment populations of between 200,000 and 800,000 people. These hospitals act as referral centres for first-level institutions. In 2012, there were 19 second-level hospitals in Zambia
c) First-level hospitals are also referred to as District Hospitals and are designed to serve populations between 80,000 and 200,000. In 2012, there were 84 first-level hospitals in Zambia.
d) Health centres comprise two types, Urban Health Centres (UHCs) serving a catchment population of between 30,000 to 50,000 people and Rural Health Centres (RHCs) serving an estimated 10,000 people. In 2012, there were 409 UHCs and 1,131 RHCs in Zambia.
e) Health posts are the lowest level of health care and are built in communities far away from health centres. These cater for catchment populations of approximately 3,500 in rural areas. Types of services offered at this level are basic first-aid and curative. There are 307 health posts in Zambia.

HIV and TB services are provided through these facilities and the scope of the services depends on the intrinsic capacity of the facility. Zambia currently has 560 sites providing comprehensive HIV services and more than 1,956 sites offering DOTS services. Based on the current approach towards service integration, it is expected that all the sites offering ART services will be co-located with DOTS services. The sites are spread across all ten provinces and access, although not universal for the two disease services, remains substantial according to current coverage levels of ART access for PLHIV at 77% and TB treatment success rates at 88% (HMIS, 2013). The 2012 List of health facilities in Zambia (page 18) indicates the facilities with HIV and TB services. However, the system will benefit from investments in diagnostic capacity and infrastructural upgrades to accommodate for the joint programming approach. Outreach services will be required for the geographic locations that are hard to reach and where no physical facilities are located.

Block two: Health Workforce

The Zambian health workforce situation is aptly described by P. Ferrinho et al., 2011[12] "……. *a peaceful, politically stable African country with a longstanding tradition of strategic management of the health sector and with a track record of innovative approaches but still remains with a major absolute and relative shortage of health workers. The case of Zambia reinforces the idea that training more staff is necessary to address the human resources crisis, but it is not sufficient and has to be completed with measures to mitigate attrition and to increase productivity*". And, "*For a long time, the Health sector in Zambia has continued to face challenges of Human Resources. The Ministry of Health still has a gap of 5,844 health workers against an establishment of 18,073, while the gap in the Ministry of Community Development Mother and Child Health stands at 17,607 against an establishment of 41,925 representing 60.9% filled positions against the establishment as at 30th August, 2013".*[13] In an effort to address the human resource gap, the MOH recently launched the National Training Operation Plan (NTOP) 2013-2016, which outlines its intention to increase the staff in the training institutions for which about US$2 million has been allocated in 2014 for capacity building. The fund is meant to cater for the number of continuing in-service students that the MOH is currently sponsoring. Additionally, funds also will cater for all physicians pursuing the MMED programme for the MOH and the Ministry of Community Development, Mother and Child Health.

[12] Paulo Ferrinho et al, The human resource for health situation in Zambia: deficit and maldistribution: Human Resources for Health Journal. 2011; 9: 30 - http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3283521/.
[13] GRZ, Ministry of Health, 2014 Action plan, page 9.

Block three: Health Management Information System (HMIS)
The national health management information system (HMIS) used for HIV is the DHIS 2.0, and specific modules are configured around the existing data collection tools. The tools are readily available at all facilities, and quality-assurance mechanisms exist as described in the national M&E framework. The TB data collection system is a parallel reporting system, which presents a unique challenge for the joint programming approach. Zambia has recognized the need for system integration and plans are underway to migrate the TB platform into the current DHIS 2.0 platform used by the HIV program. The current allocation will contribute to the move toward integration. Data disaggregation along key population segments by age and gender is another limitation, and plans are underway to revise the current tools to ensure data is adequately disaggregated to capture key sub-population-level information.

Zambia's opportunities to conduct population surveys to collect impact data are very limited due to funding constraints. The country is currently in the process of finalizing a Demographic Health Survey and a TB prevalence survey. Results from these surveys should be available by the end of 2014 and will inform future changes to the design of programs for the two diseases. This application has resources earmarked to support more operations research efforts, including Zambian sexual behaviour surveys and an antenatal clinic sentinel survey.

Block four: Access to Medical Products, Vaccines and Technologies
Zambia has prioritized the need to ensure equitable access to essential medical products and technologies of assured quality, safety, efficacy, and cost-effectiveness, and their scientifically sound and cost-effective use as recommended by the WHO. Central, provincial, and district storage facilities exist for health commodities in Zambia. National forecasting and quantification exercises are conducted annually to inform the commodity needs for each year. Storage and distribution are centrally coordinated under the auspices of Medical Stores Limited (MSL) and the network of storage units across the country. The capacity of MSL to carry out this role is being enhanced through investments from the GRZ, USG, Sida, EU, and the Global Fund. Funds from the Global Fund are earmarked in the malaria and TB/HIV NFM application to support capacity improvements of the hub systems in Zambia. These investments are expected to significantly improve the capacity of the MOH/MSL to address the supply chain challenges, including funding, human, and infrastructural, which the HIV and TB programs are facing.

Block five: Health Financing
The funding landscape for HIV and TB is described in detail in section 2.1. The GRZ has demonstrated commitment to fund the two disease programs, but significant gaps still exist. Support from other donors, including the Global Fund, contributes significantly towards addressing these funding gaps. The GRZ contribution towards funding the national strategies for the two diseases stands at 8% (US$158 million) for HIV and 31% (US$8 million) for TB. The financial gap analysis table attached to this application provides further details. The GRZ MOH committed in its 2014 Action Plan to establishing sustainable financing mechanisms. One option to be adopted is the establishment of the Social Health Insurance Scheme. The National Social Health Insurance scheme is a key initiative that is expected to become fully operational in 2014.

Block six: Leadership and Governance Structures
The health sector is led and coordinated by two ministries, the MOH and the Ministry of Community Development, renamed in 2011 as the Ministry of Community Development, Mother and Child Health (MCDMCH).

The mandate of the MoH includes:
- Planning, health policy and guidelines;
- Delivery of health services at 2nd and 3rd level hospitals and training institutions;
- Surveillance, disease control, and research;
- Infrastructure and medical equipment, drug supply, logistics, and other medical commodities;
- National and provincial coordination.

The MCDMCH responsibilities include the following:
- Primary health care service delivery;
- Implementation of health activities at district, health center, health post, and community levels;
- Supervision at district, health center, health post, and community levels;
- District and community coordination.

In the restructuring process, primary health care has been devolved to the MCDMCH. A strategic plan to manage the transition period was developed by the two ministries in 2012. This led to the development of separate Strategic Plans for each ministry.

Primary Health Care at the district level is under the oversight of the MCDMCH. This includes service provision from the community, health post, health centre/clinic and District Hospital levels, including TB, Malaria and HIV service provision. The Ministry of Health is responsible for service provision at Secondary and Tertiary institutions. The NTP through the MCDMCH and the Ministry of Health is responsible for MDR- and XDR-TB diagnosis and management, management of patients on second- and third-line antiretroviral therapy, and management of severe malaria at secondary and tertiary institutions. These cases are referred from the primary level. The Ministry of Heath also provides technical support and supervision to the district facilities.

In order to coordinate activities that fall under districts, the MoH works in close collaboration with the MCDMCH to implement related activities. Thus TB, HIV and Malaria as funded by Global Fund continue to be implemented as per the approved work plans and budget managed by the MoH PMU.

Other ministries involved in health care are the Ministry of Home Affairs, in charge of prisons and which has its own clinics and hospital, and the Ministry of Defence, which also has its own hospitals and clinics. The GRZ through the MOH and MCDMCH coordinates policy development, planning and service delivery through the various Technical Working Groups (TWGs) that have been formed. These include the PMTCT/Option B+ TWG, ART TWG, TB/HIV and the National TB/HIV Coordinating Committee.

When devolution to Local Government is completed, the ministerial link with district management offices will be streamlined even further, in that there will be direct reporting lines from the district management/facility to the source of funding. In relation to the MoH this means direct access to district management to report and account for any funding provided by the MoH. Thus, the direct link / interaction to districts will speed up the activity implementation process.

The key risks of the transition are:
- Delayed implementation arising from disbursement timing, administration lags, other priorities, and these are being resolved through closer collaboration with all the related parties, transparent communication, etc.;
- Prioritization with other GRZ-competing activities in terms of human resource allocation, the fiscal calendar implementation plan, and changes in treatment guidelines.

The risks will be managed through:
- Coordination meetings between the two ministries to define roles and responsibilities in the implementation of activities;
- Dissemination of these roles and responsibilities to all levels of service delivery between the two ministries;
- Staff training and/or orientation in their new roles.

There are leadership and coordination structures at the provincial and district levels with some level of operational autonomy to enable a bottom-up planning process that factors in the unique needs at lower levels. This model allows for ease of integration of the two disease programs and the related efficiencies. In its Mid-Term Expenditure Framework 2013 the GRZ stated as a commitment to its leadership and governance intentions, “In the health sector, Government’s goal will be to provide equitable access to quality health services. To achieve this, emphasis will be placed on providing cost-effective, primary health care and specialised referral medical care to all by ensuring availability of essential drugs and medical supplies; and providing infrastructure and equipment conducive for the delivery of cost effective quality health services”.[14]

The Decentralization Secretariat under the Ministry of Local Government and Housing is driving the devolution process with Cabinet authority. A draft Devolution Plan is being implemented and a Task Force is in place with representation from the Ministry of Health and the Ministry of Community Development Mother and Child Health to:

[14] GRZ Ministry of Finance: 2014-2016 Medium term expenditure framework and the 2014 budget

- Carry out and assign activities/events indicated in the Devolution Plans
- Collaborate and coordinate joint activities and meet to agree on the required resources (as allocated by the Ministry of Finance and other cooperating partners, including Global Fund resources).

Community Systems

In responding to HIV and TB, communities are organised around community-based organisations, support groups, community networks, including civil society, and local coordinating structures. These structures are intended to support and coordinate communities in community-based health interventions, including demand creation for services, adherence support, and loss to follow-up tracking. Strengthening community participation is an important element in order to ensure high standards of transparency, accountability of health service management, and community ownership of health programs. The issues of limited funding, cohesion, coordination, and sustainability have been recognized as challenges in the revised strategic documents for HIV, TB, and malaria. In response, Zambia has prioritized community systems strengthening, with emphasis on addressing these challenges.

Health sector challenges:

The health sector continues to face major challenges, including:

- ❑ Geography: Some hard-to-reach populations have limited access to services, including mobile populations such as small-scale and informal miners. The areas distant from health facilities have geographical barriers to service access, which vary on a seasonal basis, including restricted access due to rains and fishing camps.
- ❑ Poverty: Although Zambia is classified as lower middle-income, the country has poor income distribution reflected by a high Gini coefficient of 0.575[15] in 2010, with 20% of income shared by 70% of the population. While ARVs are provided free of charge, economic access remains a barrier due to other related services and costs, including out-of-pocket expenditures on user fees at some health facilities, laboratory and X-ray charges, and transport to visit health facilities.
- ❑ Inadequate numbers of medical staff leads to severe congestion problems in health centres.
- ❑ Logistics management of drugs and medical supplies, including HIV-related equipment and supplies such as condoms, continues to be inadequate.
- ❑ Human resources to collect routine monitoring data at the facility level are inadequate.
- ❑ The distribution of health infrastructure in Zambia is inadequate and inequitable.
- ❑ Inadequate equipment leads to long delays in accessing test results.
- ❑ The lack of electricity and internet connectivity in some districts and in most rural facilities presents a huge challenge in improving the quality of services, especially in rural areas.
- ❑ In rural areas, approximately 50% of the households are within 5 kilometres of a health facility, as opposed to 99% of the households in urban areas.

1.2 National Disease Strategic Plans

With clear references to the **current** TB and HIV national disease strategic plan(s) and supporting documentation (including the name of the annexed documents and specific page reference), briefly summarize:

[15] http://data.worldbank.org/indicator/SI.POV.GINI

a. The key goals, objectives and priority program areas under each of the TB and HIV programs including those that address joint areas.

b. Implementation to date, including the main outcomes and impact achieved under the HIV and TB programs. In your response, also include the current implementation of TB/HIV collaborative activities under the national programs.

c. Limitations to implementation and any lessons learned that will inform future implementation. In particular, highlight how the inequalities and key constraints and barriers described in question 1.1 are currently being addressed.

d. The main areas of linkage with the national health strategy, including how implementation of this strategy impacts the relevant disease outcomes.

e. Country processes for reviewing and revising the national disease strategic plan(s). Explain the process and timeline for the development of a new plan and describe how key populations will be meaningfully engaged.

- **KEY GOALS, OBJECTIVES AND PRIORITY PROGRAMS**

Revised National AIDS Strategic Framework (R-NASF) 2014 - 2016

The R-NASF is a three-year multi-sectoral framework designed to inform and guide the HIV response in Zambia from 2014 to 2016. It has been developed using the Investment Framework approach, focusing on six basic core programs, key populations, and a set of critical social and program enablers and development synergies.

Key Goals:

- Avert between 170,000 and 360,000 new HIV infections by 2030.
- Avert between 60,000 and 123,000 AIDS-related deaths by 2030.

Key Objectives

- Reduce the rate of annual new HIV infections from 53,000 in 2012 to 38,662 in 2016.
- Reduce the percentage of infants born HIV-positive to less than 5% by 2016.
- Increase the percentage of PLHIV alive 12 months after initiating antiretroviral therapy from 81% in 2013 to 95% by 2016.

Priority Program Areas:

The prioritized basic programs under this plan (R-NASF, pp. 48-57) include:

- **Treatment: T**he program priority is to enroll and retain all people eligible for ART in the ART program. Eligibility for ART is defined in the revised guidelines of 2013. For TB and HIV co-infection, the program priority is to reduce the death rate among TB and HIV co-infected persons by providing them with treatment for both HIV and TB.

- **HIV Testing and Counselling:** The program priority is to address existing gaps in coverage, uptake, and quality of HTC services and linkages to care, treatment, and prevention services. TB screening will be included in the package of services offered in HTC settings.

- **Elimination of Mother to Child Transmission (eMTCT):** The program priority is to eliminate new paediatric HIV infections and improve the survival of children and their mothers infected with HIV. TB screening also will be introduced as part of an integrated approach for TB and HIV control efforts in Zambia.

- **Voluntary Medical Male Circumcision (VMMC):** The program priority is to scale up VMMC of males across all provinces and districts. HTC and TB screening will be offered using the VMMC settings as entry points in alignment with the integrated approach for TB and HIV control in Zambia.

- **Condom Programming: T**he program priority is to contribute to the prevention of new HIV infections by scaling up the demand and supply of male and female condoms and lubricants to increase the percentage of men and women who use condoms and lubricants consistently and correctly during sexual intercourse.

- **Social and Behavior Change:** The priority for the SBC program is to influence social and behavior change among the general and key and vulnerable populations, with the aim of changing social norms and creating demand for and adherence to prevention interventions and treatment uptake and adherence.

REVISED NATIONAL TUBERCULOSIS CONTROL PROGRAM STRATEGIC PLAN (R-NTCPS)

2014-2016

Key Goal:

The key goal of the R-NTCPS is to reduce the prevalence of TB by 50% by 2016 relative to the estimated levels in 1990. This goal is aligned with the MDG goals and Stop TB Partnership targets and will sustain the reduction in mortality towards the post-2015 Global TB Strategy.

Key Objectives:

The goal is expected to be achieved using the following objectives and targets (R-NTCPS, pp. 34-48):

- Increase the case notification rate of all forms of tuberculosis from 321/100,000 in 2012 to 338/100,000 and screen 60% of the previously treated TB cases for MDR by 2016.
- Increase treatment success of drug-susceptible TB from 88% in 2012 to 90% by 2016.
- Successfully treat at least 70% of all MDR-TB patients initiated on treatment by 2016.
- Reduce TB-related morbidity and mortality among people living with HIV through the scale-up of TB and HIV activities to at least 80% of TB and HIV sites by 2016.
- Scale-up TB prevention, diagnosis, and care services for vulnerable and high-risk populations including children by 2016.
- Enhance TB surveillance, M&E, and increase the capacity to conduct operational research.
- Strengthen the health system to deliver TB services through a primary health-care approach and the development of programmatic synergies.

Priority Program Areas:

- **Improve case detection and quality of diagnosis:** The program will support case detection by increasing diagnostic facilities, procuring new diagnostic equipment, and supporting external quality assessments for laboratories providing microscopy services.

- **Scale up access to TB treatment and improve treatment success rates:** The program will support provision of anti-TB drugs to manage cases, increase the number of staff for TB control through training and recruitment, and supervise and coordinate program activities and the private sector in the follow-up of TB patients through ACSM activities.

- **Scale up diagnostic capacity and treatment of MDR TB:** The program will strengthen case detection by introducing and sustaining new diagnostics such as Xpert MTB RIF and DR-Plus (HAIN), expanding a national courier system to cover all provinces, supporting the nutritional needs of patients, training more personnel to manage MDR-TB, improving patient tracking and referral networks, and improving infrastructure at hospitals managing MDR-TB.

- **Scale up TB and HIV collaborative activities:** The NTP and HIV programs have initiated integrated activities, including a national annual TB and HIV data review meeting, integrated TB and HIV indicators in the recording and reporting tools, HIV testing among presumptive TB patients, TB screening among PLHIV, provision of cotrimoxazole in TB and HIV co-infected patients, and the provision of IPT in PLHIV. The use of similar community channels for improved access and care also will be explored.

- **Support TB care and treatment for vulnerable and high-risk populations (prisoners, miners, urban poor, and children):** The program will support improved access to comprehensive HIV and TB prevention, diagnosis, and treatment in mines and prisons, engage stakeholders to strengthen childhood TB programs, train providers to detect TB in children, and strengthen the capacity to implement contact-tracing at community level.

- **Enhance the TB M&E and operations research capacities:** The program will build capacity at the national and sub-national levels in M&E, support activities that ensure data quality, conduct a Drug Resistance Survey, and support operations research.

- **Strengthen the health system for TB service delivery (PHC approach):** The program will support a national TB program review, an evaluation of the drug supply and logistics management, and implement TB IC in ART-treatment settings, prisons, and communities.

Aligned with the new thrust towards integration, the strategies described above will be implemented through a harmonized approach that specifically will seek to ensure that TB- and HIV-related services are offered in all service-delivery facilities and at all contact opportunities with clients.

IMPLEMENTATION TO DATE

HIV Program Implementation

Although the R-NASF implementation has just begun, the plan can be considered as a continuation of the NASF 2011-2015, which reached mid-term in 2013.

HIV Prevention

The prevention response in Zambia is guided by two national strategies: the NASF 2011-2015 and the Zambia National HIV STI Prevention Strategy 2009-2014. The revised NASF identified nine prevention program areas: 1) Social and behavioral change (SBC); 2) HIV testing and counselling (HTC); 3) Condom promotion and distribution; 4) Voluntary medical male circumcision (VMMC); 5) elimination of mother-to-child Transmission of HIV (eMTCT); 6) Prevention interventions for people living with HIV (PLHIV); 7) Post-exposure prophylaxis (PEP); 8) Sexually transmitted infections (STI) screening and treatment; and, 9) Blood safety.

The details of the implementation approaches, achievements, challenges and proposed remedial actions are detailed in the attached revised NASF 2014 -2016 (pages 28-35). Due to page limitations for this application, the selected priority areas under the prevention program are singled out for further description in this section.

The key achievement of the prevention pillar, as reported in the JMTR 2013, was the decrease in the incidence rate in adults (15+ years) from 1.6% (82,000) in 2009 to 0.8% (46,000) in 2012. The rate of infection in children (0–14 years old) also dropped by up to 51% by 2012.

The findings from the ongoing DHS will provide updated impact data on social and behavioral change, condom programming, STI, and blood safety interventions to date.

Social and Behavior Change (SBC)

Implementation Approach:

The 2011-2015 NASF focuses on comprehensive social and behavior change (SBC) in three groups: the general population, young people, and key populations. In 2012, Zambia adopted an HIV strategy for advocacy and social and behavioral change communication (SBCC) and rolled it out through various strategies targeting adolescents. The SBC initiatives have strategically targeted key drivers of transmission, and the messages have included promoting the delay of sexual debut (primary abstinence) in adolescents and youth, faithfulness in marital or stable unions, and condom use during sexual intercourse.

In 2012-2013, key SBC interventions prioritized television and social media channels (e.g,. Safe Love, Loves Games) and featured Zambian celebrities as role models (e.g., Brothers for Life) to address social norms around condom use, HIV testing, multiple sexual partnerships, gender-based violence (GBV) and alcohol abuse among adolescent males.

In 2015-2017 PEPFAR funding will support SBCC in communities and schools with a special focus on adolescent girls (see the Counterpart Financing Table for the actual investment by partner).

Other support from partners includes:

A. UNESCO:

The program being implementing (specifically for young people) is entitled “Strengthening Sexuality Education Programs for Young People in School Settings in Zambia”.

The overall purpose of the program is to improve the sexual and reproductive health (SRH) outcomes of adolescents and young people (10-24 years) in Zambia through increased access to high-quality, age-appropriate and gender-transformative sexual and reproductive health education and services.

The intended outcome is to increase access to high-quality and age-appropriate reproductive health and sexuality education and services for young people (aged 10 – 24), including YPLHIV and young people with disabilities.

B. UNICEF/EU:

MDGi Initiative of the Government of Zambia funded by the EU through UNICEF/UNFPA/WHO:

Contribution of the MDGi Acceleration initiative (funded by the EU) to Adolescents Sexual and Reproductive Health and HIV: Under this initiative (2013-2017) an initial budget of €41.5 million has been set aside to contribute to the improvement of maternal, neonatal, child and adolescent health and nutrition in Zambia through the increased utilization of quality health and nutrition services by vulnerable women, adolescents, and children in 11 selected rural and urban districts in Copperbelt and Lusaka provinces. Among other interventions targeting adolescents, the initiative focuses on:

i. Advocacy for adolescent-sensitive policies and guidelines on SRH and HIV.

ii. Improving coverage and accessibility of adolescent- and youth-friendly services in the targeted districts.

iii. Scaling up of the demand and referral systems for adolescent SRH services at the individual, parental, and community levels.

Targeted SBC interventions for adolescents and youth using mobile phone technologies is emerging as a potentially cost-effective strategy to increase comprehensive HIV knowledge and the utilization of high-impact HIV interventions. The National AIDS Council (NAC) and the Ministry of Youth and Sport launched an adolescent-friendly, real-time and free SMS-based counselling platform on HIV and STI to increase comprehensive HIV knowledge and the uptake of biomedical prevention interventions by adolescents.

Achievements:

- The education sector is including comprehensive sexuality education in the teacher education curriculum.
- Comprehensive sexuality education and life skills programs reached 1,070,900 young children (5-9 years) and adolescents (10-19 years), including 45% of the boys and 55% of the girls in school from 2012 to 2013 (MoE Annual report, 2013).
- More than 1,200,000 young people aged 15-24 in and-out of school received life skills education and were equipped with HIV prevention information to be able to adopt safer sexual behaviors. (UNICEF, 2013)
- SBC interventions are integrated into routine biomedical programs (eMTCT, family planning, ART, VMMC, HTC, and condom distribution).
- At the community level, traditional and religious leaders have been involved in successful SBCC program design and implementation. Community health volunteers and community health committees continue to support the promotion of safer and healthier behaviors, zero tolerance for stigma and discrimination, and the demand for services through community mobilization and door-to-door campaigns.
- The 2009 Behavioral Surveillance Survey of female sex workers in border and transportation routes with trend analysis 2000-2009 showed that condom use in the previous 30 days with clients increased from 17.7% in 2000 to 46% in 2009 (p. 36).

Challenges:

- Limited funding affects the scale of programming.
- HIV prevention messages are often not harmonized to ensure that clear and non-conflicting messages are disseminated to community members.
- There are inadequate SBC materials in local languages and also are not adapted to suit local circumstances.
- Behaviors related to some traditional beliefs are stigmatized.
- Limited opportunities exist for sustainable livelihood strategies targeting young people.

HIV Testing and Counselling (HTC)

Implementation Approach:

HTC in Zambia is implemented using various strategies, including client- and provider-initiated testing and counselling (PITC); mass campaigns; couples counselling and testing including discordant couples and peer outreach; mobile outreach services; male testing; targeted campaigns for key populations (adolescents/youth, migrant workers, prisoners, and geographically hard-to-reach populations); and, hot-spot targeting, among others. An integrated approach is implemented, where a full package of prevention interventions is offered at each contact. The primary health care (PHC) approach is also promoted with HTC offered along with SRH, TB, and other PHC services.

Achievements:

The HIV testing and counselling program has continued to show an increase in the number of people tested and counselled, although not at the desired rate. As of December 2013 (National HMIS data), the number of people aged 15 and older who received HTC in the past 12 months and knew their results totaled 3,005,402. But this total represents only 41% of the national target (7,330,248).

Challenges:

- Scaling up access to couples counselling and testing remains a challenge.

- Limited outreach opportunities exist for adolescents and youth, and the issue of the legal age of consent is a related factor.
- Testing for both sexes is low with only 21% of young men having tested in 2009 while their female counterparts had an impressive 51% testing rate.
- Coverage of couples counselling and testing to address discordant couples is limited.
- Coverage of HTC is limited in rural areas.
- Home testing as an approach to reach more men needs to be scaled up.
- HIV-related stigma is still a barrier to access.
- Quality assurance of all HTC programs and at all sites needs to be rolled out.

Mitigation Efforts:

- Couples counselling and testing, particularly for discordant couples, is being scaled up.
- Mobile testing, door-door campaigns, community testing, and self-testing are used as approaches to increase the access to HTC in the general and other underserved populations.
- Innovative approaches to reach adolescents and youth to raise awareness and increase access of this key population to HTC are in action.
- Involving Influential leaders, such as traditional leaders or chiefs, religious leaders, and traditional healers, towards addressing stigma barriers to HTC in communities is increasing.

Condom Programming

Implementation Approach:

Two strategies for condom promotion and distribution are undertaken in Zambia. The first method is through the private sector, largely driven by the Society for Family Health (SFH), which promotes and distributes condoms using the social marketing approach. As a commercial product, condoms are made available to end users at a minimal fee. The second method is through the public sector, largely driven by the MOH and the MCDMCH, promoting and distributing condoms at health care facilities (MCH, HTC, and Out-patient Departments) at no cost to the public. The 2014 condom targets are 41 million male condoms and 2 million female condoms, rising to 58 million male condoms and 1.5 million female condoms in 2015, and in 2016 to 82 million male and 2 million female condoms. The condom procurements are mainly supported through UNFPA.

Achievements:

- This two-pronged strategy has substantially increased access to condoms throughout Zambia, with 71,502 condom outlets operating in 2013, and no condom stock-out reports by 60% of the retail outlets and service centres (NAC, 2013).
- Condom use by members of high-risk groups has increased; for example, 81% of female sex workers reported using a condom at their last sexual encounter with a client (JMTR, 2013).
- The Zambian military has succeeded in improving the acceptability and use of condoms by its female soldiers with 80% now using condoms, demonstrating that a strategy focused on women can break through stigma barriers.

Challenges:

- The NASF 2011-2015 targets remain largely unattained, with only 55% of men and women aged 15-49 reporting in 2013 they used condoms during their last sexual encounter (NAC 2013).
- PLHIV report challenges in accessing supplies of condoms.
- Gender inequality creates a significant barrier for women to negotiate condom use with their partners.
- Stigma is still a significant barrier to the uptake of condoms, and myths are still associated with their usage.
- Condom distribution to religious groups that do not condone condom use remains a challenge.
- Some key populations, including disabled persons and prisoners, are not included in condom demand creation interventions.
- Inconsistent or incorrect use of condoms is still reported as a problem, particularly among young people.
- Some districts still experience occasional condom stock-outs.

Mitigation Efforts:

- UNFPA is supporting wider condom distribution by local partners in diverse locations.
- SBC communication strategies will include appropriate condom social marketing messages addressing stigma-related barriers to condom access.
- The condom supply chain in the public sector needs strengthening, as some districts still experience condom stock-outs.

Voluntary Medical Male Circumcision (VMMC)

Implementation Approach:

Voluntary medical male circumcision (VMMC) was officially launched as an intervention to reduce the spread of HIV infection in 2007. The VMMC strategy offers facility-based and community-based VMMC services as part of a comprehensive HIV prevention package, including: HTC, condoms, screening and treatment of STIs, and referrals for HIV-positive clients. The national VMMC operational plan was launched in 2012, with the goal of achieving 80% coverage of adult men aged 15-49 by end of 2015, at which point the program would transition to prioritizing early infant male circumcision (EIMC).

Achievements:

- The number of sites providing VMMC services has increased from 135 in 2010 to 472 in the first quarter of 2013 (JMTR, 2013).
- In 2012, a total of 173,992 out of a planned 200,000 VMMCs were performed. In 2013, a further 294,466 procedures were carried out.
- Uptake is highest amongst adolescents and men up to age 30.
- VMMC campaigns have helped reach vulnerable populations, and mobile VMMC services have expanded access to remote areas, improving the acceptance of VMMC even in provinces where it was not traditionally practised.

Challenges:

- Staff skills, particularly in remote regions, continue to need support due to high attrition rates.
- Limited quantities of circumcision kits are available due to funding limitations.
- Circumcision of children is constrained by the current guidelines, which stipulate that children between 60 days and 8 years of age cannot undergo MMC without general anesthesia, which is only available in hospital facilities.
- Privacy at health facilities is limited.
- Private health facilities are not engaged in providing VMMC.
- Challenges remain with the traditional acceptance of circumcision in some communities.

Elimination of Mother-to-Child Transmission of HIV (eMTCT)

Implementation Approach:

The four-pronged approach to achieving eMTCT has been adopted in Zambia, which includes:

- Prevent HIV in women of reproductive age.
- Prevent unintended pregnancy in women with HIV.
- Prevent HIV transmission from mother to child.
- Provide ongoing care and support to mothers, their children, and their families**.**

The eMTCT program has been introduced into clinic-based services throughout the country. To increase eMTCT coverage, the intervention has been successfully integrated into mother and child health programming, HIV treatment centres, HTC, STI clinics, and other reproductive health service centres. The eMTCT package offers comprehensive services, including health education, HTC, prophylaxis to prevent vertical transmission, partner testing, screening and treatment of STIs and cervical cancer, and family planning. This approach explicitly links with the GRZ's 8-year Family Planning Scale-up Plan, demonstrating strong political support. Integration with other services has significantly increased women's access to PMTCT and improved the life opportunities for both mothers and their babies.

See the next section on ART implementation for a description of the scaling up of Option B+.

Achievements:

- Related to eMTCT is the National HMIS data indicating that the estimated number of pregnant women in 2012 was 723,436. Of these, 688,060 pregnant women (94%) attended ANC services at least once and were tested for HIV.
- In 2013, 75,165 out of 77,772 of women living with HIV who delivered babies received antiretroviral medication to reduce the risk of mother-to-child transmission, representing 97% coverage (HMIS, 2013).
- Zambia is on track to meet the target of reducing the number of new HIV infections in children by 90% by 2015.

Challenges:

- A significant concern is the availability of resources for scaling up Option B+.

- ❑ While approximately 94% of pregnant women attend antenatal care and therefore access HTC, only 47% of these women deliver at health facilities, posing a risk for their infants.
- ❑ There is low pediatric ART coverage, in part due to the low number of women delivering at health facilities, but also due to significant delays in issuing test results for pediatric patients and loss to follow-up.
- ❑ Pediatric HIV training is limited, and linkages between ART and MNCH clinics are poor, as are linkages between ART and non-ART sites. As a result, 60% of the eligible children are not receiving HIV treatment.
- ❑ National data reveals that partner testing is low; few men attend ANC clinics with women due to the lengthy queues at health facilities and the lack of services for men.
- ❑ A significant number of mother-baby pairs are lost to follow-up due to weak linkages with communities. As a result, 50% of mothers and children do not receive ART during breastfeeding.
- ❑ Supply chain constraints affect access to appropriate equipment for follow-on care and treatment.

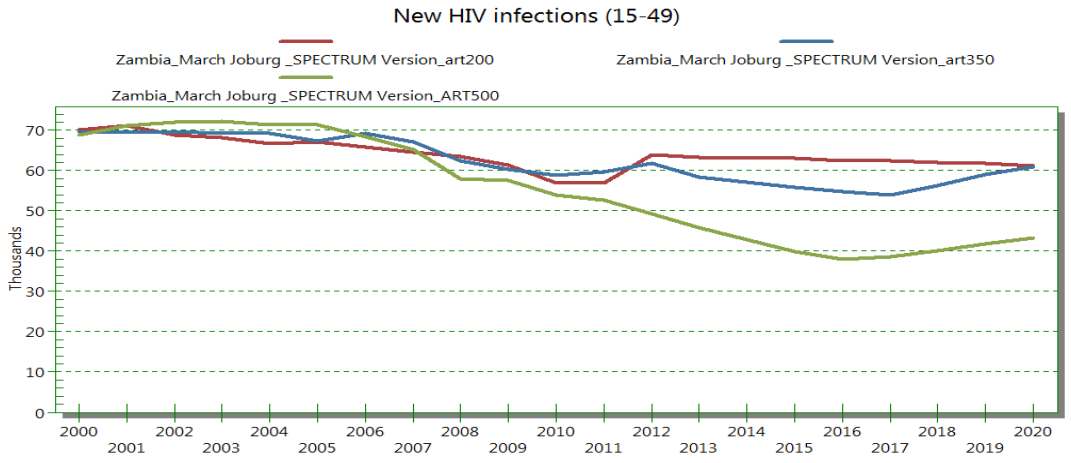
ART Program

Implementation Approach:

Significant progress has been made in increasing and improving access to and the use of HIV treatment services. Policies, guidelines, and operational standards are in place to ensure a cohesive national approach to treatment services and ensure that Zambia is up-to-date with the latest international standards. In February 2014 Zambia started implementing the 2013 Zambia Consolidated Guidelines for Treatment and Prevention, which are based on the 2013 WHO treatment guidelines and will increase many patients' eligibility for treatment and expand the use of antiretroviral drugs for HIV treatment and prevention. In these new guidelines the eligibility for life-long ART access includes: HIV-positive individuals with a CD4 less than 500; HIV-positive pregnant women regardless of CD4 (Option B+); and, an HIV-positive partner in a discordant couple.

The rationale behind the decision to change the CD4 threshold from 350 to 500 is based on a number of factors, including the findings on the HPTN 052 study, treatment as prevention,[16] which provided definitive proof that antiretroviral treatment reduces the rate of sexual transmission of HIV. Further, according to the 2013 World Health Organization (WHO) Zambia Country Case Report on CD4 thresholds, the country stands to benefit more in reducing new HIV infections by implementing the new ART guidelines. The report concludes that if Zambia continues with the CD4 threshold of 350, only 50,000 new infections will be averted by 2020, while if the country implements the 500 CD4 threshold, 66,700 new infections will be averted in the same period (see Figure 12). Zambia therefore has decided to implement the 500 CD4 threshold for starting ART as a means of strengthening the prevention of new infections in all age groups.

Figure 12: WHO Spectrum Projection: New HIV Infections Ages 15-49, 2000-2020, at ART 200, 350 and 500 CD4



Like many other sub-Saharan African countries, Zambia continues to face human resources for health challenges *(MOH 2012 annual report; p.15).* Nonetheless the recent costing study has shown that implementing the 2013 guidelines will eventually lead to a decrease in human resource needs from the

[16] Cohen, et al., 2011: Prevention of HIV-1 Infection with Early Antiretroviral Therapy, *New England Journal of Medicine*, Vol 365, No.6, p. 493.

country levels, despite showing a transient increase in the short term that is not significant *(The Implications of Treatment Scale-Up Strategies on National Health Systems, p. 32).* In order to address the necessary increase in health resources in the short term, the Government of Zambia has committed to recruit and train additional health workers at all levels, including community health workers who are expected to positively affect the delivery of HIV and AIDS and TB services. Additional human resources will greatly improve the access to HIV counseling and testing, which is the entry point to HIV and AIDS services and TB screening for both HIV-negative and HIV-positive patients. Further, a more skilled cadre of community health care workers (CHWs), known as Community Health Assistants (CHAs), receive training for one year and supervise the activities of volunteer CHWs, who are also being trained and deployed by Government. The inaugural 300 CHAs were trained and deployed successfully in late 2012 and early 2013. The second class of CHAs is currently being finalized for uptake during 2014. The CHAs receive training in social and behavioral change communication (SBCC) for prevention strategies for both HIV and AIDS and TB and treatment adherence for both ART and anti-TB treatment as part of their training course. The training and deployment of this cadre of health workers will improve the access, delivery, quality, and sustainability of community-based health services.

The 2014 draft forecasting report shows an increase in the cost of ARVs for 2015 compared to the 2013 forecast report. By the end of 2015, Zambia projects to enroll a total of 183,540 people as new patients on ART (175,803 adults and 8,232 children) at a total cost of $138,922,293 to meet the patients' needs and the pipeline.

The contribution to the total patients emanating from implementing the 2013 ART guidelines is estimated at 488 patients from the general population and 3,641 pregnant women under option B-Plus per month, giving an annual total of 5,856 (3.4% of total new patients), and 43,692 (25% of total new patients), respectively. Treatment for children will contribute 4.4% to the total new patients in 2015. The tables below summarize different contributions to the total.

Zambia's Scale-up Plan by Patient Numbers

Adults	**Number of Patients per Month 2015**
Scale-up based on 2013 data (2010 Guidelines)	9,760
Implementing 2013 guidelines	488
Option B+	3,641
Option A	0
Discordance	720
Total Monthly	**14,609**
Pediatrics	
New Patients	686
Total (Adults & Children)	**15,295**

Projections of Average Monthly Scale up 2015-2017

	2015	***2016**	***2017**
Adults (15 & above))	14,609	15,632	16,725
Pediatrics (<15)	686	734	785
Total	15,295	16,366	17,511

**Assumed an increase of approximately 7% from the previous year*

Babies needing Nevirapine (NVP) suspension for HIV infection prevention

	2015	**2016**	**2017**
NVP for 6 weeks	61,383	62,795	64,239
NVP for 6 months	3,641	3,768	3,942

The contribution to the total new patients in 2015 based on the 2013 guidelines is minimal: at 3.3% from the general population, while Option B+, which is accessed by pregnant women and focuses directly on preventing new HIV infections in children, contributes 25%; and, discordance contributes 5%.

The prioritization of the members of key populations is addressed by the following approach:

1. Option B+: These individuals are identified at all antenatal clinics where HCT is conducted during the booking visit (first visit). In facilities where ART is provided, these identified individuals will receive ART, otherwise they will be referred to the nearest ART-providing facility (pre-existing ART facility or PMTCT facility that has been mandated to provide ART). The individuals will receive support from networks of people living with HIV and AIDS and community health workers on Safe Motherhood Action Groups (SMAGs).
2. Discordance: Couples counselling and testing is the mainstay strategy of Zambia's HCT guidelines, and through this approach discordancy is identified at all HIV testing facilities and the HIV-positive partner is linked to care and the provision of ART under the 2013 guidelines.
3. Children (0-14): The 2013 guidelines provide for all HIV-positive children to receive ART regardless of CD4 count.
4. All members of key populations who qualify for ART provision receive access to ART irrespective of their status or inclination.

The Government, current Global Fund grant (SSF), and the USG through CDC have already invested heavily in the roll-out of the 2013 guidelines, which gained momentum in February 2014. So far all provinces have received training in Option B plus, and they have received the integrated ART guidelines. The implementation of the new guidelines has been a scale-up approach. Training in Option B+ (and revised ART guidelines) has been conducted for some staff in most districts.. Facilities with the requisite standards have thus been able to commence implementation of the new guidelines beginning with the high volume, high burden areas. Facilities not able to implement the new guidelines refer their patients to the next capable facility. These facilities will also eventually receive the required training and improvements in infrastructure and laboratory services including human resources with some task shifting. Currently, the supply chain management system functions well to support all the ART-initiating facilities in Zambia, which will be extended to the PMTCT sites which will be initiating ART.

The clinical recommendations in the new ART guidelines include:

- ❑ Start lifelong triple combination ART (cART) in the following HIV-infected individuals:
  - All confirmed HIV-infected children and adolescents <15 years old regardless of CD4 count and/or World Health Organization Clinical Stage (WCS)
  - Adolescents ≥15 years old and adults with CD4 count ≤500 cells/mm^3 regardless of WCS.

- ❑ Start lifelong triple combination ART regardless of CD4 count and WCS in:
  - Pregnant and breastfeeding women
  - HIV-infected sexual partners of pregnant and breastfeeding women
  - HIV-infected partners in sero-discordant couples
  - Patients with active tuberculosis (TB) disease
  - Patients with hepatitis B virus (HBV) co-infection with severe liver disease.

- ❑ Use the new, preferred, simplified first-line cART regimen (TDF + XTC + EFV) harmonized for pregnant and breastfeeding women, children >5 years old, adolescents, and adults.

- ❑ Accelerate the phasing out of stavudine (d4T) and zidovudine (AZT) in first-line cART regimens for all populations.

- ❑ Use viral load testing as the preferred approach to monitoring cART and diagnosing treatment failure, in addition to immunological and clinical monitoring.

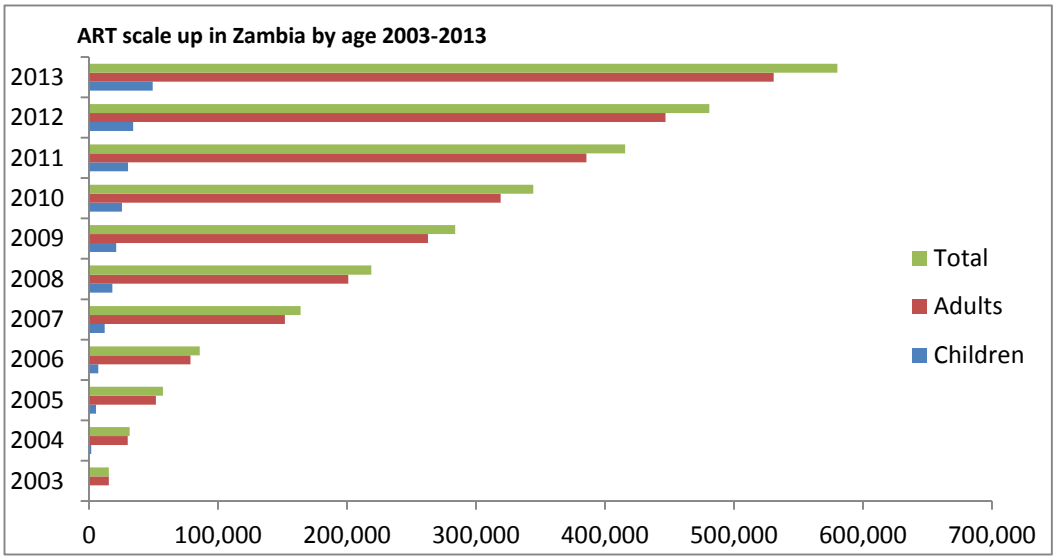
- ❑ Use community-based HIV testing and counselling to diagnose people infected with HIV early and link them to care and treatment.

- ❑ Use lifelong ART as prevention:
  - For all pregnant and breastfeeding women to prevent mother-to-child transmission
  - To reduce transmission of HIV to uninfected sex partners.

Achievements:

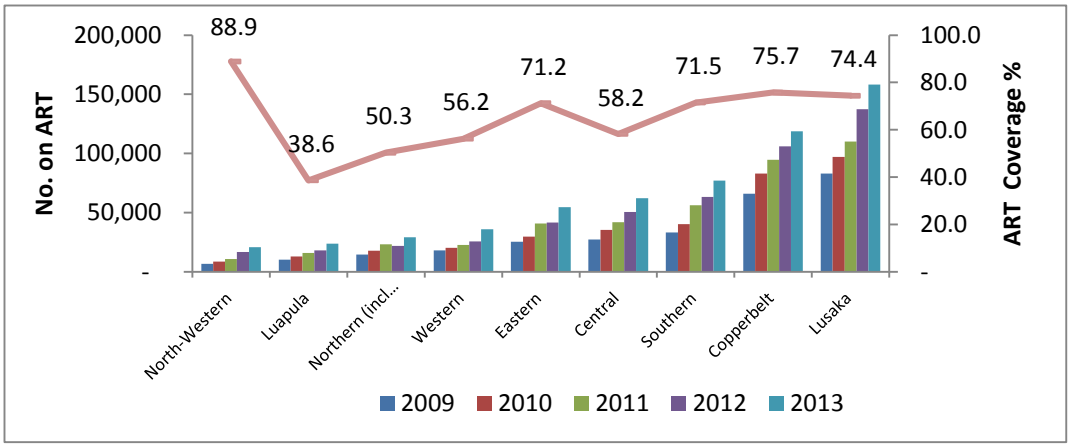
- In 2012, a total of 564 health facilities were dispensing ARVs in Zambia, which is an increase from 509 in 2011 (HMIS, 2013).
- As of December 2013, the number of children and adults receiving antiretroviral therapy in accordance with the nationally approved treatment protocol was 580,118 out of the 708,460 people estimated to be in need of ART, representing 81.9% coverage (HMIS, 2013).
- ART coverage among children aged 0-14 years has remained relatively low with only 49,416 children accessing ART treatment, representing about 55% of the actual need in children (HMIS, 2013).
- At present the GRZ grant supports all patients in HIV care with cotrimoxazole. Although the 2013 guidelines on ART will add patient numbers, the individuals who have been on ART and doing well will graduate from cotrimoxazole prophylaxis and will be balanced by the number of new patients accessing ART.

Figure 12: ART coverage 2003 -2013 disaggregated by Age



While there have been notable successes in the ART coverage of adults generally, some geographical variations in coverage exist across the provinces in Zambia. ART coverage in Lusaka, Copperbelt, Southern, Eastern and North-Western provinces is estimated to be slightly above 70%. This coverage demonstrates a response to the epidemic based on the geographical variations in HIV prevalence noted in the 2007 DHS. There has been a relatively greater yield and coverage for the ART program in the high-prevalence provinces. However, ART coverage for Luapula, Central, Northern and Western provinces has not reflected the prioritization effort, and they still demonstrate ART coverage below 50%. This geographical variation informs in part the prioritization process and geographical targeting this application addresses.

Figure 13: ART Coverage trends by provinces 2009 - 2013



Challenges:

- The slow pace of expansion of access to early infant diagnosis, especially in rural settings, remains a significant programmatic gap with a concomitant low ART coverage in children.
- The limited number of health-care providers authorized to prescribe paediatric ART at the primary health-care level, the low coverage of provider-initiated testing and counselling (PITC), and parental stigma also have contributed to the low ART coverage in children. The scale-up of pediatric ART coverage is now considered a national priority, and current and future investments will be made to correct this gap in programming.
- Human, infrastructural, and financial resource challenges remain, and the adoption of the new WHO guidelines will place greater pressure on these resources, although the costing study has shown that the increase in human resources needed to support the ART scale-up will decline after the initial increase.
- Other challenges and gaps are well documented in the R-NASF (pp. 38-39).

Mitigation efforts:

- In an effort to address human resource challenges to service scale-up and decentralization, Clinical officers and HIV nurse practitioners have been trained to initiate patients on ART who have non-complicated HIV or no other major infections. General nurses, however, are only allowed to maintain patients on ART. Community health workers, known as Community Health Assistants (CHAs) in Zambia, have been trained to perform rapid HIV tests, but are not licensed or allowed to re-supply patients with ARVs and the current legal framework does not allow nurses to prescribe drugs.
- The MOH is committed to ensuring the availability of ARVs and has pledged to advocate for increased funding for ARV procurement over the next few years. In the past, the GRZ has increased its funding contribution from 2% in 2009 to 38% in 2014 towards national ARV needs, including efforts at ensuring the quality of care and adherence support.
- With the revision of the guidelines, the need for ART will be greater, and it is anticipated that the GRZ commitment will increase to respond to the resource needs.
- The ongoing National Pediatric and Adult ART Program in Zambia (NEPOE) study is looking at retention in care at 6 months, 12 months, and 18 months with demographic profiles, weight and median CD4 count to guide future strategies to increase retention by addressing the factors contributing to attrition (loss-to-follow-up and death).
- Under the current Global Fund grant and the Bill and Melinda Gates Foundation there will be an assessment of the SmartCare monitoring system to enhance its functionalities to monitor the health status and quality of care of patients on ART.

TB Control Program Implementation

Drug-Susceptible TB treatment

Implementation Approach:

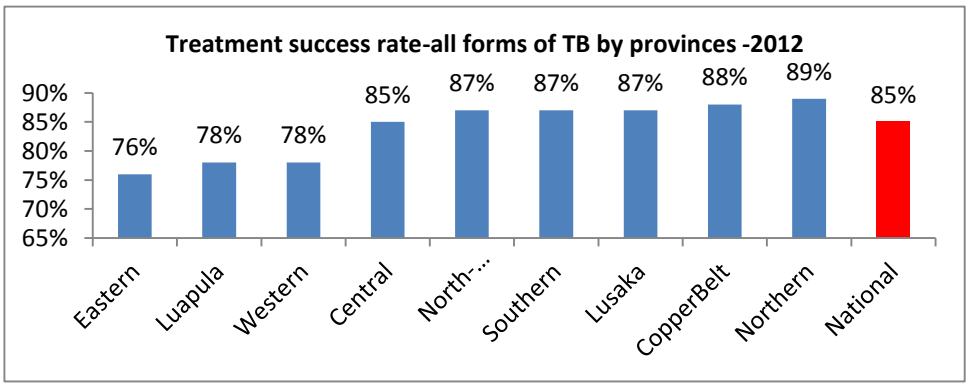
The National TB Strategic Plan (NSP) 2011-2015 was derived from the National Health Strategic Plan 2011-2015 and outlined the strategic approach through which the set targets would be achieved. The findings of the independent program review conducted in 2010 on completion of the 2006–2010 National TB Strategic Plan and the epidemiological review and impact assessment report 2014 were utilized in formulating the strategic objectives included in the plan. Several recent national events and advances and innovations in the diagnosis and management of TB since the development of this plan have necessitated a revision of the NSP. Among the advances and innovations include the availability of rapid diagnosis for TB and rifampicin resistance using the WHO approved Xpert MTB/RIF assay, changes in the national ART treatment guidelines that provide for early treatment of HIV in dually infected patients, new approaches to the TB and HIV integration activities, and Guidelines for the Programmatic Management of MDR-TB.

The national TB treatment guidelines provide details on the various intervention approaches used in Zambia.

Achievements:

- During the period 2009-2013, as a result of increasing support and investments from the MOH and with financial and technical support from cooperating partners and funders, the program performance was characterized by improvements in treatment outcomes.
- The treatment success rate for all forms of TB increased from 81.5% in 2009 to 85% in 2012, according to the national TB program data. However, there is considerable variation in the performance across the provinces. Figure14 below depicts the 2012 rates across the provinces in 2012.

Figure 14: Treatment success rate -all forms of TB by province-2012



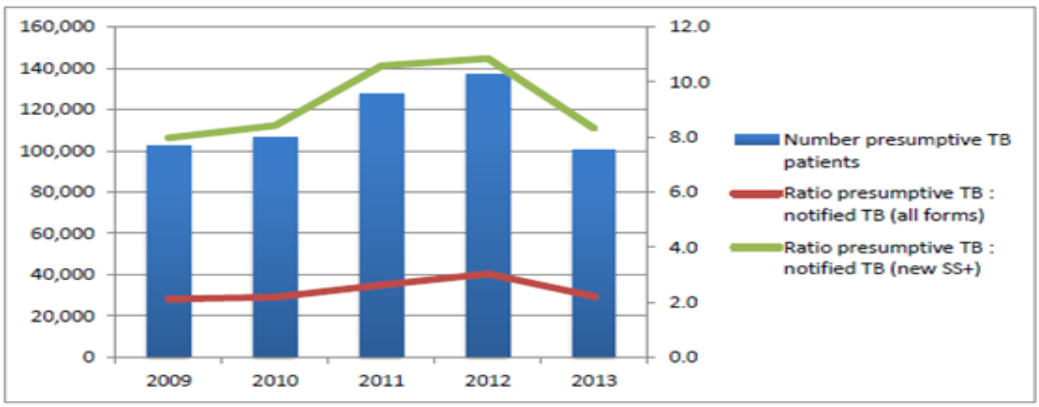
- Death rates have been on the decrease from 8% in 2009 to 5% in 2013.[17] There are, however, regional variations with higher death rates in Central, Eastern, Luapula and Southern provinces than the national average of 5% for 2013 (2012 cohort).

Table 1: Trends in TB treatment outcomes 2009 -2013

TB treatment outcomes	2009	2010	2011	2012	2013
Treatment success rate (%)				85	
Death rate (%)	8	7	6	6	5
Loss to follow up rate (%)	3	3	4	4	4
Failure rate (%)	<1	<1	<1	<1	<1
Transfer out (%)	5	5	5	5	6

- The number of presumptive TB cases increased from 2009 to 2012. However, there was a decline from 2012 (122,750 cases) to 2013 (102,190 cases) which is unexplained. The figure below shows the ratios of presumptive TB cases to the cases notified and also to the sputum smear-positive cases.

Figure 15: Ratio of Notified TB to Presumptive TB 2009 -2013



- Loss to follow-up and transfer-out rates are increasing. Luapula Province shows a higher loss to follow-up rate than the other provinces, with a rate of 13% in 2010 and 9% in 2013. Eastern Province has an unexplained highest transfer-out rate. Other provinces with higher transfer-out rates than the rest of the country include Copperbelt, North-Western, Northern, and Muchinga provinces.

Figure 16: Default rates by provinces 2009 -2013

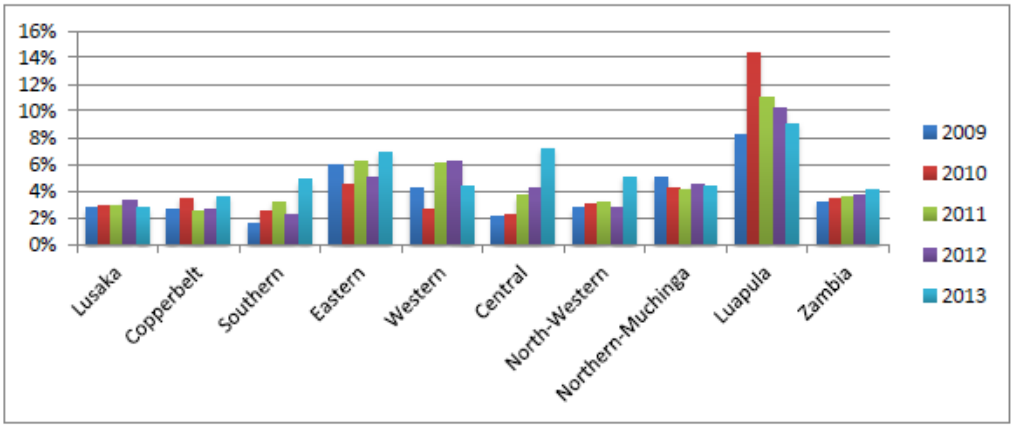
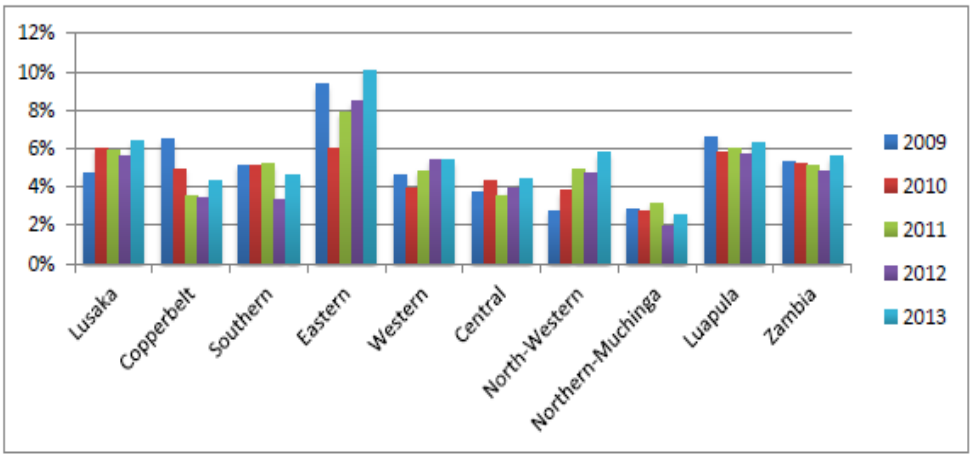


Figure 17: Transfer-out rates for all notified cases by province 2009 -2013



Challenges:

- Funding remains limited.
- The number of facilities with new technology diagnostic capacity is limited.
- Human and infrastructural challenges remain
- Weak interventions that address TB in children
- Inadequate data on access to services by key populations (prisoners, miners).

MDR-TB

Implementation Approach:

Programmatic management of drug-resistant TB was initiated in 2010 after Green Light Committee (GLC) approval in 2009. The initiation of MDR-TB management is centralized in two hospitals, and some patients are lost to follow-up after discharge from the hospitals because of the poor referral system and limited monitoring support. Zambia has three culture facilities, and one of them is a national reference laboratory. They all are capable of performing culture and confirmatory first-line drug susceptibility tests (DST).

In 2012, Xpert MTB/RIF technology was introduced in Zambia. With this technology, rifampicin resistance can be determined quickly, and it will enhance the rapid diagnosis of MDR-TB. The country has developed operational guidelines with clear algorithms taking into account that the Country is a low

[17] NTP R&R registry

Rifampicin prevalent area, less than 5%. This means the positive predictive values are around 40% which implies a significant level of false positive cases. The national guideline submitted alongside this concept note shows which patients initiate SLD and which ones require confirmation (page 6, National Xpert MTB RIF Guideline)

Achievements:

- To establish the level of anti-TB drug resistance in the country, the NTP conducted a drug resistance survey in 2008 and the results indicated that the levels of MDR-TB remained low at 1.2% compared to 1.8% in the survey conducted in 2000. “Any resistance” was determined at 9.8% (DRS-2000, 2008.)
- In new cases there was no MDR detected and the level of any resistance was 8.7%, compared to MDR of 6.9% and any resistance of 17.2% in retreatment cases (DRS-2000, 2008).
- There was no resistance detected to either kanamycin or ofloxacin.
- In the DRS-2000 survey, previous treatment was the only factor associated with the presence of drug resistance. The next DR survey is expected to be conducted by 2015.
- According to the NTP routine program data in 2013, there were 93 MDR-TB patients diagnosed, and 50% were put on treatment**.**
- **TB failure rates for drug susceptible TB have ranged between 0.6 and 1 per cent in the period 2009 to 2013 according to the NTP national data submitted to WHO.**

Challenges:

- WHO has estimated the number of MDR-TB cases to be 620, with 98 among new cases and 520 among retreated cases. However, Zambia has been reporting fewer cases, with atotal number of confirmed cases at 80 (WHO, 2012).
- Limited funding and other structural administrative challenges remain.
- Human resources in the two treatment facilities are limited.
- Linkages with the NTP structure are limited, and there are inadequate and unstructured referral and ambulatory care services.
- There are limited linkages between MDR-TB treatment sites and district health facilities for patient follow-up care.
- Treatment guidelines with standardized treatment regimens were developed and distributed in 2010, but adherence to these guidelines has not been adequately supervised.

TB Infection Control

Implementation Approach:

Zambia has been implementing TB infection control activities since 2009. Following the development of national guidelines and a national training of health-care workers and infrastructure support, infection control measures have been introduced to all provinces, although coverage varies. Also, TB programs have expanded to prisons and community settings in some provinces.

Achievements:

- 59 health facilities representing 10% of ART sites have integrated TB infection control plans.
- There is a significant pool of staff at the national level (private and public sectors) trained in TB infection control.
- 7 out of the 56 prisons have ongoing TB infection control activities.

Challenges:

- Challenges remain because of the limited infrastructure in most health-facility settings. Most Zambian facilities were built to cater for a limited number of patients, but population growth has resulted in overcrowding.
- The increase in the number of patients enrolled into HIV care, who have to routinely access services from care settings, has increased congestion and the inadequate human resources continue to pose a challenge.
- The absence of standard operating procedures (SOPs) and IEC materials on infection control in most district facilities poses an operational challenge.

TB in Special Settings

Implementation Approach:

- ***Prisons:*** The basic components of TB control in prisons are well recognized internationally. The WHO recommends entry-screening for all new inmates, self-referral for inmates with TB symptoms, and mass screening in outbreak situations. But in Zambian prisons, as in many sub-Saharan African prison facilities, these best practices for TB control are undermined by the

extremely under-resourced prison health care system, inadequate diagnostics, weak treatment monitoring, and inadequate infrastructure. In 2010, a prison-based TB screening program established at six prisons in Zambia to address these obstacles and enhance detection of TB found an overall TB prevalence rate of 6.6% and HIV prevalence rate of 21.6% (S. Reid: WHO 3Is Protocol. 2012). Statistics from the Prison Service indicate that as of December 2013, there were 104 males and 1 female undergoing TB treatment in various prisons throughout the country. Under the WHO 3Is program, 8 prisons in 4 provinces are covered. The 4 provinces in this program have prison populations that account for 69% of total country inmate population according to the statistics provided in 2013 by the Prison Service Commission. The selection of the prisons was a matter of prioritisation within the limited funding landscape. One of the prisons has an Xpert MTB RIF machine while the remaining seven have been linked to testing on Xpert through sputum sample referral. The Prison Service in conjunction with various partners has trained over 175 prison officers and 200 inmates in TB screening, and 25 prison staff has been trained in the Stop TB Strategy. Ongoing training and mentorship of prison officials are needed to promote ownership, sustainability, and scale-up of prison-based TB and HIV screening.

- ***Mines:*** Zambia is a mining nation. Available studies have indicated that mining is a significant determinant of national variation in TB in sub-Saharan African countries (D. Stuckler et al., 2011)[18]. A recent study showed that mining production was associated with higher TB incidence rates and recommended that comprehensive TB control strategies should explicitly address the role of mining activity and environments in the epidemic. TB rates, in particular, are very high partly as a result of the high prevalence of silicosis resulting from prolonged exposure to silica dust in mine shafts, especially in gold mines.[19] According to anecdotal data from South Africa, high rates of HIV transmission and confined, humid, poorly ventilated working and living conditions further increase the risk of TB among mine workers.[20]

Achievements:

- Eight prisons currently are implementing the WHO intensified TB case-finding strategies.

The ongoing TB prevalence survey will provide more data from the mining community.

Challenges:

- Interventions in mines are relatively new, and no current outcome data exists. Data from the mining companies has not been integrated with national HMIS data.
- Limited service implementation opportunities exist for special populations based on the limited funding available and human resource constraints.
- The data from these settings is limited and does not provide true estimates of disease burden.

Public-Private Partnerships

Implementation Approach:

A national situation analysis on the Public-Private Mix DOTS was commissioned by the NTP in October 2012. The survey was conducted with 158 providers, and the results indicated that 51.7% are presumptive cases of TB routinely referred to the public health sector, while 24.5% are referred TB cases to the private sector after the diagnosis is made. Recommendations from the analysis included the need for the NTP to improve networking with the private sector, improve training of private practitioners in TB diagnosis and management, and ensure the availability of guidelines in the sector. In addition, it was recommended that the district medical offices play a more active oversight role in the notification and the assessment of notifications from the private sector in order to ensure the quality of diagnosis and care.

Achievements:

Private sector involvement in TB control efforts is slowly but steadily increasing, with more private sector facilities offering TB treatment services.

Challenges:

- There is a need for the sustained expansion of TB programming to more private-sector facilities.

Joint TB and HIV Integration Programming

[18] D. Stuckler et al, Mining and Risk of Tuberculosis in Sub-Saharan Africa, Am J Public Health. 2011 March; 101(3): 524–530.
[19] Girdler-Brown BV et al, The Burden of Silicosis, Pulmonary Tuberculosis and COPD Among Former Basotho Goldminers, Am. J. Ind. Med. (19 June 2008)
[20] Department of Health, Tuberculosis Strategic Plan for South Africa 2007 – 2011 (2007)

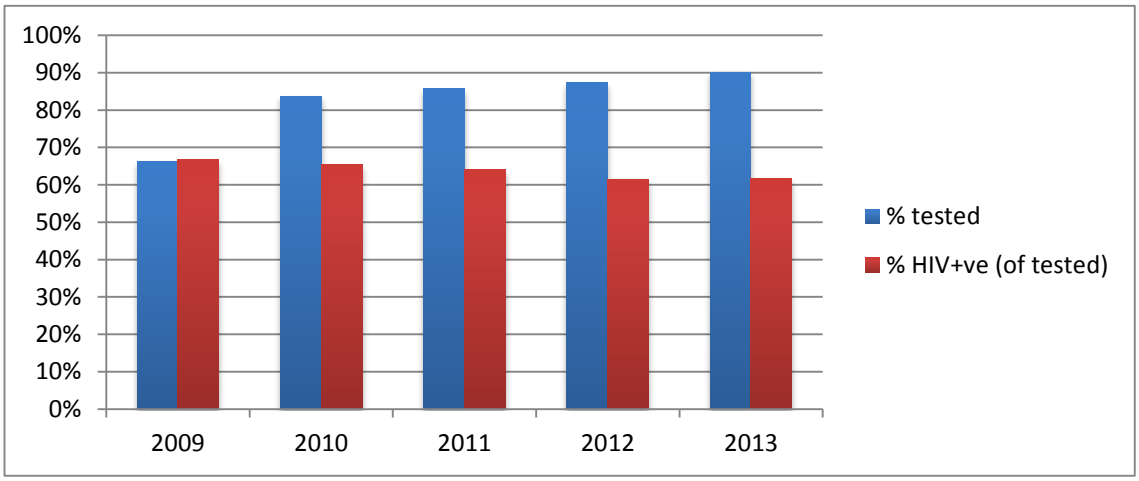
Implementation Approach:

- Integrated TB and HIV activities have been implemented in line with the WHO Policy on TB and HIV collaborative activities since 2005, with the establishment of the National TB and HIV Coordinating Committee that included all major stakeholders in both TB and HIV. Following the development of the National Guidelines for the Implementation of TB and HIV activities, the national coordinating committee was replicated at the provincial and district levels in all 9 provinces at the time. The main emphasis in the integrated approach in the initial phase of the response was on two of the three thrusts of collaborative TB and HIV activities: namely, reducing the burden of TB among the HIV patients, and reducing the burden of HIV among the TB patients.
- Joint planning activities: Zambia has instituted joint planning activities for TB and HIV for laboratory services, staff training, outreach services, infrastructure development, and patient referrals.
- Community involvement is one of the approaches the NTP has been using to expand its TB and HIV services, which has been done through the engagement of community volunteers participating in the delivery of DOTS activities, such as observation of TB treatment, follow-up of patients, loss to follow-up and contact tracing, and health education at the community level. Community volunteers are identified by local committees and are trained by the NTP or some community-based and non-governmental organizations using national training materials.
- In 2013, the NTP developed an Advocacy, Communication and Social Mobilization Strategy (ACSM) with the main objective of enhancing the engagement of communities, NGOs, CBOs, civil society organizations (CSOs), and public and private care providers in TB control. The strategy focuses on the social aspects of TB, including communication strategies and community involvement.

Achievements:

Notable success has been documented in reducing the burden of HIV among TB patients since 2006, with 90% of the notified TB patients knowing their HIV status, 93% coverage of cotrimoxazole, and 66% of HIV-positive TB patients on ART in 2013. The prevalence of HIV in TB patients was 63% in 2013.[21]

Figure 18: HIV testing in TB patients 2009 – 2013

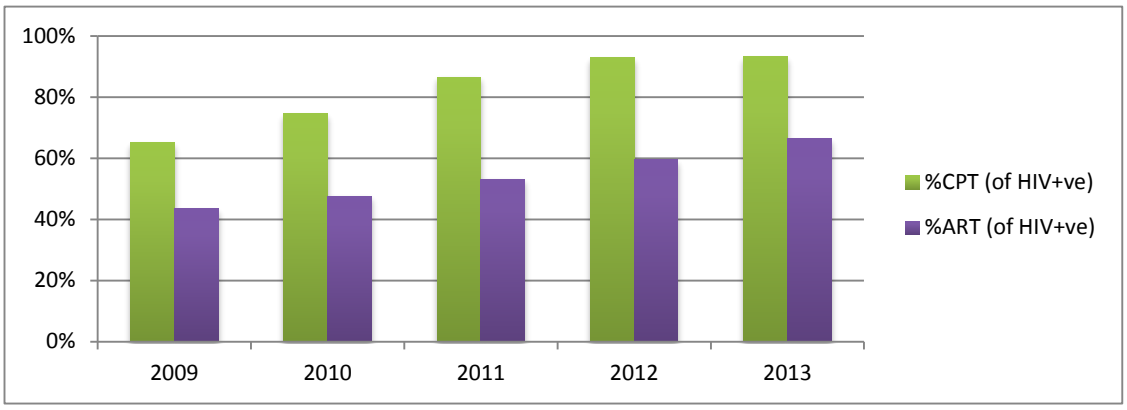


Source: NTP data, 2009-2013

The high national rates of coverage for HIV testing and cotrimoxazole masks the fact that in some provinces the rates of coverage are lower than the national average. The provision of ART for HIV-positive TB patients has shown remarkable improvement since 2009 at 43%.

[21] National TB Program: HMIS data

Figure 20:Cotrimoxazole and ART coverage for HIV positive TB patients 2009 – 2013



Source: NTP

Challenges:

- The true burden of TB in people living with HIV nationally is not known.
- There have been some challenges in implementing activities aimed at reducing the burden of TB in PLHIV, such as screening people for TB (ICF) in HIV service-delivery outlets, including VCT centers, and ART, PMTCT, and STI clinics.
- Starting TB patients living with HIV on ART is a challenge as ART is not available at all the facilities providing TB treatment.
- In the ART program, TB screening questions are included in the routine pre-ART assessment and during follow-up; however, this data has not been routinely reported.
- Isoniazid Preventive Therapy (IPT) was not included in the national guidelines until 2012.
- In 2013, the MOH, in collaboration with CDC, USAID, and their implementing partners, commissioned the Three-I's program to scale up intensified case finding, infection control, and IPT treatment in 38 sites. Current funding is limited to 38 sites, as opposed to national coverage. All data collected will be owned by the Ministry of Health. Process indicators may be analyzed by the partner organizations and presented to funders and national or district level groups. Any international dissemination of results at meetings and publication of results will require written approval by the Ministry of Health. The ICF indicators are in the National TB M&E Plan 2014-2016 and will be collected through the NTP reporting system. This is just beginning.

ADDRESSING INEQUALITIES

Zambia has made significant attempts to address the barriers and inequalities to service access. The current efforts are described below, including efforts by both Government and civil society, based on the existing inequalities affecting access:

- *Limited data available for most sub-populations to inform programs*: The existing data for sub-populations in Zambia is very limited, and the little data that exists is nearly ten or more years old. Based on this situation, two studies recently were commissioned by Panos Institute and the Population Council to provide data on key sub-populations, including female sex workers (FSWs) and their clients and partners, men who have sex with men (MSM) and women who have sex with women (WSW), and injecting and non-injecting drug users to inform the design and implementation of rights-based programs and interventions to address the epidemiological circumstances and programmatic needs of these populations. The full results of these studies will be made available by the end of 2014-2015 and will be used to design targeted interventions for these populations within the national response and to determine next steps to address the structural drivers enhancing their vulnerability. Preliminary results show that targeted HIV prevention interventions and sexual and reproductive health services are needed for these sub-populations, including condoms and especially lubricants, and counselling to address issues of drugs and alcohol, sexual and gender-based violence (GBV), self-stigma and blackmail, and where to seek assistance in cases of sexual violence, including for boys and girls. Once the full results are received they will be used to help develop appropriately targeted strategies and interventions.
- *Illegality of sex work, sex among same-sex couples, and drug use*: While these activities are considered illegal in Zambia, Zambian law grants universal access to health services for all its citizens; and, programs are designed with no exclusivity. Multi-pronged approaches are needed to target the attitudes of policy makers, service providers, sexual minority communities

themselves, and the broader community to effectively address the various barriers sub-populations encounter. Support from Government in realizing and protecting the rights of these individuals and groups is growing and will be complemented by the efforts of civil society organizations to advocate for the right of affected sub-populations to receive targeted services at the scale they need. Concurrently, efforts are being made to scale up HIV services to most-at-risk populations using a public health approach to ensure universal access. For instance i) the Prison service has deliberate efforts aimed at HIV infection prevention in prisons such as Parole releases and decongestion of prisons ii) Condom distribution among sex workers and their partners and mobile and migrant population coupled with treatment of STIs. iii) various HIV/AIDS services are provided to key populations through Civil Society organisations such as Engender Zambia and the Men's Health Network just to mention a few.

- *Criminalization of sex work and MSM activities:* Despite the current lack of legal frameworks for prevention activities with sex workers and MSM, Zambia has allowed some groups to lobby for these populations and some development partners are implementing programs in these areas. NGOs such as, SAT Zambia, Tasinta, PPAZ, Population Council, ZEHCT, SFH, ZPI and Engender Zambia are some of the organisations that are working with sex workers without any interference from the law enforcement agents.
- *Prohibition of the distribution of condoms in school settings below tertiary level*: Sustained advocacy and legal reforms will be required to address this barrier.
- *Domestic violence and social norms on masculinity*: Advocacy by civil society groups and the strengthening of the community systems to address societal beliefs, norms, and practices that disenfranchise women will be scaled up. Also, the Ministry of Gender and Women's Development recently disseminated materials on preventing and responding to gender-based violence (GBV).
- *Limited access to TB-related services in mining communities, prison inmates, and children*: Programs for these key populations have been prioritized in the revised national strategies and will be brought to scale in the coming years (see TB in Special Settings in TB Infection Control section).
- *Stigma*: Concerted efforts are being made in collaboration with civil society groups to address issues of stigma and discrimination. These efforts are varied in scope, scale, and location and Zambia draws significantly from the pool of active civil society organizations operating in the country. The community systems approach will further help decrease stigma and discrimination.
- The work around LEA currently being undertaken by the NAC with the technical assistance from NASTAD and CDC will feed into the policy dialogue and eventual law reform strategies on issues concerning rights-based programming for key populations.

LINKAGES WITH THE NATIONAL HEALTH STRATEGY

Starting in 1993 the health sector in Zambia has undergone a series of changes as the Government has implemented policy and structural changes with the aim of increasing the efficiency and quality of health services for all. These changes were guided by the National Health Polices and Strategies of 2002 (NHPS 2002). The vision underpinning the health reforms was to "…*provide the people of Zambia with equity of access to cost-effective, quality healthcare as close to the family as possible."* An underlying principle of the reforms was decentralization of health-care delivery through the delegation of key management responsibilities from the center to the district and hospital levels. Decentralization also aimed at shifting resources from the center to operational levels, where health-care delivery services are conducted. The reforms also emphasized the importance of community participation in the management of health services and the need for a well-motivated and well-remunerated health work force.

In the last five years several health-related policies and strategies have been developed to guide the functioning of the health system, including: the Community Health Worker Strategy (2009); the National Health Policy (2012) that replaced the 1992 NHPS document; the National Medicines Policy (2012); and, the Heath Research Policy (2013). In tandem with the National Development Plans, the MOH operations have been guided by successive 5-year National Health Strategic Plans. Currently, the health sector is operating under the National Health Strategic Plan 2011-2016, while the AIDS response is guided by the National AIDS Strategic Framework.

The National Health Strategic Plan (NHSP) 2011-2016 is the fifth in a series of planning documents that have provided a strategic framework guiding the coordination, organization, and management of the health sector in Zambia. Recognizing the importance of health in the development of the nation, the plan outlines the key public health priorities that require attention. One of the key priorities identified in this plan is the control of communicable diseases, especially malaria, HIV, STIs and TB. The National

Strategic Plans for TB and HIV are detailed sector-specific documents that outline the approaches on which Zambia will focus on to achieve the objectives of the NHSP.

In December 2012, the Government reorganized the health sector to devolve the provision of primary health care services, including TB, from the MOH to the Ministry of Community Development, Mother and Child Health (MCDMCH). This change was made as a way of meeting the goal of increasing efficiency and improving standards for service delivery, enabling the greater involvement of community structures in preventive and curative health services as part of the overall Decentralization Policy adopted in 2004, and ensuring alignment with the pro-poor policy of the Government. The role of the Ministry of Health in the realigned health care system is to provide overall health sector policy development, research and development, disease surveillance, oversight of training institutions, the setting of standards and performance audits, and level II to level IV health services. The first level health facilities such as health centres, health posts, community health services, and district hospitals and district medical offices fall under the MCDMCH. The MCDMCH is responsible for community mobilization, health promotion, and prevention and curative services, and the National TB Control Program is based at the MCDMCH.

NATIONAL PROCESSES FOR REVIEW AND REVISION OF NATIONAL DISEASE STRATEGIC PLANS

Both strategic plans for TB and HIV have been revised recently. The revisions have been made in parallel starting in 2013 and culminated in final versions in 2014, and their timelines are aligned to cover the period 2014 to 2016.

The revision processes of the national strategies for the two diseases were informed by the need to align with the Revised Sixth National Development Plan and the National Health Strategic Plan; reflect the lessons from past implementation; take advantage of the current body of evidence for the two diseases; include the use of newer technology for improved efficiency and effectiveness of service delivery; and, adopt a strategic investment approach in the face of scarce resources for the dual epidemic of HIV and TB.

The need for prioritization required a broad stakeholder consultative approach to be adopted to ensure that the critical needs of all the affected at all levels within the social polity were taken into consideration. The roles of Government, the MOH and other allied ministries, the technical and development partners, civil society, and affected populations in the process cannot be overemphasized. Consultations were held across constituencies at national, provincial, and district levels. Technical and funding considerations provided the right balance as the reviews of the expressed priorities across stakeholders were conducted. Final decisions for priority areas were informed by this process, and consensus was achieved to ensure the revised strategies reflected a paradigm shift towards strategic investment.

Unique to this process was the joint approach to the revision process. The TB technical experts were involved in the revision of the R-NASF and the revision of the TB NSP, with HIV technical teams consulted in the process. While the revisions have been concluded, the MOH has directed these documents to remain as 'living documents' and, as new bodies of evidence emerge, appropriate modifications will be made to them. New evidence is expected from several sources, including:

a. A national Demographic and Health Survey, which will be completed and published in the latter part of 2014, which will provide evidence to inform programming for both diseases.

b. The 2012 Antenatal Clinic Sentinel Survey results are expected to be produced in late 2014.

c. Two studies for key populations are in progress or being finalized, and the results from these studies will be incorporated in the revision of the NASF:

    - The Panos Institute of Southern Africa study on HIV prevention for sexual minorities, approved in 2011, will characterize key populations, estimate HIV prevalence rates, and identify opportunities for interventions. The study targets men who have sex with men (MSM) and women who have sex with women (WSW). The study results are about to be disseminated and published as this concept note is being developed, and some preliminary key findings from the draft report are incorporated in this application. Any public health issues arising from this study will be used to inform strategy and intervention development.

    - The Population Council's study is 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 include: estimating the population sizes and distribution of key populations in Zambia; estimating HIV prevalence and incidence rates among key

populations; identifying and describing key characteristics of key populations that place them at risk of HIV infection; enhancing local capacity to conduct formative assessments; mapping and population size estimates of key populations; and, supporting the local capacity to conduct behavioral and biological surveillance of key populations.

d. Zambia is conducting the first-ever National TB Prevalence Survey and results are expected by the end of 2014. A preliminary report will be available in December 2014. Depending on the findings, the projected number of TB cases up to 2016 may be adjusted and resource allocations channeled to high burden areas.

1.3 Joint planning and alignment of TB and HIV Strategies, Policies and Interventions

In order to understand the **future** plans for joint TB and HIV planning and programming, briefly describe:

a. Plans for further alignment of the TB and HIV strategies, policies and interventions at different levels of the health systems and community systems. This should include a description of i) steps for the improvement of coverage and quality of services, ii) opportunities for joint implementation of cross-cutting activities, and iii) expected efficiencies that will result from this joint implementation.

b. The barriers that need to be addressed in this alignment process.

A. Plans for further alignment of the TB and HIV strategies, policies and interventions

Improved Coordination mechanisms/structures:
Following the development of the National Guidelines for the Implementation of TB and HIV activities in 2009, the national level coordinating committee was replicated at the provincial and district levels in all 9 provinces at the time. The main emphasis in the integrated approach in the initial phase of the response was on two of the three thrusts of collaborative TB and HIV activities: namely, reducing the burden of TB among the HIV patients, and reducing the burden of HIV among the TB patients. Through the national provincial and district level TB HIV collaborating committee there are plans to further enhance TB and HIV programming and planning.

The involvement of technical teams from both the TB and HIV programs in the revision of the R-NASF and the TB NSP has been a positive outcome in the movement towards a joint programming approach.

Service integration at facility level:
At the facility level, especially in the more rural settings, provision of HIV and TB services is integrated. Only at provincial- and central-level institutions are the services separated through specialist clinics.

Joint planning activities:
At the national and provincial levels, joint planning exercises are being implemented to ensure that resources are leveraged and efficiencies are improved. TB/HIV Liaison Officers have been recruited and placed in the Provincial Medical office to facilitate joint TB/HIV planning, programming, activity implementation and monitoring. Joint planning is conducted in the areas of laboratory services, staff training, outreach services, infrastructure development, patient referrals, case finding, pooled procurement, and for workplace and prisons programs, which are described below.

- *Staff Training*

  Zambia has a major challenge in the staffing of health institutions. The current practice has been to train staff in individual program areas as part of their continuous capacity development in order to improve service provision. Because there are so few staff members, gaps in service provision occur in the already understaffed health facilities when the staff are taken out for individual program training/orientation. The new strategy will be to integrate the training of service providers. Integrated training will reduce the number of times individual staff have to attend trainings, and thus they will be more available at their facilities. This change will involve the development of integrated training modules and manuals/guidelines.

- *Community Health Assistants/Volunteers*
  Along with integrated training and guidelines, the Community Health Assistants and other community volunteers will be trained/oriented to offer integrated services to their clients, i.e., referrals for potential HIV and TB patients for diagnosis and care, adherence counselling and DOTS supervision, support for the collection of medicines, and reporting. The Government of Zambia has committed to recruit and train additional health workers at all levels, including community health workers who are expected to positively affect the delivery of HIV and AIDS and TB services. Additional human resources will greatly improve the access to HIV counseling and testing, which is the entry point to HIV and AIDS services and TB screening for both HIV-negative and HIV-positive patients. Further, a more skilled cadre of community health care workers (CHWs), known as Community Health Assistants (CHAs), receive training for one year and supervise the activities of volunteer CHWs, who are also being trained and deployed by

Government. The inaugural 300 CHAs were trained and deployed successfully in late 2012 and early 2013. The second class of CHAs is currently being finalized for uptake during 2014. The CHAs receive training in social and behavioral change communication (SBCC) for prevention strategies for both HIV and AIDS and TB and treatment adherence for both ART and anti-TB treatment as part of their training course. The training and deployment of this cadre of health workers will improve the access, delivery, quality, and sustainability of community-based health services.

- *Infrastructure Development*

  One of the main complaints voiced by clients has been the lack of adequate privacy in facility settings due to their design. Future facilities will be designed to ensure the privacy of consultations, and existing structures will be redesigned or modified to offer more privacy.

- *Outreach Services*

  Outreach services in rural and remote settings will be enhanced to ensure that service provision even at this level is integrated, i.e., integrated mobile health service provision will be increased.

- *Laboratory Services*

  Laboratory service procurement will be streamlined to ensure that equipment procured for use at the facility level will serve multiple purposes and not only one service area. For example, microscopes in health facilities will be expected to have cross-cutting uses and to be adequately provisioned with testing reagents for TB, malaria, STIs, etc.

- *Workplace Programs*

  Planning for workplace programs is now integrated and covers not only HIV, but includes referrals for TB diagnosis, and treatment and care.

- *Prisons:*

  TB and HIV services are fully operational in 8 prisons. The TB REACH and Zambia WHO Three Is Projects, working with the MOH programs in HIV and TB, have ensured that the two diseases are addressed jointly in prisons.

Joint programming reviews:

Joint programming reviews and/or supervision visits will be undertaken at the provincial, district, and facility levels to promote and assess integrated TB/HIV/PMTCT services at the facility level and joint programming at the district and provincial levels.

B. Barriers to the alignment process and mitigation approaches

There are a number of barriers that may hamper the alignment process, including:

- *Inertia to change:* The inertia to change to a fully integrated system has been expected due to the long period of vertical programming for the two diseases. Program officers will need to be orientated gradually on the advantages of integration, particularly as it reflects the need to leverage resources and improve service efficiencies. This integration has become much more important in the current situation of limited funding availability.
- *Lack of resources and covert competition:* Funding limitations require a national process of prioritization, which creates a covert environment of competition for the limited resources. The recommended gradual orientation process outlined above will be required to address this barrier. Empowering staff and management around resource mobilization skills and the use of more cost-effective approaches to service delivery will help address the funding limitation challenges.
- *Risk of burn-out of health workers from work overload:* Integration at the facility level increases the work load for the already-stretched health workforce. The risk of burn-out is an ever present one. The attempts at task-shifting and creating less specialized cadres to help with the current work load is also an approach that will be used to address this barrier across the two programs. Moreover, strengthening community structures also will help health promotion activities, ultimately reducing the need for specialized health services. Community testing and self-testing are new innovations that might reduce the work burden of health staff significantly.
- *Staff attrition, etc.:* Staff attrition remains a pervading challenge in the health sector across sub-Saharan Africa. The GRZ will continue to work around developing staff retention strategies to

address the challenge of staff attrition. Special incentive packages for rural health workers are one of the strategies under consideration.

SECTION 2: FUNDING LANDSCAPE, ADDITIONALITY AND SUSTAINABILITY

To achieve lasting impact against the diseases, financial commitments from domestic sources must play a key role in a national strategy. Global Fund allocates resources that are insufficient to address the full cost of a technically sound program. It is therefore critical to assess how the funding requested fits within the overall funding landscape and how the national government plans to commit increased resources to the national disease program and health sector each year.

2.1 Overall Funding Landscape for Upcoming Implementation Period

In order to understand the overall funding landscape of the TB and HIV national programs and how this funding request fits within these, briefly describe:

a. The availability of funds for each program area and the source of such funding (government and/or donor). Highlight any program areas that are adequately resourced (and are therefore not included in the request to the Global Fund).

b. How the proposed Global Fund investment has leveraged other donor resources.

c. For program areas that have significant funding gaps, planned actions to address these gaps.

The HIV and AIDS response in Zambia is heavily dependent on external aid. The public sector contribution is under-estimated due to missing or hidden MOH costs (salaries, infrastructure, etc.).

The focus for the Ministry of Health in 2015-2017 will be to establish sustainable financing mechanisms. Under the Health Care Financing, the Ministry will continue focusing on increasing the finances available to the health sector through sustainable means so as to improve service delivery (MoH Action Plan 2014, p. 14).

Government contribution to the health sector from its own resources has increased in recent years from 8.7% in 2010 to 11.3% in 2013. One of the key options for increasing the finances available to the health sector through sustainable means that has been identified has been the establishment of the Social Health Insurance Scheme.

The National Health Insurance Scheme shall, among other functions, supplement the normal funding mechanism to the health sector. This will therefore increase sustainable funding to the sector which is a necessary step towards achieving universal health coverage and provision of access to quality health care.

Other options for increasing financing for health include the road sector support through the Environmental Impact Assessment.

The Government provides 5-8% of the project funds for all road and large capital projects towards environmental impact assessments and mitigation for HIV and gender mainstreaming, using the Environmental Impact Assessment (EIA) processes. Examples of these projects include: the Link Zambia 8000 Roads Development Project, the Pave Zambia 2000, and township roads built through the Local Government and the Constituency Development Funds. The rural electrification projects under the Rural Electrification Authority (REA), and the mines and other businesses in the private sector also provide similar funds for HIV and AIDS services for their workers and the surrounding communities in their project areas. Some of these funds go towards providing services for contract workers on these projects (internal mainstreaming), and some of the funds go towards financing the overall HIV and AIDS response in communities in the surrounding areas of the project vicinity. These services include health education and promotion, demand creation of all high-impact programs, and response coordination and management. The table, below, depicts extracts from the 2011 and 2012 Zambian Ministry of Finance's Yellow Book showing the funding landscape for HIV-related services across the two years.

Figure 19: Funding trends for HIV related services-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%**

Table 7: Funding Landscape for the National AIDS Control Programme (2014-2017)

Source	Total USD	Percentage of Available funding
Current GF Grants	**204,826,705**	11.75%
GRZ	**205,992,925**	11.81%
USG	**1,164,869,920**	66.81%
UK	**7,366,328**	0.42%
World Bank	**8,748,000**	0.50%
Sweden	**17,100,304**	0.98%
Bill and Melinda Gates Foundation	**1,205,528**	0.07%
Clinton Foundation	**1,347,676**	0.08%

Unspecified - not disaggregated by sources	**13,910,000**	0.80%
NFM Allocation	**118,230,280**	6.78%
Total Available Funds	**1,743,597,666**	100.00%
Total NSP Budget (2014 -2017)	**2,416,615,909**	
Financial Gap (2014-2017)	**673,018,243**	

ART

A gap analysis was conducted based on the 2014 quantification and forecasting exercise. This was undertaken by the MOH and partner organizations and agencies, with support from the US Government. The quantification and forecast covered 2014 to 2021 and includes provisions for cotrimoxazole.

Below is a presentation of the ARV gap.

Table 2: ARV Gap Analysis 2015-2017

	2015 (USD)	2016 (USD)	2017 (USD)
Commodity required for patient needs only	108,188,680	129,409,537	149,403,719
Commodity required for patient needs at the end the year with a full pipeline (6-month buffer stock)	128,103,425	146,829,205	150,297,402
PSM cost (10% of the total need)	10,818,868	14,682,920	15,029,740
Commodities required for patient needs at the end the year with a full pipeline plus PSM cost	138,922,293	161,512,125	165,327,142
Partner Contributions			
Assumed GRZ 2013 -2015	42,000,000	43,000,000	44,000,000
Assumed USG COP	35,767,465	41,913,599	39,400,000
GF Round 10 Y1/CHAZ	-	-	-
GF Rd 8 and 10 UNDP			
GF UNDP SSF	53,266,119	-	-
New Funding Model (NFM)	5,233,765	63,096,734	
Total Funding available	136,267,349	14, 010,333	83,400,000
Total Need for Full Pipeline	138,922,293	161,512,125	16, 327,142
Yearly Gap	*-2,654 ,944*	*-13 ,501,792*	*-81,927,142*

Source: National Forecasting and Quantification Report, 2014 (unpublished)

In alignment with the US Government's PEPFAR authorizing legislation, PEPFAR Zambia's 2014 Country Operational Plan (COP) increased resources allocated for care and treatment of persons living with HIV. Funding increased for antiretroviral treatment (ART) services for HIV/AIDS, clinical monitoring of HIV-seropositive people both in need and not in need of ART, care for associated opportunistic infections, and other essential HIV/AIDS-related medical care for people living with HIV/AIDS. PEPFAR Zambia reduced funding in areas such as health systems strengthening, HIV

counselling and testing, and strategic information to comply with the new care and treatment mandate.

Funding from the USG is anticipated to stay level—contingent on annual COP approval by Washington. The USG also will support training activities for frontline health-care workers in ART services, training activities for CHWs in ART, and the development and printing of job aids for ART. UNICEF is supporting early infant diagnosis (EID) under Project Mwana in about 600 sites. The USG also is planning to support MSL with two or three hubs depending on the availability of funds for phase 2 of the work. The USG has expressed a willingness to fund Phase 2 of the project if funding from the Global Fund can cover construction of Phase 1 of the project.

Table 3: HTC Financial Gap Analysis (2015-2017)

Year	**Anticipated Funding**	**Funding Required**	**Funding Gap**
2015	23,372,435	79,138,661	**(55,766,226)**
2016	23,372,435	89,731,885	**(66,359,450)**
2017	23,372,435	92,512,848	**(69,140,413)**
Total USD	**70,117,305**	**261,383,394**	**(191,266,089)**

Table 4: eMTCT Financial Gap Analysis (2015-2017)

Year	**Anticipated Funding**	**Funding Required**	**Funding Gap**
2015	25,664,924	41,925,205	(16,260,281)
2016	25,664,924	42,816,732	(17,151,808)
2017	25,664,924	42,403,424	(16,738,500
Total USD	**76,994,772**	127,145,361	(50,150,589)

VMMC

Table 5: VMMC Financial Gap Analysis (2015 -2017)

15-49 Years							
Year	VMMCs (target)	Unit Cost	Total Budget (USD)	Available Funds	VMMCs within the available funds	VMMC GAP	Required Funds for the GAP
2015	402,351	86.25	34,702,774	22,624,390	262,312	140,039	12,078,384
2016	466,997	86.25	40,278,491	18,130,609	210,210	256,787	22,147,882
2017	471,643	86.25	40,679,209	18,137,793	210,293	261,350	22,541,416
Total Gap							56,767,682
PROG. BUDGET (2015-2017)							115,660,474
TOTAL FUNDING AVAILABLE							58,892,792
ALLOCATION (NFM 2015-2017							3,648,055
FUNDING GAP							53,119,627

***Note*:** 1. Total funding gap for VMMC calculated as follows: Program Budget: (Total funding available + NFM 2015-2017 allocation). 2. Program Budget (115,660,474) is a summation of all figures in column 4 (Total Budget USD)

The table below shows the breakdown of the available funds in USD according to the source.

Table 6: VMMC Available Funding (2015-2017)

Year	PEPFAR	GF	GRZ	Total
2015	18,000,000	4,500,000	124,390	22,624,390
2016	18,000,000	0	130,609	18,130,609
2017	18,000,000	0	137,793	18,137,793
Total (USD)				**58,892,792**

The NTP funding sources

The NTP has received funding from a number of sources, including the Government of Zambia's national budget channeled through the Ministry of Community Development, Mother and Child Health and the Ministry of Health. Support also is provided from the Global Fund through the Transitional Funding Mechanism, the World Health Organization, and the US Government-funded programs.

Multilateral partners such as the United Nations Office for Drugs and Crime (UNODC) and the International Organization for Migration (IOM) have supported the NTP for programs in the prisons and mines, respectively, and will continue to provide support in these areas.

The NTP will work with all stakeholders to ensure that all funding and activities for TB control in the next 3 years are aligned to the goals and objectives of the Revised National TB Strategic Plan.

The budget for the Strategic Plan was developed using the *WHO TB Planning and Budgeting Tool* and covers the three years of the Strategic Plan (2014-2016). The total 3-year budget (2014-2016) is **$62,568,427**. With projections for 2017 for the purposes of alignment with the templates, the total cost is estimated at **$86,396,666**.

Description of funding sources for TB Control

The National TB Control Programme (NTP) is funded through different channels and at various levels. Funding is based on plans that are developed from the lower levels through a planning process that facilitates identification of priorities by the end users of the services. All stakeholders are involved at the various levels of the planning system. The NTP is funded through the following channels:

a) The GRZ grants are given directly to the central unit at the MCDMCH, the provincial medical offices, and the district medical offices.

b) The donor funds through several bilateral and multilateral organizations are given to the NTP through the MOH, such as the funds from the Global Fund; the US Government, especially for TB and HIV activities; and, the common basket funding.

c) The US Government also directly provides funds for some TB and HIV activities to some selected provincial medical offices (including Eastern, Lusaka, Southern, and Western) through cooperative agreements.

d) Some funds are indirectly provided to the NTP through bilateral agreements with the NTP and the MOH with organizations that facilitate implementation of TB control activities. These organizations work in close collaboration with the NTP and MOH and support TB activities according to the National Strategic Plan. These organizations include the USG-supported projects for which the support extends to eight provinces (Central, Copperbelt, North-Western, Luapula, Northern, Muchinga, Southern, and Lusaka) and another USG-funded project that supports six provinces (Central, Copperbelt, North-Western, Luapula, Northern and Muchinga).

e) In addition, some organizations implement TB control activities under the stewardship of the NTP/MOH and indirectly contribute towards achieving the NTP goals. These include: CIDRZ, JHPIEGO, CARE International, and other projects such as JATA.

f) Various research organizations, including the UNZA-UCLMS, CIDRZ, IMRET, and ZAMBART, are engaged in TB research that contributes to improvements in TB control.

g) Some organizations also indirectly fund the NTP through the provision of technical support, such as the WHO and the KNCV Tuberculosis Foundation.

Table 7.1: Funding Landscape for the National Tuberculosis Programme (2014-2017)

Source	Total	Percentage of Available funding
Current GF Grants	**$5,548,367**	7.42%
USG	**$31,160,350**	41.65%
GRZ	**$ 23,600,000**	31.55%
NFM Allocation	**$14,502,905**	19.39%
Total Available Funds	**$74,811,622**	100.00%
Total NSP Budget (2014 -2017)	**$86,396,666**	
Financial Gap (2014-2017)	**$11,585,044**	

2.2 Counterpart Financing Requirements

Complete the Financial Gap Analysis and Counterpart Financing Table (Table 1). The counterpart financing requirements are set forth in the Global Fund Eligibility and Counterpart Financing Policy.

a. For TB and HIV, indicate below whether the counterpart financing requirements have been met. If not, provide a justification that includes actions planned during implementation to reach compliance.

Counterpart Financing Requirements	Compliant?	If not, provide a brief justification and planned actions
i. Availability of reliable data to assess compliance	☒Yes ☐ No	
ii. Minimum threshold government contribution to disease program (low income-5%, lower lower-middle income-20%, upper lower-middle income-40%, upper middle income-60%)	☒Yes ☐ No	
iii. Increasing government contribution to disease program	☒Yes ☐ No	

b. Compared to previous years, what additional government investments are committed to the national programs (TB and HIV) in the next implementation period that counts towards accessing the willingness-to-pay allocation from the Global Fund. Clearly specify the interventions or activities that are expected to be financed by the additional government resources and indicate how realization of these commitments will be tracked and reported.

c. Provide an assessment of the completeness and reliability of financial data reported, including any assumptions and caveats associated with the figures.

Zambia's long-term development agenda is guided by the Vision 2030 Strategy, which aims at transforming the country into "a prosperous middle-income nation by 2030." This national strategy is being implemented through successive five-year national development plans, and the current one is the Sixth National Development Plan 2011-2016 (SNDP). HIV and TB control are among the key priority areas identified in Vision 2030 and Sixth National Development Plan 2011-2016 and the National Health Strategic Plan (NHSP) 2011-2016.

Government spending on health accounts for 60% of the total public health sector funds. This spending represents 10.7% of the central government discretionary budget or 8.5% of the total national budget, which is below the Abuja Target of 15%. It represents health care spending of about 5.4% to 6.6% of the Gross Domestic Product (GDP), translating to approximately US$28 per capita (National Health Strategic Plan 2011-2015).

According to the NHSP 2011-2015, human resources, service delivery, and infrastructure account for over 90% of the projected budget requirements for the period 2011 to 2015. Human resources alone accounts for about 35% of the resources, followed by service delivery and commodities at 33% and 20%, respectively. However, these figures need to be interpreted with some caution since there is no clear delineation in the allocation of inputs into the various program areas. According to the budget estimates for NHSP 2011-2015, there is a 10% annual increment in government support toward health.

To scale up health interventions to reach the health-related Millennium Development Goals (MDGs), donors and Government have to increase their efforts to ensure adequate funding for health. At the current funding levels, huge funding gaps are bound to arise. In order to mitigate the funding gap, the Government has been increasing the overall expenditure on health over the past several years, particularly in the last two years. The 10% annual increment in Government support toward health has been achieved through the policy decision of the GRZ to increase its allocation to HIV, TB, and Malaria medicines and commodities. The allocation for TB has increased from US$700,000 in 2011 to US$2 million in 2014. The ART drug budget increased from US$5 million in 2011 to US$42 million in 2014. The allocation is expected to increase in subsequent years. The Government funding to HIV and TB drugs in 2013 constituted 38% and 65%, respectively, of the total drug-financing needs.

The GRZ has demonstrated its commitment to retaining and maintaining human resources for the health sector through the payment of basic salaries and maintaining the infrastructure of facilities. These are essential for delivering HIV and TB services to all those who need them. There also has been a general increase in the total contributions from Government. Planned interventions to increase domestic funding include the introduction of a National Social Health Insurance Scheme. A bill intended to create this instrument is currently making its way through Parliament. Part of the funding from the Social Health Insurance Scheme will be used to support the health system infrastructure, drugs and equipment. A National Social Health Insurance Management Authority will be established to oversee the implementation of the fund.

The Government provides 5-8% of project funds of all road and large capital projects towards environmental impact assessment and mitigation for HIV and gender mainstreaming using the Environmental Impact Assessment (EIA) processes. Examples of such projects include the "Link Zambia 8000 Roads Development Project, the Pave Zambia 2000, and township roads under the Local Government and the Constituency Development Funds. The Rural Electrification projects under the Rural Electrification Authority (REA), and the mines and other business houses in the private sector also provide similar funds for HIV for their workers and the surrounding communities in their project areas. Some of these funds go towards providing services for contract workers on these projects (internal mainstreaming) and some funds go towards financing the HIV response in communities in the surrounding areas of the project vicinity. These services include health education and promotion, demand creation of all high-impact programs, and response coordination and management.

In addition to the investments indicated above, the Government is constructing 650 health posts over two years at a cost of US$55 million, and 40 district hospitals at a cost of approximately US$246 million throughout the country to improve access to and quality of health services. The health posts are targeted towards the rural communities who have limited access to services.

The private sector contributes to TB control in Zambia, particularly the mining sector. However, this support is not well documented.

Tracking of the committed funds will be done through the GRZ Expenditure Framework (Yellow Book), and the tracking of the commodities will be done through the supply and logistics management pipeline reports submitted by the Medical Stores Limited (MSL) to the Ministry of Health. The Mid Term Expenditure framework (MTEF) reports provide information on funding and status of implementation of activities and interventions.

The funding landscape information is derived from the GRZ sources, which include the Yellow Book of expenditure and budgets from 2012 to 2014, respectively. Other sources include the SNDP and FNDP. This expenditure data is reliable and the projections from 2014 are the best estimates.

SECTION 3: FUNDING REQUEST TO THE GLOBAL FUND

This section details the request for funding and outlines how the investment is strategically targeted to achieve greater impact on the diseases and health systems. While the investments for both the HIV and TB programs should be described, the applicant should also provide information on the expected impact and efficiencies achieved from planned joint programming for the two diseases including cross-cutting health systems strengthening as relevant.

3.1 Programmatic Gap Analysis

A programmatic gap analysis should be conducted for the six to twelve priority modules within the applicant's funding request. These modules should appropriately reflect the two separate disease programs in addition to cross-cutting modules for both programs such as Health System and Community Systems Strengthening.

Complete a programmatic gap table (Table 2) for the quantifiable priority modules within the applicant's funding request. Ensure that the coverage levels for the priority modules selected are consistent with the coverage targets in section D of the modular template (Table 3).

For any selected priority modules that are difficult to quantify (i.e. not service delivery modules), explain the gaps, the types of activities in place, the populations or groups involved, and the current funding sources and gaps in the narrative section below.

The programmatic gap analysis tables for the priority modules have been completed and are attached to this application. The community systems strengthening module, HMIS and program management which are not service delivery modules, are described below**.**

Community Systems Strengthening

Zambia has a long history of including community-based organizations in the provision of health services. Due to the resource-constrained environment, both in the scarcity of health care workers and the overall funding for health, these community organizations (CSOs, CBOs and NGOs) are recognized as an integral part of TB and HIV diagnosis, treatment, and care services.[22, 23]

Clearly understanding the epidemiological context, that is, how HIV and/or TB bacteria are circulating within a community and where the next infections are most likely to occur, provides the evidence base for prioritizing certain health interventions. However, a wealth of research indicates that facility-based interventions alone are not sufficient to end the HIV epidemic in Zambia.[24,25]

[22] Mwewa AM, Saili G, and Simbaya J, (2013).Multi country research on community care givers: the backbone of accessible care and support – Zambia report. The Caregivers Action Network.
[23] WHO (2012) Policy for Collaborative TB/HIV Activities: guidelines for national programmes and other stakeholders.
[24] Rich, M.L., et al., Excellent Clinical Outcomes and High Retention in Care among Adults in a Community-Based HIV Treatment Program in Rural Rwanda.
[25] Howard, A.A., et al., PEPFAR Support for the Scaling Up of Collaborative TB/HIV Activities. JAIDS Journal of Acquired Immune Deficiency Syndromes, 2012. 60: p. S136-S144 10.1097/QAI.0b013e31825cfe8e.

Surrounding these high-impact facility interventions are a range of community-level activities, which while nuanced and difficult to evaluate, are nonetheless critical to the success of the health programs. For example, socio-cultural factors, beliefs about health, health care access and utilization all play roles in community-level medicine, whether the community is urban, rural, or peri-urban. Strategic investment thinking seeks first to understand what factors motivate and drive behaviors at the community level, then it asks what is the relationship between the treatment of HIV and/or TB infection and the behaviors and social conditions within a community?

The community systems strengthening (CSS) components in this concept note integrate both TB including MDR-TB and HIV community-based services, as recommended in the WHO guidelines for collaborative TB and HIV activities. More than complementary to the facility-based interventions, these activities are essential to the success of the facility-based services, particularly in relation to understanding (TB and HIV treatment literacy), uptake (demand creation), access (stigma reduction), contact tracing especially for patients diagnosed or suspected to have MDR-TB and retention (adherence support) in facility-based programs. This also includes the community understanding of the relation of adherence and development of resistance to first-line ARV's as well as drug-resistant TB and MDR-TB and how this affects the type of medication and length of treatment. For example, CHAZ reporting to the Global Fund clearly demonstrated that when community-based adherence supporters are no longer operating in the community, adherence to ART treatment is substantially lower and the number of patients lost to follow-up increases significantly.

Given the limited funding available in the allocation to Zambia, the Global Fund investment in community systems strengthening will target CSO umbrella organizations. These CSOs will, in turn, coordinate their networks' joint TB and HIV interventions in the following suggested high-prevalence provinces: high HIV prevalence in Copperbelt, Lusaka, and Central provinces; and, high TB prevalence and/or high TB lost-to-follow-up rate in Eastern and Luapula provinces. However, the CSS component will align with the agreed prioritized provinces during the grant negotiation process.

The WHO guidelines on TB and HIV integration articulate that, "While implementing collaborative HIV/TB activities, it is imperative that civil society organizations including nongovernmental and community-based organizations advocate, promote and follow new TB and HIV guidelines including monitoring and evaluation of TB and HIV activities using nationally recognized indicators." In this spirit, the following outlines three key areas for Global Fund support to CSS:

1. Institutional Capacity Building

Under this activity, a platform for joint TB including MDR-TB and HIV planning and programming to design and implement integrated community-based activities will be provided to coordinate the work of broad, umbrella CSOs already working in HIV and TB prevention, diagnosis and care and with representation in the target districts and communities. Through this platform, the umbrella CSOs will be able to harmonize the implementation of TB and HIV policies and provide program guidance for comprehensive, integrated, community-level HIV and TB prevention, diagnosis, and care.

A capacity assessment of these networks at the community level in financial and program management, and monitoring and evaluation will be carried out to target and address any weaknesses in their ability to scale up community-based services in the targeted districts and communities.

2. Social Mobilization

This activity builds on the development of the joint planning platform where CSOs already working in TB and HIV at the community level will be reoriented and refreshed on new ART and TB guidelines through the CSO networks in order to scale up demand for TB and HIV prevention, treatment, and care services including VMMC, eMTCT Option B+, treatment literacy, adherence to TB and HIV regimens, stigma reduction, active case-finding and referral, and loss to follow-up tracing in the targeted districts and communities.

3. Advocacy and Community-based Monitoring and Accountability

This activity builds on the CSO coordination platform for joint planning to develop tools to enable community-level monitoring of HIV and TB prevention also with a focus on MDR-TB and service delivery in facilities and in the community to ensure compliance with the new TB and ARV treatment guidelines. The monitoring and reporting also will capture issues relating to gender equity, quality

of care, commodity stock-outs, lack of respect for human rights in service provision, and challenges to implementation, e.g., case detection, referral, and retention in care.

An accountability mechanism will be established, whereby the community reports will be consolidated on a quarterly basis and this information will be used as a basis to advocate for improvements in the quality of care, adherence, supply chain management, and any other challenges.

Health Information Systems and M&E

Zambia collects and analyses health information through routine systems and periodic surveys and research. The routine information system comprises (i) the District Health Management information system (DHIS) web-based database, (ii) National TB program information system, and (iii) Smart-Care (EMR) currently in over 700 facilities used to track HIV related services. The periodic surveys include (i) The Zambia Demographic and Health Survey, (ii) The Antenatal Clinic Sentinel Survey, (iii) the Sexual Behaviour Survey, and (iv) the TB Prevalence Survey, which is currently ongoing. The national health management information system (HMIS) collects HIV-related data among other programs, and specific modules are configured in the DHIS2, where data collection tools are embedded. The tools are readily available at all facilities, and quality-assurance mechanisms exist as described in the national M&E framework. The TB data collection system is a parallel reporting system, which presents a unique challenge for the joint programming approach. Zambia has recognized the need for system integration and plans are underway to integrate the TB reporting platform into the current DHIS 2.0 platform used for HIV program reporting. The current proposed allocation will contribute towards the integration of TB reporting into the DHIS2. The routine systems are funded by the government with support from EU and the Global Fund. The challenge in the current HMIS has been the weak hospital and community-level information systems. However, plans are underway to roll-out the hospital HMIS in 2014 and the community HMIS in 2015. Data disaggregation among key population segments by age and gender is another limitation, and plans are underway to revise the current tools to ensure data is adequately disaggregated to capture key sub-population-level information. The rollout of the Hospital and Community HMIS will be supported by Government, EU, and the Global Fund.

The Vital Registration System is weak and needs strengthening and the current proposed allocation has invested funds to support Vital Registration System activities, including support for the printing of data collection tools, data analysis capacity-building, and the roll-out of the Civil Registration and Vital Statistics System to the provincial and district registration officers. This is in support of the larger National Action Plan to Reform and Improve Civil Registration and Vital Statistics in Zambia 2013.

Zambia's opportunities to conduct population surveys to collect impact data are very limited due to funding constraints. The surveys are mostly funded by external partners with government input. The country is currently in the process of finalizing the Demographic Health Survey, the Antenatal Clinic Sentinel Survey 2012 and the TB Prevalence Survey. Results from these surveys should be available by the end of 2014 and will inform future changes to the design of programs for the two diseases. This application has resources earmarked to support more operations research efforts, including the Zambian Sexual Behaviour Survey and an Antenatal Clinic Sentinel Survey. Once the results from the DHS, TB Prevalence Survey, and ANC Sentinel Surveillance Survey are disseminated, Zambia will update the national EPP/Spectrum file to determine the revised HIV, AIDS and TB estimates and projections. The estimates and projections will also be generated at sub-national levels to empower program managers to make evidence-informed decisions on the local HIV responses. Deliberate efforts will be undertaken to build the capacity on estimates and projections at the sub-national levels. The Goals model, which attaches monetary value or cost to HIV interventions to enhance cost-effectiveness in programming, will also be updated based on the results from the surveys, HMIS, and other data sources.

In addition, Zambia also will update the Modes of Transmission (MOT) study of 2009 to understand the changes in the key drivers of the HIV epidemic in Zambia and guide the targeting of intervention programs. A synthesis (triangulation) of all the available data on HIV and AIDS and TB will be done to maximize the explanatory power of the data to describe the dynamics of the HIV epidemic.

Once the proposed analyses are concluded, audience-specific reports will be generated to facilitate a common and shared understanding of the results, the implications for HIV programming or reprogramming and enhance evidence-informed HIV programming and decision-making.

These follow up activities will be coordinated by NAC with support for UNAIDS, EU, GRZ and cooperating partners.

Program Management

Program management costs include the costs for both PRs. Most of the program management costs are incurred by the grant, but Government has been supporting some of the infrastructure (water, sanitation, electricity), transport and administration costs. The costs will be implemented per the grant terms and conditions and will include the costs that directly and indirectly relate to the grant and which are necessary to achieve the program goals. The grant management costs include the human resource, transport, equipment, and grant administrative costs. Program implementation is hampered by insufficient human resources in HIV and TB in the MoH, MCDMCH and in CHAZ.

Cost assumptions for program management in the allocation are based on previous PR-approved costs and grant-management experience in Zambia working on other Global Fund grants. There will also be an allocation to support District AIDS Coordination Advisors (DACAs) for the first year to coordinate the TB and HIV joint programs at the district level; however, in subsequent years, the Government will support the DACAs.

Removing Legal Barriers

As described above, legal obstacles to equitable access by all Zambians to appropriate HIV-TB prevention and treatment services include: i) illegality of sex work, sex among same-sex couples, and drug use, ii) prohibition of the distribution of condoms in school settings below tertiary level, iii) the legal age of consent for HIV testing. In addition, consultation during a recent high-level gender analysis of the NASF has indicated legal and societal barriers to improving gender-sensitive programming.

3.2 Applicant Funding Request

Provide a strategic overview of the applicant's funding request for TB and HIV, including both the proposed investment of the allocation amount and the request above this amount. Include the specific elements related to joint programming such as health systems and community systems strengthening. Describe how the request addresses the gaps and constraints described in sections 1, 2 and 3.1. If the Global Fund is supporting existing programs, explain how they will be adapted to maximize impact.

Zambia has been allocated US$121,601,838 and US$11,131,345 for HIV and TB interventions, respectively, during the period of 1 January 2015 to 31 December 2017. This excludes the current financing from the Global Fund from January 2014. This financing has been allocated to the priorities as described below. In addition, the concept note makes a case for the Global Fund to invest an additional US$24,580,651 (above the total above) in order to achieve greater impact.

As an overview, the funding application across the two programs is summarized below:

HIV: The full cost of meeting national targets over the period of the request (2015-2017) is US$ 1,896,468,580. The GRZ is committed to providing 8% (US$158.0 million) of this cost. Donors, current GF grants, and the current GF allocation are providing 58% (US$1.1 billion). The gap is 33% (US$ 635 million). The GF allocation is US$121.6 million (6.4%).

TB: The full cost of meeting national targets over the period of the request (2015-2017) is US$67,438,311. The GRZ is committed to providing 31% (US$18.0 million) of this cost. Donors, current GF grants, and the current GF allocation are providing 56% (US$38 million). The gap is 17% (US$11.4 million). The GF allocation is US$11million (16.5%).

Priority programs and related costs in this application are detailed in the table below:

Table 8: Priority programs and related costs

Program	Total amount for 2015-2017 in USD

	ALLOCATION	ABOVE ALLOCATION
ART (Treatment, Care and Support)		
ART Drugs (above allocation is for Paediatric ARV $2M) Costs reflected under PSM		
Treatment Monitoring	267,830.00	
EID Support	1,167,373.00	181,660.00
Guidelines Roll-out and Capacity Building	1,829,400.00	n/a
Treatment Adherence	666,000.00	n/a
TB		
Drug susceptible TB Detection and Diagnosis	1,201,842.00	n/a
Drug susceptible TB Treatment	3,223,287.00	n/a
Drug Resistant (MDR-TB) Case Detection and Diagnosis	179,352.00	n/a
Drug Resistant (MDR TB) Treatment	2,232,735.00	n/a
TB Key affected populations: Support TB & HIV control in Prisons (Prisoners and prison officers), Mines and Children	566,300.00	
TB and HIV		
Program coordination and collaborative activities	1,384,101.00	n/a
Xpert MTB RIFF procurement and running cost	4,462,800.00	1,812,062.00
IPT/ICF Guideline Orientation	152,490.00	n/a
eMTCT		
Preventing vertical transmission	960,000.00	
Treatment, care and support to mothers living with HIV and their children and families	2,640,000.00	n/a
eMTCT coordination	1,200,000.00	n/a
VMMC		
Conduct supervision and quality control and assurance visits; support outreach teams; renovation of MC surgical rooms; procurement of MC surgical equipment, supplies, and tents; provider training; advocacy and communication for demand creation.	3,648,375.00	15,726,746.00
Target age group: Males 15-49 yrs		
(Above allocation amount: year 1: $8,429,996; years 2 and 3: $3,648,376 each year)		
CSS		
Advocacy for social accountability; institutional capacity building, planning and leadership development in the community sector; social mobilization, building community linkages, collaboration and coordination	3,216,015.00	n/a
HTC (Prevention Programs in General Population)		
Door-to-door testing in 10 low uptake districts, including TB screening and linkage to TB diagnosis and treatment	559,449.00	n/a
Key populations outreach (team of two national-level staff, two frontline health-care providers and 10 lay counsellors per site in high-density MARP locations)	544,383.00	n/a

Supervision, quality control, and quality assurance visits in all 10 provinces	113,199.00	n/a
HIV Prevention for Adolescents		
The SMS mobile technology platform to inform and educate youth on HIV, safe sexual behavior, and where to find high-impact clinical services and information on TB screening, symptoms and treatment	1,000,000.00	n/a
Removing Legal Barriers to Access		
Conduct a Legal Environment Assessment	103,089.00	
Access will be assessed based on the integrated package of services including HIV prevention, HCT, TB screening, testing and adherence support for TB and HIV treatment		
Implementation of prioritized strategies in the Gender Assessment Report		
HMIS and M&E		
1. Strengthening routine health management information systems for collecting HIV and TB data	2,633,901.00	n/a
2.Strengthen the collection of Vital Registration Statistics	423,077.00	n/a
3. Support the funding gaps in the following surveys:	432,894.00	n/a
• Zambia demographic health survey		
• TB prevalence survey,		
• Zambia Sexual Behavior Survey		
• Antenatal sentinel surveillance survey		
4.Strengthen data quality and data sharing	1,115,103.00	n/a
5. External quality assurance for laboratory services	561,538.00	n/a
6. ARV drug-resistance studies above allocation		2,000,000.00
Procurement and Supply Chain Management		
Operationalization of procurement and supply chain management system	9,428,149.00	n/a
Procurement of ARVs	68,330,499.00	
Above allocation is for paediatric ARVs		
Procurement of laboratory equipment, HIV test kits and reagents for ART & PMTCT modules (see PSM Plan)	8,493,893.00	n/a
Program Management		
Grant Management	9,696,110.00	n/a
Total:	**132,733,184.00**	**19,720, 468**

Application Summary by Priority Modules:

Table 9: Application Summary by Priority Modules (USD)

Row Labels	Allocation	%	Above allocation	%	Full request	%
Prevention programs for	4,865,406	3.7%	15,726,746	79.7%	20,592,152	13.51%

general population						
Prevention programs for adolescents and youth, in- and out- of-school	1,000,000	0.7%	0	0%	1,000,000	0.66%
PMTCT	4,800,000	3.6%	0	0%	4,800,000	3.15%
Treatment, care and support	3,930,603	3%	181,660	0.92%	4,112,263	2.70%
TB care and prevention	4,991,429	3.8%	0	0%	4,991,429	3.27%
TB and HIV	5,999,391	4.5%	1,812,062	9.19%	7,811,453	5.12%
MDR-TB	2,412,085	1.8%	0	0	2,412,085	1.58%
Procurement and supply chain management (PSCM)	86,252,541	65%		0%	86,252,541	56.58%
HMIS and M&E	5,166,513	3.9%	2,000,000	10.1%	7,166,513	4.70%
Removing legal barriers to access	403,089	1%	0	0%	403,089	0.26%
Community systems strengthening	3,216,015	2.4%	0	0%	3,216,015	2.11%
Program management	9,696,110	6.6%	0	0%	9,696,110	6.36%
Grand Total	**132,733,182**	**100%**	**19,720,648**	**100%**	**152,453,650**	**100%**

Overview of Priority Modules

1. **Priority Module: Prevention in the General Population**

HIV Testing and Counselling

HTC will be implemented as part of a package of prevention services, including TB screening, STI screening, NCD screening, and mental health screening. Efforts to link to testing, care, and treatment, where necessary, will be made. Innovative approaches to HIV testing will be adopted, which will include: workplace programs, couples counselling and testing, community and household testing and self-testing.

The full cost of meeting national HTC targets over the period of 2015 to 2017 is US**$**65,808,358. The GRZ is committing 0.9% of the HTC program costs for HIV test kits, not including the GRZ provision of human resources and infrastructure. Donors, including the GF allocation, are providing 99% of the financial resources.

The GF allocation of US$1,217,031 also will support the following activities:

Allocation Request: $559,449

Intervention: Conduct HTC and TB screening campaigns in low-uptake districts

Target Population: Improve overall HTC and TB screening uptake in the general population in low-uptake districts by intensifying innovative HTC and TB screening approaches. The low uptake districts currently are Choma, Mbala, Mansa, Senanga, Solwezi, Katete, Mafinga, Ndola, Kabwe, and Chongwe, and these will be reviewed at implementation. The national coverage was relatively low at 41% (3,005,402) in 2013, and there is a need to accelerate the uptake of HTC in order to reach the expected target of 55% (4,282,410).

Implementation approach: This intervention will involve designing, developing, and implementing provider-initiated, and client-initiated testing, community-based HTC (the new innovative approach will be introduced), and HTC outreach, home-based testing, and targeted district campaigns. HTC

uptake will be improved by expanding the integration of HTC with VMMC, in-patients, out-patients, SRH, STI screening, cervical cancer screening, and TB symptoms screening. Where integrated services are not available, referrals to care and treatment will be established. Implementation approaches to improve uptake of HTC will include the following:

a) HTC district campaigns in low-uptake districts to improve access to HTC through mobile services and community-level door-to-door HTC.

b) Targeted campaigns in low-uptake districts in each of the 10 provinces in order to increase the uptake of HTC.

c) Strengthen HTC outreach at district and community levels in the low-uptake districts.

A mapping process of low-uptake districts and hot-spots will inform the districts to be prioritized.

Allocation Request: $544,383

Intervention: Intensify HTC within the prevention program package and TB screening for fishermen, sex workers, and other migrant workers, including long-distance truck drivers

Target Population: Intensify HTC as part of a package of prevention programs for fish camps (expanding coverage for fishermen, sex workers in the context of transactional sex, and other inhabitants in these settings); migrant workers; and, long-distance truck drivers. TB screening and linkages to services also will be integrated into this approach targeting these key populations.

This intervention also will target in- and out-of-school youth in Livingstone, Lusaka, Kabwe, Ndola, Kitwe, and Solwezi (high social-economic activities), where there is high risk of HIV infection in youth. These populations will be reached with a full package of prevention services. Funding for other components will be complemented from other existing funding sources for the national prevention program.

Implementation approach: This intervention will involve designing, developing, and implementing provider- and client-initiated testing, community-based HTC (an innovation to improve access to HTC services), and HTC outreach in hot spots, and targeted district campaigns for these at-risk populations in their designated locations, such as fish camps, border areas, and workplaces, and specifically mobile workers and truck drivers.

Approaches will include the following;

a) Focused HTC outreach towards fishermen, migrant workers, and long-distance truck drivers

b) District-focused HTC outreach to fishermen (Kashikishi, Mpulungu, Lukanga, Siavonga, Maamba, Mongu); migrant workers (Solwezi, Nakambala;) and, long-distance truck drivers (Kapiri Mposhi, Chirundu, Chipata, Nakonde, Kasumbalesa, Livingstone).

c) Developing communication materials relevant to specific key populations to be reached.

d) Procurement of 60 tents for 10 provinces to strengthen the provision of mobile HTC services to underserved areas.

Allocation Request: $113,199

Intervention: Joint supportive supervisory and quality assurance/quality control (QA/QC) visits

The indicative allocation is the amount requested to conduct joint HIV and TB supervisory visits, including a QA/QC component in selected districts in the ten provinces in fiscal years 1, 2, and 3. The amount in the above allocation specifies the financial resources required to implement these supervisory and QA/QC visits on a national scale.

Target Population: There has been scale-up of HTC and TB services and more than 1,800 facilities provide HTC services. The massive scale-up has the potential to affect the quality of HTC and TB services. Therefore, quality-assurance and quality-control visits will be conducted in selected districts in the ten provinces to ensure the provision of quality HTC and TB services and intensify supervision, quality control, and quality assurance.

Implementation Approach: Supportive supervision and quality-assurance visits will be conducted on a quarterly basis. Three teams comprising four technical staff and a driver will visit three provinces within seven 7 days on a quarterly basis. The teams will be composed of national, provincial, and district-level technical staff specialized in the provision of HTC and TB services. The teams will sample a minimum of three districts in each province and at least two facilities in each district. The teams will use standard supervisory and quality assurance tools for HTC and TB.

Voluntary Medical Male Circumcision (VMMC)

Allocation Request: $3,648,375

Target Population & Geographic Scope**:** The program has started to refocus its demand generation and service delivery on the age groups with potentially the fastest and highest reductions in HIV incidence (15 to 29-year-olds), who are within the 15-34 age group. Further, the program has prioritized Lusaka, Copperbelt, Southern and Central provinces due to their high HIV incidence and prevalence and potential efficiency and effectiveness toward reaching the number of VMMCs needed to avert one HIV infection.

Implementation Approach: The program will continue to employ both the static and outreach models to maximize service uptake. The bulk of the VMMCs conducted in Zambia stem from outreach activities.

The GF allocation request of $3,648,375 will support the following activities:

- ❑ Conduct supervision and quality control/quality assurance visits in 10 provinces.
- ❑ Support outreach teams.
- ❑ Renovate 60 VMMC rooms in the 30 districts.
- ❑ Procure VMMC surgical equipment and supplies.
- ❑ Procure tents.
- ❑ Conduct VMMC provider training.
- ❑ Implement advocacy and communication activities for demand creation.

Other Relevant Information:

The target for the period 2015-2017 is to perform 1,340,991 medical male circumcisions, which will require $115,660,471. The GRZ has committed $392,792 towards the provision of infrastructure and wages; the US Government has committed $54,000,000 to the program; and, the Churches Health Association of Zambia (CHAZ) has provided $4,500,000 through the GF grant for VMMC kits, with the total financial resources available in Zambia for VMMC of $58,892,792. This figure translates into 682,815 VMMCs that can be performed.

Due to limited allocated resources, service provision has been prioritized. According to a recent bottleneck analysis performed in Zambia, the most prevalent challenges are VMMC provider shortages, stock-out of commodities, and myths concerning VMMC, especially in traditionally non-circumcising communities. Further, as the number of facilities providing VMMC increases, quality may be compromised; therefore, supportive supervision has been prioritized.

The program will leverage the contact opportunities and other programs to provide other prevention interventions to the men reached with VMMC, including TB screening, cancer screening, smoking cessation, alcohol use advice, and gender equity/masculinity training, which are low-cost interventions for a key captive population. The program will also involve women in the advocacy for VMMC through collaboration/integration with HTC and eMTCT programs and campaigns.

Above Allocation Justification: $15,726,746

The above allocation amounts of $8,429,996 in year 1, and $3,648,375 in each of years 2 and 3 are considered critical for this high-impact intervention. The national program has prioritized this intervention for its ability to tip the tide of the HIV epidemic on a positive note. It will ensure that Zambia at a minimum achieves its set national VMMC targets, which are informed by current implementation capacity and can ultimately successfully avert more than 112,000 new HIV infections. Zambia considers this a priority investment to be considered under the incentive funding approach. It is vital to scale up VMMC to avert more new HIV infections, especially as traditional male circumcision is not widely practiced in Zambia.

For VMMC an incentive funding of $15,726,748 is requested to be disbursed over the three-year period in order to provide supportive supervision and quality control, outreach, disposable and re-usable MMC kits, and advocacy communication, as well as provider training.

2. Priority Module: Prevention among Youth and Adolescents

Allocation Request: $1,000,000

Target population and geographic scope: adolescents (10-19 years) and young people (15-24 years) in all 10 provinces

Implementation approach:

Intervention 1 - $400,000: Scaling up the use of the innovative counseling SMS platform (Zambia Ureport) among adolescents and youth will improve the comprehensive knowledge on HIV and TB, and generate adoption of safer sexual behavior and HIV high-impact clinical services (HTC, VMMC, ART)

The Zambia Ureport http://zambiaureport.org/home is an adolescents- and youth-focused SBCC program launched in December 2012 by the NAC that utilizes SMS to allow tailored and two-way interactive counseling between trained counselors and the direct beneficiary (Ureporter). This counseling is free for the ureporter and confidential. Beneficiaries register by texting JOIN to the short code 878 on all the three mobile phone networks in Zambia. About 53,000 were registered by May 2014.

The implementation approach will include specifically:

a.) Strengthening the capacity of the local partner (CHAMP) and expanding the pool of SMS counselors to meet the needs of the scale-up phase: a total of 10 new full-time counselors will be hired, and a cumulative 30 counselors will be trained to provide quality counseling on HIV and TB to young people.

b) Conducting outreach activities will promote Ureport among adolescents and youth.

c) Producing and disseminating adolescent-friendly sensitization materials during outreach activities, including through mass media and social media, will enhance knowledge and understanding.

d) Implementing the comprehensive HIV knowledge and TB knowledge transfer though SMS via two-way interactive counseling will provide direct beneficiary knowledge to better discern individual risk.

e) Conducting campaigns via SMS twice a year to generate demand for high-impact HIV services (HTC, VMMC, ART) among adolescents and youth registered on the Ureport platform and relaying the campaign via radio programming to adolescents and youth not owning a phone or not registered on the platform will expand the overall program reach.

d) Conducting annual polls through Ureporter will monitor perceptions about the quality and access of HIV and TB services for adolescents and youth.

Scope of indicative request: 276,000 young people with mobile phone will be reached as direct beneficiaries.

Intervention 2 - $600,000: Sexual and reproductive health kits (containing male and female condoms, water-based lubricants, an emergency pill and IEC leaflets on combination prevention), which will be purchased by other partners such as UNFPA and PPAZ, will be delivered to key populations and vulnerable groups. The evidence from the ongoing studies of key populations will be used to determine the prioritized target groups and locations.

This intervention will support the capacity building that will take place in identified in especially vulnerable sub-groups within the larger adolescent and youth age groups. This will include training them in advocacy, demand creation, and peer-to-peer service provision of the sexual and reproductive health kits. Peer-to-peer training in social and behavioral change communication (SBCC) will be an integral component of the sexual and reproductive health services.

The bulk of the support for prevention among youth and adolescents will be provided by PEPFAR, EU funding to UNICEF and UNESCO, which are providing the following interventions: 1) PEPFAR is supporting social and behavioral change communication (SBCC) interventions for adolescents in schools and for out-of-school youth in communities, with a special focus on adolescent girls; 2) UNICEF/UNFPA and WHO through EU funding will support the increased coverage and accessibility of sexual and reproductive health (SRH) services and referrals for adolescents and young people, as well as for parents and communities, and support new adolescent-friendly policy guidelines; 3) UNICEF is supporting the new and innovative Ureporter, which provides individual counselling via SMS to young people registered on the Ureporter network; and, 4) UNESCO will be supporting the increased access of youth aged 10-24 years to education and services focusing on gender transformation and healthy sexual and reproductive behaviors.

3. Priority Module: Elimination of Mother-to-Child Transmission of HIV (eMTCT)

The full cost of meeting the target for the period 2015-17 is estimated at US$115,777,335 (CHAI Estimates, 2014 -2017). This allocation amount from the Global Fund of $4,800,000 over three years will represent a 5%, 2%, and 2% contribution to the targets (2015, 2016, and 2017 respectively). The other partner contributions make up 22%, 19%, and 16% spread out across the years. The programmatic analysis table clearly depicts this plan.

Allocation Request: $4,800,000

The Global Fund allocation will be utilized for the following interventions:

- ❑ Increasing geographic accessibility to Option B+ and MCH services for all pregnant and breastfeeding women living with HIV.
- ❑ Integrating ART and TB screening within the MCH platform following site assessment, preparedness, and capacity improvement.
- ❑ Improving infrastructure: when required, MNCH departments will be expanded to allow space for routine follow-up and adherence counselling of the increasing cohort of HIV-positive pregnant and breastfeeding women.
- ❑ Establishing linkages between MNCH and long-term ART programs: districts will design specific mechanisms for transitioning women beyond the MTCT risk period from MNCH to the long-term ART program.
- ❑ Building capacity and promoting task-shifting of frontline trained health personnel, who must be able to prescribe ARVs, with at least one nurse or nurse/midwife per MNCH clinic able to prescribe ARVs.
- ❑ Integrating family planning counselling and referral within the continuum of care for women living with HIV in MNCH and ART programs.
- ❑ Strengthening the HIV components of the clinical mentoring program targeting health workers at the national and sub-national levels.
- ❑ Building the capacity of 840 (60%) of the PMTCT sites to provide Option B+ and family planning services for all pregnant and breastfeeding women living with HIV within the MNCH platform and TB screening. Ensuring the security and management of HIV commodities within the MNCH platform.
- ❑ Providing program leadership, coordination, planning and monitoring.
- ❑ Strengthening community engagement to promote early ANC attendance, and couples HIV counselling and testing, adherence, and retention in care.
- ❑ Tackling social norms and practices that negatively affect primary HIV prevention and the prevention of unwanted pregnancies in adolescent girls and women.

4. Priority Module: Treatment, Care and Support

Allocation Request: $3,930,603

HIV Treatment

Investments will be used to scale up treatment coverage and maintain existing patients on treatment. Paediatric ART will be scaled up to reach universal access. The intention in this request is to support the coverage of 90% of the target in year one and year 2, with the following numbers of patients:

2015: 746,751 adults, 50,826 pediatrics

2016: 826,103 adults, 56,049 pediatrics

2017: 884,169 adults, 58,733 pediatrics

The number of patients in need of treatment was adjusted to include HIV-positive pregnant women in the context of eMTCT Option B+. This will further contribute to a reduction in AIDS mortality. The funds for treatment are requested to cover year one and two and will involve the procurement of two drugs. Government has acknowledged the gap in year 3 and discussions are ongoing on how this gap will be filled. This includes increased Government allocation, National Social Health Insurance, funds from EIA, and mobilizing other non-traditional sources.

Investments will also be made in new technologies that facilitate diagnosis and clinical monitoring of treatment, which will strengthen laboratory services. The quality of services will also be improved including through regular monitoring of ART patients and improving patient adherence and retention.

The GF investment is expected to address the challenge of limited coverage of the Early Infant Diagnosis (EID) program (present in only 800 out of 1,200 eMTCT sites). It is intended to capacitate frontline health-care workers in the provision of ART services for adolescents and further train them in patient management to improve the quality of care.

TB and HIV treatment adherence for adults, youth and adolescents, and paediatric patients remains a serious challenge, and investments in the capacity building of CHWs in consolidated guidelines adherence support and the tracing of contacts and those lost to follow-up is expected to address it. These CHWs will provide a link between the health facilities and the communities in reinforcing adherence to treatment. This intervention is also intended to empower CHW to follow up mother-baby pairs lost to follow-up in communities, develop tracking systems to minimize low second-time turnout, and build psychosocial counselling capacity to help parents to disclose HIV status to children, youth and adolescents living with HIV and thereby provide them with care and support.

Above Allocation: $181,660

The above allocation amount requested will support the efforts towards bringing to scale the Mwana Project based on the national expansion strategy. The requested allocation will be used to expand the Mwana Project to accelerate ART access for children and adolescents by improving commodity security for BDS bundles and shortening time for transmitting results, among other approaches. The requested allocation will be used to procure mobile phones for SMS technology, payment for SMS costs, and to outsource a courier system for transporting BDS bundles in an additional 500 EID sites.

5. Priority Module: TB Care and Prevention

Allocation Request: $1,201,842

Intervention: Case detection and diagnosis

Target Population and Geographical scope: The program will work with the community to intensify TB case-finding and referral to health facilities. The program also will continue to build the capacity of health-care workers in the early identification of TB and HIV screening. The program will also increase the number of diagnostic facilities by improving and upgrading 21 new laboratories in selected parts of the country, from a baseline of 364 in 2013. Further, the courier system for the transportation of sputum specimens to diagnostic centres from non-diagnostic facilities, which is currently in place, will be strengthened.

Implementation approach: The program will build the capacity of health-care workers in intensified TB case detection both in health facilities and the community through training and mentoring during support supervision visits. There will be identification and rehabilitation of non-functioning laboratories in order to increase the number of diagnostic laboratories, thereby increasing access to diagnostic services. This will be done in consultation with the relevant ministries (MOH, MCDMCH, and Works and Supplies). Priority areas will be informed by the epidemiological profile of Zambia. LED microscopes will be procured and deployed in high-volume facilities across the country. In order to maintain the quality of microscopy, the EQA program will be routinely done per the quarterly schedule. Preventive maintenance will be performed as scheduled to increase the life span of the diagnostic equipment. Technical and supervisory visits using a checklist will be conducted. The program will carry out forecasting, quantification, and procurement of laboratory consumables and reagents to sustain the diagnosis of cases. Distribution will follow the national system existing within the integrated health facility system on delivery. This approach will be linked to the joint activities already described

with the prioritized HIV interventions, including HTC, interventions targeting special populations, and TB screening of pregnant women.

Other relevant information: Contact tracing in the households of TB-diagnosed cases also will be conducted using the community approach for increased case-finding and provision of IPT for non-symptomatic children. This process also will provide entry-point opportunities to provide HIV screening for contacts and referrals for integrated services**.**

Allocation: $3,223,287

Intervention: Treatment

Target Population and Geographical scope: In order to sustain and exceed the high TB treatment success rate, the program will support the availability of quality-assured anti-TB medicines for adults and children nationwide, with no stock-outs and a one-year buffer stock in place.

Implementation approach: The program will work with the Procurement Unit of the MoH to conduct quantification, forecasting, and procurement of high-quality TB medicines, including paediatric formulations, ensuring that at all times a one-year buffer stock is available. Distribution of these drugs to the district health facilities will be based on the notification reports submitted on a quarterly basis to the NTP. The quantification of the anti-TB drugs and procurement will be carried out by MSL in consultation with the MCDMCH and the MOH. The program will also improve and build the capacity of health care workers in quality clinical and nursing care for TB patients as well ensure all TB patients on TB treatment have treatment supporters providing DOT and ensure the mechanisms for loss-to-follow-up, prevention, and tracking are in place.

Other relevant information: The private sector will be engaged to ensure they also follow the same systems and protocols.

Allocation: $566,300

Intervention: Support TB and HIV control in key populations, including prisons (prisoners and prison officers), miners, and children.

Description: The program will support TB and HIV control in prisons, mines, and in children by increasing the number of prisons with established ICF activities, develop guidelines to tackle TB in mines, and strengthen the capacity of the system to manage TB in children and HIV screening, prevention, treatment, and care.

TB in Prisons: In 2010, a prison-based TB screening program was established at six prisons in Zambia to address the obstacles and enhance the detection of TB among inmates. The program found an overall TB prevalence rate of 6.6% and an HIV prevalence rate of 21.6% (unpublished data, S. Reid: WHO 3Is Protocol. 2012). Under the three Is program 8 prisons in 4 provinces are engaged (Scaling up WHO 3Is in Zambia, 2012). From the baseline of 8 Prisons in 2013, the program will expand to cover 40 out of the 56 prisons by end of 2016. The 4 provinces targeted by the 3I's account for 69% of inmate populations in Zambia. The package of services will include HIV-related services (screening, prevention, treatment, and care). The ongoing training and mentorship of prison officials will be included to promote ownership, sustainability, and the scale-up of prison-based TB and HIV screening and management, including recording and reporting. Improved coordination and collaboration with other ministries responsible for convicted and remandees prisoners, such as Home Affairs and Justice, through consultations and meetings. Bi-annual quality data review meetings between the NTP and prison staff will be established. Support supervision to health facilities will include prisons that implement TB control services.

TB in Mines: The program has identified the miners as vulnerable population, and thereby intends to develop and implement a strategy to address TB in mines. Considering that the true burden among miners and the mining community is not known, the program will collaborate with the mines to conduct a situation analysis of TB control in the mines and mining communities in order to establish the true burden of TB in the mines and understand the existing TB control activities. Based on the situation analysis report, an action plan will be developed to implement systematic and comprehensive TB control services in the mines.

TB in Children: A more detailed age and sex disaggregation for notification rates has been available since 2011 (see page 42 of the Epidemiological Review and Impact Assessment Report-2014). The epidemiological analysis demonstrated that the case notification for TB in children between 0-4 and

5-14 years had declined during the period from 2009 to 2013. Childhood TB represented 10% of all new cases in 2009, and this declined to 8% in 2013. Possible factors for this decrease include the positive impact of the successful roll-out of the PMTCT program, reducing the number of children with HIV, as well as the coverage of ART for children at 38%. The program will intensify TB case detection in children by developing training materials and algorithms for the diagnosis and management of TB in children, training of health care workers in TB diagnosis and management, implementing contact tracing in household of TB-diagnosed patients with a focus on children, improving recording and reporting, and implementing relevant operation research activities.

6. Priority Module: TB and HIV Joint Programming activities.

Allocation Request: $1,384,101

Intervention: TB and HIV coordination

Target Population and Geographical Scope: TB and HIV coordination and collaboration will continue being strengthened at the national and sub-national levels.

Implementation Approach: Functioning TB-HIV coordinating bodies exit at national, provincial and district levels. The TB and HIV programs, implementing partners, and the affected populations will continue to have joint planning and review meetings at the national and sub-national levels. Whereas the national and provincial meetings will be bi-annual, the district-level meetings will be quarterly. This is important to ensure that all facilities implementing joint TB-HIV activities are assisted to move at the same pace in achieving the set targets. For drug-susceptible TB diagnosis and treatment, the allocation will cover 66.5% of the population, and Government and local donors will cover 33.5%, reaching 100% of the population. Through this grant 3Is activities will continue to be jointly implemented by both programs. The TB program will continue to advocate that all TB-HIV co-infected patients are started on ART as early as possible to assure a high cure and treatment success rate among TB-HIV co-infected patients.

Allocation: $4,462,800

Intervention: Xpert MTB/RIF

Target Population and Geographical Scope: People living with HIV will have access to systematic and comprehensive TB screening using a standardized screening tool. The identified presumed TB clients will be referred for Xpert MTB RIF in the high TB and HIV burden areas of Zambia (Lusaka, Copperbelt, and Southern provinces). In sites that have no Xpert machine, sputum samples will be transported using a courier system and results delivered within 48 hours. The approach to roll out Xpert will be guided by the TB and HIV epidemiological situation in different regions of the country as well as capacity by facilities to operate the equipment (National Xpert MTB RIF Guidelines)

Implementation Approach: The MOH will procure Xpert MTB/RIF machines, with guidance from national and international experts, from recommended sources. All the necessary accessories that go with the equipment to ensure to avoid interruption of its functions will be quantified and procured. The placement at facilities will be guided by the TB-HIV epidemiology at the time, and only staff with technical expertise will do the installations. Zambia already has developed guidelines to regulate Xpert usage. There are 14 Xpert machines already rolled out under the 3Is program; 15 will be rolled out in 2014 by the USG, and another 15 by the existing GF grant, also earmarked for roll-out in 2014.

Above Allocation: $1,812,062

The country will require additional 22 Xpert MTB/RIF machines and supplies to reach 183,843 PLHIV who will require Xpert MTB RIF testing. The scale-up will be gradual, including 13 machines in 2015, 4 in 2016, and 5 in 2017. This amount will help bridge the Xpert commodity gaps nationwide.

Allocation: $152,490

Intervention: TB/HIV collaborative interventions-IPT/ICF

Target Population and Geographical Scope: IPT provision in Persons Living with HIV for TB prevention is one of the strategies adopted by the TB and HIV programs to control TB (see page 70 of the NSP). A total of 900 health care workers in three years will be orientated on ICF IPT guidelines (an average of 300 annually across the (now) 106 districts) from all districts across the country. They will receive a one-day orientation on the new IPT/ICF guidelines. The orientation is a one day program

targeting players in HIV and TB, on average 4 participants including community members in each district that will assist with dissemination of the information to all facilities under their care. TB and HIV care providers also will receive orientation. The district health officers in charge of clinical care also will be oriented so they can further orient more staff as and when the need arises.

Implementation Approach: In a cascaded fashion, starting with high HIV/ TB burden districts to low-burden areas, a technical team from the national and provincial levels will conduct these orientations at the district level. These orientations will be one-day sessions, and the program will use materials already developed by the country technical working groups. In the process of implementing IPT interventions, an assessment of the completion rates of the prescribed courses and the incidence of adverse events among patients on IPT will continue to be conducted. The IPT activities will be mainstreamed in other TB-HIV activities, such as ART, for maximum impact

7. Priority Module: MDR-TB

Allocation Request: $179,352

Intervention: Case detection and diagnosis of MDR-TB

Target population and geographical scope: Currently, there are 3 reference laboratories performing C/DST, and at the end of 2014 there will be 44 facilities offering Xpert MTB RIF testing, and 2 of the reference labs will have HAIN. In all the 44 Xpert MTB RIF machines there will be concerted efforts to avoid interruption of cartridges and other supplies. All previously treated cases will be tested for culture and DST. Other high-risk groups, such as contacts of MDR cases, PLHIV, children and HCWs, will also be prioritized for Xpert testing including LPA.

Implementation Approach: A national laboratory referral system for sputum culture and DST will be expanded to all provinces from the current 5 provinces, to link all samples that require C/DST to the 3 reference laboratories and return the results to the facilities in those provinces. Cases found to be rifampicin-resistant through Xpert testing will be fast-tracked to access the HAIN testing to establish whether they are MDR-TB for them to be able to start on SLDs. The MOH will quantify, forecast, and procure the reagents, consumables, and other supplies for the 3 reference laboratories and facilities with Xpert MTB RIF machines, which will be delivered through an integrated delivery system using MSL.

Use of Xpert MTB RIF Assay to diagnose MDR-TB:

Only new TB cases who are contacts of MDR-TB case or failures on FLD will be initiated on SLD upon getting an Xpert RIF-positive result (see page 6 National Xpert MTB RIF Guidelines). Zambia has low rifampicin-resistant TB, less than 5%. This makes the risk of false positive rifampicin-resistant cases as the positive predictive values would be low at around 40%). Therefore, all other RIF-resistant cases other than stated above will have to be confirmed before instituting SLD using available Culture and Drug Sensitivity Testing; and LPA when made available.

Allocation Request: $2,232,735

Intervention: Treatment of MDR-TB

Target population and geographical scope: The expected number of MDR-TB patients over a period of 3 years is 1,580. This number is based on the estimated incidence rates according to the WHO. The baseline in 2013 is that only 20% of the estimated MDR cases are being treated. There are currently 93 patients receiving second-line treatment from the 3 designated centres.

Implementation approach: The MDR-TB guidelines have incorporated both in-patient and ambulatory MDR-TB patients' care to improve access to MDR-TB treatment and reduce loss-to-follow up. The program will continue to maintain a strong DOTS program as a way of preventing Drug-Resistant TB (DR-TB), including MDR-TB. The program also will continue to procure quality-assured second-line anti-TB drugs and ancillary drugs. Ambulances will be procured to facilitate the transportation of patients to MDR-TB treatment centres. The PMDT services will be decentralized to the provincial, district, and community levels after equipping health-care workers and community members with skills in managing MDR-TB cases. DR-TB guidelines will be revised, and there will be clinical expert committees (CECs) at national, provincial and district levels. These CECs will comprise a group of suitably qualified and experienced professionals who will provide guidance in MDR-TB case management including managing complications and drug adverse effects.

Other relevant information: With resources from this grant MDR-TB management will be strengthened through the establishment of CECs at national, provincial and district levels. Through this grant as well as resources from GRZ and USG we hope to implement all the planned activities. Considering the limited funding and the need to comprehensively address MDR-TB challenges 25% of the TB allocation will be used in this area. Investment in diagnostic capacity, human resources, and patient treatment support will be critical during this and future phases. The spread of MDR-TB and the mortality attributed to it will be reduced by providing successful treatment.

Above Allocation: $0

There is now less need for above allocation amount on MDR-TB treatment as the amount which was put under above allocation has been put in the regular allocation. MDR-TB case detection including patient tracking, contact tracing activities are being supported by GRZ and USG. The budget ($2,250,000) from GRZ ($1,500,000) and USG (750,000) has even resulted into reduction of the budget for MDR-TB case detection

8. Priority Module: Procurement and Supply Chain Management (PSCM)

Allocation Request: $9,428,149

Intervention: The program will support operationalization of procurement and strengthening of the supply chain management system, including drugs and laboratory commodities and the building of hubs across the country.

Target population and geographical scope: All people living with HIV and TB in Zambia nationwide.

Implementation approach: The program will support the shipping, storage, and distribution of procured items as detailed in the PSM Plan for both HIV and TB by MSL and CHAZ and will include related investments in strengthening the supply chain system, including support to the building of storage hubs across the country (in conjunction with the USG and GRZ). The PRs have in place suitable public procurement policies and procedures, necessary to implement procurement on this grant and aligned with national and international norms for public procurement and Global Fund guidelines (see the expanded notes on procurement capacity in the annex). The MOH procurement function will be transferred to MSL as soon as Cabinet approves the transfer of the function.

The day-to-day management of PSM Activities shall be managed by the five-member team under the GF Program Management Unit (PMU). This team submits to a Management Tender Committee as required by law. The law also provides for oversight from the independent Zambia Public Procurement Agency, which receives all reports of procurement activities as well as conducts periodic and random audits of MOH/MSL procurement activities.

The terms of reference (TOR) of the MOH Cooperating Partners' Technical Working Group (donor countries and partners) also provide for oversight over procurements conducted by the MOH and/or its agencies. Procedures exist for the review and approval of product selection and specifications, annual procurement plans, tender activities, including issues of request for proposals, bid evaluation reports, and awards of tenders to supply.

Other relevant information: The costs include quality-assurance for Global Fund-supported products (1%), cost of storage and distribution, and support to scale up the MSL Hub system. Three hubs have been established with support from the SSF grant and Sida. From this application, an earmark of $900,000 has been made to support the creation of one hub. MSL has agreed to delegate management of some hubs to CHAZ. After year 2 new funding from the Government and donors will be used to continue operating the hubs (largely recurrent costs).

Allocation Request: $68,330,499

Intervention: The program will support the procurement of ARVs (adult and paediatric). The list includes ARV procurement for the main first-line drugs (TDF+XTC+EFV and NVP paediatric). This will contribute to 87% of patients on ARVs, including PMTCT, for the two years 2015-16.

Target population and geographical scope: All people living with HIV in Zambia nationwide.

Implementation approach: Procurement of ARVs (adult and paediatric); see PSM Plan.

Other relevant information: Unit costs, quantities, and annual spread are detailed in the PSM Plan/tool attached to this application.

Allocation Request: $8,493,893

Intervention: The program will support the procurement of laboratory equipment, HIV test kits, and reagents for ART and PMTCT.

Target population and geographical scope: All people living with HIV and TB in Zambia and other people undergoing HIV testing.

Implementation approach: The programmatic funding of $8 million will be devoted to procuring lab items, all of which will be carried out in year 1.

9. **Priority Module: Health Management Information Systems (HMIS) and Monitoring and Evaluation (M&E)**

Allocation Request: $2,633,901

Intervention: The program will support routine reporting.

Target population and geographical scope: Nationwide health system coverage.

Implementation approach: The MOH intends to use the funding to continue strengthening routine health management information systems (HMIS). The support will target all four HMIS, including: the DHIS 2, the Hospital HMIS, the Smart-care system, and the National TB reporting system, and all the national, provincial, and district health offices. The proposed activities will be implemented by both the MOH and the MCDMCH.

Allocation Request: $423,077

Intervention: Vital registration system activities, including support for the printing of data collection tools, data analysis capacity-building, and the roll-out of the Civil Registration and Vital Statistics System to the provincial and district registration officers. This is in support of the larger National Action Plan to Reform and Improve Civil Registration and Vital Statistics in Zambia 2013.

Implementation approach: The MOH will support the Ministry of Home Affairs to strengthen the collection of vital registration statistics through support to the National Action Plan to Reform and Improve Civil Registration and Vital Statistics in Zambia. The support will target all national, provincial and district registration offices, and the activities will be implemented by the MOH, Ministry of Home Affairs, Central Statistics Office (under the Ministry of Finance), and the Ministry of Chiefs and Traditional Affairs.

Other relevant information: The cost estimates for this component are based on the costed Civil Registration and Vital Statistics Action Plan.

Allocation Request: $432,894

Intervention: Nationwide surveys and operations research

Target population and geographical approach: Nationwide surveys and operations research

Intervention: Surveys and operations research to generate impact and other relevant epidemiological data

Implementation approach: The MOH will use the funding to support the gaps in funding for conducting the following four surveys: Zambia Demographic Health Survey; TB prevalence survey; Zambia Sexual Behavior Survey; and, the Antenatal Sentinel Surveillance Survey. The activities will be implemented by the MOH with support from the MCDMCH, and the Central Statistics Office.

Above allocation: $2,000,000

The above allocation will support the ARV Drug Resistance Survey for Zambia. This will contribute a significant volume of information for the management of the ART program in Zambia.

Allocation Request: $1,115,103

Intervention: Data analysis, review, and transparency and data-quality assurance strengthening.

Target population and geographical coverage: Health offices on national, provincial, and district levels

Implementation approach: The MOH will strengthen data quality and data sharing at the national, provincial, and district health offices, and the activities will be implemented by the MOH, the MCDMCH, and CHAZ. Key monitoring activities will include data-quality assessment (DQA) field visits, data-review meetings, support towards routine collection of missing data at the provincial, district, and facility levels, and the production, printing, and dissemination of annual statistical reports and bulletins.

Allocation Request: $561,538

Intervention: Quality assurance for laboratory services.

Target population and geographical coverage: Laboratory services nationwide.

Implementation approach: The MOH will support external quality assurance for laboratory services, including quality-assurance studies for drugs and laboratory reagents. The MOH will conduct two separate external quality-assurance studies for drug resistance and laboratory regents each year.

Other relevant information: The cost estimate is based on conducting four studies over a period of two years.

10. Priority Module: Removing Legal, Social, and Cultural Barriers to Service Access

Allocation Request: $403, 089

Intervention: A Legal Environment Assessment (LEA) was conducted in Zambia to assess the national legal and policy framework. In the human rights context, an LEA can identify and examine all the important legal and human rights issues affecting everyone in the country. In the context of HIV, conducting an LEA is an important step in understanding how the legislative environment can play a role in influencing HIV prevention, treatment, and impact mitigation efforts. Such LEAs can be critical to strengthening the response to HIV as an LEA offers an opportunity to look at the priority HIV, legal, and human rights issues identified by the report.

Target population and geographical coverage: Women, children, and key marginalized populations nationwide

Intervention approach: The LEA will review the legal and regulatory framework in the HIV context with respect to stigma and discrimination; women and gender; children and young people; criminal laws and key populations; and, intellectual property law and access to HIV treatment.

1) The LEA will take a narrow focus on specific issues of concern to Zambia, such as HIV, legal and human rights issues; community-level barriers; stigma and discrimination affecting women, children, and young people; criminal laws in the context of HIV; and, access to treatment. Specific focus may be given to i) health care for prisoners, women and girls in rural Zambia, and/or ii) access to appropriate prevention and treatment services by PLHIV/LGBTI individuals. Follow-up to the LEA may include advocacy for law reform in priority areas, sensitization of health workers/police/officials, legal literacy and legal aid services, community human rights monitoring and advocacy. The program has identified the miners as vulnerable, and thereby intends to develop and implement a strategy to address TB in mines as mentioned previously. Considering that the true burden among miners and the mining communities still remains unknown, the program will collaborate with the mines to conduct a situation analysis of TB control in order to establish the true burden of TB in the mines and their households. Based on the situation analysis report, an action plan will be developed to support the implementation of systematic TB control services in the mines in conjunction with public and private sector partners.

The recent LEA was designed and implemented by a NAC sub-committee with partner and civil society representation. Findings of the LEA will form the basis for recommendations for law and policy reform, strengthened implementation and enforcement of the HIV-related legal framework, and measures to

improve access to justice, which this allocation request from the Global Fund will help support. Leveraging off the Global Fund investment in the LEA, the sub-committee will engage with other donors to finance the implementation of the agreed recommendations. This will support Zambia in meeting national, regional, and international commitments to protect rights and promote universal access to HIV treatment, prevention, care, and support.

- The Population Council is conducting a study of key populations nationwide fully funded by the US Centers for Disease Control and Prevention (CDC). The National AIDS Council (NAC), MOH, and MCDMCH will facilitate the dissemination of the study results and policy dialogues at both the national and sub-national levels, which will be important for health and HIV/AIDS programming. Government structures will drive this process given the sensitivities surrounding these populations. Working with civil society also will be key during the dissemination and policy dialogue phase, which has the potential to influence policy change positively but also could result in a negative knock-on effect if not properly handled. Thus policy dialogue and stakeholders' meetings will be conducted with community leaders, political leaders, and faith-based organization leaders, and these discussions will be held at the provincial, district and community levels in a targeted and concise manner. The training of key populations will be implemented by appropriate CSOs using a peer-to-peer methodology to build their capacity in human rights-based HIV and AIDS responses as one of the activities resulting from the LEA.

Activities targeted at gender and gender-based violence (GBV) identified during the legal assessment also will be tackled. The specific activities and interventions will be determined by findings from the legal assessment and will be triangulated with information from the gender assessment conducted by the NAC in April 2014 along with the findings from the key population studies. Possible gender interventions may include:

- Strengthening the coordination mechanism to address gender equality, human rights, and women's empowerment issues in the HIV response through the gender assessment team working with the Ministry of Gender and Child Development and using the Gender Assessment Report, the UNAIDS Gender Assessment Tool, and the relevant findings of the forthcoming key populations studies to monitor program design and implementation.
- Conducting gender awareness training for key stakeholders involved in the HIV response based on preliminary results from the recent gender assessment showing the poor attitudes towards women and girls of many service providers. Using the UNAIDS Gender Assessment Tool as a guide, different training programs can be tailored to suit different stakeholders to increase gender awareness and mobilize changes in gender attitudes on the community level toward increasing gender equity and preventing gender-based violence (GBV) and among service providers to increase service equity.
- Empowering young women and girls as a catalyst for change. Evidence suggests that effective approaches for engaging meaningful youth participation in the HIV response include changing organizational/institutional structures, rules, and cultures to attract young people. Supporting and empowering youth organizations to participate in research and decision-making processes and to mobilize communities could foment positive gender changes from the ground up.
- US$300,000 of the US$403,089 allocation will go towards the implementation of prioritised strategies in or arising out of the *Gender Assessment Report*.

11. Priority Module: Community Systems Strengthening

Allocation Request: $1,389,609

Intervention: Advocacy for social accountability

Target population and geographical scope: Policy makers, KAPs, health-care providers, community volunteers, networks, NGOs, CBOs, FBOs, grassroots and patient-led groups in targeted provinces (Copperbelt, Lusaka, Central, Eastern, and Luapula). Copperbelt, Lusaka, and Central provinces have high HIV prevalence rates, while Eastern and Luapula have high numbers of TB losses to follow-up. Advocacy will be targeted to the provinces prioritized during grant negotiations.

Implementation approach: Capacity building and orientation in advocacy and community monitoring of HIV and TB service delivery will be done of five CSOs with broad-based community networks. Subsequently, the five CSOs will conduct policy mapping and monitoring to ensure effective service delivery in ART, TB, TBHIV, MDRTB, Option B+, VMMC, HTC, and compliance with ethical standards and utilization of human rights-based approaches. The monitoring and reporting of the roll-out and other issues surrounding the quality of care and stock-outs will be done by adherence/treatment supporters. These supporters will undergo capacity building to understand the guidelines, track implementation progress, and report on a monthly basis using their monthly reporting tools. Desk reviews of the reports will be done on a quarterly basis to track progress. Based on the findings from the reports, advocacy will be conducted at all levels up to the national level to increase social accountability.

Other relevant information: The 5 geographical areas have been chosen based on their high HIV prevalence rates of 17% for Lusaka, Central, and Copperbelt provinces according to the ZDS of 2007. Although in Luapula the HIV prevalence rate decreased from 13.3% to 10.3% and Eastern Province recorded an increase from 11.2% to 13.2%, respectively, the former and latter provinces have recorded higher loss to follow-up rates and morbidity in TB based on the Epidemiological Review and Impact Assessment Report for 2014. Hence integrated interventions are needed to scale up access to the aforementioned services.

Allocation Request: $900,000

Intervention: Institutional capacity building, planning, and leadership development in the community sector

Target population and geographical scope: Civil society plays a very important role in complementing Government efforts to mitigate the impact of TB and HIV. However, CSOs have limitations in terms of the resources and capacity to fulfill their roles. A mapping of NGOs CBOs, FBOs, grassroots organizations, and patient-led groups in 3 provinces, including Lusaka, Copperbelt, and North-Western, will be done to identify the organizations, including gender-focused organizations, operating in the provinces/districts in order to assess their organizational capacity needs.

Implementation approach: After the mapping exercise is completed, targeted capacity building will be undertaken to enable the CSOs to strengthen their roles in complementing Government efforts to address TB and HIV in these provinces. Capacity-building will include: institutional and organizational systems development such as planning, resource mobilization, M&E, finance, human resource management, leadership skills, and advocacy. Technical, material, and financial support will be provided to enable them to fulfil their advocacy roles in their respective communities, and the CSOs will be supported to provide a platform for joint planning and implementation.

Other relevant information: In recognition of different organizations having varying capacity needs, a peer-to-peer approach of organizations working within their own structures will use the minimum standards already developed by CSOs in Zambia to identify gaps in processes and systems and address them accordingly. It is important that interventions be put in place to strengthen the community response to reduce the transmission of HIV infections in these provinces and prevent PLHIV from developing TB through intensified case-finding and raised awareness.

Allocation Request: $926,406

Intervention: Social mobilization, building community linkages, collaboration, and coordination

Target population and geographical scope: Key leaders (civic, traditional and religious) in communities, groups of PLHIV (women, adolescents, children, persons with disabilities, youth and marginalized groups), and others who congregate in settings such as prisons, marketplaces, and churches) in Lusaka, Copperbelt, and North-Western provinces.

Implementation approach: Social and community mobilization are two interventions that CSOs use to create demand for HIV and TB prevention, treatment, and care services in communities. Programmatic and service delivery effectiveness largely has depended on how well these interventions are implemented. Building effective community systems and linkages, including collaboration and coordination, are key in social and community mobilization. Existing adherence/treatment supporters will be oriented to the new prevention and treatment guidelines (VMMC, Option B+, IPT, TB treatment, TB/HIV, MDR-TB and ART) to be able to conduct demand-creation activities, including treatment literacy, active TB case-finding, and dissemination of the Stigma Index Report of 2010. Service utilization activities will include comprehensive TB screening,

DOT support, treatment adherence, and loss to follow-up tracing for HIV and TB. The strategic approaches support key interventions, including: advocacy for social accountability; institutional capacity building; planning and leadership development in the community; social mobilization; building community linkages; and, community coordination and collaboration.

Other relevant information: Community mobilization will be done to complement facility-based interventions as it is essential to the success of these high-impact services, particularly related to individual and community understanding (TB and HIV treatment literacy); service uptake (demand creation); increased access (stigma reduction); and, continuing retention (adherence support).

12. Priority Module: Program Management

Allocation Request: $9,696,110

Target population and geographical scope: Programs nationwide

Implementation approach: Grant management costs include the costs for both PRs. The costs will be implemented per the grant terms and conditions and will include the costs that directly and indirectly relate to the grant and which are necessary to achieve the program goals. The grant management costs include the human resource, transport, equipment, and grant administrative costs.

Other relevant information: Cost assumptions for program management are based on previous PR-approved costs and grant-management experience in Zambia working on other Global Fund grants. There also will be an allocation to support DACAs for the first year to coordinate the TB and HIV joint programs at the district level; however, in subsequent years, the Government will support the DACAs.

Health Systems Strengthening Analysis of Application

The following table shows the analysis of the health systems strengthening investments included in this application, which are spread across the Priority Modules. The analysis has been done according to the health systems strengthening pillars. The costs identified in the table below already are captured in the allocations listed in the Priority Modules, above. Thus the costs listed below for each HSS activity are not additional allocation requests. This HSS table is included to illustrate that health systems strengthening investments comprise 13% of the total allocation budgeted in this application.

Table 10: HSS Allocation

Budget Module	HSS amount in Allocation USD	HSS Amount Above allocation USD
Procurement and supply chain management (PSCM)	9,725,149	
HMIS and M&E	4,372,081	2,000,000
Total	**14,097,230**	**2,000,000**

3.3 Modular Template
Complete the **modular template (Table 3)**. Note that the template allows access to modules that are specifically relevant to TB and HIV components, in addition to modules that are cross-cutting for both diseases. To accompany the modular template, for both the allocation amount and the request above this amount, explain: a. The rationale for the selection and prioritization of modules and interventions for TB and HIV, including those that are cross-cutting for both diseases. b. The expected impact and outcomes of the interventions being proposed. Highlight the additional gains expected from the funding requested above the allocation amount.

See the Modular Template, attached.

Country dialogue and prioritization process of the modules:

In order to prioritize the modules for this application, a country dialogue process was embarked on with stakeholders in health, HIV and TB technical experts, the donor community, and civil society groups representing the populations affected by the two diseases. Documentation of the related processes will be attached to this application.

The stakeholder dialogues generated general and specific considerations to guide the prioritization process and were provided with a mandate for the technical and civil society teams to proceed with a funding-split proposal.

The stakeholders considered the following general and specific factors for prioritization:

General Considerations:

- Sustaining the gains made to date on the two epidemics and avoiding treatment disruptions in the short- and medium-terms was needed, e.g., treatment for HIV and TB, eMTCT.
- Scaling up high-impact and cost-effective interventions, e.g., VMMC, IPT, and Xpert technology, was needed.
- Reaching the most vulnerable populations based on the current epidemiology of the two diseases was needed, e.g., HIV and TB prevention programs for youths and adolescents, children, prisoners, miners and hard-to-reach populations.
- Identifying funding gaps in view of the funding landscape for the two diseases was needed.
- Aligning with the priorities in the revised strategy documents was needed.
- Institutionalizing an integrated approach to service delivery for the two diseases, including intensified case-finding through integrated HTC and TB screening, community tracing of contacts and loss to follow-up, adherence support mechanisms, procurement and supply chain management, laboratory strengthening, health-care worker capacity strengthening, decentralised care, integrated supervision and support, drug resistance and adverse event monitoring, outcomes measurement, and child-, youth- and adolescent-friendly services were needed.

Specific Considerations:

- Analysis of the epidemiology of HIV and TB in Zambia to identify geographical areas with the highest burden was needed. Similar trends were noted in most cases between HIV and TB in relation to disease burdens. For geographical targeting, the high-burden provinces of Lusaka, Copperbelt, Central, Southern, and Western were prioritized for both disease programs (prevention, treatment, and care services).
- Targeted interventions also were directed at provinces that have historically limited uptake of services, e.g., Luapula with high TB loss to follow-up rates.
- Specific key populations were also targeted based on their vulnerability to the two diseases and relatively limited access to services, e.g., youth and adolescents, children, prisoners, miners, and residents in hard-to-reach communities such as fishing camps. The full composite of prevention packages is earmarked for these locations, including linkages to the broader treatment and care services for HIV and TB.
- For improved access to services and institutionalization of the community-based approach, the critical enablers of removing legal barriers and community systems strengthening modules were prioritized. This approach will strengthen community systems to collectively address the issues of service integration, demand creation, stigma and discrimination derived from local practices and beliefs, and advocacy for a rights-based approach to service delivery for the two diseases.

Technical teams, including civil society representatives with the mandate of the stakeholders involved in the country dialogue process, recommended a funding split across the priority modules, which was ratified by the larger stakeholder community.

Outcomes and Impacts of the prioritization process:

Selected Priority Modules:

Module 1: HIV Prevention Programs for the General Population:

Rationale: This module was prioritized based on the need to achieve a reduction in the incidence of new HIV infections. The need to maintain a balance between prevention and treatment also was considered. Other considerations in defining selected interventions included the limited funding under

the current allocation, programs with relatively substantial in-country funding, programs with significant funding and programmatic gaps, programs with opportunities to be fully integrated with the TB program, and those with the capacity for high impact.

Selected Interventions:

- **HTC:** Scaling up HTC was prioritized using innovative approaches for improving access, including door-to-door testing, community testing, and testing campaigns in underserved communities. Population targeting also was considered for hard-to-reach populations with vulnerability potentials. The HTC program is being delivered as part of a full prevention package for the targeted communities and persons, which will complement existing investments in SBCC, condom programming, STI screening, and SRH services. Integration of TB screening with the HTC scale-up provides a great opportunity for improved access to TB services (screening and linkage to TB diagnosis and treatment facilities). The related capacity-building efforts for this intervention will support both TB and HIV skills development for health workers, which will improve integration and efficiencies significantly. This is expected to impact positively on the number and proportions of underserved populations accessing testing, prevention and treatment services.

- **VMMC:** This intervention was prioritized as high impact, but poorly resourced. Clinical evidence and modelling has shown the impact on new HIV Infections averted through this intervention. Based on this premise the intervention has been tailored to target the age group with the highest return on investment—males aged 15-34 years. However, due to the challenges with population segmentation in the National HMIS, the broader 15-49 year age group is being targeted in Zambia. This intervention also provides an opportunity for integration and will be augmented with the full complement of other prevention services (HTC, SBC, condom programming, STI screening, etc.).

  Impact: The above allocation amount for this intervention will help meet the national VMMC targets and successfully avert 112,000 new HIV infections based on current modelling outputs.

Module 2: HIV Prevention Programs for Adolescents and Youth, in- and out-of-school

Rationale: The rationale for prioritization of this module is based on the HIV epidemiology, which suggests high vulnerability (see section 1) of this population age group.

Selected Interventions:

- **Behavioral change as part of programs for adolescent and youth:** This intervention is selected based on the potential for high impact, the cost-effective delivery process, the opportunity for integration with the TB program, and the opportunity to leverage funding from other sources. The SMS-based mobile health technology platform has been selected as a delivery mechanism, and the messages will address both HIV and TB. This will improve access to services for adolescents and youth and the ongoing impact assessment will provide data on the impact of this service thus far. A full description is in section 3.2.

Module 3: Elimination of Mother-to-Child Transmission of HIV (eMTCT)

Rationale: This module was prioritized as it is a high-impact intervention, the gains already made need to be sustained, and there is an opportunity for integration.

Selected Interventions:

- All four prongs of the eMTCT program will be included, and the integrated approach will be adopted with an effort to leverage the existing investments. Prongs 3 and 4 are earmarked for funding, while prongs 1 and 2 will be leveraged from existing investments. Each woman in the program will be provided with a comprehensive package of services. TB screening will be integrated with the eMTCT program, including linkages to diagnosis and treatment services.
- The above allocation amount is to further bridge the programmatic gaps and meet the targets set in the NASF.
- This will impact on the number of women and children receiving ARV's for eMTCT and where needed TB treatment and ultimately reduction in mother to child transmission as well as improvement in the mothers lives.

Module 4: HIV Treatment, Care and Support

Rationale: This is a high-impact intervention package, the gains already made need to be sustained, and there is an opportunity for service integration.

Selected Interventions:

- **ART:** Investments in sustaining the gains already made by providing treatment will be advanced; potential ARV gaps will be bridged to avoid treatment disruptions; and, paediatric treatment gaps also will be bridged as evidenced by the current program results.
- **Treatment monitoring:** Expand treatment monitoring services to more provinces to ensure the quality of services and treatment outcomes.
- **Treatment adherence:** Ensure treatment adherence for better outcomes including longer survival as well as reduced transmission. This intervention offers a big opportunity for integration as TB treatment adherence also be promoted through the same channels. Using the community approach also further strengthens community systems for the broader health service delivery, including health promotion and the right to service access.

Module 5: TB Care and Prevention

Rationale: This is a high-impact intervention that will bridge programmatic gaps, improve access to key populations, and provide an opportunity for integration.

Selected Interventions:

- **Case detection and diagnosis**: There is a need to scale up early detection and diagnosis of TB to further reduce TB-related mortality, particularly among PLHIV. Investment will target improving the diagnostic capacity of existing facilities, and HTC and other related HIV services will be integrated with this intervention.
- **TB treatment**: This investment will sustain current high TB treatment success rates, and it will ensure drug availability and quality service provision.
- **Service access to key populations**: TB and HIV control services will be rolled out in prisons and mines and to improve case notification, diagnosis, and treatment in children and adults.

Module 6: TB and HIV Joint Programming

Rationale: Integrated approach, improving efficiencies, leveraging resources, strengthening systems

Selected Interventions:

- **TB and HIV collaborative intervention coordination:** Investments will be made in joint coordination planning and service delivery activities, which will improve integration, joint programming, and the cost-effectiveness of programs at the national, provincial, and district levels.
- **TB and HIV collaborative interventions: Xpert roll-out for PLHIV:** This investment supports the early diagnosis of TB in people living with HIV. The Xpert technology improves diagnostic capacity and through-put of facilities, which will have a positive impact on the TB-related morbidity/mortality of PLHIV.
- **TB and HIV collaborative interventions: IPT:** This intervention seeks to scale up the IPT program in PLHIV, which will prevent TB co-infection in PLHIV significantly.

The above allocation amount is to support the procurement of Xpert commodities to sustain TB diagnostic capacity.

Module 7: MDR-TB

Rationale: This is a high-impact intervention bridging programmatic gaps.

Selected Interventions:

- **Case detection and diagnosis of MDR-TB**: This intervention is driven by the need to ensure early detection of MDR-TB and linkage to early treatment. The diagnostic capacity of existing and new facilities will be improved, and it will be sustained in those with sufficient capacity.
- **Treatment of MDR-TB:** This intervention will ensure good treatment outcomes for MDR-TB patients and ensure drug availability.

Module 8: Procurement and Supply Chain Management (PSCM)

Rationale: This is a health systems strengthening pillar, ensuring commodity security for the HIV and TB joint programming effort.

Selected Interventions:

- ❑ Procurement of drugs and lab commodities
- ❑ Supply chain management strengthening.

The above allocation amount under this module is for the procurement of paediatric ARVs to bridge the treatment gaps anticipated in 2015 and 2016.

Module 9: Health Management Information Systems (HMIS) and Monitoring and Evaluation (M&E)

Rationale: This is a health systems strengthening pillar, generating information for decision making for the TB and HIV programs, which greatly needs expansion in Zambia.

Selected Interventions:

- ❑ Routine reporting
- ❑ Vital registration systems
- ❑ Surveys and operations research to generate impact and other relevant epidemiological data
- ❑ Data-quality assurance strengthening.

The above allocation amount is to conduct an ARV drug resistance survey, which is critical for the HIV program.

Module 10: Removing Legal, Social, and Cultural Barriers to Access Services

Rationale: This intervention is a critical enabler, removing legal, cultural, and social barriers to access to TB and HIV services.

Selected Interventions:

- ❑ **Conduct a Legal Environment Assessment (LEA):** This intervention is an important step to take toward understanding how the legislative environment can play a role in influencing HIV and TB prevention, treatment, and impact-mitigation efforts. The results of the LEA will inform the design of future interventions. Policy dialogues on national and sub-national levels will be conducted after dissemination of the findings from the key population studies.

- ❑ **Gender related activities:** Specific activities will be tailored to respond to the findings from the recently concluded gender assessment and the ongoing key population studies. The interventions will be chosen by the gender assessment team working with the Ministry of Gender and Women's Development with the intention of tackling gender-related barriers to service access.

The above allocation amount is to ensure full funding for the planned LEA and the related key population and gender activities.

Module 11: Community Systems Strengthening

Rationale: This intervention package is a critical enabler and will improve and sustain access to TB and HIV services, increase the involvement of affected populations improving treatment adherence, provide integrated service delivery and increase the demand for and early access to services. Studies show that patients in Zambia are initiated on ART at a median CD4 count of 145 cells/μL.[26] This implies that patients initiate ART late, with implications on treatment outcomes/impacts and costs.

Selected Interventions:

- ❑ **Advocacy for social accountability:** Capacity building and orientation of five CSOs will be conducted with broad-based community networks working on advocacy and community monitoring of HIV and TB service delivery.

- **Institutional capacity building, planning, and leadership development in the community sector:** The capacity will be built of networks, NGOs, CBOs, FBOs, grassroots organizations working on women's rights and equality, and patient-led groups in institutional and organizational systems development, including planning, resource mobilization, monitoring and evaluation, finance, human resource management, leadership skills, and advocacy.
- **Social mobilization, building community linkages, collaboration, and coordination:** Demand for HIV and TB prevention and treatment and care services in various respective communities will be created, which will complement the interventions in prioritized geographical locations for TB and HIV services.

Module 12: Program Management

Rationale: This support is necessary for the effective management of grants and the coordination of district activities and includes the management costs for the two PRs. The costs will be implemented per the grant terms and conditions and will include the costs that directly and indirectly relate to the grant and which are necessary to achieve the program goals. The grant management costs include the human resources, transport, equipment, and grant administrative costs, and the cost assumptions are based on previous PR-approved costs and grant-management experience in Zambia working on other Global Fund grants. There also will be an allocation to support DACAs for the first year to coordinate the TB and HIV joint programs at the district level; however, in subsequent years, the Government will support the DACAs.

Selected Interventions: Grants management strengthening.

[26] Scott CA et al: Real-world costing of HIV treatment in Zambia highlights difference between national guidelines and actual resource use: Retention in care, resource utilization, and costs for adults receiving antiretroviral therapy in Zambia: a retrospective cohort study. BMC Public Health. 2014 Mar 31;14(1):296. doi: 10.1186/1471-2458-14-296.

3.4 Focus on Key Populations and/or Highest Impact Interventions

This question is <u>not</u> applicable for Low Income Countries.

For TB and HIV, describe whether the focus of the funding request meets the Global Fund's Eligibility and Counterpart Financing Policy requirements as listed below:

a. If the applicant is a lower-middle income country, describe how the funding request focuses at least 50% of the budget on underserved and most-at-risk populations and/or highest-impact interventions.

b. If the applicant is an upper-middle income country, describe how the funding request focuses 100% of the budget on underserved and most-at-risk populations and/or highest-impact interventions.

The funding request is based almost entirely on high-impact interventions. In addition, emphasis has been placed on interventions for key populations, particularly people living with HIV, pregnant women and children, adolescents (aged 10-14) and young people (aged 15-24).

Sixty percent (60%) of the budget focus is on the procurement of ART and TB medicines and laboratory equipment and reagents. This allocation will provide treatment access to key populations living with the two diseases and assure their quality of life.

US$68.3 million and US$8.4 million have been allocated for ART drugs, laboratory reagents and equipment. Under TB, US$3,223,287 (29 has been allocated for TB medicines, and US$1,113,134.50 (10%) for lab reagents for TB. These allocations will help ensure that all underserved and key population members have access to quality drugs and testing.

There also are specific interventions for key underserved populations, including prisoners, miners, and children. Residents in hard-to-reach locations such as fish camps and sex workers in these locations as well as migrant workers and long-distance truck drivers also are targeted by these investments. Programming also will benefit MSM and sex workers through the universal access approach this grant will support; and, the results of two ongoing studies will inform the design and targeting of interventions and services for these populations during the course of this grant.

Activities targeted at addressing the gender barriers to service access and removing the legal barriers to service access by especially vulnerable population groups based on the perceived illegality of their activities (MSM and sex workers) also have been prioritized.

Youth and adolescents as a highly vulnerable sub-population also have been targeted for HIV and TB prevention interventions, with linkages to diagnosis, treatment, and care services.

The community systems strengthening and TB-HIV joint programming activities are anchored by the civil society sector to ensure the greater involvement of affected populations, and activities around advocacy are included to address the cultural and social barriers to service access by vulnerable populations.

SECTION 4: IMPLEMENTATION ARRANGEMENTS AND RISK ASSESSMENT

This section requests information regarding the proposed implementation arrangements for this funding request. Defining the implementation arrangements for the program including the nominated Principle Recipients (PRs) and other key implementers is essential to ensure the success of the programs and service delivery. For the concept note for TB and HIV, the Country Coordinating Mechanism (CCM) can nominate one or more PRs, as appropriate given the country context**.**

4.1 Overview of Implementation Arrangements

For TB and HIV (including HSS if relevant), provide an overview of the proposed implementation arrangements for the funding request. In the response, describe:

a. If applicable, the reason why the proposed implementation arrangement does not reflect a dual-track financing arrangement (i.e. both government and non-government sector PRs).

b. If more than one PR is nominated, how co-ordination will occur between PR(s) for the same disease and across the two diseases and cross-cutting HSS as relevant.

c. The type of sub-recipient management arrangements likely to be put into place and whether sub-recipient(s) have been identified.

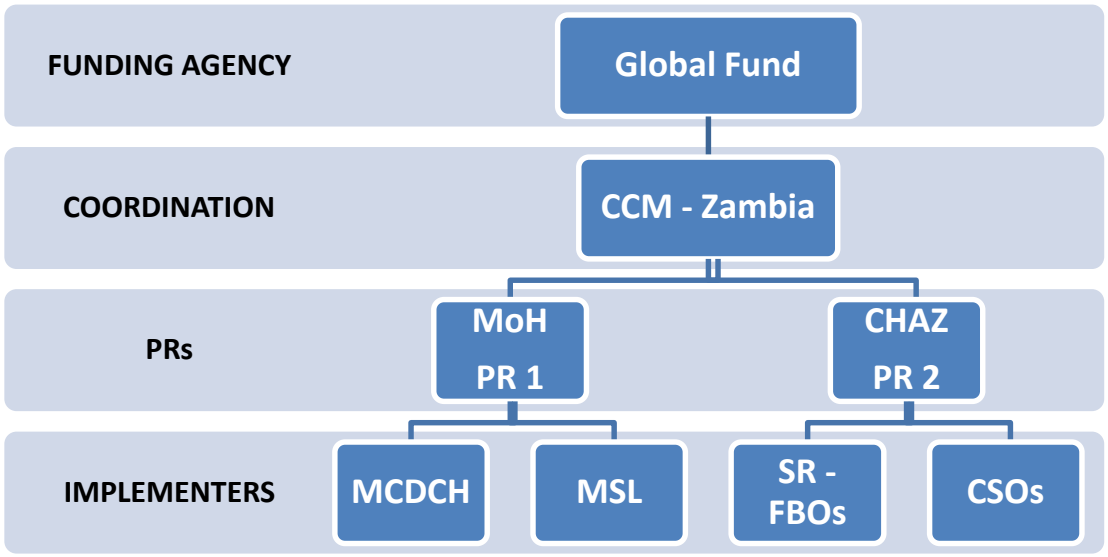
d. How coordination will occur between each nominated PR and its respective sub-recipient(s).

e. How representatives of women's organizations, people living with the two diseases and other key populations will actively participate in the implementation of this funding request.

a. **Dual Track Financing Arrangements**

The Country Coordinating Mechanism (CCM) has nominated the Ministry of Health (MOH) and Churches Health Association of Zambia (CHAZ) as the PRs. The grants across the three diseases (HIV, TB and malaria) have been split with approximately 68% by the MoH and 32% by CHAZ. This is based on the comparative advantage that Global Fund grants offer and that other funding sources are channelled through the MoH. The dual track financing will ensure absorptive capacity, efficiencies, and effectiveness of program implementation based on the experience and reach of the two PRs. The MoH will work with the Ministry of Community Development, Mother and Child Health (MCDMCH), and Medical Stores Limited (MSL), while CHAZ will work with faith-based organisation (FBO) hospitals, civil society organisations (CSOs), and private sector entities, such as the mine hospitals. This extended reach will result in outreach to community-based organisations, which is aligned with dual-track financing and will ensure the joint country response is achieved. Figure 12, below, depicts the flow of funds from GF to Sub-Sub Recipients (SSRs).

Figure 20: Proposed Implementation Structure for the NFM application



b. **Coordination between PRs for the same Disease and Cross Cutting HSS**

The coordination and management of the national multi-sectoral response has focused on strengthening the decentralised response, improving the efficiency and effectiveness of existing systems and coordination structures, addressing cross-cutting issues such as HSS, gender and disability, and mobilizing resources. At the strategic level, the HIV and AIDS response implementers are coordinated through the Cabinet Committee of Ministers on HIV and Health, the Partnership Forum, the Sector Advisory Group (SAG), and the CCM. The NAC is mandated to coordinate, monitor, and evaluate inputs, activities, outputs, and impacts of HIV and AIDS programmes in Zambia. The Partnership Forum provides a high-level formal and representative forum for all the partners from government, private sector, cooperating partners, civil society, including international NGOs, PLHIV, and those involved in the decentralised response to support the national response to HIV and AIDS. The Partnership Forum provides a platform for information sharing, technical leadership, and direction.

TB and HIV Disease:

The Ministry of Health is responsible for service provision at secondary and tertiary institutions and policy and planning functions, while the MCDMCH is responsible for primary health-care delivery. The HIV Programme Unit sits in the MOH, and the National TB Programme (NTP) sits in the MCDMCH. The patients on first- and second-line antiretroviral therapy are under care at the facilities overseen by the MCDMCH. Those on third-line ART are managed at tertiary institutions under the MOH. Regardless of oversight by ministries, there is a free flow of referrals between different levels of care within institutions and between institutions. The MOH's HIV Programme Unit is also responsible for all planning and scale-up of ART in Zambia, and the MOH also provides technical support and supervision to the district facilities. The NTP through the MCDMCH and the MOH is responsible for MDR- and XDR-TB diagnosis and management. The MCDMCH is responsible for all drug-susceptible TB diagnosis and management.

Other ministries involved in health care are the Ministry of Home Affairs, in charge of prisons and which has its own clinics and hospital, and the Ministry of Defence, which also has its own hospitals and clinics. The GRZ through the MOH coordinates policy development, planning and service delivery through the various Technical Working Groups (TWGs) that have been formed. These include the PMTCT/Option B+ TWG, ART TWG, TB/HIV and the National TB/HIV Coordinating Committee.

In relation to Global Fund programs in Zambia, the CCM oversees the management of grants from concept note development to grant disbursement-ready grants. The CCM ensures that GF resources are being used accountably, efficiently, and effectively for the benefit of the country. The CCM provides strategic direction to the PRs and ensures that they comply with the oversight recommendations and requested corrective actions.

- **How Coordination Occurs Between the PRs and the CCM**

The CCM has three subcommittees: Oversight, Strategic Planning and Investments Committee and the Executive Committee. The CCM coordinates the PRs through these structures, which also functions as a forum for dialogue between the CCM and the PRs. The Oversight Subcommittee produces reports outlining their progress, challenges, and programmatic information relevant to CCM strategic planning. These reports are presented to the CCM, which provides feedback and strategic direction as necessary.

- **Coordination Among PRs**

In addition to the CCM subcommittees, the PRs also have various structures through which they coordinate their actions. All PRs are represented on the various theme groups of the NAC, which have been established to provide technical expertise on the various aspects of the HIV and AIDS response. Membership of the theme groups is drawn from sectoral institutions based on their specific mandates, interests, and technical expertise.

The PRs also meet at the MOH PMU to review the national progress and to coordinate activities among themselves, meeting regularly to: discuss procurement needs; forecast requirements; work out logistical arrangements; share lists of potential Sub-Recipients (SRs) to ensure no double funding occurs; share reporting formats; align processes and procedures; and, discuss programmatic challenges. The PRs also routinely communicate with each other to ensure they are able to respond effectively to any challenges that arise. Where issues and gaps arise, the PRs work together to ensure the needs of the national response are met.

The MoH has an MOU with CHAZ providing for coordination platforms between the two PRs, across which information and resources are shared. The two PRs from the Government and non-government sectors have enhanced the public-private partnership approach by sharing pharmaceutical drugs and medicines with the private sector and coordinating training and monitoring and evaluation (M&E). They also have signed MOUs with various partners and SRs regarding the delivery of health services, in particular HIV and AIDS services.

- **Coordination of SRs by PRs**

Each PR has its own SR coordination mechanism and set of work plans, which are aligned with the National AIDS Strategic Plan (NASF), National TB Strategic Plan (NTSP) and the National Malaria Strategic Plan (NMSP). The NAC has outlined a strategy to support decentralised coordination and M&E at the provincial and district levels. A variety of actors and organizations, representing the public and private sectors, civil society, FBOs and cooperating partners involved in the national HIV and AIDS response are organised into self-coordinating groups, platforms, and forums representing key constituencies such as PLHIV, youth, people with disabilities, and other interest groups. The NAC communicates within the context of the existing institutional framework of the Provincial and District Coordinating Committees (PDCCs and DDCCs) at both levels; it also convenes quarterly meetings with the groups, platforms, and forums to facilitate partnership building, consultation, participation, and information exchange among the various SRs. The NASF and National HIV and AIDS Operational Plan establish the framework within which these groups operate, to ensure a harmonised, focused, and cohesive national HIV and AIDS response.

The PRs and SRs are an integral part of the monitoring and evaluation system. CHAZ is not only a PR but also is a coordinating body in its own right, while the Ministry of Health has put in place a functioning Programme Management Unit to strengthen the relationship with its SRs. The PRs have developed their own monitoring and evaluation frameworks and have recruited M&E and grants and compliance staff who work closely with the SRs, coordinating the implementation of their grant agreements.

SR Management Arrangements in Place

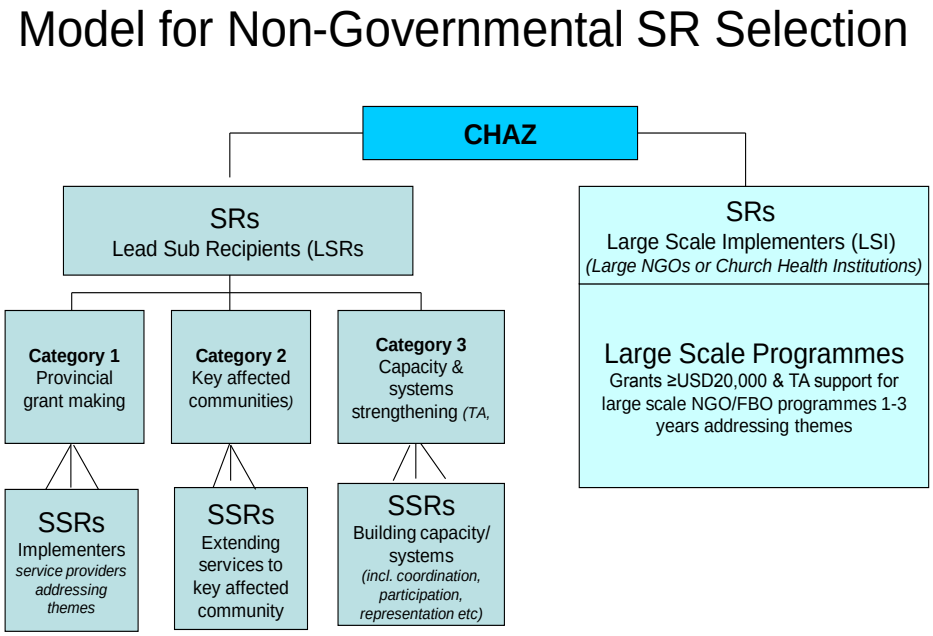
The Sub-Recipients will serve under both PRs as highlighted in section (a). The Ministry of Health will have two SRs in place, Medical Stores Limited (MSL) and the Ministry of Community Development, Mother and Child Health (MDMCH). Medical Stores Limited will be responsible

for storage and distribution of commodities for all three diseases and the MDMCH will implement activities for three diseases at district, facility, and community levels. The MOH will focus its activities primarily on the biomedical interventions implemented at secondary and tertiary health facilities throughout the country and coordinate support to pharmaceutical regulations, procurement and supply management, surveys, and research. The MCDMCH will focus on the biomedical and community interventions implemented at the primary health-care level. The MSL will focus on warehousing and distribution of pharmaceuticals to the service-delivery points (SDPs).

Under CHAZ, while the majority of sub-recipients (SRs) have been identified, an ongoing process exists to identify and assess others. CHAZ currently has 110 sub-recipients operating on its existing single stream financing grant, which include FBOs, NGOs, private sector entities, quasi-government and line ministries. The numbers of SRs under CHAZ are expected to decrease for this application, with the quasi-government and line ministry SRs going back to the MoH. CHAZ will focus on FBOs, NGOs, and the private sector implementers. This will ensure the PR is more effective and focused on the high-impact areas identified. CHAZ has an SR accountability framework that requires detailed grant agreements to be signed between the PR and SR and has adequate implementation arrangements in place, including guidance manuals on CHWs, and standard operating procedures (SOPs) on implementation, reporting, and risk management.

In conjunction with the efforts to strengthen community systems and mechanisms for disbursing grant funds to the non-governmental sector, CHAZ will maintain its funding model to identify any new SRs that can demonstrate efficiencies focused on program goals. Figure 13, below, highlights the CHAZ funding model approach to ensure targeted geographical coverage, the inclusion of key affected populations, and capacity building to organizations and people in need.

Figure 21: NGO selection process -CHAZ



Category 1 SR: Provincial grant making: In order for targeted financial resources to reach far-afield provinces in the country, the SRs will have an established provincial presence to ensure geographical spread with evidence of key stakeholder support, i.e., the CSOs/FBOs that will receive support through these SRs.

Category 2 SR: Sub-granting to key affected communities (KAC): Eligible organizations

under this category will have a strong historical relationship with the named KAC, including evidence of stakeholder support and a history of grant management.
Category 3 SR: Capacity/systems strengthening: SRs to provide capacity and systems strengthening to Sub-sub-Recipients (SSRs) will have a strong history of assessing and addressing capacity development and systems strengthening needs at the strategic, operational, national, and sub-national or decentralized levels; and, they will have a strong history of grant management with transparent and robust fiduciary systems.

Large Scale implementers: These implementers will be large-scale NGOs or health facilities with an established health centre providing primary health care. The health facility will have an existing treatment program and a specified catchment population encompassed within the national health public system.

C. **Active Participation of Representatives of Women's Organizations, people living with the two diseases, and other Key Populations**

Active participation of all groups is guaranteed by the CCM, on which women's organizations, people living with or affected by the diseases, and other key populations are represented. Additionally, the key affected groups participate in strategic planning, priority identification, program design, and implementation. CHAZ currently coordinates various organizations under this section, including the Non-Governmental Coordinating Council (NGOCC), which is the women-based coordinating council for all women-affiliated NGOs; the Young Women's Christian Association (YWCA), which works and supports young women; Youth Alive, which works and supports youth; FAWEZA, which provides educational support to young girls; Child Fund, which works with young people; NZP+, which is the national network for people living with HIV; and, Cheshire Homes, which works with the disabled. Likewise, CHAZ has worked with other organisations, including ZANARELLA, COBTAC, and THAPZZ, which work with people living with HIV, people affected by TB, and the traditional healers association, all in an effort to reach key affected communities. CHAZ will continue to implement programs through some of these key groups in the NFM.

It is envisaged that numerous sub-grants will be earmarked for key populations. However, it is important to note, as indicated above, that the PRs already are working with organizations that have a wide or specially targeted reach and include key population groups in Zambia, such as PLHIV, youth, and persons with disabilities. Further, modalities already are in place to assess the capacity of partners wanting to apply to become sub-recipients with a view of reaching out to other risk groups, including human right networks and organizations with a gender focus. This investment request will support the identification of civil society organizations for capacity-building to fulfil the sub-granting role, including:

1. Youth CSOs (adolescents included)
2. PLHIV and TB CSOs
3. CSOs for persons with disabilities
4. Human rights networks and LGBTI CSOs
5. CSOs with a gender focus

4.2 Ensuring Implementation Efficiencies

Complete this question only if the CCM is overseeing other Global Fund grants.

From a program management perspective, describe how the funding requested links to any existing Global Fund grants, or other funding requests being submitted by the CCM at a different time. In particular, explain how this request complements (and does not duplicate) any human resources, training, monitoring and evaluation, and supervision activities.

All modules for this application were included in the GF HIV SSF and Round 7 TB grants. All of these modules will therefore be adapted and extended to maximise the impact of this new investment.

There currently are three grants being managed by both UNDP and CHAZ. These are the Single Stream Funding (SSF) for HIV, the Transitional and additional fund under Round 7 TB, and Transitional Funding and additional funding under Malaria Round 7. This proposal will complement the current grants SSF and TB Round 7 grants.

The SSF grant supports procurement of ARVs and laboratory supplies and equipment. It also supports PMTCT, voluntary medical male circumcision (MMC), blood safety, STI, support to OVCs, community health worker training, TB and HIV joint programming activities, HMIS, and M&E. It supports the construction of 39 ART sites (Prefabs) and SMARTCARE. The grant ends on 31 August 2016 (UNDP). This proposal will continue with and complement the focus on the procurement of ARVs, laboratory reagents and equipment, VMMC, PMTCT, blood safety, STI, TB and HIV joint programming activities and M&E.

The TB Round 7 grant supports: TB medicines procurement; strengthening diagnostic capacity; enhancing community systems through training of community-based treatment support workers in high-burden TB and HIV provinces; supporting decentralized program management for ten provincial TB and HIV supervisors; and, providing technical support to health facilities. The TB grant ends in June 2015. This proposal will continue with and complement the focus on procurement of first- and second-line TB medicines; strengthening diagnostic capacity; enhancing community systems through training of community-based treatment support workers in high-burden TB and HIV provinces; supporting decentralized program management for ten provincial TB and HIV supervisors; and, providing technical support to health facilities.

Monitoring and Evaluation

The MOH has upgraded the district health information system to a web-based version (DHIS 2.0). In light of this development, the National Malaria Control Programme will embark on training district information officers to operate the new DHIS, which will be funded through the Malaria funding request. This HIV/TB funding request will support the ongoing studies on size determination of MSM, IDU, and FSW, and Zambia was represented at a recent training on population size determinations held in South Africa. The request also will support quarterly supervision visits and an assessment of the legal framework to identify legal and other obstacles to key and underserved populations accessing prevention and treatment services. This request also will support the Ministry of Health and the Ministry of Home Affairs to strengthen the collection of vital registration statistics.

Planning and Supportive Supervision

Currently, the supervision of health-centre staff and community health workers is weak. The HIV and TB programs plan to strengthen supervision to ensure adherence to treatment protocols and improvement in the management of supplies. Supervision will be conducted using integrated supervision guidelines and tools, which are currently being developed under the SSF grant.

4.3 Minimum Standards for Principal Recipient (PR) and Program Delivery

For both TB and HIV complete the table below for each nominated PR. For more information on Minimum Standards refer to the Concept Note Instructions.

PR 1 Name	**MoH**	**Sector**	**Private**
Does this PR currently manage a Global Fund grant(s) for this disease component or a stand-alone cross-cutting HSS grant(s)?		Yes ✓ No	
Minimum Standards		**CCM assessment**	
1. The Principal Recipient demonstrates effective management structures and planning		**YES.** The Principal Recipient has strong Management Systems/Structures and processes in place built with the Global Fund assistance, and are working. These are demonstrated through existing infrastructure capacity, competent technical staff, robust systems such as	

	the M&E, financial, procurement, risk management, and the supply chain.
2. The Principal Recipient has the capacity and systems for effective management and oversight of Sub-Recipients (and relevant Sub-Sub-Recipients)	**YES**. The Principal Recipient has proposed the Ministry of Community Development Mother and Child Health (MCDMCH) and Medical Stores Limited (MSL) as Sub-Recipients, with MCDMCH being responsible for program implementation at district and community levels and MSL being responsible for storage and distribution of medical supplies. The Ministry Of Health (MOH) has country wide coverage of M&E systems and has also rolled out updated HMIS to all sites at the district and provincials levels, including sites that are under MCDMCH.
3. Is there conflict-of-interest for the selection of the Principal Recipient(s) and Sub-Recipients	**NO.** MSL and MCDMCH structures are all interconnected with the MOH and fall under the Government of the Republic of Zambia. Both the MCDMCH and MSL will be operating as SRs under grant agreement arrangement. A memorandum of understanding will be signed between the Principal Recipients and its' Sub-Recipients in order to avoid conflict of interest.
4. The program-implementation plan provided in the Concept Note is sound	This requirement was not rated by the CCM because the Concept Note(s) was not ready at the time of the assessment. However, the program implementation plan is in place and is sound (Ref. Section # 4.1 of the concept note).
5. The internal control system of the Principal Recipient is effective to prevent and detect misuse or fraud	**YES.** The Principal recipient has internal control systems in place and these are working well. Compliance is demonstrated through the use of Navision and the country-wide established internal and external audit system from which the NFM grant will benefit.
6. The financial management system of the Principal Recipient is effective and accurate	**YES.** The Principal Recipient demonstrated good financial management systems as evidenced by the deployment of Navision, an accounting package, used country-wide and the training of all finance staff in Navision programming. The completion of the financial policies/procedures manual and the capacity development plan funded by the Global Fund through UNDP is also a positive step in financial management.
7. Central warehousing and regional warehouse have capacity, and are aligned with good storage practices to ensure adequate condition, integrity and security of health products	**YES.** The Principal Recipient has the biggest centralized warehouse in the country managed by MSL under contract. The PR has recently opened warehouse hubs in Choma and Chipata under MSL and plans to open more in other provincial headquarters.
8. The distribution systems and transportation arrangements are efficient to ensure continued and secured supply of health products to end users to avoid treatment / program disruptions	**YES.** The Principal Recipient has logistical management systems and Procurement Supply Chain Management policies in place. Though transportation infrastructure is in place, the MOH needs a new fleet to complement the existing old fleet.

9. Data-collection capacity and tools are in place to monitor program performance	**YES.** The Principal Recipient has an updated Health Management Information System (HMIS) in place which has defined relevant indictors used to routinely monitor interventions and the targets presented in various program Performance Frameworks (PF).
10. Implementers have capacity to comply with quality requirements and to monitor product quality throughout the in-country supply chain	**YES.** The Principal Recipient has a quality assurance plan in place that was reviewed and approved by Zambia Medicines Regulatory Authority (ZAMRA). In addition, the Principal Recipient has commenced a sampling process along the supply chain.
11. A functional routine reporting system with reasonable coverage is in place to report program performance timely and accurately	**YES.** The Principal Recipient has rolled out DHIS and HMIS in all the 10 provinces of Zambia. The 3 disease programs are included in the DHIS and HMIS systems for reporting.
12. The CCM actively oversees the implementation of the grant, and intervenes where appropriate	This requirement was not rated by the panelists because this responsibility falls under the CCM. More comments on this section can be found in the Principal Recipient Assessment report.

4.3 Minimum Standards for Principal Recipient (PR) and Program Delivery

For both TB and HIV complete the table below for each nominated PR. For more information on Minimum Standards refer to the Concept Note Instructions.

PR 2 Name	**CHAZ**	**Sector**	**Private**
Does this PR currently manage a Global Fund grant(s) for this disease component or a stand-alone cross-cutting HSS grant(s)?		✓Yes ☐No	
Minimum Standards		**CCM assessment**	
1. The Principal Recipient demonstrates effective management structures and planning		**YES.** The Principal Recipient has well established working country-wide management structures in place and this is demonstrated in the management of 110 Sub-Recipients (SR).	
2. The Principal Recipient has the capacity and systems for effective management and oversight of Sub-Recipients (and relevant Sub-Sub-Recipients)		**YES.** The Principal Recipient currently has capacity to manage 110 SRs. The Principal Recipient has also increased coverage of M&E staff from 4 provinces to 8 provinces. The Principal Recipient also has technical staff at provincial and district levels to monitor SR grant performance.	
3. Is there conflict-of-interest for the selection of the Principal Recipient(s) and Sub-Recipients		**NO.** The Principal Recipient membership is mainly FBOs. The SR candidacy is open to non-FBO Civil Society Organizations (CSOs) and Government ministries. The proportion of FBOs against non-FBOs in Sub-Recipient selection is reasonable. The Sub-Recipients were selected through an open tender advertisement placed in local print media for at least 4 weeks, and the last CSOs Sub-Recipient selection process was conducted by a consultant provided by UNAIDS.	

4.The program-implementation plan provided in the Concept Note is sound	This requirement was not rated by the CCM because the Concept Note(s) was not ready at the time of the assessment. However, the program implementation plan is in place and is sound (Ref. Section #4.1 of the concept note).
5. The internal control system of the Principal Recipient is effective to prevent and detect misuse or fraud.	**YES**. The PR has an effective audit department in place and has strong and working internal control systems.
6.The financial management system of the Principal Recipient is effective and accurate	**YES.** The Principal Recipient has strong control systems in place which are working. The Principal Recipient indicated very strong commitment to secure both Global Fund and other partners' grant funds and demonstrated strong financial management systems.
7.Central warehousing and regional warehouse have capacity, and are aligned with good storage practices to ensure adequate condition, integrity and security of health products	**YES.** The Principal Recipient has an adequate central warehousing facility that meets the required standards. Central warehousing complements Government's warehousing system at the Medical Stores Limited (MSL).
8.The distribution systems and transportation arrangements are efficient to ensure continued and secured supply of health products to end users to avoid treatment / program disruptions	**YES.** The transportation and distribution system is in place and is working. However, there is a need to purchase a new fleet of delivery vehicles to facilitate effective distribution of supplies.
9.Data-collection capacity and tools are in place to monitor program performance	**YES.** The Principal Recipient has a good M&E and programme performance monitoring system in place for grant monitoring from central to sub-national level.
10. Implementers have capacity to comply with quality requirements and to monitor product quality throughout the in-country supply chain.	**YES.** The Principal Recipient has a strong quality assurance system in place where they collect product samples at delivery points before distribution to clients.
11. A functional routine reporting system with reasonable coverage is in place to report program performance timely and accurately	This requirement was not rated because this responsibility solely fell under the Ministry of Health, which is the custodian of the country's Health Management Information System (HMIS).
12. The CCM actively oversees the implementation of the grant, and intervenes where appropriate	This requirement was not rated by the panelists because this responsibility falls under the CCM. More comments on this section can be found in the Principal Recipient Assessment report.

4.4 Current or Anticipated Risks to Program Delivery and PR(s) Performance

a. With reference to the portfolio analysis, describe any major risks in the country and implementation environment that might negatively affect the performance of the proposed interventions including external risks, PR(s) and key implementers' capacity, past and current performance issues.

b. Describe the proposed risk mitigation measures (including technical assistance) included in the funding request.

Ministry of Health Risk Assessment

Risk Rating	Risk Description	Proposed Mitigation Measures
Low	Program management: ▪ The responsibility for managing the HIV and TB is now shared between two ministries; the MOH and MCDMCH. The MOH transferred the management of provincial and District HIV and TB functions to the MCDMCH	▪ A strategic plan to manage the transition period will be developed by the two ministries. The plan will also clearly articulate the roles and responsibilities of each ministry in provision of HIV and TB services.
High	Human resources: ▪ Inadequate number of technical staff at MOH	▪ The Ministry of Health has developed a National Human Resources for Health Strategic Plan (NHRHSP) 2011-2015 aimed at addressing the human resources crisis in the health sector. The MoH and partners will use the NHRHSP as a basis for improving staffing levels at MoH.
Medium	Regulatory issues: ▪ General Nurses not allowed to prescribe ART drugs.	▪ The MOH will engage the Zambia Nurses Union and other regulatory bodies to allow more nurse prescribers to prescribe fist line ARV's. There are currently a few trained nurse prescribers who are allowed to prescribe first-line ARVs.
High	Financing: ▪ Inadequate funding to the health sector	▪ The MOH and other stakeholders in the health sector including the Parliamentary Committee on Health will advocate for the increased allocation of resources to the health sector by the Government of Zambia in order to achieve the Abuja Target of 15%. ▪ The MOH is currently developing a national health financing strategy that will help mitigate the inadequate funding to the sector.
High	Procurement issues: ▪ Delays in procurement of HIV and TB commodities by the MOH and partners resulting in unexpected stock-outs	▪ The MOH will strengthen the procurement supply management (PSM) TWG to coordinate and monitor procurement of HIV, TB and malaria commodities. All key partners are part of the PSM TWG.
Low	Political stability: ▪ Zambia will hold national presidential, parliamentary and local government elections in 2016	▪ Zambia has remained stable since independence and conducted peaceful free and fair multi-party elections that have seen five changes of government since 1991.
Medium	▪ Increase in MDR	
Medium	• Change in Procurement agent	• MOH plans to transfer procurement of pharmaceutical

		products to MSL. A capacity assessment will be conducted and capacity building implemented before the transfer is affected.

CHAZ Risk Assessment

Risk Rating	Risk	Mitigating Factors
Low	Capacity to handle the new grant by CHAZ at Secretariat level	• SOPs have been put in place to guide the staff on step by step program implementation. • Most CHAZ staff are highly qualified and can handle multiple programs. • Manuals in key areas like grants management, financial management, internal audit, procurement, OVC, CHWs, Trainings, Pharmaceuticals, Logistics & Supply. • Staff have adequate experience from the previous GF and other donor programs.
Medium	Capacity to handle grants at CHI/FBO/CSO which may lead to failure to meet targets	• Strengthened structures: Provincial offices provide TA, mentoring, trainings, regular and spot visits to SRs in their provinces. • Quality review of reports and providing timely feedback to enhance improvements. • Monthly financial reports enables detection of any inadequacies early. • Strong linkages and collaboration between internal audit and grants provide timely checks.
Low	Inadequate capacity for quality assurance of drugs	• Drugs bought only from prequalified suppliers. • Certificate of analysis for every batch requested from suppliers. • Samples taken to independent labs for testing.
Medium	Inadequate and none funding of admin costs may lead some SRs and SSRs to misapply program funds to admin costs	• SR Forums: Share challenges & Common errors. • Stern punishment to offenders which includes immediate suspension from receiving any grants and paying back the misapplied funds.

Low	Misappropriation of program funds and goods by staff at the Secretariat	• Consequences of theft have been clearly communicated to the staff: stern punishment to offenders is always assured. • Strengthened governance structures that provide oversight at all levels: Internal audit reports to the board and provides the required internal control. • Segregation of duties across all transactions. • Internal and external audits carried out every year. • Strict procurement processes for goods, services and works.
Medium	Misappropriation of program funds and goods by staff at the SR and SSR levels	• Stern punishment to offenders which includes immediate suspension from receiving any grants and paying back the misapplied funds. • Internal audits checks on regular basis works as deterrent as they fear that they would be found. • Internal control systems have been strengthened in most SRs over the years of implementing programs from partners. • Regular TA spot visits.
Medium	Insecurity of staff due to threatened job losses resulting from reduced grants	• Staff assured that their jobs are safe even with reduced funding.
Low	Failure by the Secretariat to carry out TA, monitoring and mentoring activities and drugs deliveries to the sites due to old fleet of vehicles which are constantly breaking down	• Maintenance garages have been contracted to provide timely repairs.
Low	Inaccurate programmatic and financial reports from the SRs	• Verification of Reports by Grants & M&E: Monthly Feedback. • Quality review of reports. • Provision of onsite mentoring, TA and spot reviews.
High	Unstable exchange rate	• Financial tools to hedge against exchange losses will be instituted.
High	Failure to meet CSO expectations due to reduced funding	Meetings will be held with CSO to inform them of the available resources.

PROGRAM MANGEMENT

Program management occurs in three layers. The first layer is the national response management and coordination at the National AIDS Council, Ministry of Health, and CHAZ. The second layer is the provincial structure, which provides oversight and supervision of the district response. The third layer is at the district level, where the provision of health services, capacity building, and the coordination and monitoring of the community-level response occurs. This request will also support

DACAs for the first year for the purpose of coordinating the TB and HIV joint programs at the district level. In subsequent years, the Government will take up the responsibility of supporting the DACAs.

The current R-NASF has emphasized community systems strengthening in view of the expanded demand and service provision needed, including the collection of drug refills for TB and HIV treatment, and increased commodity supplies, including condoms and other reproductive health supplies. With the current levels of skilled staff and the need to implement task-shifting and more community-outreach activities, monitoring and supervision will be critical to be able to provide quality assurance, and on-the-spot mentoring and training of community-based providers.

Domestic financing of the response through the EIA processes and private sector contributions will need to be both motivated and monitored. It is therefore critical for program management to facilitate quality assurance, monitoring, and continuous capacity-building of the districts and sub-district structures. Appropriate vehicles and equipment to facilitate mobility to capture M&E data, including research, will therefore be a critical component of program management.

CORE TABLES, CCM ELIGIBILITY AND ENDORSEMENT OF THE CONCEPT NOTE

Before submitting the concept note, ensure that all the core tables, CCM eligibility and endorsement of the concept note shown below have been filled in using the online grant management platform or, in exceptional cases, attached to the application using the offline templates provided. These documents can only be submitted by email if the applicant receives Secretariat permission to do so.

☒	Table 1: Financial Gap Analysis and Counterpart Financing Table
☒	Table 2: Programmatic Gap Table(s)
☒	Table 3: Modular Template
☒	Table 4: List of Abbreviations and Attachments
☒	CCM Eligibility Requirements
☒	CCM Endorsement of Concept Note