

PEPFAR Zambia
Country Operational Plan
(COP) 2017
Strategic Direction Summary
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1.0 Goal Statement

In close partnership with the Government of the Republic of Zambia, the U.S. President's Emergency Plan for AIDS Relief program in Zambia (PEPFAR Zambia) has made tremendous progress towards achieving an AIDS-free generation. Since the 2015 Country Operational Plan pivot, the program has continued to focus its resources where the burden is greatest. The 2016 Zambia Population Based HIV Impact Assessment (ZAMPHIA) released in December 2016 allows PEPFAR Zambia to better understand Zambia's epidemic and even better target our resources for the greatest impact for our 2017 Country Operational Plan (COP17).

COP17 builds on Zambia's progress towards epidemic control, with a focus on Test and Start, differentiated service delivery models, and addressing programmatic and demographic gaps. Key highlights of COP17 include the implementation of Test and Start and community-based antiretroviral treatment (ART) models (to include key populations), the expansion of Viral Load activities, scaling up of case identification and treatment initiation while supporting the standardization of community continuum of care through district work plans, and utilization of the community platform to strengthen the continuum of care for young PLHIV. COP17 will also include a sharper focus on identifying micro-epidemics, particularly among young women, to close the treatment and primary prevention gap. Increased data use at the district and facility level will ensure that vulnerable children will be positively linked to comprehensive care.

Some of our successes during COP16 include: the national launch of Test and Start in late December with firm support from the Ministry of Health; 86% ART coverage according to ZAMPHIA; 12-month retention on treatment of 85% and a 10-fold increase in viral load testing in FY16 compared to FY15. ZAMPHIA revealed impressive progress towards epidemic control.

PEPFAR Zambia acknowledges that there is still much work to be done. Through ZAMPHIA we learned that young women are 15 times more likely to become infected by HIV than their male counterparts. Key populations continue to be extremely marginalized and finding information about these groups to target them properly remains a challenge.

PEPFAR Zambia is working closely with key stakeholders in Zambia's response to address these challenges and also to sustain support of Zambia's HIV response to in the short, medium, and long-term.

PEPFAR Zambia expects to reach great heights in FY18. With the successful achievement of FY18 targets, PEPFAR Zambia will attain 81% ART coverage towards epidemic control in 22 districts in all age categories and will achieve overall 81% ART coverage in 16 scale-up saturation districts for 15-year-olds and above.

2.0 Epidemic, Response, and Program Context

2.1 Summary statistics, disease burden and country profile

Zambia is a lower, middle-income country (GNI: 3,690 per capita, PPP adjusted¹) with an estimated population of 15,933,883 in 2016 (population demographics: 49% male, 51% female; 58% rural, 42% urban). According to the 2016 Zambia Population Based HIV Impact Assessment (ZAMPHIA) released on December 1st, 2016, 12.3% of persons aged 15 – 59 years are infected with HIV (9.5% among adult males, 14.9%).² HIV prevalence among children under 15 years is estimated to be 1.3%. Detailed demographic and epidemiological data is presented in Table 2.1.1 and prevalence data is displayed graphically in Figure 2.1.1. Zambia’s HIV epidemic remains generalized, with all districts having an adult prevalence of greater than 5%.

The HIV epidemic in Zambia is generalized, with heterosexual sex as the primary mode of transmission.³ Spectrum data for morbidity and mortality approximates the total number of deaths attributed to AIDS as 15,962 (52.6% male and 79.7% adult). Adult women are disproportionately affected by HIV compared to adult men (8.6% among adult males, 14.5% among adult females). Among persons aged 15-59 years. Lusaka province has the highest prevalence (16.1%), followed by Western (16.0%), Copperbelt (14.2%) and Central provinces (13.4%). Muchinga and North Western provinces have the lowest prevalence, estimated at 5.9% and 6.9% respectively. Data indicate that most HIV positive individuals live in high population density areas. Disease burden is highest in densely-populated Lusaka, Copperbelt, and Southern provinces with populations of PLHIV of 250,975, 191,034, and 126,559 respectively.

To reach epidemic control, and in alignment with Sustainable Development Goal (SDG) number three, to ensure health and well-being for all, including a bold commitment to end the epidemics of AIDS, tuberculosis, malaria, and other communicable diseases by 2030, PEPFAR Zambia will focus on clinical treatment and core combination prevention interventions—specifically those reaching priority locations with elevated HIV burden, treatment gaps, and populations with the greatest unmet need. The PEPFAR ART program will increase the number of patients currently enrolled in ART from 820,488 (FY 2016 target) to 914,304 in 2017.

The national program retained 86% of those on treatment for at least 12 months during the last fiscal year (FY). According to ZAMPHIA, 85.4% of PLHIV are on treatment⁴; lab testing identified that 89.2% are virally suppressed. The program has demonstrated great success in getting HIV positive pregnant women into treatment (95%); getting HIV positive children less than 15 years of

¹ World Bank 2014 data.

² This estimation is derived from EIA testing; field-based rapid testing preliminarily reported in August 2014 yielded a national HIV prevalence rate of 10.3%.

³ UNAIDS data estimated 90% of adult infections are attributable to heterosexual transmission.

⁴ According to September 2016 HMIS results, 79% of PLHIV are on treatment.

age into treatment has been more challenging (46%). Similarly, HIV testing of pregnant women is high (79%), while HIV testing for children under 15 years of age stands at only 5%. Zambia does not yet have adequate size estimations of key populations. A protocol, just approved, should begin a robust system of surveillance resulting in population sizes that can be used for program planning in coming years.

Building on Government of the Republic of Zambia's (GRZ) support for the World Health Organization (WHO) 2014 guidelines of treatment for all (Test and Start) and alternative service delivery models, PEPFAR Zambia will support implementation of a quality, cost-efficient package of integrated HIV care and treatment services consistent with national policies and PEPFAR guidance; with the goal of expanding ART access in prioritized geographic locations and reducing morbidity and mortality amongst PLHIV.

PEPFAR Zambia acknowledges that a great deal of work is still required to achieve epidemic control and there is a need for more empirical evidence to better define the epidemic in Zambia. Though this has drastically improved with the release of ZAMPHIA, we continue to have data challenges variations in prevalence data from multiple data sources (e.g., electronic medical records (EMR), District Health Information System (DHIS), TB Survey) and limited data on key populations (e.g., female sex workers (FSW) and men who have sex with men (MSM)).

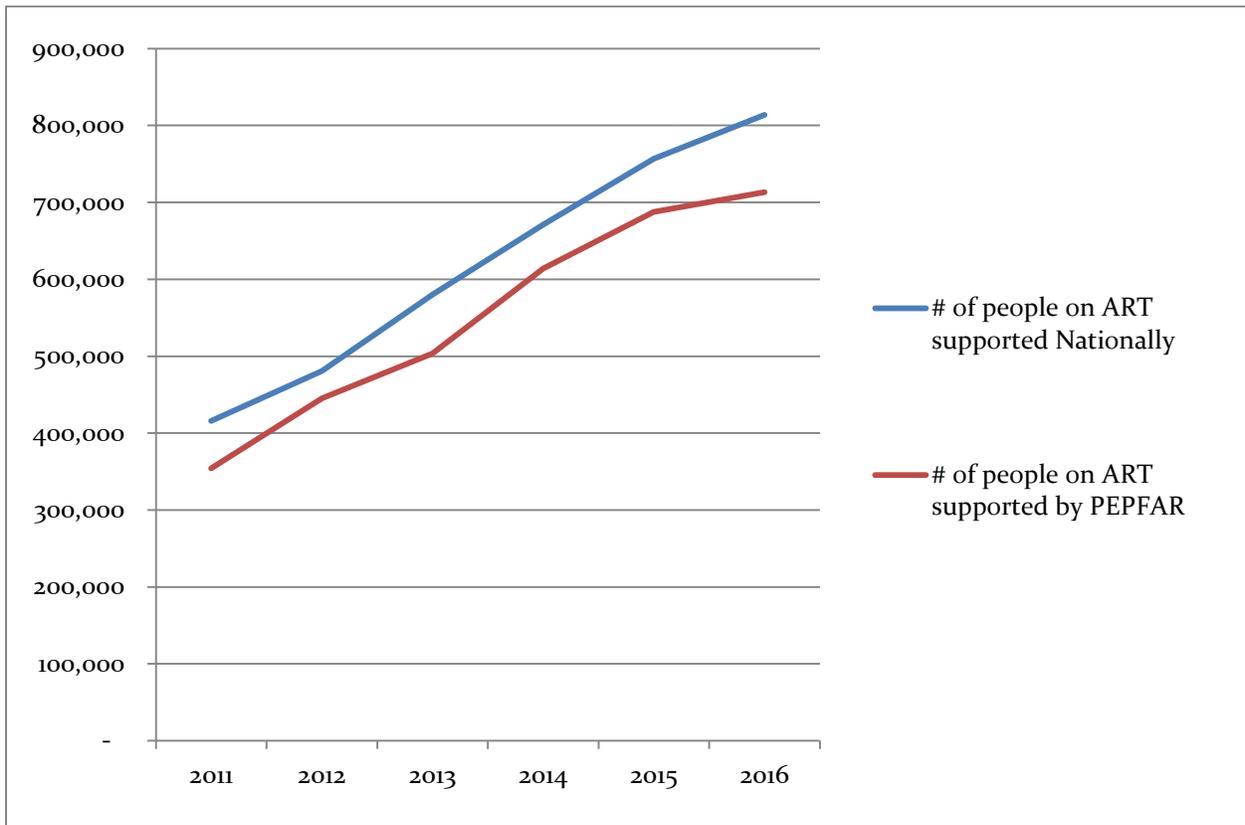
Estimated Population Size of PWID	2,281														Population council, 2016
PWID HIV Prevalence	N/A														
Prisoners	20,900														Pop Council size estimates for select priority districts plus add'l Open Doors districts. Not an entire KP size estimate for Zambia.
<i>*If presenting size estimate data would compromise the safety of this population, please do not enter it in this table.</i>															

*We don't have this information by age bands. The numbers noted under the 15-24 age band are for 15-59 age bands.

Standard Table 2.1.2

Table 2.1.2 90-90-90 cascade: HIV diagnosis, treatment and viral suppression*										
Epidemiologic Data					HIV Treatment and Viral Suppression			HIV Testing and Linkage to ART Within the Last Year		
	Total Population Size Estimate	HIV Prevalence	Estimated Total PLHIV	PLHIV diagnosed (#)	On ART	ART Coverage (%)	Viral Suppression (%)	Tested for HIV	Diagnosed HIV Positive	Initiated on ART
	(#)	(%)	(#)	(#)	(#)	(%)	(%)	(#)	(#)	(#)
Total population	15,933,883	12.3	1,193,811		726,043		59.8	3,134,895	163,341	99,629
Population less than 15 years	7,326,596	1.299	95,172		47,050		N/A	433,969	10,879	6,230
15-24 year olds	3,288,789	3.81	126,207		34,034		34.4	1,215,417	42,689	23,350
25+ year olds	5,318,498	18.23	856,326		667,636		63.6	1,485,509	109,773	70,049
MSM	7,443	0.17	1265	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FSW	24,260	0.23	5580	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PWID	2,281	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Prisoners	20,900	0.27	5643	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Figure 2.1.3 National and PEPFAR Trend for Individuals currently on Treatment



2.2 Investment profile

Through PEPFAR, the U.S. government (USG) continues to be the largest contributor to Zambia's HIV response.

Quantifying GRZ funding for infrastructure, salaries, and other overhead costs remains a challenge. As in many countries, Zambia has seen a decline in overall donor activity in recent years, requiring the GRZ to take on additional fiscal responsibility. The GRZ increased its budget allocations for key life-sustaining commodities (such as ARVs) from \$6M in 2010 to \$59.6M in 2014.

Zambia continues to experience a turbulent financial situation (starting in 2015) resulting in the depreciation of the local currency. However we are working closely with the Global Fund to plan Zambia's HIV response. We are also working closely with the Zambian government on plans to sustain the HIV response in longer-term.

Table 2.2.1 Annual Investment Profile by Program Area

Program Area	Total Expenditure*	% PEPFAR	% GF	% GRZ	% Other
Clinical care, treatment and support	\$247,049,719	87.6%	11.9%	.1%	0.4%
Community-based care, treatment, and support	\$21,462,876	100%	0%	0%	0%
PMTCT	\$23,294,233	78.4%	3.9%	17.7%	0%
HTS	\$24,474,018	99.9%	0%	0.1%	0%
VMMC	\$22,954,059	99.0%	0.6%	0.4%	0%
Priority population prevention	\$25,557,528	81.6%	14.3%	0%	4.1%
Key population prevention	KP prev included in priority prev				
OVC	\$28,656,455	100%	0%	0%	0%
Laboratory	\$14,243,773	77.7%	0%	22.3%	0%
SI, Surveys and Surveillance	\$14,339,936	100%	0%	0%	0%
HSS	\$28,714,011	36.9%	21.7%	31.0%	10.4%
Total	\$450,746,610	86.3%	8.9%	3.7%	1.1%

Table 2.2.2 Procurement Profile for Key Commodities (2016)

Commodity Category	Total 2016 Expenditure	% PEPFAR	% GF	% GRZ	% Other
ARVs	\$101,613,855	41.00%	39.00%	20.00%	0.00%
Rapid test kits	\$7,407,151	49.00%	51.00%	0.00%	0.00%
Other drugs	\$2,570,751	66.00%	0.00%	34.00%	0.00%
Lab reagents	\$60,805,190	62.10%	18.20%	19.70%	0.00%
Condoms	\$2,208,356	0.60%	0.00%	0.00%	99.40%
VMMC kits*	0	0.00%	0.00%	0.00%	0.00%
Other sustaining commodities	0	0.00%	0.00%	0.00%	0.00%
Total	\$174,605,303	48.50%	31.20%	19.00%	1.30%

Table 2.2.3 USG Non-PEPFAR Funded Investments and Integration

Funding Source	Total USG Non-PEPFAR Resources	Non-PEPFAR Resources Co-Funding PEPFAR IMs	# Co-Funded IMs	PEPFAR COP Co-Funding Contribution	Objectives
USAID MCH	12,704,000	5,254,000	9	7,245,758	Maternal, newborn, and child health (MNCH) activities target Millennium Development Goals (MDGs) four and five; strengthening clinical capacity of provincial, district, and facility managers with mentorship and supportive supervision. Pre-service training in Emergency Obstetric and Neonatal Care (EmONC) targeting nurse clinical instructors in the midwifery schools and advocating for the integration of EmONC into the midwifery curriculum. Complement PEPFAR and FP activities, particularly through close provincial and district level collaboration. Saving Mothers, Giving Life (SMGL), in particular represents a nexus of activities (PEPFAR and MNCH/FP) to reduce maternal and newborn deaths in targeted districts.
USAID TB	200,000	200,000	1	0 (new money)	Tuberculosis (TB) activities strengthen high-quality DOTS expansion and enhancement, address TB-HIV, Multidrug Resistant (MDR)-TB and the needs of poor and vulnerable populations in six high burden target provinces, engage all categories of care providers, and enable and promote operational research. Delays in awarding USAID's TB activity resulted in a smaller TB budget this year, focused primarily on operations research.
USAID Malaria	22,866,480	9,142,980	1	1,000,000	Malaria activities designed to reduce malaria mortality by two-thirds, malaria incidence by three-fourths, and malaria parasitemia in children under age five by one-half in four targeted provinces through Insecticide-treated bed nets (ITN) distribution, case management, delivery of intermittent preventive treatment to pregnant women, behavioral change interventions, development of policies and guidelines, and strengthening management capacity at a provincial and district level.
USAID Family Planning	12,500,000	7,080,000	7	4,600,000	Reproductive health (RH)/FP activities will increase modern contraceptive prevalence rates in all women of reproductive age by 2% annually from the second year as compared to the baseline through increased access to and improved quality of family planning services in targeted sites via a strengthened, community-based family planning service delivery system.
USAID Nutrition	4,750,000	750,000	2	100,000	Nutrition resources target integrated management of childhood illness, expanding immunization, Vitamin A supplementation, and de-worming activities. Training of health workers and community volunteers in child health and nutrition helps reduce under-five morbidity and mortality. Activities strengthen infant and young child feeding and are integrated with other Feed the Future activities that help vulnerable households improve food security

					through strengthened economic resilience and improved nutrition status. Nutrition activities are also designed in collaboration with other donors as part of the global Scaling up Nutrition Initiative. (USAID is part of the Cooperating Partner Nutrition Group (co-convened by DFID and UNICEF) that coordinates assistance for Zambia's work to address malnutrition. The group has helped develop a multi-stakeholder platform and a civil society umbrella group to address under nutrition).
MCC (overall Zambia project)	FY2017 budget \$108,481,843				The \$355 million Zambia Compact aims to expand and improve the reliability of water supply, sanitation and drainage services in select urban and peri-urban areas of Lusaka with the objective of decreasing the incidence of water-related diseases and flood losses incurred by businesses and residences, therefore generating time savings for households and businesses. The Infrastructure Activity supports infrastructure managed by the Lusaka Water and Sewerage Company (LWSC), the utility primarily responsible for managing the city's water and sanitation infrastructure, as well as the Lusaka City Council (LCC), the local government entity responsible for managing Lusaka's drainage infrastructure.
CDC: MCC	\$100,000	o	o	o	<p>Implementation of overall impact evaluation of MCC-funded Lusaka Water Supply, Sanitation and Drainage (LWSSD) Project by conducting routine monitoring and evaluation of intervention activities.</p> <p>Baseline Water Supply and Sanitation Survey Implement year-long baseline data collection on health, time saving and use, household income and business revenue outcomes to assess the impact of LWSSD interventions. Provide technical oversight of enumeration firm collecting LWSSD baseline data to ensure data quality and reliability. Supervise interviews/surveys of 12,368 households annually and testing of 3,032 household's portable water in LWSSD intervention and control peri-urban areas to assess the impact of water supply and sanitation activities in Lusaka.</p> <p>Routine Water Quality Monitoring Implement routine water quality monitoring to measure select microbial, chemical, and physicochemical water quality parameters at various points throughout the Lusaka Water and Sanitation Company water distribution system, including LWSSD intervention and control peri-urban areas, and influent and effluent streams at the Kaunda Square Treatment Ponds, Test 1,575 water samples annually to evaluate the impact of the water and sanitation interventions on the incidence of diarrheal disease and assess effects of sanitation upgrades in Lusaka.</p>
CDC: Bloomberg					BD4HI: Bloomberg Philanthropies launched the Data for Health Initiative (BD4HI) to help governments build their capacity and develop sustainable approaches in using scientific data to guide and support program decision making and policy development. The initiative consists of three components: 1) The Civil Registration and Vital Statistics component, which aims to create high-quality birth and death

				<p>registration systems. Current emphasis is on training of physicians practicing in Zambia in carrying out effective death certifications countrywide, conducting a quality improvement evaluation of the coders and coding, and monitoring the registers and transmission of accurate and complete of birth and death notification forms; 2) The Non-communicable Disease (NCD) Surveillance component augments traditional health surveys with new, faster mobile phone surveys aimed to strengthen the collection and use of critical public health information. Zambia, with approximately 74 mobile phone subscriptions per 100 people, is the first country to implement the NCD mobile phone survey using a globally standard protocol, developed through a collaborative approach with MoH, ZICTA, UNZA, CSO, and MOC to enhance country capacity to monitor NCDs. Data will be collected beginning April 2017 using a web-based technology platform via modes such as SMS and IVR (interactive voice response); 3) The Data Impact Program component aims to ensure policy makers use data to make informed health related decisions. Consists of skills-based health policy training for selected MoH Data to Policy participants to develop health policy briefs through classroom training and mentorship provided by CDC and Vital Strategies; quarterly health seminar where Data to Policy participants present their findings at the Cabinet level; creation of the The Health Press, monthly national public health bulletin that disseminates timely and accurate public health findings, two editors are funded through the program and the first issue was launched on 9 Feb 2017.</p>
CDC: World Bank/ TB				<p>CDC with Tropical Diseases Research center and the Ministry of Health developed a protocol entitled "Evaluation of the Utilisation of TB and HIV services among mine workers and their communities with central support. This protocol has since been approved by the National. Health Research Authority. The assessment will start by April or May 2017. World bank working with the Ministry of Health and CDC will use this baseline data from this assessment to develop strategies to manage, control and prevent TB and HIV in the mining sector and their communities. Zambian mine workers and their mining industry as a whole are negatively impacted by the transmission of TB and HIV. There is limited screening and surveillance for TB, lack of reliable data, the negative legislative frame work and also migrant mine workers could be some of the reasons for the burden of TB and HIV in the mining sector.</p>
Peace Corps	\$81,800			<p>Peace Corps receives ~ \$81,800 in SPA grant funding from USAID for malaria and MCH work.</p>

Table 1.2.4 Annual PEPFAR Non-COP Resources, Central Initiatives, PPP, HOP

Funding Source	Total PEPFAR Non-COP Resources	Total Non-PEPFAR Resources	Total Non-COP Co-funding PEPFAR IMs	# Co-Funded IMs	PEPFAR COP Co-Funding Contribution	Objectives
DREAMS Innovation*						
VMMC – Central Funds	\$11,435,449	TBD	0	100	\$11,286,909	Scale-up VMMC
LCI	n/a	n/a				
Other PEPFAR Central Initiatives						
ACT	\$10,856,546	TBD	0	7	\$13,345,160	Accelerate treatment of children
DREAMS	0	TBD	0	8	\$13,124,208	Reduce new HIV infections in AGYW by 40%
Other Public Private Partnerships						
PRRR	\$1,023,363	\$414,491	0	7	\$500,000	Reduce cervical, breast cancer deaths
Total Market Approach to Health	0	TBD	0	1	\$15,795,306	Decongestion of public health facilities
Hotels initiative to support GBV survivors	0	TBD	0	1	\$266,000	Provide shelters that house survivors of GBV; financial literacy training
Partnership for support of OVC and Youth	0	TBD	0	1	\$100,000	Support to students by facilitating access to skilled mentorship, internship, vocational and industrial placements
Total	\$23,315,358		0	25	\$48,738,715	

2.3 National sustainability profile update

The PEPFAR Zambia team used a participatory process to complete the Sustainability Index and Dashboard (SID) for COP16. A multi-stakeholder SID completion workshop was held in February 2016, as part of the COP16 development process. Broad participation included representation from several host government ministries and departments, multilateral organizations, local and international non-governmental organizations, and civil society organizations⁵.

An analysis of SID findings identified strengths in some sustainability elements that may facilitate the attainment of epidemic control (Table 2.3.1). The analysis also revealed weaknesses in some priority elements, ranked on the basis of element score and criticality to sustained epidemic control (Table 2.3.2). These findings are still valid in 2017.

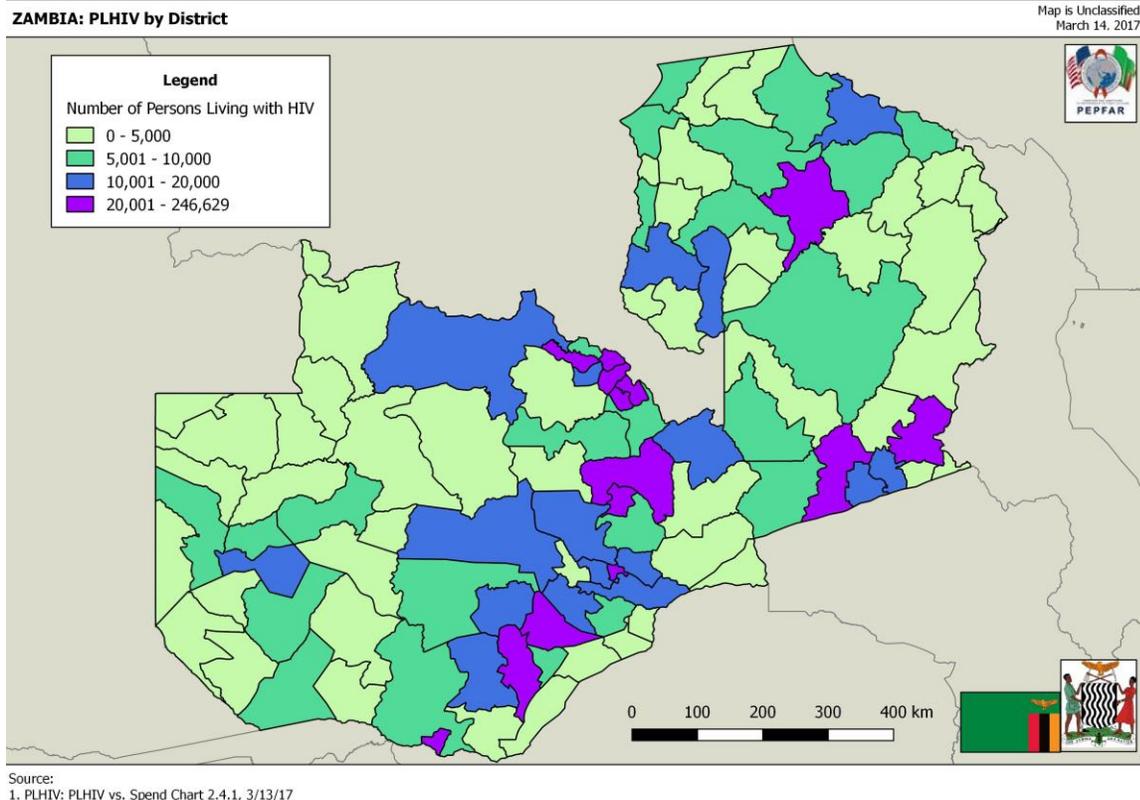
Table 2.3.1 Sustainability Strengths		
Element /Score	Description	Notes on Sustainability
Planning and Coordination (Score 7.73/10)		
	Zambia has a costed, multi-year national strategy, which is updated at least every five years (with key stakeholders) and includes critical components of prevention and treatment. The GRZ leads the development/revision of the National AIDS Strategic Framework (NASF) with active participation from civil society, businesses and corporate sector, and external agencies. Additionally, the GRZ routinely tracks HIV/AIDS activities of civil society organizations (CSOs) and donors, leads the process that convenes stakeholders, and develops joint operational plans with implementing organizations.	Effective planning and coordination are critical to the implementation and scale up of treatment and prevention programs and the achievement of 90-90-90 goals. The importance of the role of the MoH and the National AIDS Council (NAC) in this regard cannot be overemphasized. Host country leadership in planning and coordination will promote country ownership and sustainability of the national response. PEPFAR Zambia will continue to provide technical and financial support to the GRZ, as required, to further strengthen planning and coordination capacity. The NASF 2017-21 is undergoing final review and USG is providing technical and financial support for the development of the National Health Strategic Plan 2017-21.
Performance Data (Score 6.96/10)		
	The GRZ has structures, procedures and policies to assure quality of service delivery data. The country has harmonized complementary information systems that are managed by the host government with technical assistance from external agencies/institutions. Service delivery data are collected and reported at least quarterly.	The timely availability, analysis, use and dissemination of high quality HIV service delivery data is critical to the implementation and scale up of effective treatment and prevention programs, and the achievement of 90-90-90 goals and sustained epidemic control. HIV service delivery data will be used by the GRZ, PEPFAR and other stakeholders to inform decisions related to implementation of Test and Start and new service delivery models. Preliminary results of the Zambia Population-based HIV Impact Assessment (ZAMPHIA) were released on December 1, 2016 and have been used to inform programming decisions for COP17.

⁵ A total of 57 people attended the meeting with representation from: Government of Zambia (ministries of health, finance, and defense; Medical Stores Limited; National AIDS Council Country Coordinating Mechanism, Health Professionals Council of Zambia; multilateral organizations (UNAIDS, UNDP, UNICEF, UNODC, GF); Local and international NGOs and Civil Society (CHAI, BMGF, NZP+, ZNARVS, BICC, ZATULBT, Bwafano, ZANERELA+, ERCJ); USG.

Table 2.3.2 Sustainability Vulnerabilities		
Element/Score	Description	Notes on Sustainability
Laboratory (Score 4.86/10)		
	The availability of high quality laboratory services is critical to scale up HIV services, including implementation of Test and Start and achievement of the third 90. The SID analysis found that Zambia does not have adequate qualified laboratory personnel to achieve sustained epidemic control and in some cases laboratory infrastructure is poor and not appropriate (due to inadequate funded positions on establishment and inadequate resources for infrastructure improvement). Some (10-49%) lab services are financed by domestic resources and although regulations to monitor quality of laboratory and POC testing sites exist, they are partially implemented.	Main stakeholders that have invested in HIV lab services include the GRZ, PEPFAR, Global Fund, World Bank, and other bilateral cooperation initiatives. PEPFAR will support the placement of staff in provincial labs to strengthen viral load capacity, procure lab commodities and equipment, and provide backup power solutions for labs in high HIV burden areas. Sample transportation and result return systems will also be strengthened.
Service Delivery (Score 4.72/10)		
	Facility – community linkages are critical for HIV prevention, care and treatment scale up, including implementation of differentiated service delivery models and Test and Start. The SID analysis found that the country’s design and implementation of community-based HIV services does not adequately support linkages between facility- and community- based services through formalized bidirectional referral services. Further, poor and inadequate facility infrastructure has impeded effective facility linkage to community. Host country institutions provide minimal financing for delivery of HIV/AIDS services to key populations in high burden areas and HIV/AIDS services to key populations are primarily delivered by external agencies, organizations or institutions.	Stakeholders that have invested in HIV service delivery include the GRZ, PEPFAR, Global Fund, World Bank, and local non-governmental organizations such as Churches Health Association of Zambia (CHAZ). PEPFAR will strengthen facility-community linkages to facilitate the implementation of differentiated models of care and decongest health facilities.
Commodity Security and Supply Chain (Score 5.69/10)		
	The availability of life-saving antiretroviral (ARV) medications and other HIV commodities is essential for epidemic control and a sustainable national response. While the GRZ’s expenditure on ARVs steadily increased between 2010 and 2014, all HIV test kits are procured with external resources. The country’s economy took a downward turn in 2015 that has seen the local currency being depreciated by almost 50%. This has resulted in reduced purchasing power for ARVs and commodities, as well as the accumulation of an essential medicines debt of approximately \$30m (February 2017). The country also faces challenges with storage space, and this is likely to be exacerbated by scale up of prevention, care and treatment services, including implementation of Test and Start and new service delivery models.	Stakeholders that contribute towards commodity security and supply chain include GRZ, PEPFAR, Global Fund, World Bank, DFIIID, SIDA and EU. The Global fund procures 29% of key commodities for the national response. PEPFAR will continue to support commodity procurement, distribution and tracking at the point of service, as well as the expansion of storage space. With the significant investments that have been made in this area, it is likely that the sustainability score will increase in the medium- to long- term. The local currency has stabilized and the GRZ has expressed optimism that the drug debt will be liquidated by the end of the calendar year.
Human Resources for Health (Score 6.17/10)		
	An adequate number of trained and motivated health workers, with the appropriate skills mix, deployed to areas of greatest need (at facility and community level) is critical to implementation of Test and Start and differentiated service delivery models to achieve 90-90-90 goals. Zambia is facing a critical shortage of health workers with approximately 36% of positions in the health sector establishment remaining vacant. The SID found that Zambia has an inadequate supply of health workers to enable the volume and quality of HIV/AIDS services needed for sustained epidemic control at the facility and/or community site level. Pre-service training institutions are not producing an adequate supply and skills mix of health care providers and the country’s health workers are not adequately deployed to facilities and communities with high HIV burden.	Several key stakeholders have invested in HRH, including the GRZ, World Bank, DFID, EU, and Clinton Health Access Initiative (CHAI). Given the importance of this element to achieving sustainability of the national response, continued investment is warranted despite the relatively high sustainability score. PEPFAR will continue to support PSE to increase the number of new health workers. This will include the training of community health assistants to facilitate the implementation of community ART programs. PEPFAR will also support strengthening of HR management capacity and the use of HR data for decision making. Despite the fact that GRZ grants treasury authority for net recruitment of health workers on an annual basis, there is inadequate fiscal space to absorb all health workers on the market. Salary support for a limited period of time may be required to address this challenge.

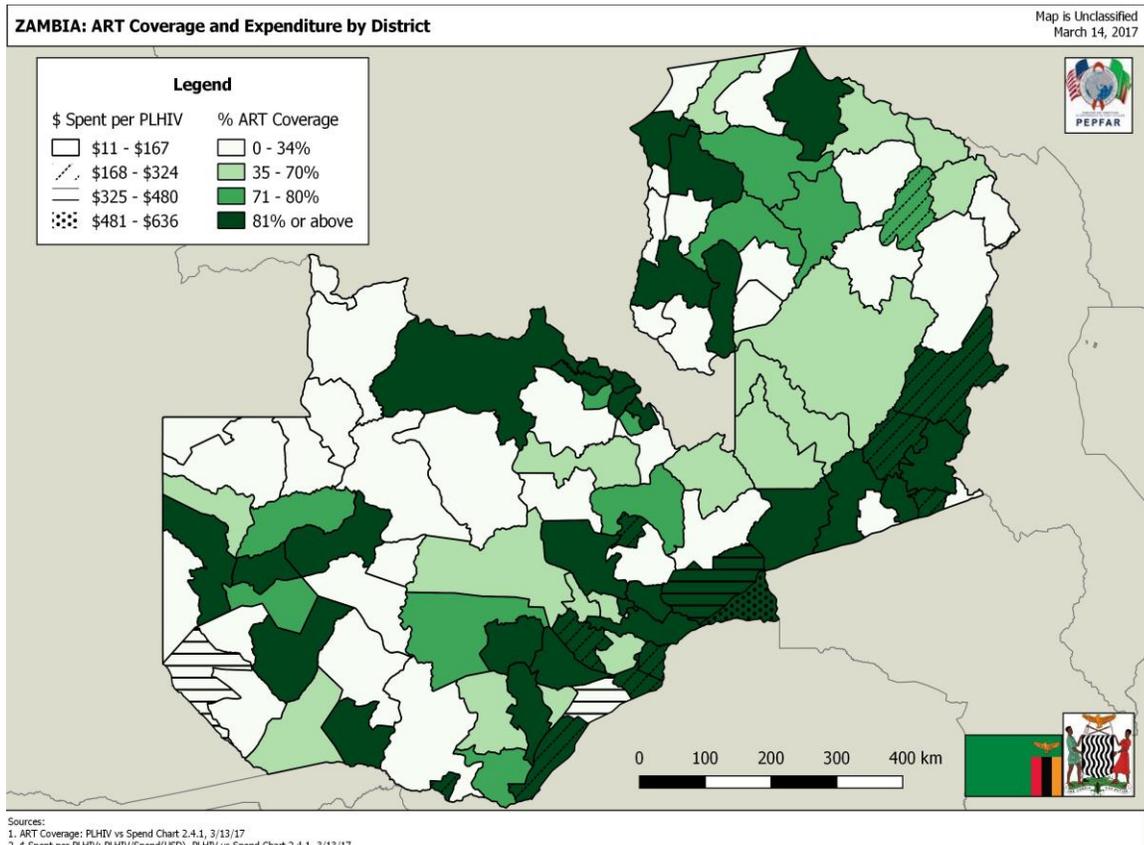
2.4 Alignment of PEPFAR investments geographically to disease burden

Below are maps of: PLHIV by district, ART coverage and expenditure by district, and a figure showing PEPFAR expenditure per PLHIV and percent PLHIV by Scale-up SNU. The information is based on 2016 spending as reported by partners. Our analysis has demonstrated that our resources are targeted in geographic areas with the highest number of PLHIV.

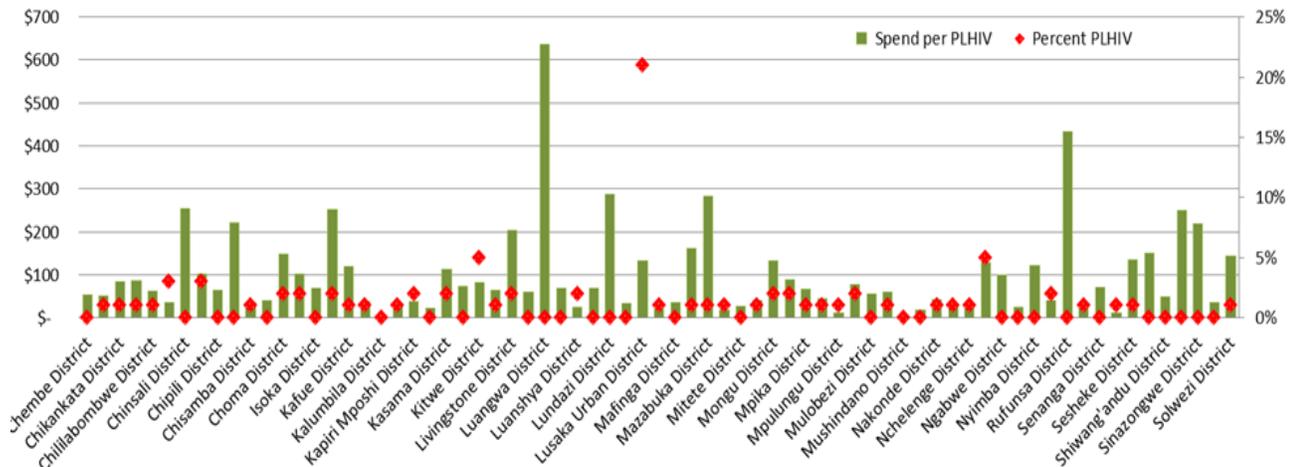


The below map “ART Coverage and Expenditure by District” and figure “PEPFAR Expenditure Per PLHIV and Percent of PLHIV by Scale Up SNU” show 2016 PEPFAR expenditure per PLHIV. The figures demonstrates that generally, the more densely populated a district the lower the expenditure is per PLHIV. Lusaka is a major outlier with a high number of PLHIV compared to low spending in Lusaka due to dense population. Luangwa and Rufunsa districts have high spending per PLHIV and also high ART coverage. These are remote towns with poor road conditions that make facilities and PLHIV hard to access.

Although these spending trends are to be expected, the Zambia PEPFAR team is working directly with partners to make sure that activities are being implemented as efficiently as possible.



PEPFAR Expenditure Per PLHIV and Percent of PLHIV by Scale Up SNU



2.5 Stakeholder engagement

PEPFAR Zambia remains engaged with the GRZ on an ongoing basis. The Ministry of Health provides us with national treatment data and the Central Statistics Office provides us with population data. Our analyses are conducted in cooperation with the Zambian government.

Together with the Ministry of Finance, PEPFAR initiated an Oversight Working Group with other key stakeholders that support Zambia's HIV response. The OWG is chaired by the Secretary of the Treasury and the U.S. Ambassador to Zambia. Regular operations of the OWG are conducted by finance ministry staff. The aim of the OWG is to ensure that each member understands government and partners budgeting systems, spending priorities, gaps and opportunities. The working group provides a platform for policy discussions and reporting on progresses. The ultimate goal of the working group is to ensure and sustain support of Zambia's HIV response in the short, medium, and long-term.

PEPFAR Zambia works closely with the National AIDS Council, which convenes all stakeholders in Zambia's HIV response. PEPFAR Zambia also works closely with Global Fund principal recipients, holding meetings regularly to plan in collaboration and anticipate gaps in funding.

This year, the PEPFAR Coordination Office expanded the role of the small grants coordinator to include broader civil society engagement. This works well as we have been able to expand our network of civil society organizations and encourage networking, partnerships, and capacity building activities between organizations in this network. We are also able to better target our small grants program funding opportunities to align with the larger PEPFAR program. We are pleased with the efficiencies we have found in expanding the scope of this position.

PEPFAR Zambia engaged external stakeholders throughout the 2017 planning process. On January 11 the team held an external stakeholder meeting with civil society, and implementing, cooperating, government, and Global Fund partners to gather feedback on technical priorities and direction before planning. With guiding questions technical working group leads solicited feedback from each stakeholder group. Technical working groups incorporated this feedback into their technical planning. We circulated minutes about the meeting to the group.

On February 10 the interagency team held a follow up meeting to show our draft COP17 technical direction including the stakeholder feedback that influenced our decisions. For this meeting we invited each stakeholder group as well as civil society participants from throughout Zambia. Civil society representation was diverse and included PLHIV, youth, local organizations, faith-based organizations, women, people with disabilities, and key population constituencies. Discussions with civil society focused on the need to strengthen bidirectional linkages between communities and health facilities and develop a uniform data collection tool for use by all stakeholders.

Engagement with private sector stakeholders has been ongoing as PEPFAR Zambia aims to broaden the private sector's support of Zambia's the HIV/AIDS response. A national technical working group on private sector engagement has been formed; its terms will be finalized in early 2017. PEPFAR Zambia is in the process of drafting a PPP strategic plan informed by APR16 results and COP17 priorities.

The team works in collaboration with the Zambian government through the National AIDS Council and other PEPFAR partners. Private sector organizations including banks, hotels, mobile companies, retail conglomerates and private health service providers, manufacturers, etc. have pledged their support to vulnerable populations comprising orphans and vulnerable children, youth and young women. For example a group of prominent international hotels as well as two Lusaka-based hotels are providing shelter to gender-based violence victims and financial assistance to help them become independent financially so they are less vulnerable. More specific information about PPPs is provided via FACTsInfo.

PEPFAR Zambia will continue to engage with external stakeholders through the implementation of COP 17. This will include quarterly opportunities through the PEPFAR Oversight and Accountability Response Team (POART) process and around other key processes such as semi-annual progress report (SAPR), annual progress report (APR) and COP development.

3.0 Geographic and Population Prioritization

PEPFAR Zambia used the following data sources to make geographic and population prioritization decisions for COP 17: 1) PLHIV estimates calculated by the Office of the Global AIDS Coordinator (OGAC) using small area estimation techniques based on the ZAMPHIA 2016; 2) 2016 census projections from the 2010 Zambian national census; 3) national HMIS data; and 4) analyses that combined PLHIV estimates, census projections, and HMIS data to calculate coverage rates.

For COP 17 PEPFAR/Zambia used 105 district divisions that fully cover the country. Of these 105 districts, 34 were prioritized as scale up to saturation districts in COP 16. In COP 17 there is a new category for SNU, called attained. All districts labelled as attained will achieve an ART coverage of 81% or more across the age and gender disaggregation (>15, 15-24, 25+, M, F). These attained districts represent 62% of all PLHIV (737,938 individuals) in Zambia and run contiguously through the urban population centers of Zambia. This validates the geographic prioritization completed by PEPFAR Zambia for COP 15.

In COP17, PEPFAR Zambia is working towards epidemic control in each of these 22 attained districts and a further 16 of the scale-up to saturation districts by the end of FY 2018 with a full package of health system support, active case finding, and community activities. An additional 5 of the 20 sustained districts were promoted from the sustained district category to the aggressive scale up category in COP 17. These districts represent an additional 15% of PLHIV in Zambia. In FY 2018 PEPFAR/Zambia will provide the same full package of health system support as in the 16 scale up to saturation districts and re-initiate active case finding and community activities that were slowed through the COP 15 pivot process to enroll an additional 46,000 individuals on ART.

An additional 15 districts are in the sustained category for COP17. In these districts PEPFAR/Zambia will continue to provide health system support down to the facility level to maintain existing ART coverage in these districts. These districts represent 8% of all PLHIV in Zambia.

The remaining 19 districts are centrally supported by PEPFAR. These districts represent approximately 6% of all PLHIV in Zambia. PEPFAR Zambia will continue to support ART for these individuals at the central level as well as strengthen provincial medical offices.

Table 3.1 Current Status of ART saturation

Prioritization Area	Total PLHIV for COP17	% of all PLHIV	# Current on ART (FY16)	# Targeted Current for ART (FY18)	# of SNU COP16 (FY17)	# of SNU COP17 (FY18)
Attained	737,938	62%	461,036	673,432	0	22
Scale-up Saturation	113,297	9%	77,237	104,159	34	16
Scale-up Aggressive	183,467	15%	64,568	96,169	32	33
Sustained	91,823	8%	45,396	51,228	20	15
Central Support	67,286	6%	22,345	0	19	19
Military			23,017	45,968		

To halt micro epidemics and reduce transmission between older men and younger women in the highest HIV burden districts, PEPFAR Zambia utilized ZAMPHIA data to estimate HIV burden among three age groups (< 15, 15-24, and 25+) and both sexes for each of the 105 districts in Zambia. Comparing these epidemiological data with PEPFAR program data for these six distinct age/sex groups identified the unmet by age and sex for each district. With this granular analysis, PEPFAR Zambia was better able to distribute programmatic efforts to produce the greatest impact on curbing transmission. Treatment targets were then meticulously distributed to the districts by age and sex to bring as many high burden districts to the attained category – meaning targets reached at least an 81% coverage rate across all age/sex groups – in 22 districts that constitute a full 62% of all PLHIV in Zambia. An additional 16 districts will achieve an 81% ART coverage rate at the aggregate during FY18.

4.0 Program Activities for Epidemic Control in Scale-up Locations and Populations

4.1 Targets for scale-up locations and populations

Given the geographic and population prioritizations made for COP 17, PEPFAR Zambia derived targets for all indicators by reviewing the data pack and updating the assumptions. The data pack, which contained APR 2016 results, expected FY17 targets, treatment cascade expectations, and site yield data analysis, projected FY18 targets indicating that Zambia has attained epidemic control in 22 districts and will achieve epidemic control in 16 Scale-Up Saturation districts. Cost information expenditure analysis (EA), using the PEPFAR budgeting allocation calculator (PBAC), was used to guide the resource allocation to support these targets.

Targets for current on ART and ART enrollment (newly initiated) were determined based on the coverage required to attain 85% saturation for both the adult and pediatric populations living with HIV/AIDS in scale up districts within the next fiscal year— as well as review of possible entry streams for ART from the pre-ART population, persons infected with TB, HIV infected pregnant

women, and other priority and KPs. PEPFAR Zambia utilized the UNAIDS 90-90-90 framework in conjunction with epidemiologic data such as ZAMPHIA to estimate the district gap and set targets at district level. Nationally, the PEPFAR ART program will enrol 266,967⁶ (HIV infected persons on ART and overall have a total of 970,967 (including 79,975 children) on ART; this represents 81% coverage by the end of FY 2018. Working towards the UNAIDS' 90-90-90 goal, PEPFAR Zambia will contribute 970,967⁷ of the national targets of HIV infected persons on treatment by end of FY 2018; this represents 81% coverage. The implementation of Test and Start is expected to support the country's attainment of the ambitious treatment targets.

The targets included in Table 4.1.2, are based upon assumptions listed in the PEPFAR Zambia data-pack for the prevention, care and treatment cascade.

To reach epidemic control, Zambia will focus on core combination prevention in scale up districts with greatest treatment gaps and populations with the greatest need (i.e. pregnant women, youth, adolescent girls and young women (AGYW) persons with TB/HIV co-infection, and KPs). The HIV testing services (HTS) program aims to achieve the goal of 90% percent of HIV infected people knowing their status and 90% of those linked to treatment PEPFAR scale up districts through provider-initiated testing and counseling (PITC) for all patients in TB, sexually transmitted infections (STI), and antenatal care (ANC) clinics, mobile outreach, community mobilization and promotion of HTC. In all settings, strengthening linkages to treatment, care and support, and quality assurance for HIV testing will improve the HTC package. Overall targets for PMTCT are set with the assumption that universal HIV testing coverage and service utilization, which have been the trend over the last three years, will be sustained.

There are several challenges that must be overcome to meet these impressive targets. HTC and treatment targets rely on commodity assurance, adequate facilities, and the presence of a skilled, stable workforce. To reduce facility congestion, PEPFAR will implement differentiated models of ART delivery which optimize the delivery of ART care both for the patient and the health system. Attrition or instability among health care workers may affect service delivery, thus these targets assume that national capacity will be built and maintained at levels that will result in program implementation that is both sound and of high quality.

To address data challenges, PEPFAR Zambia is: 1) collecting epidemiological data at a more granular level; 2) training health workers on data verification (e.g., monitoring and evaluation, data analysis, and data use); 3) working with the National AIDS Council (NAC) to advocate for the release of key population (KP) data to inform health programming; and 4) funding a special evaluation of combination prevention involving bio-behavioral, service utilization, and post-service scale-up assessments; 5) conducting a Surveillance and Behavioral Epidemiology Risk

⁶ PEPFAR Zambia Data-pack, excluding central support sites.

⁷ PEPFAR Zambia Data-pack.

Survey (SABERS) is to describe the prevalence of HIV and other sexually transmitted infections in the Zambian military.

Table 4.1.1 Entry Streams for Adults and Pediatrics Newly Initiating ART Patients in Scale-up Districts

Entry Streams for ART Enrollment	Tested for HIV (APR FY18) HTS TST	Newly Identified Positive (APR FY18) HTS TST POS	Newly initiated on ART (APR FY 18) TX_NEW
Adults			
TB Patients	28,780	15,877	11,114
Pregnant Women	399,867	60,470	58,671
VMMC clients	122,066	9,839	N/A
Key populations	15,611	2,272	4,663
Priority Populations*			
Other Testing	N/A	N/A	N/A
Previously diagnosed and/or in care	N/A	N/A	N/A
Total Adults	552,931	78,817	83,348
Pediatrics (<15)			
HIV Exposed Infants	58,024	1,901	1,108
Other pediatric testing	447,744	19,780	19,598
Previously diagnosed and/or in care	N/A	N/A	N/A
Total Pediatrics			
TOTAL	505,768	21,681	20,706

*Priority populations not available in data pack.

Table 4.1.2 VMMC Coverage and Targets by Age Bracket in Scale-up Districts

Target Populations	Population Size Estimate	Current Coverage	VMMC_CIRC	Expected Coverage
	(SNUs)	(date)	(in FY17)	(in FY17)
Males 15-29 (Scale-Up)	1,443,453	29%	142,559	43%
Total males (Scale-Up)	5,696,306	15%	203,656	20%
Males 15-29 (All SNU)	1,978,448	27%	190,889	38%
Total males (All SNU)	7,807,551	15%	271,260	18%

Notes: Expected Coverage (in FY17) is equal to cumulative # of circumcised men end of FY16 plus FY17 VMMC target over the estimated male population
Population size is estimated number of males 15-29 and all ages for both scale up none scale up districts from data-pack

Table 4.1.3 Target Populations for Prevention Interventions to Facilitate Epidemic Control

Target Populations	Population Size Estimate (scale-up SNU(s))	Coverage Goal (in FY17)	FY18 Target
[Specify target populations for focus] <i>Indicator Codes include PP_PREV and KP_PREV</i>			
MSM	7,443	2%	26%
FSW	24,260	13%	86%
PWID	2,281	N/A	N/A
Prisoners	20,900	N/A	97%
TOTAL	54,884		

Standard Table 4.1.4

Table 4.1.4 Scale-up District Targets for OVC and Linkages to HIV Services

District	Estimated # of Orphans ⁸	Target # of active OVC (FY18 Target) OVC_SERV	Target # of active beneficiaries receiving support from PEPFAR OVC programs whose HIV status is known in program files (FY17 Target) OVC_KNOWNSTAT*
Chibombo District	26001	17,225	11,484
Chilanga District	-	4,453	2,895
Chililabombwe District	15540	8,035	5,211
Chinsali District	10837	122	80
Chirundu District	-	3,165	2,080
Kalulushi District	14183	4,284	2,785
Luangwa District	3800	4,045	2,630
Mazabuka District	43273	24,506	16,254
Mkushi District	14272	6,757	4,393
Mpika District	16422	653	489
Mumbwa District	16852	15,825	10,543
Nakonde District	11028	744	593
Nyimba District	4950	777	506
Rufunsa District	-	2,820	1,833
Serenje District	16308	6,872	4,467
Shibuyunji District	-	3,162	2,056
Sinazongwe District	7303	6,000	3,900

4.2 Priority population prevention

To reach epidemic control, Zambia will implement a robust program that will ensure that the country is on target to attain its 90-90-90 goals. The program will focus on core combination

⁸ This column provides data for orphans and not for vulnerable children.

prevention activities in priority districts with the highest treatment gaps and populations with the greatest need of treatment services. The program will also focus the prevention activities on identifying HIV positive people who need to be tested and linked to treatment. Partners reached 1,130,254 in FY 2016; FY 18 targets reflect an increase of approximately 15%.

COP 17 activities reflect the use of epidemiological data including targeted priority districts with high HIV burden as well as populations most at risk including adolescent girls and young women (AGYW), men under 30, mobile and key populations. Prevention services will be closely linked with demand creation for HTS as well as a targeted linkage to treatment of 90% for those who test positive. As articulated in the MER guidance, the minimum package of any prevention intervention for both adult and youth populations must include referral to, or provision of HIV testing, facilitated linkage to care and prevention services, and/or support services to promote use of, retention in and adherence to care, Implementing Partners will ensure that all prevention activities culminate in participants testing for HIV directly, or through referrals, and those that test HIV positive are linked to treatment and care services.

PEPFAR activities will focus on the provision of adolescent-friendly health services. Interventions will focus on tailored behavioral interventions anchored on a strong peer outreach program. Interventions will address risk reduction by targeting adolescent sexual networks with high impact HIV interventions, which will increase access to and uptake of HTS and linkages to treatment in adolescent friendly public health settings. Linkages will be enhanced through the use of community electronic medical records, the use of linkage registers and feedback referral forms and community based tracking of HIV test positives who are not linked to ART. Activities will also focus on retention through the use of peer promoters, buddy systems and the use of social media platforms.

The PEPFAR Zambia team used program and ZAMPHIA data to make decisions for DREAMS expansion. DREAMS is currently implemented in Lusaka, Ndola and Chingola. In COP 17, DREAMS will continue in the same geographic areas as well as expanded to include additional hot spots in Lusaka as well as an additional five districts with high HIV burden - Kitwe, Kapiri Mposhi, Kabwe, Livingstone, and Chipata. In addition to HIV burden, the following indicators were analyzed to better understand the district context for AGYW including: pregnancies among 15-19; linkage from HIV testing to treatment for 15-19 and HIV positivity among ANC clients 15-19.

The PEPFAR Zambia DREAMS team consulted with implementing partners, DREAMS Ambassadors and other key stakeholders working with adolescent girls and young women (AGYW) to determine geographic and programmatic activities for the COP 17 DREAMS funds. In each of the additional districts, there will be focal DREAMS zones similar to current DREAMS programming where AGYW 10-24 will received layered interventions. In addition, across the entire district, targeted prevention programming will be scaled up and include activities such as SBCC, condom availability, community mobilization for social norms change, HIV testing, etc. All AGYW enrolled in DREAMS are offered HCT. Those identified as HIV positive are referred for

ART initiation. To date, over 250 have been identified as HIV positive and all of them have initiated ART. In all cases, these AGYW are offered to be escorted by DREAMS mentors to the facilities to help navigate the health facility system. PEPFAR Zambia is exploring the possibility of periodically providing more comprehensive health services at the DREAMS Centers themselves to AGYW, including those who have been identified as being HIV infected. The purpose of this would be to offer non-stigmatizing and adolescent responsive health services to AGYW as well as male partners (e.g. VMMC). At the DREAMS Centers, mentors have established support groups for those identified as HIV infected. AGYW are also provided with individual support by the mentors. Finally, all DREAMS components are offered to all enrolled AGYW regardless of their HIV status.

The DREAMS Zambia program has contracted the development of an information system based on the DHIS2 platform that will enable the monitoring of the various DREAMS layers. It is currently in the final stages of development and the main implementing partner aims to implement this in the next several months.

PEPFAR Zambia will expand the program to include social marketing and demand creation for HIV prevention services with a focus on 90-90-90. Social marketing is important to ensure people in Zambia are aware of HIV services available to them, especially as the country continues to roll out Test and Start nationally and emphasizes continue viral load monitoring. In COP 17, PEPFAR Zambia will also improve condom programming to ensure that targeted priority age groups are able to access condoms easily.

To offer comprehensive HIV prevention for the different target groups, gender-based violence (GBV) interventions will be prioritized in areas with high HIV burden, which also includes the DREAMS districts. One Stop Centers will be supported or established within each district as well as broad capacity building activities for GBV responsive services district-wide. Services provided include counseling, medical services and examinations, HTS, post exposure prophylaxis (PEP), and legal support. In addition, OVC partners will strengthen GBV prevention and responsiveness within their programs. Finally, community level activities will include increased awareness and prevention of GBV, demand creation for GBV services, and engaging traditional and other community leadership in advancing GBV prevention and response.

The COP 17 Core HIV prevention package includes:

- Targeting of men and women under the age of 30, with prevention and treatment services in the highest burden districts
- Promotion and provision of PrEP for the highest risk populations including (KPs and adolescent girls and young women)
- Initiation on treatment (90% linkage) and improved retention for all adolescents and young adults identified as HIV positive
- Expanding social marketing and demand creation for HIV prevention, family planning, condoms and 90-90-90

- Broadening geographical coverage of DREAMS to five new districts, providing services to vulnerable AGYW
- Condom programming targeted at adolescents and young adults under 25 years old, and males aged 25 – 30 with younger partners
- Targeting communities for mobilization, gender and social norms change

Key Populations

The FY18 target for Key Populations (KPs) is 22,667 with 20,757 female sex workers (FSW) and 1,910 men who have sex with men (MSM). Targets were based on FY 16 achievements as well as size estimates for priority districts.

The KP program will continue to focus on adolescents, female sex workers, men who have sex with men, transgender persons, and prisoners. KPs will be tracked across the continuum of care to ensure that those that test positive are put on treatment through differentiated models of care, and are virally suppressed within six month of ART initiation.

Mixed approaches that include fixed sites, community outreach, mobile services at hotspots, after hours services and community models of treatment will facilitate maximum uptake of services. Program data, surveillance findings, and mapping activities will inform strategic planning of KP activities. Social networking strategies will be used to increase KP access to HIV services. Programs will focus on young KPs that are disproportionately affected by HIV through the use of a peer education and outreach approach to provide HIV education and counseling on health seeking behavior.

Sexual diversity training for PEPFAR implementing partners as well as U.S. government staff will improve HIV service delivery. Stigma and discrimination within health care setting will be addressed through sensitivity training for health care workers that will enable health care workers to provide comprehensive, KP responsive HIV services in a non-stigmatizing manner, reducing barriers to care. Clinical management will be strengthened through training and mentorship of health care workers.

The COP 17 Key Population activities include:

- Condom and lubricant promotion and distribution
- HTS with a greater focus on repeat testing for HIV negative individuals
- Targeted, age appropriate demand creation activities for health services
- Provision of safe spaces that includes sexual reproductive health education, legal services and other support
- Improved health services for KPs including improved linkages from communities to facilities, sexual gender based violence screening, reduced HIV stigma and discrimination, the provision of differentiated care models, STI testing and treatment, and HIV self-testing
- Provision of pre-exposure prophylaxis (PrEP)

- Capacity building of KP organizations

The U.S. government will work with the GRZ, donors and civil society organizations to plan and coordinate KP activities. The U.S. government will participate in joint planning and implementation of activities through NAC to reduce duplication and improve efficiencies. The USG is currently leading efforts to establish a KP technical working group at the Ministry of Health to ensure better coordination of our efforts to address stigma and discrimination.

Results from SIMS have been used to identify programmatic gaps and solutions. Recommendations have focused on strengthening linkages between facilities and communities, documenting prevention activities, and improving referral systems.

4.3 Voluntary medical male circumcision (VMMC)

For COP 17, the PEPFAR VMMC program will continue to prioritize high HIV burden provinces, focusing on regions with high unmet need and targeting males 15-29 years of age for maximum impact. The Department of Defense (DoD) program will continue to target increased access among the military countrywide and will look at opportunities to reach more men such as offering VMMC to new recruits and introducing VMMC devices as an alternative. Areas with lower HIV prevalence will receive national-level PEPFAR technical assistance for quality assurance activities, promulgation of policy, and training of trainers.

The World Health Organization defines a series of three evaluation activities that a country must undertake prior to scaling up device use in that population, a pilot, active adverse events (AE) and passive AE surveillance. Zambia completed a pilot phase in 2014 and is now on the second phase, active AE surveillance. Active AE surveillance involves performing 1,000 non-experimental/routine device procedures, providing active follow-up for all clients who fail to return for device removal, and reporting all AEs. Active surveillance of prequalified VMMC devices (Prepex and Shang Ring) is expected to contribute to an increase in uptake and utilization of VMMC services as devices offer an alternative to males who do not want conventional surgery. The issuance of new guidance for Prepex and administration of tetanus-toxoid-containing vaccines (TTCV) (which required procurement and setting up of systems to incorporate vaccines in the program) has been challenging as there is a time period between administration of the two vaccinations and the procedure. However, active surveillance for both devices will be completed by the end of COP 16.

The core VMMC program strategies for COP 17 include:

- Targeted demand creation, including engaging community health workers to support community mobilization and sensitization;
- Training, mentorship and supportive supervision of health workers in the provision of age appropriate VMMC services to the adolescent, young males and older males;
- Provision of age-appropriate WHO recommended VMMC package;
- Service delivery through the use of static and mobile models with extended hours;

- Linkages to care and treatment for HIV infected clients;
- Strengthening quality assurance and response to adverse events;
- Institutionalizing M&E;
- Implementation of WHO pre-qualified male circumcision devices; and
- Private sector engagement efforts in prioritized geographic areas with the highest disease burden.

COP17 activities will strengthen VMMC commodity supply chain management to ensure achievement of the set targets, to include HIV rapid test kit logistics management at all levels in priority areas.

Strategies to address gaps/challenges include:

- Reaching 15-29 year olds and encouraging utilization of services among late adopter: targeted Adolescent/young adult male tailored communication and demand generation activities during sports events, juvenile correctional facilities, universities and colleges, bars, sports clubs, and faith based gatherings; scaling up adolescent and young adult peer champions; workplace policies; and after hours/ weekend operations.
- Seasonality of demand and sustaining demand throughout the year: Routinization of services; periodic intensified service delivery during mini-campaigns and extended campaigns.
- Infrastructure: Use of tents, mobile surgical units
- HRH: Hiring of full time providers/mobilizers; Operations after normal shift work/ afterhours/weekends

SIMS identified several areas requiring strengthening, including linkage to ART of identified infected clients, clinical follow up and adverse events prevention and management (most mobile/outreach sites lacked the pediatric component for emergency resuscitation).

As part of the transition and country ownership plan for sustainability, in COP 17 PEPFAR Zambia will continue to provide technical support to the in-service training curriculum development and dissemination for early infant male circumcision (EIMC) for selected medical personnel and quarterly technical assistance to Ministry of Health sites implementing EIMC4 VMMC.

4.4 Prevention of mother-to-child transmission (PMTCT)

Zambia has successfully implemented WHO Option B+ since 2013 with support from both the PEPFAR and MoH; resulting in sustained universal PMTCT service utilization and coverage nationally over the last three years. In support of this national policy, USG Zambia will continue to support the national PMTCT program through support for comprehensive PMTCT services with a goal of attaining virtual elimination of mother-to-child transmission (eMTCT) with an MTCT rate of less than five per cent within the prioritized geographic locations.

The program will support expansion of efforts to reach all pregnant and breastfeeding women with HIV testing, lifelong ART and viral load testing early in the gestation period; and optimizing access to testing, care and treatment services for HIV-exposed infants (including retention through the cascade and linkage to treatment for infected infants). Using the maternal and child care services platform, support will also be provided for Family Planning/HIV integration with key priorities such as expanding contraceptive options mix for women of reproductive age (including adolescents), ensuring access, and health systems strengthening.

Current PMTCT program challenges include: limited health care worker capacity; prolonged turnaround times for early infant diagnosis and results return; poor 24-month retention with an increasing number of children infected in the breastfeeding period; weak cohort monitoring systems for tracking mother-baby pairs along the PMTCT cascade; and limited community support systems.

The following strategies will be employed to ensure attainment of virtual eMTCT of HIV: a) maximizing early and accurate maternal and infant HIV case identification, b) decentralization of ART services to improve access and ensure optimal coverage, c) optimizing VL monitoring and viral suppression of PBFW, d) strengthening community-based support groups as a platform for enhancing adherence and retention in care, e) service integration (such as ART/antenatal, expanded program for immunization/ early infant diagnosis, family planning/HIV service integration) and f) improving monitoring and evaluation systems. Specific activities related to these strategies are detailed in the core service packages.

Key activities include:

- Quality HIV case identification among PBFW and HEIs; including re-testing of HIV negative PBFW
- Increasing initial attendance rates and repeat antenatal care visits through community outreach programs, and coordinating with community-based reproductive health workers
- Increasing deliveries in facilities with skilled attendants
- Scaling up of viral load monitoring for all HIV positive PBFW
- Providing and increasing adherence to treatment for HIV positive PBFW
- Strengthening mother-baby follow up at community platforms to ensure adherence to ART and enhancement of retention in care and adherence of mother-baby pairs
- Improving the uptake of EID and linkage to treatment for infected infants
- Strengthening the EID system (supplies, specimen transportation, improve turnaround time for results)
- Adopting a holistic approach for PMTCT within the context of a safe and healthy pregnancy, delivery and postpartum care, including family planning and partner testing
- Adopting Mothers2Mothers approach in order to improve retention of mother-baby pairs.
- Implementation of differentiated care models focused on families with a goal to improve retention.

- Promoting an enabling environment for increased male involvement through PITC for expectant couples attending ante-natal services to improve disclosure among couples
- Supporting enhanced program monitoring and evaluation (including real time monitoring) that includes retention on ART and documentation of infant outcomes up to final outcomes post-exposure.
- Support the MoH lead the process of WHO pre-validation for eMTCT.

4.5 HIV testing and counseling (HTS)

The PEPFAR Zambia COP 17 HTS activities and targets are in line with supporting the GRZ's efforts to reach the 90-90-90 goals. The HTC target of 3,100,179 represents a 266% from the COP 16 target of 1,166,924. The COP 17 target better reflects current achievements and program activities. It was also informed considering the ambitious treatment targets by age and sex and a treatment linkage of 90% from the current rate of 67%. The HTS target will be reached primarily through expansion of index partner/family counseling and testing, provider initiated testing and counseling (PITC), and VCT which have high testing yields for both men and women. PITC will cover out-patient departments, TB corners, STI clinics, MCH, and ANC clinics. Testing for clinical populations such as presumptive TB patients, child malnutrition patients and children at under-five clinics will continue as this will capture populations that may be missed by other testing modalities.

HTC modalities targets have been set with a detailed analysis of yield by age and gender. Index testing has demonstrated a very high yield and therefore the target of 140,000 is an estimated threefold increase from the current level of effort which is just over 50,000 per year. Index and VCT testing yields have been as high as 12% for men and women who are over 25 years old. For those under the age of 15, Know Your Child Status campaigns, integrating HTS with school health programs and linking HTS services with the OVC platform will be key activities.

For 15 to 24 year olds, social networks and working with peer models for young KPs will also be a priority. KPs will be reached with mobile testing with a focus on retesting of negatives as well as linkage to treatment for those who test positive. HTS workplace programs for men will also be conducted, while HTS in PMTCT for all pregnant and breastfeeding women will also continue. Partners will also provide testing services in men's social groups such as the Men's *Insaka*, where men meet to discuss social issues. Other strategies to reach men include using male champions to reach fellow males, using the ANC platform where pregnant women will be encouraged to come with their partners to test for HIV and also through working with traditional and civic leaders to drive HIV testing efforts among men in their constituencies.

The community platform will play an important role in increasing uptake and sustainability of HIV services, but the PEPFAR Zambia program will move away from implementing door-to-door HTS which historically has had a low positivity yield. Community based testing will focus, for example, on reaching older men (25 years and above) considering the current yield of 6%. CBTS modality will also be employed to reach the adolescent girls and young women enrolled in the

DREAMS program. Partners will also program to reach out of school children in places where they are usually found in communities, such as churches, playing fields and markets. The HTS program will also leverage the OVC platform to reach the out of school children with HIV testing services. While acknowledging that all these strategies will be used to reach different populations, the main focus of the HTS program in Zambia still remains the index client testing, PITC and VCT modalities.

PEPFAR Zambia will pilot the use of HIV Self Testing (HVST) to contribute to reaching first-time testers, people with undiagnosed HIV and those at ongoing risk who are in need of frequent retesting. The program will target men who have sex with men and female sex workers to provide HVST in their networks in selected sites.

PEPFAR Zambia is placing emphasis on targeted testing and this includes community partnership and mobilization for multi-disease community health campaign (CHC) for different age groups, children, adolescents and young adults. These campaigns include mobilizing the community for HIV testing services (HTS) and linkage to care and treatment. In COP 17 PEPFAR partners will strengthen these targeted community multi-disease health campaigns to include both the out of school and in school, as well as university/college students who are at risk of infection.

PEPFAR Zambia will also undertake proficiency testing in order to ensure the accuracy of HIV test results. In centrally support sites, PEPFAR Zambia will provide periodic targeted technical assistance to the provincial and district levels and overarching QA/QI.

PEPFAR Zambia has allocated sufficient funding in COP 17 to support the procurement of HIV test kits nationwide. PEPFAR Zambia will work with partners to ensure that test kits are readily available in both communities and facilities to meet the COP 17 targets. Another anticipated challenge is that of lay counsellor attrition rates, which can be overcome by engaging GRZ in discussions on the need for policy guidance on working with community volunteers.

In an effort to increase HIV testing, the GRZ indicated that they anticipate changing the age of consent from 16 to 12 as well as incorporating HIV testing in the school health policy.

The COP 17 HTS package includes:

- Index case testing
- Know Your Child's HIV Status campaign
- Integrating HTS with school health programs
- Optimizing PITC by using integrated registers
- Linking with OVC platform to optimize linkages to treatment and care
- Partner notification
- Leveraging of social networks
- Peer models for young KPs
- Workplace programs for men

- HIV testing for GBV survivors
- HTS for all VMMC clients
- Hotspot Testing for KPs
- PITC testing especially to increase HIV testing for men
- 90% linkage to care across all age and gender bands
- Mobile HTS services for adolescents
- HTS in PMTCT for all pregnant and breastfeeding women
- Integration of HTS with Well Child clinics
- Increased male targeted CBTS

Through SIMS visits, PEPFAR Zambia noted that space for conducting HTS is a challenge, compromising confidentiality. To address this challenge, PEPFAR staff members have engaged the government in discussions on how adequate space can be availed to the HTS program. SIMS visits also showed that in some facilities there are no standard operating procedures (SOPs) for those conducting HTS. The PEPFAR Zambia team also found that the linkage from HTC to treatment and care services is not optimal. However, PEPFAR Zambia anticipates enhanced enrollment into care and treatment with the implementation of Test and Start.

4.6 Facility and community-based care and support

There will continue to be an intensified focus on the development of policy guidance regarding Differentiated models of care for children. This will be done once WHO guidance is adapted to the country situation. Following this, there will be roll out of differentiated models of care in FY18 in support of the MoH plan to move at least 10% of patients who are stable into community care and treatment. In FY17 the roll out was limited to demonstration projects of community models of service and these were all targeting older adolescents and adults. Following review of COP 16 data, improving linkages between community and facility based ART programs will be a focus in order to increase the proportion of HIV infected children accessing and being retained on treatment. PEPFAR Zambia will optimize the role of community mechanisms to deliver on 90-90-90 and joint case management between community and clinical service providers will be standardized to facilitate proactive and reactive tracking of clients, reduce LTFU and improve retention. All HIV infected children will be targeted beneficiaries of the OVC program as this will enhance retention and contribute to viral load suppression (VLS).

The PEPFAR Zambia program will also improve support to adolescents (including pregnant and breastfeeding adolescents and KPs/or those engaging in transactional sex, adolescent street kids) living with HIV (ALHIV) through linkages between clinical and community partners, especially through the OVC platform. This will include standardized referral forms, improved parenting skills, differentiated models of care, specialized support to transition into adult care, PLHIV care package tailored to adolescents, increased engagement of the faith community, and quality of life services focused on building personal and economic resilience. Peer-led service provision, targeted on-line messaging, use of social media, peer and community ART support groups are some of the strategies that will be used to enhance adherence and retention among adolescents.

For example, the Zambia Family Program will in FY18, with policy and operational guidance from MoH, expand support provided for community ART Groups (CAGs) with an emphasis on families and adolescents. CAG members will also be linked to support groups that cover a range of health and social services. Additional Community Health Workers will be trained and given a stipend to support both the CAGs and support groups. Standardized MoH training of community volunteers with standardized remuneration packages will be rolled out to support the expanded community program. PEPFAR Zambia will continue placement of full-time para-professionals in several health facilities to facilitate and manage linkages between community and facility service providers. Community partners will also conduct community mobilization for community care and encourage consumer demand for quality services. PEPFAR Zambia will also expand results-based financing with Neighborhood Health Committees and other community structures to enhance retention and adherence among track LTFU pediatric HIV cases in several of the poorest performing attained and scale up districts. Early Childhood Development (ECD) will be rolled out with MoH to equip health facility staff to implement the Care for Child Development curriculum. Efforts will be made to increase awareness among families and adolescents, reduce stigma and discrimination associated with HIV e.g. through social media and other media campaigns.

PLHIV will receive a standard package of care that includes regular monitoring for HIV progression, condom provision and non-clinical services.

For scale-up sites core care activities will include:

- Training, supervision and mentoring of community cadres to support CBCTS services
- Early childhood development and parenting programs
- Positive Health, Dignity and Prevention
- Psycho-social support
- Prevention and management of opportunistic infections
- Pain and symptom management including cotrimoxazole prophylaxis
- TB/HIV services
- Behavior change support
- Nutrition assessment, counseling and support (NACS) services
- Linkage, engagement and retention of patients in care and strengthening referral mechanisms and other systems of linking clinical and social service
- Viral load literacy;
- Regular clinical and laboratory monitoring including CD4 and viral load testing
- Joint case management between facilities and communities including for mother-baby pairs children and adolescents made vulnerable to or by HIV and AIDS
- Community level child protection plus GBV prevention and referrals to other services
- Social protection via group-based household economic strengthening and cash transfer;
- Market-based vocational training and job placement as part of workforce development
- Adherence support/ peer support
- Stigma and discrimination reduction
- Prophylaxis to prevent TB reactivation
- Access to clean water and sanitation

Pediatric Care & Support

In COP 17, the pediatric care and support program will provide comprehensive pediatric HIV care services in priority geographic locations. PEPFAR Zambia HIV services will include ensuring early identification of HIV infected children and enrolment into care and treatment. The core package of services will include:

- Activities to reduce the EID TAT to 4 weeks or less
- Viral load monitoring for all children on treatment
- Appropriate clinical staging and laboratory monitoring to guide pediatric care and treatment.
- Promoting a comprehensive package of pediatric HIV care and treatment, including antiretroviral treatment, treatment of malnutrition and life-threatening infections, and pain and symptom management, all within a family-centered context
- Developing and implementing strategies to decrease loss to follow-up through health facility- and community-based retention strategies.⁹
- Implementing of consolidated pediatric treatment guidelines and recommendations as well as alignment with the OVC Minimum Standards, National Plan of Action for Children, and forthcoming GRZ standards for vulnerable children.
- Recruitment, Training, mentoring, and supervision of health care workers to provide high quality pediatric care and treatment services.¹⁰
- Prevention and management of opportunistic infections including cotrimoxazole prophylaxis
- Providing psychosocial support for children and their families, including the promotion of adherence and timely disclosure. School-based adherence and psychosocial support will include teacher support for children.
- Providing targeted prevention efforts and age-appropriate psychosocial support for HIV-infected adolescents, including vocational training, intensive adherence support, and coping with stressors.
- Strengthening of GRZ monitoring and evaluation systems, including data collection for central reporting and data feedback for site level quality improvement.
- Strengthening of systems to link CBOs with government health services for under-five, child and adolescent health programs, including ART and PMTCT services. Programs will emphasize the needs of children living with HIV by helping families and communities identify children and adolescents living with HIV and ensuring immediate access to ART for those under 15 years.
- Training, mentoring and support of CBOs to improve technical capacity in HIV prevention, care and support to scale-up evidence-based activities, including prevention with positives counseling by community caregivers, stigma education, alcohol education, Safe From Harm sexual and reproductive health, as well as age appropriate family planning messaging, and other proven interventions.
- Support for the formation of CAGs for mothers and babies, teenage mothers living with HIV and also adolescents

⁹Bi-directional referral networks between the community and facility will also be strengthened for pediatric ART. Programs will leverage the ability of CBOs to follow up with PLHIV at the household level, promoting retention in care.

¹⁰CBOs will improve quality delivery of HIV prevention information, such as implementing multi-dose, integrated prevention interventions and expanding HTC opportunities for families through strengthened referrals to HTC services.

- Positive Health, Dignity and Prevention activities to support adherence, retention and VLS for children and adolescents
- TB/HIV services including screening and IPT provision

4.7 Tuberculosis and HIV

Tuberculosis (TB) continues to be a major public health concern in Zambia with an estimated prevalence of 482 cases of TB per population of 100,000 people. TB notifications have however continued to go down from 51,179 in 2006 to 41,366 in 2015, implying that Zambia's case identification efforts are only able to detect 57% of all prevalent TB cases. TB is fueled by HIV, with the prevalence of HIV among TB patients averaging 60 percent.

Zambia has not introduced any major policy/guideline changes in the recent past that would have far-reaching impacts in PEPFAR TB/HIV programming. However, the National TB program is besieged with a myriad of problems which must be addressed to reduce the incidence of TB and the socio-economic hardships associated with the TB/HIV co-morbidity. These include: declining TB notification rates, screening of HIV-infected clients for TB not well documented, Inadequate implementation of infection control measures, lack of "one stop shop" concept for TB/HIV patients, few Informational, Educational and communicational materials promoting isoniazid preventive therapy (IPT), inadequate implementation of Isoniazid preventive therapy, lab- GeneXpert machines not sufficient and equitably distributed in the provinces, lack of a GeneXpert EQA program / system, lab: Power outages and private sector, including mining firms not following national protocols: screening; reporting; etc.

With COP 17 funding, PEPFAR Zambia will increase TB case finding through three key interventions: 1) looking for TB where it is most likely to be found (among the extremely poor, children, prisoners and other populations living in highly populated settings, and people living with HIV/AIDS 2) improving access to TB diagnosis, and 3) human capacity development through continuous mentorship and training. PEPFAR will particularly target the previously mentioned populations through the following strategies: creating lasting partnerships with correction services to allow PEPFAR implementing partners to screen all prisoners on entry and exiting prisons; using community systems for TB contact tracing, and promoting TB awareness in communities. PEPFAR Zambia will improve access to TB diagnosis through increasing the number of labs with Xpert MTB/RIF testing; establishing courier system for sample transportation and tracking; training laboratory personnel on GeneXpert utilization; establishing power backup systems(Inverter/Solar) to select diagnostic centers; improving supervision of peripheral labs through timely EQA; and improving laboratory infrastructure (work space and ventilation). PEPFAR will also strengthen other diagnostic capabilities such as the LAM and line probe assays. PEPFAR will support infection control activities through a hierarchy of environmental controls: minor renovations to improve airflow and patient movement, institutionalizing infection control plans to ensure that frontline health care workers observe infection control protocols, and supply and use of personal protective equipment. PEPFAR will support the IPT program largely through training and making job aids available.

To strengthen TB/HIV coordination, PEPFAR Zambia will implement the following activities: providing presumptive TB registers and IEC materials to Health Facilities providing HIV services, strengthening collaboration for TB/HIV activities between the mining, correctional services, faith based, defense, private and public service providers, integrating TB/HIV services in terms of programming and staffing and promoting a “one stop shop” concept, orienting/training HIV testing service providers on TB screening referral, PMTCT lifelong Treatment (Option B plus) providing an opportunity for TB screening and expanding the 3I’s program (especially scaling-up IPT) based on a situation analysis of IPT needs.

The activities will lead to screening 90% of all TB patients for HIV and initiating 70% of patients with TB/HIV on HIV treatment.

4.8 Adult treatment

The main goal of the HIV treatment program in Zambia is achievement of an AIDS-free generation by 2030. In FY 16, PEPFAR Zambia implemented HIV treatment activities in 34 scale-up to saturation; 32 aggressive scale-up; and 20 sustained sites, initiating 112, 351 individuals on HIV treatment; retaining 693,599 clients on HIV treatment, and increasing the number of districts with HIV treatment coverage of 80 percent to 14 at the end of FY 2016.

Interventions included: a) provider training and on-the job mentorship, b) secondment of critical staff to the Ministry of Health, c) procurement of drugs, medical supplies and equipment, d) limited renovations to improve work space, and e) on-going support for quality improvement and quality assurance focused on patient outcomes.

The program also continued to implement evidence-based strategies such as: a) the Test and Start strategy for pediatric patients, patients with TB and HIV co-infection, pregnant and breast feeding HIV-infected women, and HIV-infected partners in discordant sexual partnerships; b) piloting the Test and Start strategy for all individuals identified with HIV regardless of their CD4 status in a few priority districts; and c) piloting decentralized (differentiated) models of service delivery in select districts to down-refer stable HIV-infected clients on HIV treatment to communities for continued care. The interagency team developed and is piloting a reporting tool for partners to be able to report monthly progress of key indicators to track the three 90s at the district level. This tool will also facilitate early identification of unexpected barriers to service expansion.

PEPFAR Zambia’s COP 2017 has been informed by a) Zambia's goal of achieving an AIDS-free generation by 2030, b) the data-driven PEPFAR pivots of focusing on sites with the highest burden of HIV and the greatest need for HIV services, c) the policy shift to Test and Start which was launched on December 13, 2016, and d) PEPFAR Zambia’s various analyses, including the gender; the site improvement and monitoring system (SIMS); and the Zambia population-based HIV impact assessment analyses. PEPFAR Zambia will have 22 attained, 16 scaled-up to saturation, 33 aggressive scale-up, and 15 sustained sites by the end of FY2018. PEPFAR Zambia

will achieve treatment coverages of 81 percent and above for both females and males in the following age bands: below the age of 15, between the ages of 15-24, and above the age of 24 in the 22 attained districts. PEPFAR Zambia will achieve treatment coverages of 81 percent and above for all people living with HIV/AIDS in the 16 scaled-up to saturation districts. PEPFAR Zambia will substantially increase HIV treatment coverages to as near as possible to 81 percent in the 33 aggressive scale-up districts. PEPFAR Zambia will maintain all HIV infected individuals currently taking HIV treatment on HIV treatment in the 15 sustained sites.

To achieve/reach the aforementioned district categorizations, PEPFAR Zambia will tailor specific intervention for different sub-population, ensuring the correct type and “dosage” of interventions goes to sub-populations where these interventions are most impactful. The program will continue to consolidate key strategies started in prior years such as: a) the “test and start” strategy for pediatric patients, individuals with TB and HIV co-infection, HIV infected pregnant and breastfeeding women, and HIV-infected individuals in discordant partnerships, b) expanding access to viral load services to increase the proportion of HIV-infected individuals accessing routine viral load from seven percent in 2016 to 80 percent by the end of 2018, and c) working with the Zambian Government to ensure increased funding for HIV treatment services from the Zambian treasury. PEPFAR Zambia plans to have 970,967 individuals on HIV treatment by the end of 2018.

As stated above, the program started supporting pilot studies to decentralize HIV care by down-referring stable patients on HIV treatment to community systems. In FY2018, the program will scale-up differentiated (decentralized) models of HIV care across the 86 districts (attained, scale-up to saturation, aggressive scale-up, and sustained), with a goal of achieving a down-referral of at least 96,783 stable HIV-infected individuals on HIV treatment by the end of 2018. The program will build quality improvement and quality assurance ‘safeguards’ into these differentiated models to assure good surrogate (viral loads, etc.) and clinical (adherence to treatment, retention on treatment, and reduced morbidity and mortality) outcomes.

Other efforts to monitor HIV mortality outcomes include strengthening the SAmple Vital Registration with Verbal AutopsY (SAVVY) system and establishing HIV case-based surveillance. SAVVY provides nationally representative information about levels and causes of mortality as well as other indicators. The goal of the SAVVY is to improve birth and death registration and utilize the detailed information from the registrations for governance, planning, management, monitoring, and evaluation of national programs. SAVVY 1 was completed during 2010-2012. SAVVY 2 will be completed in 2017. The HIV case-based surveillance (HCBS) system will capture routinely generated health information for persons living with HIV including care and treatment events and health outcomes, including death. HCBS hopes to be piloted by the end of 2017.

4.9 Pediatric treatment

Specific to pediatric HIV treatment, the PEPFAR Zambia program will have two overarching objectives: 1) rapidly increase the number of children and adolescents on HIV treatment and 2) ensure that children and adolescents on HIV treatment are retained on treatment.

Key Activities will include:

- HRH support: Placement of frontline health care workers to provide services including lab and pharmacy personnel, training, mentorship and supportive supervision and Salary Support for CHAs and community based cadres.
 - Dissemination of guidelines at national, provincial, district and facility levels.
 - Support for family and patient centered decentralized models of care to decongest health facilities including school and out of school programs for children and adolescents, ART delivery in the community, in religious institutions and including multi-month scripting for stable adolescents
 - Support operations of mobile ART, extended clinic hours & other innovative strategies to reach underserved areas while building capacity in these areas
 - Targeted infrastructural renovations to optimize care for both peds and adolescents
 - Support the operationalization of coordinated and effective linkages, referral systems and feedback mechanisms across the continuum of care
 - Support for pro-active patient adherence, tracking and retention systems: includes training, mentoring and salary support for community health workers AND logistic requirement for timely follow-up (e.g. transport/phone/SMS or other technology).
 - Support for decentralization of Pediatric centers of excellence to district level
 - Increase access to ART by converting all health facilities (including health posts and community health structures) into ART sites
- Incorporation of decision support for treatment to support HCWs provide ART.

PEPFAR Zambia will optimize monitoring children on HIV treatment by scaling-up viral load testing alongside other types of monitoring such as clinical and CD4 monitoring. Specific to viral load testing for HIV-infected children on HIV treatment, PEPFAR aims to support 100% access for children by the end of 2018. Quality of care standards will continue to be based on current national guidelines and will be integrated with the Site Improvement Monitoring System (SIMS) as a tool for tracking service quality and informing improvements.

4.10 Orphans and vulnerable children (OVC)

Zambia's OVC portfolio was one of the first to respond to the geographic pivots by moving out of non-priority provinces at the end of 2014. This early pivoting made it possible for OVC programs to be more responsive to the 90-90-90 in scale-up districts. The re-categorization of districts paired with age-disaggregated data required a change in the OVC core package of services in order to be more responsive. The core package is divided into three categories:

<p>1. DISEASE MANAGEMENT: Supporting family and community based management of HIV/AIDS among OVC and their households delivered through a functioning community continuum of care and household support.</p> <ul style="list-style-type: none"> - Technical and HRH support to GRZ and civil society to deliver a well-functioning community continuum of care. - Targeted testing modalities (self-testing, index, home, mobile). - Accompanied referrals to support Test and Start. - Standardized provision of care and support linked with community ART provision. - Clinical-community joint case management (client tracing, community SmartCare linkage, PMTCT/EID follow up, social service access and tracking, differentiated service delivery). - Support treatment readiness, adherence, disclosure, staying in care, VL literacy, OI management/clinical and surrogate monitoring, condom distribution, reducing stigma and discrimination, food and nutrition security, economic resiliency, and transitioning from pediatric to adult care. - Early childhood development for health providers and caregivers. - Faith-based outreach
<p>2. DISEASE MITIGATION: Strengthening of government, civil society and family systems and structures to ease the impact of HIV/AIDS on children and their families in districts with high disease burden.</p> <ul style="list-style-type: none"> - Social protection activities to support families in meeting the basic needs of children and adolescents. Plus provision of economic resiliency options for youth. - Provision of informal case management through Community Welfare Assistance Committees (CWACS), Neighborhood health Committees (NHC) and community volunteers (supporting both health and service services). Requires standardized targeting, child assessment and service referral approaches. - Formal case management by GRZ that includes social workers, Community Development Assistants and Community Health Assistants. - Early childhood development for health providers/caregivers and parenting skills. - Specialized services to complement government support; includes GBV support, sexual and reproductive health education, substance abuse services, faith-based outreach, school block grants, and birth registration promotion.
<p>3. DISEASE PREVENTION: Keeping adolescents and their families HIV free.</p> <ul style="list-style-type: none"> - Linkage with DREAMS activities where available. Includes identifying and following up with adolescents at-risk for HIV. - Promotion of life skills, family planning, GBV elimination and services, gender equity, delayed sexual debut, recovery from drug and alcohol abuse, Test and Start. Includes service linkages or direct provision. - Psycho-social wellbeing and HIV prevention skills specific to priority populations (young MSM and young sex workers). Includes linkages to client-responsive services. - School block grants. - Opportunities for household economic resiliency and youth employment. - Parenting skills programming. - Condom skills and distribution. - Community mobilization on behavioral and social norms to reduce infection.

OVC activities for disease management and control will be informed by data analysis for each scale up district, including existence of other USG mechanisms needing complementary inputs from the OVC program. For example, several districts with high pediatric prevalence do not have PEPFAR comprehensive OVC programs. They may not need such programs, but that will need to be determined. Specific actions (e.g., early childhood development, improved parenting skills and mother support groups) will be undertaken in these districts to support 90-90-90. Zambia is on

track to transition disease mitigation actions to be fully aligned with government systems and structures. By 2020, PEPFAR Zambia will no longer support stand-alone comprehensive OVC programs.

Test and Start will be promoted through increased accessing of home testing for OVC program households and index case tracking via links to facilities. Verified referral systems will be improved and tracked. More OVC and their families will be encouraged to know their HIV status and, if positive, to participate in adherence support groups focused on families, including Community ART Groups. The addition of standardized early childhood development activities will increase emphasis on finding pediatric cases as well as supporting mommy-baby pairs through community interventions. The current baseline for HIV status known among OVC beneficiaries is 30%. The goal in FY18 is 65%. An improved and standardized in-home screening tool will better inform the need for HIV testing.

As described in an earlier section, the OVC platform will play a key role in supporting Community ART Groups (CAGs) as well as linked support groups. The network of households in the OVC program provides access to thousands of families who can be organized to join family-centered CAGs and support groups that include economic resiliency actions. Additionally, specialized CAGs and support groups for adolescents within OVC program will build on successes realized by implementing the Positive Connections curriculum in Copperbelt province. OVC programs will follow the government's Adolescent HIV Guidelines, including the checklist for monitoring PLHIV stability to detect early warning signs of low viral suppression.

In FY18, parenting programs and school block grants will continue in and beyond the DREAMS zones. A module on parenting children and adolescents living with HIV is included. Parenting skills programming covers children ages birth to 18. An increased focus on working with the faith community will encompass parenting and include actions to support 90-90-90 as well as primary prevention. Preventing and responding to neglect, violence and exploitation of children and adolescents is covered by the parenting programs as well as broader community engagement actions.

Social service workforce development remains a priority investment for long-term sustainability. PEPFAR will complete alignment of current stand-alone OVC activities in Copperbelt and Lusaka provinces with GRZ structures at district and ward levels. Mitigation of HIV disease services and activities will be managed and monitored by Neighborhood Health Committees along with District Welfare Assistance Committees, Area Coordinating Committees (ACCs), and Community Welfare Assistance Committees (CWACs) which are the same structures that administer the Social Cash Transfer program. This alignment will enable provision of cash plus care to be fully overseen by government. PEPFAR will no longer have a cadre of OVC volunteers identified as its own. Instead, volunteers will be associated with government structures in terms of accountability for provision of coordinated care services to vulnerable populations. Technical support and direct funding will be provided to the GRZ social welfare program to increase their capacity to manage

and coordinate activities for OVC. This includes measurable capacity building to existing government structures at the community, district and provincial levels to improve their ability to identify, refer and provide case management for OVC and their families.

PEPFAR Zambia will provide technical support to the Ministry of Defense to strengthen their capacity to manage and coordinate OVC activities which reach children in and around the military bases. Services and support provided are in alignment with the standards and actions implemented by other OVC programs funded by PEPFAR.

SIMS visits identified need to improve actions in case management and supporting secondary school attendance. Formalized joint case management actions between clinical and OVC partners will be standardized to resolve issues with incomplete referrals and finding identified HIV cases to ensure retention and adherence. School block grants are addressing secondary school needs of adolescent girls, especially in DREAMS districts. Timeliness of post-rape care was identified through SIMS as needing improvement. The GBV programs receiving HKID funds along with DREAMS will increase emphasis on the timeliness issue.

4.11 Addressing COP17 technical considerations

In COP 17, the HTS program through the DREAMS initiative will target those younger than 30 years. This younger population is less likely to know their HIV status, have lower basic HIV knowledge levels, while remaining at high risk for HIV infection. The DREAMS partnership focuses on the reduction of HIV incidence in AGYW by delivering a core package of interventions that combines evidence-based approaches to address the individual, community, and structural factors that directly and indirectly increase girls' HIV risk, including poverty, gender inequality, gender-based violence, and a lack of education.

Results from the ZAMPHIA have shown that there are challenges with getting the AYGW on prevention and treatment. In Zambia as in other sub-Saharan Africa, the path of HIV transmission is through young women. AGYW often acquire HIV from men older than them, ages 23-35. These adolescents and young girls then transmit the virus to their similar-aged sexual partners as they grow older. PEPFAR Zambia program will address its focus on prevention, testing, and treatment services on individuals less than 30 years old to disrupt the pattern of HIV heterosexual transmission. Reaching sexual partners of AGYW with HIV testing, prevention and treatment services is of prime importance to reach epidemic control.

PEPFAR Zambia will emphasize support for improved retention and viral load suppression. The PEPFAR program will continue to collaborate with the Ministry of Health and other partners to rapidly scale up viral load (VL) testing nationwide to monitor viral suppression with the goal of achieving the third 90 of UNAIDS 90-90-90 targets. While progress has been made in increasing the number of VL equipment and laboratories, not all are testing to their full capacity yet in terms of number tests performed; and even when the usage will be maximized, the current capacity would only about 45% of the overall national need, given the total number of individual on ART,

leaving a significant gap. Hence the plan going forward is to ensure that the current laboratories are used to full capacity while increasing the number of testing sites/machines to cover the national need.

The activities to achieve this goal are as follows:

- Continue support for the development of a national VL data management system to ensure timely return of results to clinics and the creation of a data base for reporting, forecasting, and decision-making.
- Strengthen the implementation of a reliable sample collection, processing, and transportation system to ensure access to centralized VL testing.
- Develop and implement quality management systems to ensure reliable test results.
- Introduce where necessary DBS VL testing to simplify sample collection, storage, and transportation.
- Continue recruitment, training, and retention of dedicated laboratory personnel to ensure adequate staffing.
- Strengthen the supply chain management system for test kits, reagents and to avoid stock-outs.
- Implementation of alternative electric power solutions to avoid service interruption and reagent wastage due to electricity outages.
- Expansion of laboratory infrastructure to ensure adequate and safe space to accommodate testing processes, equipment placement, and supplies storage.
- Procure and place additional VL machines to reach national VL load testing needs.

In alignment with this, programmatic support will be provided as follows:

- Proactive reminders via phone calls/SMS.
- Travel reimbursements for eligible clients including parents and caregivers of children.
- Scaling up the use and integration of facility and community EMRs.
- Use of incentives for CHWs to improve retention in their assigned zones.
- Support to improve treatment literacy at national/provincial, district and facility level.
- Leveraging partnerships: linkage of individuals on ART to CBOs that support IGAs and OVC partners where applicable.
- Differentiated models of care for families (inclusive of children).
- Use consumer feedback to improve quality of services.
- Use of more efficacious regimes e.g. In children LPV/r based and use of pellets in new guidelines.
- Support for systems to monitoring of VL access for all persons on ART.

4.12 Commodities

Stakeholder coordination around commodities in Zambia continues to be strong. The current HIV commodity gap as of March 2017 is largely due to the fact that other donors and the GRZ have yet to officially indicate their contributions for the upcoming year. ARVs is the commodity category with the largest gap (\$45 million), however, if prior year contributions from the GRZ (\$22

million) and the GF (\$25 million) are considered, the Zambia HIV program should end the year with a marginal surplus. Savings in the number of ARVs and cotrimoxazole from the previous year allowed for the budget to include \$6 million (72% of the need) for viral load tests. Like with ARVs, it is anticipated that this gap will be closed when other donors propose their formal commitments.

Table 4.12.1 Funding Gap

Commodity Category	Fiscal Year 18 Funding Need	Fiscal Year 18 Funding Commitment	FY 18 GAP
Rapid test kits	\$7,286,353	\$7,842,600	0
EID	\$4,244,778	\$2,771,732	\$1,473,045.60
Viral Load	\$8,335,025	\$6,000,000	\$2,335,025
Condoms	\$2,804,313	\$2,804,313	0
Cotrimoxazole	\$3,845,130	\$1,636,930	\$2,208,200
ARVs	\$92,982,651	\$58,314,533	\$45,949,929

4.13 Collaboration, integration and monitoring

PEPFAR Zambia is committed to continued collaboration with GF and MoH on all technical aspects of program implementation through external stakeholder engagement. These engagements have engendered broad participation including representation from several host government ministries and departments, multilateral organizations, local and international non-governmental organizations, and civil society organizations.

To strengthen implementing partner management and monitoring of the implementation of innovative strategies to meet these aggressive targets, PEPFAR Zambia has developed tools to track operationalization of strategies across the cascade with weekly to bi-weekly monitoring and with an eventual plan for real-time monitoring through a web-based platform and accompanying dashboard. Additional means of ensuring partner monitoring including yearly data quality assurance and SIMS will also be maintained.

To improve integration of key health system interventions, including HRH and laboratory (VL) activities, across the cascade; PEPFAR Zambia reviewed its health systems strengthening efforts and focused its above-site resources to address three key gaps: VL testing and monitoring, community service delivery for linkage to ART, and improved supply chain management. PEPFAR Zambia broadened its programming to provide: system support to reinforce Zambia’s VL monitoring through improvements in laboratory infrastructure and sample transport, expanded clinician training, and promotion of efficient power supply methods; differentiated models of service delivery, including community-based adherence approaches and task-shifting facility-based care to community health workers; and an advanced, community-based system to store and deliver antiretroviral drugs and HIV commodities to neighboring health facilities.

The strategic information technical working group reviewed activities in light of new guidance provided by OGAC to focus on supporting the use of electronic medical records for reporting and informing policy and decision making, as well as supporting the national level health information system and expanding surveillance of key populations for mapping and population size estimation.

5.0 Program Activities for Epidemic Control in Attained and Sustained Locations and Populations

5.1 Targets for attained and sustained locations and populations

The targets for the following two tables should be generated from DATIM, a “COP 17 Target Table Favorites” will be available:

Table 5.1.1 Expected Beneficiary Volume Receiving Minimum Package of Services in Attained and Sustained Support Districts

Sustained Support Volume by Group	Expected result APR 17	Expected result APR 18	Percent increase (decrease)
HIV testing in PMTCT sites	120,116	301,909	151%
HTS (only maintenance ART sites in FY 17)	0	5,974	5,974%
Current on ART	162,723	724,660	345%
OVC (Attained)	237,367	317,939,777	60%
OVC (Sustained)	15,038	0	(28%)
OVC (Centrally-supported)	7,590	0	(100%)

Table 5.1.2 Expected Beneficiary Volume Receiving Minimum Package of Services in Sustained Support Districts

Sustained Support Volume by Group		Expected result APR 17	Expected result APR 18
HIV testing in PMTCT sites	<i>PMTCT_STAT</i>	33,408	23,257
HTS (only sustained ART sites in FY 17)	<i>HTC_TST/HTS_POS</i>	33,886/2,779	88,855/5,689
Current on ART	<i>TX_CURR</i>	51,155	51,155
OVC	<i>(Noted above)</i>		

5.2 Priority population prevention

To reach epidemic control, Zambia will implement a robust program that will ensure attainment of the 90-90-90 goals. The program will focus on core combination prevention activities in priority districts with high HIV burden. In COP 17, efforts were made to better understand the epidemic in order to focus prevention programs geographically and by age and sex. A review of the APR 2016 program data showed that the PEPFAR Zambia program has been reaching more of the older age groups of 25 years and older with prevention services. The data also showed that the linkage to treatment for those who test positive among the younger age groups was sub-optimal.

In COP 17, prevention targets were set to focus on reaching those under 30 and ensuring that linkages to treatment services are optimized across all age bands. Gender-based violence (GBV) interventions will be prioritized in areas with high HIV prevalence including a focus on strengthening GBV prevention and response interventions within OVC programs. The Zambia PEPFAR team also used program and ZAMPHIA data to expand the DREAMS districts beyond the three original districts of Lusaka, Ndola and Chingola, to include high burden districts of Kitwe, Kapiri Mposhi, Kabwe, Livingstone and Chipata. Prevention efforts in DREAMS will continue to focus on layering interventions for vulnerable AGYW ages 10-24 as well as reaching male partners and linking them to services.

In FY18 the Zambia PEPFAR team will jointly plan and implement key population activities with the Ministry of Health of the Republic of Zambia (MoH). The COP 17 Key Populations program will focus on adolescents, female sex workers, men who have sex with men, transgender and prisoners. KP's will be tracked across the continuum of care to ensure that those that test positive are put on treatment, and are virally suppressed within six months of ART initiation. Activities will also focus on strengthening the community-facility linkages, through the use of differentiated models of care. Finally, the Zambia PEPFAR team will work with the MoH to initiate services to provide PreP to KPs.

5.3 Voluntary medical male circumcision

Policy guidance was given in September and November 2016 respectively by the WHO and PEPFAR respectively, on tetanus surveillance, administration of tetanus toxoid containing vaccines, collar compression devices and surgical circumcision. Zambia was in the midst of active surveillance of Prepex when the guidance was issued and implementation was put on hold. Due to programmatic issues related to procurement, storage and capacity building of providers, the active surveillance will continue in April and will consist of administration of two doses of TTCV prior to circumcision. There will be concurrent active surveillance of the Shang Ring devices during the same period. Device use is expected to appeal to a different audience of men and will improve uptake of VMMC services. In view of this, the program will conduct passive surveillance and determine which device to continue offering to males.

Partners in scale up districts are faced with challenges seasonality of demand and inadequate providers to name a few. Partners have resorted to routine service delivery and periodic intensified demand creation and service delivery during mini-campaigns and national campaigns. In addition implementing partners have resorted to extending national campaigns in their areas of operations in an effort to mop up demand.

5.4 Prevention of mother to child transmission

In COP 2017, the PMTCT program will be implemented in attained, scale up and sustained districts, given the global target of ending pediatric HIV by 2020. Direct service delivery activities will be implemented in the attained and scale-up districts with a full package of services that includes demand creation service provision and enhanced retention strategies, whereas in

sustained districts, the same package of service delivery will be implemented with active demand creation.

In centrally supported districts, the USG has had discussions with GRZ on the transition plans and it has been agreed that the PMTCT sites will still be supported with PEPFAR commodities and technical assistance to the provincial medical offices quarterly. It is anticipated that all PMTCT direct service delivery will be transitioned out to the centrally supported districts by end of FY18.

5.5 HIV testing and counseling

The COP 17 prevention program aims at improving HTS with the goal of testing 3,100,179 people with unknown status in PEPFAR scale up districts, and linking 90% of all those who test HIV positive to treatment. The HTS target will be reached primarily through expansion of index partner counseling and testing; strengthening of PITC throughout the facilities and VCT which have high testing yields for both men and women. Testing for clinical populations such as presumptive TB patients, child malnutrition patients and children at under-five clinics will continue as this will capture populations that may be missed by other testing modalities. Community based HTS will continue to be provided, especially in DREAMS districts with a focus on HIV testing for AGYW and male partners. Mobile testing will be conducted for KPs as well as among other populations in targeted geographic areas. In addition, the HTS program will also undertake proficiency testing in order to improve the HTS package. In centrally support sites, PEPFAR Zambia will provide periodic targeted technical assistance to the provincial and district levels and overarching QA/QI.

5.6 Facility and community-based care

Technical assistance will be provided to government regarding provision of quality facility care services. The core package of services provided through community-based care will not differ from scale up and attained districts. However, the extent to which these services are offered will be less as partners phase into only providing technical support to government on provision of quality care services. Facility and community care and support is focused on supporting government to ensure provision of standardized services across implementers in the areas of adherence, referrals to high impact ART services with accompanying tracking of referrals, joint facility and community case management, and provision of PLHIV service package per government guidelines.

5.7 TB/HIV

Tuberculosis (TB) continues to be a major public health concern in Zambia with an estimated prevalence of 482 cases of TB per population of 100,000 people. TB notifications have however continued to go down from 51,179 in 2006 to 41,366 in 2015, implying that Zambia's case identification efforts are only able to detect 57% of all prevalent TB cases. TB is fueled by HIV, with the prevalence of HIV among TB patients averaging 60 percent. PEPFAR aims to screen 90% of all TB patients for HIV and initiating 70% of patients with TB/HIV on HIV treatment.

Zambia has not yet introduced any major policy/guideline changes in the recent past that would have far-reaching impacts on PEPFAR's TB/HIV program. However, Zambia's National TB program is faces myriad challenges that need to be addressed to reduce the incidence of TB and the socio-economic hardships associated with TB/HIV co-morbidity. These include: declining TB notification rates, poor documentation of screening of HIV-infected clients for TB; inadequate infection control measures, lack of a "one stop shop" concept for TB/HIV patients, few informational, educational and communications materials promoting isoniazid preventive therapy (IPT) and consequently inadequate implementation of isoniazid preventive therapy. Further, there is an insufficient number of lab-GeneXpert machines that are not equitably distributed in the provinces, and a lack of a GeneXpert EQA program / system. Private sector organizations including mining companies do not adequately follow national screening and reporting protocols. Power outages throughout the country further exacerbate the issues.

With COP 17 funding, PEPFAR Zambia will increase TB case finding through three key interventions: 1) looking for TB where it is most likely to be found (among the indigent, children, prisoners and other populations living in congregate settings, and people living with HIV/AIDS 2) improving access to TB diagnosis, and 3) human capacity development through continuous mentorship and training. PEPFAR will particularly target the previously metnoend puliations through the following strategies:

- Creating lasting partnerships with correction services to allow PEPFAR implementing partners to screen all prisoners on entry and exiting prisons
- Using community systems for TB contact tracing, and
- Promoting TB awareness in communities.

PEPAR Zambia will improve access to TB diagnosis through:

- Increasing the number of labs with Xpert MTB/RIF testing; Establishing a courier system for sample transportation and tracking;
Training laboratory personnel on GeneXpert to increase use
- Establishing backup power systems (inverter/solar) to all diagnostic centers
- Improving supervision of peripheral labs through timely EQA
- Training laboratory personnel on GeneXpert to increase utilization;
- Improve laboratory infrastructure (work space and ventilation)
- PEPFAR will also strengthen other diagnost capabilities such as the LAM and line prove assays.

PEPFAR will support infection control activities through a hierarchy of environmental controls including minor renovations to improve airflow and patient movement.

To strengthen TB/HIV coordination, PEPFAR Zambia will implement the following activities:

- Providing presumptive TB registers and IEC materials to Health Facilities providing HIV services;

- Strengthening collaboration for TB/HIV activities between the mining, correctional services, faith based, defense, private and public service providers;
- Integrating TB/HIV services in terms of programming and staffing;
- Promoting the concept of a “one stop shop”;
- Orienting/training HIV testing service providers on TB screening referral;
- Providing PMTCT lifelong Treatment (Option B plus);
- Providing an opportunity for TB screening;
- Expanding the 3I’s program (especially scaling-up IPT) based on a situation analysis of IPT needs.

5.8 Adult treatment

Zambia launched Test and Start in December 2016, changing the criteria for initiating HIV-infected clients on HIV treatment based on their CD4 count status and/or the World Health Organization (WHO) clinical staging of HIV disease to treating all HIV-infected clients based only on a positive HIV test. The practical implications of this policy change are that: a) the number of persons on HIV treatment will increase by the end of 2018; b) adherence and retention activities will need to be strengthened because clients initiated on HIV treatment under this criteria will be less likely to adhere to treatment compared with those started on HIV treatment on account of their weak immunologic statuses, and c) case finding activities will need to be strengthened to identify new clients as most clients to be identified under this guideline will be healthier individuals.

PEPFAR Zambia will support the following activities to scale-up Test and Start: a) systematic dissemination of the Test and Start guidelines to all levels of HIV care from national to local level of HIV care, ensuring that all frontline health care workers can implement the new guidelines by April 2017; and b) increasing the supply of HIV treatment services by: i) upgrading select existing PMTCT sites to full HIV treatment sites (through training of healthcare workers in HIV care, orienting health care workers in the new 2016 guidelines; providing job aids and standard operating procedures (SOPs), and recruiting additional HIV clinicians) ; ii) selecting new health facilities that are not currently providing HIV treatment services to start providing HIV treatment services; and iii) undertaking improvements to infrastructure.

PEPFAR Zambia has also received guidance from the Office of the Global AIDS Coordinator (OGAC) to increase coverage of HIV treatment services for males and females in three age bands, representing six different epidemiologic profiles: males and females below the age of 15; males and females between the ages of 15-24; and males and females above the age of 24. As a direct consequence of this directive, PEPFAR Zambia will support four categories of districts based on COP 17 HIV treatment coverage targets set those categories of districts to be achieved by the end of 2018. Consequently, PEPFAR Zambia will support 22 attained, 16 scaled-up to saturation, 33 aggressive scale-up, and 15 sustained districts by the end of FY2018. The set target for the 22 attained districts is HIV treatment coverage of 81 percent and above for both females and males in the following age bands: below the age of 15, between the ages of 15-24, and above the age of 24 in

those 22 districts. The set target for the 16 scale-up to saturation districts is a HIV treatment coverage of 81 percent and above for all people living with HIV/AIDS in those 16 districts. The set target for the 33-aggressive scale-up districts is to substantially increase HIV treatment coverages to as near as possible to 81 percent for all people living with HIV in the 33-aggressive scale-up districts. The set target for the 15 sustained districts is to maintain all HIV infected individuals currently taking HIV treatment on HIV treatment in the 15 sustained districts.

To achieve/reach the district categorizations, PEPFAR Zambia will tailor specific intervention for males and females in the three age bands, ensuring that the correct type and “dosage” of interventions is implemented. In attained and saturation districts, PEPFAR Zambia will focus on rapidly initiating new clients on treatment while strengthening retention activities. Activities to increase number of people living with HIV/AIDS on HIV treatment will include: up-grading selected PMTCT-only sites to full HIV treatment sites (through training of healthcare workers in HIV treatment, orienting health care workers in the new 2016 guidelines; providing job aids and standard operating procedures (SOPs), and recruiting additional pediatric HIV clinicians); c) selecting new health facilities that are not currently providing HIV treatment services to start providing these services, d) recruiting and placing clinicians in selected facilities to support provision of HIV treatment services, and e) undertaking improvements to infrastructure. Activities to link clients to HIV treatment will include the following: a) improving linkage of HIV-infected adults through escorting them to services, deploying data collecting tool with linkage information, and using unique patient identifiers, and b) creating working partnerships with community-based USG-supported implementing partners. Activities to retain HIV-infected adults on treatment will include: a) improving staffing through hiring more staff dedicated to HIV treatment, leveraging community partners to support adherence and retention, and capacity building of health care workers to provide adult HIV treatment services and b) implementation of differentiated models of service delivery such as community-based distribution of HIV drugs, community adherence Groups (CAGs), health shops, automated pharmacies for large volume facilities, multi-month dispensing of ARVs for stable clients, and after hours operations.

5.9 Pediatric treatment

Starting in 2013, Zambia has implemented Test and Start for HIV-infected children below 15. The main challenge around implementing this policy has been linking HIV-infected children to treatment services because of fewer facilities and providers serving the pediatric population. PEPFAR Zambia has also received guidance from the Office of the Global AIDS Coordinator (OGAC) to increase coverage of HIV treatment services for all age bands including children below the age of 15. In the 22 attained districts, PEPFAR Zambia will be expected to reach at least 81% of all male and female children living with HIV AIDS with HIV treatment and substantially increase HIV treatment coverages to as near as possible to 81 percent in the 16 scale-up to saturation and 33 aggressive scale-up districts. PEPFAR Zambia will maintain all children currently taking HIV treatment on HIV treatment in the 15 sustained sites.

To achieve/reach the district categorizations previously mentioned, PEPFAR Zambia will tailor specific intervention for children, ensuring the correct type and “dosage” of interventions is implemented. In attained and saturation districts, PEPFAR Zambia will focus on rapidly initiating new clients on treatment while strengthening retention activities.

Activities to increase number of children on HIV treatment will include: up-grading selected PMTCT-only sites to full HIV treatment sites (thought training of healthcare workers in HIV treatment, orienting health care workers in the new 2016 guidelines; providing job aids and standard operating procedures (SOPs), and recruiting additional pediatric HIV clinicians); c) selecting new health facilities that are not currently providing HIV treatment services to start providing these services, d) recruiting and placing clinicians in selected facilities to support provision of HIV treatment services, and e) undertaking improvements to infrastructure.

Activities to link clients to HIV treatment will include the following: a) improving linkage of HIV-infected children through escorting them to services, deploying data collecting tool with linkage information, and using unique patient identifiers, and b) creating working partnerships with community-based USG-supported implementing partners.

Activities to retain HIV-infected children on treatment will include: a) improving staffing through hiring more staff dedicated to HIV treatment, leveraging community partners to support adherence and retention, and capacity building of health care workers to provide adult HIV treatment services and b) implementation of differentiated models of service delivery such as community-based distribution of HIV drugs, community adherence Groups (CAGs), health shops, automated pharmacies for large volume facilities, multi-month dispensing of ARVs for stable clients, and after hours operations.

5.10 Orphans and vulnerable children

Attained districts have been defined as 81 percent achievement overall in the first and second 90. However, when dis-aggregated by age bands, this success has not been realized among persons from birth to 19 years in all Attain districts. Therefore, in 12the 14 Attain districts with the highest pediatric and adolescent prevalence, the OVC program activities will be the same as in scale-up districts described in Section 4. For the remaining Attain districts, where pediatric and adolescent prevalence is lower and ART coverage is higher across age bands, the OVC program will focus more on supporting government to provide and oversee disease mitigation services. These are also described in Section 4.

DOD will support OVC programs in military bases and areas surrounding the bases. There will be no OVC programs in sustained or centrally-supported districts in FY18.

5.11 Establishing service packages to meet targets in attained and sustained districts

Please see Appendix D: Site Specific Services.

5.12 Commodities

Outlined in Section 4.12.

5.13 Collaboration, integration and monitoring

USG partners are scaling up use of the Electronic Health Record (EHR) system to improve the tracking of patients (from testing through treatment) at facility and community levels, to ensure continuity of care between these different models of service delivery and improve linkage of positives to treatment. The patient-level data in the EHR makes it possible to assess quality of care, with information on timing and type of care delivered to individual patients and individual patient outcomes, which can then be assessed at point of care, facility level and at district/provincial/national levels, to inform overall programming. Use of laboratory information systems (LIS) including the lab component of the EHR, is being scaled up, along with plans to develop a VL repository to help with monitoring patient outcomes and assessing progress of the program by increasing and tracking positives who are virally suppressed. Efforts are also underway to improve efficiencies and coordination by pursuing interoperability of systems, to minimize data entry burden on health workers and improve the ability to view data across systems, allowing for more timely identification of programmatic gaps, in service delivery. These investments are described in detail in Section 6.

6.0 Program Support Necessary to Achieve Sustained Epidemic Control

6.1 Critical systems investments for achieving key programmatic gaps

Analyses conducted by the PEPFAR Zambia team revealed a number of sustainability vulnerabilities and programmatic gaps that must be addressed for the country achieve sustained epidemic control. The Sustainability Index and Dashboard (SID), which was completed through a participatory process with key stakeholders, revealed vulnerabilities in four sustainability elements: Laboratory; Service Delivery; Commodity Security and Supply Chain; and Human Resources for Health (Table 2.3.2). Additionally, as part of the COP16 development process, the team conducted a Systems and Budget Optimization (SBOR) analysis and identified three key programmatic gaps in the clinical cascade that threaten the achievement of 90-90-90 goals. These programmatic gaps were: 1) inadequate community systems to improve treatment adherence and retention; 2) inadequate supply chain infrastructure; and 3) limited viral load capacity and infrastructure. During the COP17 development process the team met (through the interagency HSS TWG and all hands meetings) to validate the findings of these two analyses. The team concluded that the vulnerabilities identified in the SID analysis are still valid. The team; however, found that treatment adherence and retention (approximately 80% across cohorts) is less of a programmatic gap than poor linkages to treatment. Therefore, the three programmatic gaps have been revised to include: 1) poor linkages to treatment; 2) inadequate supply chain; and 3) limited viral load infrastructure. Based on these findings, PEPFAR Zambia has refocused its site

level and above-site systems investments to address these key gaps and facilitate the achievement of attained status in 22 districts by the end of FY 2018.

PEPFAR Zambia proposes to use impact funds that have been included in the COP 2017 budget to address threats to achieving 90-90-90 goals and sustained epidemic control. These resources will be used to fund activities that will complement other systems investments. Specifically, the impact funds will be used to support the implementation of the Test and Start and alternative service delivery models including Community Based ART models. These funds will be applied to high burden geographic areas and/or populations (including key populations) for epidemic control. Resources will be used to expand viral load activities including increasing the number and capacity of viral load platforms, renovation of infrastructure, installation of power back up solutions, and support for human resources and laboratory information systems. The funds will also be used to improve the supply chain by purchasing pre-fabricated regional and localized storage containers as part of a hub-and-spoke system, and vehicles to move commodities between hubs and facilities.

PEPFAR will continue to work closely with and leverage resources of key stakeholders, including the Global Fund (GF) and GRZ that fund 31% and 19% of key HIV commodities, respectively (Table 2.2.2). It should be noted, however, that GF resources are expected to diminish in 2017 and the GRZ contribution has significantly reduced due to depreciation of the local currency. PEPFAR Zambia took this into consideration during the planning process to ensure that efficiencies are maximized across the program and that investments will result in sustained impact in high disease burden locations and populations.

6.2 Critical systems investments for achieving priority policies

Analyses conducted by the PEPFAR Zambia team identified a number of gaps in the treatment and prevention cascade that threaten the implementation of Test and Start and new service delivery models. These include:

- Inadequate human and infrastructure capacity to commence and retain patients on treatment, resulting in sub-optimal quality of care and congestion of health facilities.
- Routine viral load testing is constrained by limited capacity. Though the country has 11 viral load machines, situated in all provincial centers, they are not being used at full capacity and there are challenges with specimen transportation and return of results.
- Inadequate commodity assurance along the continuum of care. HTC, EID and VMMC commodities are particularly vulnerable, in part because of the relatively low contribution of the GRZ towards their procurement (Table 2.2.2).
- Weak linkages between community services and facilities with no clear coordination systems. There is no centralized data system and limited use of modern technology, such as mobile phones, to manage coordination.

Tables 6.2.1 and 6.2.2 provide more detail on the critical systems barriers that must be addressed to allow for successful implementation of Test and Start and new service delivery models. Please note that some these systems barriers overlap with those presented in Section 6.1 above.

7.0 Staffing Plan

[REDACTED]

APPENDIX A SNU Prioritization

Table A.1

	COP15 Prioritization	APR16 Achievement	COP16 Prioritization	Expected Achievement by APR17	COP17 Prioritization	COP17 Target: (APR18)
Chingola District	ScaleUp Agg	109%	ScaleUp Sat	44%	Attained	95%
Chongwe District	ScaleUp Agg	39%	ScaleUp Sat		Attained	95%
Kafue District	ScaleUp Agg	52%	ScaleUp Sat		Attained	95%
Kapiri Mposhi District	ScaleUp Agg	126%	ScaleUp Sat	85%	Attained	95%
Kitwe District	ScaleUp Agg	109%	ScaleUp Sat	92%	Attained	95%
Lusaka Urban District	ScaleUp Agg	88%	ScaleUp Sat		Attained	95%
Mongu District	ScaleUp Agg	49%	ScaleUp Sat	154%	Attained	95%
Mufulira District	ScaleUp Agg	87%	ScaleUp Sat	60%	Attained	95%
Ndola District	ScaleUp Agg	95%	ScaleUp Sat	51%	Attained	95%
Solwezi District	ScaleUp Agg	109%	ScaleUp Sat		Attained	95%
Kabwe District	ScaleUp Sat	103%	ScaleUp Sat	87%	Attained	95%
Livingstone District	ScaleUp Sat	75%	ScaleUp Sat	70%	Attained	95%
Chipata District	Sustained	78%	ScaleUp Sat	72%	Attained	95%
Choma District	Sustained	84%	Sustained		Attained	95%
Kasama District	Sustained	136%	ScaleUp Agg	192%	Attained	95%
Kawambwa District	Sustained	141%	Sustained		Attained	95%
Luanshya District	Sustained	156%	ScaleUp Agg	122%	Attained	95%
Mansa District	Sustained	158%	ScaleUp Agg	79%	Attained	95%
Monze District	Sustained	72%	Sustained	94%	Attained	95%
Namwala District	Sustained	198%	ScaleUp Agg		Attained	95%
Petauke District	Sustained	93%	Sustained		Attained	95%
Siavonga District	Sustained	31%	Sustained	111%	Attained	95%
Chibombo District	ScaleUp Agg	108%	ScaleUp Sat	82%	ScaleUp Sat	95%
Luangwa District	ScaleUp Agg	17%	ScaleUp Sat		ScaleUp Sat	95%
Mazabuka District	ScaleUp Agg	58%	ScaleUp Sat	111%	ScaleUp Sat	95%
Chililabombwe District	ScaleUp Sat	113%	ScaleUp Sat	70%	ScaleUp Sat	95%
Chirundu District	ScaleUp Sat	56%	ScaleUp Sat	56%	ScaleUp Sat	95%
Limulunga District	ScaleUp Sat	27%	ScaleUp Sat	80%	ScaleUp Sat	95%
Kaoma District	Sustained		ScaleUp Agg	98%	ScaleUp Sat	95%
Lundazi District	Sustained	329%	ScaleUp Agg		ScaleUp Sat	95%
Mpulungu District	Sustained	197%	ScaleUp Agg	80%	ScaleUp Sat	95%
Mwandi District	Sustained	103%	ScaleUp Agg	119%	ScaleUp Sat	95%
Nchelenge District	Sustained	117%	ScaleUp Agg	68%	ScaleUp Sat	95%
Nyimba District	Sustained	106%	ScaleUp Agg	120%	ScaleUp Sat	95%
Rufunsa District	Sustained	23%	ScaleUp Agg		ScaleUp Sat	95%

Samfya District	Sustained	127%	ScaleUp Agg	70%	ScaleUp Sat	95%
Senanga District	Sustained	580%	ScaleUp Agg	75%	ScaleUp Sat	95%
Sinazongwe District	Sustained	74%	ScaleUp Agg		ScaleUp Sat	95%
Chembe District	Ctrl Supported	138%	ScaleUp Agg	75%	ScaleUp Agg	95%
Chikankata District	Ctrl Supported	101%	ScaleUp Sat	45%	ScaleUp Agg	95%
Chipili District	Ctrl Supported	216%	ScaleUp Agg	65%	ScaleUp Agg	95%
Chitambo District	Ctrl Supported	144%	ScaleUp Sat		ScaleUp Agg	95%
Kalumbila District	Ctrl Supported		ScaleUp Sat	72%	ScaleUp Agg	95%
Luano District	Ctrl Supported		ScaleUp Sat		ScaleUp Agg	95%
Lunga District	Ctrl Supported		ScaleUp Agg	101%	ScaleUp Agg	95%
Mafinga District	Ctrl Supported		ScaleUp Sat		ScaleUp Agg	95%
Mushindano District	Ctrl Supported		ScaleUp Sat	66%	ScaleUp Agg	95%
Ngabwe District	Ctrl Supported		ScaleUp Sat	77%	ScaleUp Agg	95%
Shiwang'andu District	Ctrl Supported	86%	ScaleUp Agg		ScaleUp Agg	95%
Kalulushi District	ScaleUp Agg	114%	ScaleUp Sat	91%	ScaleUp Agg	95%
Mkushi District	ScaleUp Agg	121%	ScaleUp Sat	43%	ScaleUp Agg	95%
Shibuyunji District	ScaleUp Agg	51%	ScaleUp Sat	0%	ScaleUp Agg	95%
Chilanga District	ScaleUp Sat	37%	ScaleUp Sat	79%	ScaleUp Agg	95%
Chisamba District	ScaleUp Sat		ScaleUp Sat	82%	ScaleUp Agg	95%
Mumbwa District	ScaleUp Sat		ScaleUp Sat		ScaleUp Agg	95%
Serenje District	ScaleUp Sat	108%	ScaleUp Sat		ScaleUp Agg	95%
Chinsali District	Sustained	146%	ScaleUp Agg	84%	ScaleUp Agg	95%
Isoka District	Sustained	133%	ScaleUp Sat	93%	ScaleUp Agg	95%
Kaputa District	Sustained	91%	ScaleUp Agg		ScaleUp Agg	95%
Luampa District	Sustained		ScaleUp Agg	11%	ScaleUp Agg	95%
Lukulu District	Sustained	594%	ScaleUp Agg	136%	ScaleUp Agg	95%
Luwingu District	Sustained	115%	ScaleUp Agg	114%	ScaleUp Agg	95%
Mbala District	Sustained	110%	ScaleUp Agg	85%	ScaleUp Agg	95%
Mitete District	Sustained		ScaleUp Agg	105%	ScaleUp Agg	95%
Mpika District	Sustained	67%	ScaleUp Agg	129%	ScaleUp Agg	95%
Mpongwe District	Sustained	216%	ScaleUp Agg	55%	ScaleUp Agg	95%
Mulobezi District	Sustained		ScaleUp Agg	84%	ScaleUp Agg	95%
Nakonde District	Sustained	117%	ScaleUp Agg	105%	ScaleUp Agg	95%
Nkeyema District	Sustained		ScaleUp Agg		ScaleUp Agg	95%
Sesheke District	Sustained	463%	ScaleUp Agg	119%	ScaleUp Agg	95%
Sioma District	Sustained		ScaleUp Agg	210%	ScaleUp Agg	95%
Mwansabombwe District	Ctrl Supported	190%	Sustained		Sustained	95%
Pemba District	Ctrl Supported	114%	Sustained		Sustained	95%
Vubwi District	Ctrl Supported		Sustained	39%	Sustained	95%
Chadiza District	Sustained	91%	Sustained		Sustained	95%
Itezhi-tezhi District	Sustained	74%	Sustained		Sustained	95%

Kalabo District	Sustained	55%	Sustained		Sustained	95%
Kalomo District	Sustained	242%	Sustained	91%	Sustained	95%
Katete District	Sustained	185%	Sustained		Sustained	95%
Mambwe District	Sustained	110%	Sustained	92%	Sustained	95%
Mporokoso District	Sustained	207%	Sustained	103%	Sustained	95%
Nalolo District	Sustained		Sustained	91%	Sustained	95%
Nsama District	Sustained		Sustained		Sustained	95%
Sikongo District	Sustained		Sustained	141%	Sustained	95%
Sinda District	Sustained	63%	Sustained	153%	Sustained	95%
Zimba District	Sustained	90%	Sustained	74%	Sustained	95%
Chama District	Ctrl Supported	149%	Ctrl Supported	68%	Ctrl Supported	95%
Chavuma District	Ctrl Supported	67%	Ctrl Supported	65%	Ctrl Supported	95%
Chiengi District	Ctrl Supported	166%	Ctrl Supported	28%	Ctrl Supported	95%
Chilubi District	Ctrl Supported	59%	Ctrl Supported	77%	Ctrl Supported	95%
Gwembe District	Ctrl Supported	1481%	Ctrl Supported	126%	Ctrl Supported	95%
Ikeleng'i District	Ctrl Supported	57%	Ctrl Supported	121%	Ctrl Supported	95%
Kabompo District	Ctrl Supported	96%	Ctrl Supported	146%	Ctrl Supported	95%
Kasempa District	Ctrl Supported	139%	Ctrl Supported		Ctrl Supported	95%
Kazungula District	Ctrl Supported	260%	Ctrl Supported	115%	Ctrl Supported	95%
Lufwanyama District	Ctrl Supported	58%	Ctrl Supported	81%	Ctrl Supported	95%
Manyinga District	Ctrl Supported		Ctrl Supported	27%	Ctrl Supported	95%
Masaiti District	Ctrl Supported	56%	Ctrl Supported	81%	Ctrl Supported	95%
Milenge District	Ctrl Supported	121%	Ctrl Supported	93%	Ctrl Supported	95%
Mufumbwe District	Ctrl Supported	113%	Ctrl Supported	246%	Ctrl Supported	95%
Mungwi District	Ctrl Supported	94%	Ctrl Supported		Ctrl Supported	95%
Mwense District	Ctrl Supported	104%	Ctrl Supported	82%	Ctrl Supported	95%
Mwinilunga District	Ctrl Supported	97%	Ctrl Supported		Ctrl Supported	95%
Shangombo District	Ctrl Supported		Ctrl Supported		Ctrl Supported	95%
Zambezi District	Ctrl Supported	75%	Ctrl Supported	81%	Ctrl Supported	95%

Table A.2 ART Targets by Prioritization for Epidemic Control

Prioritization Area	Total PLHIV	Expected current on ART (APR FY 17)	Additional patients required for 80% ART coverage	Target current on ART (APR FY18) TX_CURR	Newly initiated (APR FY 18) TX_NEW	ART Coverage (APR 18)
Attained	737,938	549,021	41,329	673,432	198,089	91%
Scale-Up Saturation	113,297	97,957	0	104,170	19,820	92%
Scale-Up Aggressive	183,467	72,582	74,192	96,169	38,987	52%
Sustained	91,823	51,155	22,303	51,228	7331	56%
Central Support	67,286	0	0	0	0	0
Military		32,814		45,968	4,515	
Commodities (if not included in previous categories)						
Total	1,193,811	803,529	130,505	970,967	268,742	77%

APPENDIX B: Planned Spending in 2017

Table B.1.1 Total Funding Level

Applied Pipeline	New Funding	Total Spend
\$US 102,556,073	\$US 301,344,312	\$ US403,900,385

Table B.1.2 Resource Allocation by PEPFAR Budget Code (new funds only)

PEPFAR Budget Code	Budget Code Description	Amount Allocated
MTCT	Mother to Child Transmission	9,973,765
HVAB	Abstinence/Be Faithful Prevention	50,908
HVOP	Other Sexual Prevention	9,148,764
IDUP	Injecting and Non-Injecting Drug Use	-
HMBL	Blood Safety	-
HMIN	Injection Safety	-
CIRC	Male Circumcision	5,696,962
HVCT	Counseling and Testing	13,978,549
HBHC	Adult Care and Support	11,895,060
PDCS	Pediatric Care and Support	9,196,737
HKID	Orphans and Vulnerable Children	25,132,256
HTXS	Adult Treatment	94,850,408
HTXD	ARV Drugs	64,316,504
PDTX	Pediatric Treatment	13,356,674
HVTB	TB/HIV Care	7,995,577
HLAB	Lab	5,077,934
HVSI	Strategic Information	8,448,088
OHSS	Health Systems Strengthening	7,541,834
HVMS	Management and Operations	14,684,292
TOTAL		301,344,312

B.2 Resource Projections

PEPFAR Zambia engaged in thoughtful and deliberate discussions to determine the most efficient and effective use of the COP17 budget. Following a technical priority-setting process which involved getting stakeholder feedback, technical working groups (prevention, community services, clinical services, health systems strengthening, and strategic information) worked together during the targeting and budgeting processes to ensure strong coordination between program areas and partners.

Based on expenditure analysis data (target-based budgets generated by the data pack and PBAC) and proposed activities, the TWGs together came up with budgets for each implementing

mechanism. In some cases costing data was adjusted. For example, in the case of new partners where costs would reduce, and for key populations, where costs were very high due to a very low number of people reached.

APPENDIX C

See attachment – appendix C “Tables for Section 6.”

Table 6.1.1 Key Programmatic Gap #1: Poor linkage to treatment

Key Systems Barrier	Outcomes expected after 3 years of investment	Year One (COP/ ROP16) Annual Benchmark	Year Two (COP/ ROP17) Annual Benchmark	Relevant Indicator or Measurement Tool	Proposed COP/ROP 2017 Activities	Budget Code(s)	Activity Budget Amount	Implementing Mechanism	Relevant SID Element and Score (if applicable)
	1. Multi-pronged community C&T methods available in all PEPFAR priority districts 2. 25% eligible patients receiving ART at the community level	900 community Health Workers trained by September, 2017; 40 HCWs, 18 pharmacists and medical practitioners subcontracted. Training, mentoring and support supervision (23 sessions)	1000 community Health workers trained by September, 2018; 35 HCWs, 27 pharmacists and medical practitioners subcontracted. Training, mentoring and support supervision (23 sessions)	Number of community health workers, HCWs, pharmacists trained. Number of NHC and CBOs provided with capacity building.	1. Train community Health Workers who promote ART adherence, PMTCT services and acceptance of HIV counselling and testing at community 2. Build the capacity of 20 community structures (Neighborhood Health Committees and CBOs) through training in developing, implementing and monitoring community action plans 3. Subcontracting of Private pharmacies/private medical practitioners, Training, mentoring and support supervision	OHSS	\$1,416,718	17425 (SBH); 10207 (Twinning); TBD (HRH)	Service Delivery (4.72); Human Resources for Health (6.17)
		10 Health facilities showing positive change in FACT community scorecard	13 Health facilities showing positive change in FACT community scorecard	FACT Community Score card	Strengthen community-facility dialogue and linkages by supporting quarterly meetings between facilities and communities to facilitate roll out of differentiated models of care and ultimately improve adherence and retention	OHSS	\$99,220	17449 (FACT)	Service Delivery (4.72)
		Recruit 40 linkage coordinators and community based volunteers in the 4 Provinces	Recruit 40 linkage coordinators and community based volunteers in the 4 Provinces	Number of linkage coordinators and community based volunteers recruited	Increase support for linkage in communities	HTXS	\$7,636,740	10225 (EPO), 10227 (WPHO), 14420 (LPHO), 14421 (SPHO), 13580 (CIDRZ), 17497(SMACHT), 18327 (FBO), 18323 (BroadReach), 18528 (IntraHealth), 17413 (SAFE), 17399 (DISCOVER),	Service Delivery (4.72), Human Resources for Health (6.17)

<p>1. Inadequate Community Health Providers</p>	<p>1. 10 scale up PEPFAR priority districts are fully staffed with CHAs per the government's Staffing Establishment (staffing plan). 2. All subnational MOH health offices (District and Provincial) have at least one staff with demonstrated competency in quality improvement and using data for decision making</p>	<p>400 CHAs graduated and 50 Community Health Assistants deployed to target districts. 50% of supported provinces with QI committees that have successfully implemented QI plans. 50% of supported districts with QI committees that have successfully implemented QI plans.</p>	<p>400 CHAs graduate and 150 Community Health Assistants deployed to target districts. 90% of supported provinces with QI committees that have successfully implemented QI plans. 90% of supported districts with QI committees that have successfully implemented QI plans.</p>	<p>Number of Community Health Assistants who graduate and are deployed to target districts. Proportion of supported provinces and districts with QI committees that have successfully implemented QI plans.</p>	<p>1. Support training, recruitment, deployment and supervision community health assistants to facilitate roll out of community ART services in 10 scale-up districts. 2. Support Quality Improvement Unit at MOH to employ quality improvement principles and develop quality improvement competencies at the subnational level to improve ART adherence and overall health service delivery</p>	<p>OHSS</p>	<p>\$496,100</p>	<p>17425 (SBH), 17513 (MOH), 18322 (ICAP Q/CIP)</p>	<p>Human Resources for Health (6.17)</p>
						<p>HTXS</p>	<p>\$1,645,500</p>	<p>17398 (DISCOVER), 17413 (SAFE)</p>	<p>Human Resources for Health (6.17)</p>
<p>2. Inadequate data availability for high quality clinical patient care and program management</p>	<p>1. Smart Care installed in 1,500 PEPFAR supported ART facilities 2. All HIV patients have established EMR profiles and SmartCards 3. National data warehouse established to link individual health information systems</p>	<p>1. Increasing by 25%, the number of ART facilities have Smart Care installed (currently installed in 50) 2. Increasing by 25%, the number of HIV patients with established EMR profiles and SmartCards</p>	<p>1. Increasing by 40% # of ART facilities Smart Care installed and operating in eFirst mode (data entry at point of care) 2. Increasing by 40% # of HIV patients with established EMR profiles and SmartCards</p>	<p>1. Number of facilities with SmartCare 2. Number of patients with SmartCards</p>	<p>1. Install Smart Care in all ART facilities 2. Ensure that all HIV patients have established EMR profiles and SmartCards 3. Establish national data warehouse to link individual health information systems</p>	<p>HVSI</p>	<p>\$3,015,000</p>	<p>10225 (EPHO), 10227 (WPHO), 14420 (LPHO), 14421 (SPHO), 13580 (CIDRZ), 17497(SMAGHT), 18327 (FBO), 18323 (BroadReach), 18528 (IntraHealth), 17399 (DISCOVER), 17413 (SAFE)</p>	<p>Performance Data (6.96)</p>
						<p>HTXS</p>	<p>\$70,000</p>	<p>14507 (FHI)</p>	<p>Performance Data (6.96), Service Delivery (4.72)</p>
<p>TOTAL</p>							<p>\$14,379,278</p>		

Table 6.1.2 Key Programmatic Gap #2: Insufficient Supply Chain

Key Systems Barrier	Outcomes expected after 3 years of investment	Year One (COP/ ROP16) Annual Benchmark	Year Two (COP/ ROP17) Annual Benchmark	Relevant Indicator or Measurement Tool	Proposed COP/ROP 2017 Activities	Budget Code(s)	Activity Budget Amount	Implementing Mechanism	Relevant SID Element and Score (if applicable)
Suboptimal/Strengthen performance in supply chain logistics management and distribution	Improved coordination, leadership and efficiency of supply chain systems.	Assess and map all donor supported supply chain projects.	Supply Chain TWG re-established and functioning	# of SCM TWG meetings per year	Improve coordination of all stakeholders working to support the supply chain and logistics system in Zambia.	OHSS	\$100,000	18159 (GHSC)	Commodity Security and Supply Chain(5.69)
	Supervisors have end-to-end visibility of supply and use demand data to make informed supply chain decisions and take effective remedial actions.	Conduct 96 supervisory visits and convene 27 supervisory trainings on supply chain system management	Conduct 96 supervisory visits and convene 27 supervisory trainings on supply chain system management	# of errors in commodity orders reduced by 10% per year.	Conduct Technical Supportive Supervisory (TSS) visits to provincial and district offices to access logistics system performance and troubleshoot data quality issues and trouble shoot issues at high volume clinics; Train provincial and district leadership with logistics systems skills and develop coordinated action plans	OHSS	\$943,289		
	Transport network optimization completed and operationalized, leading to increased efficiency in commodity distribution.	Transport network optimization assessment completed.	New routes and delivery modalities operationalized	% reduction in delivery times	Optimize transportation and distribution systems	OHSS	\$145,894		

	GRZ fully takes ownership and leadership in planning and conducting forecast and quantification meetings	GRZ fully engaged in planning and developing forecasting and quantification meetings	GRZ leading forecasting and quantification semi-annual meetings	Accuracy of forecasts improved over previous year by 10%	Increase forecast accuracy for improved supply planning through improved data use and F&Q meetings.	OHSS	\$574,648		
	Permanent structures constructed, equipped and operationalised	Temporary storage solutions secured and operational	Temporary storage solutions secured and operational	# of warehouses rented by PSM	In-country storage and distribution	OHSS	\$1,772,047		
		10 local vendors trained in good manufacturing practice (GMP) and good procurement practices (GPP).	10 local vendors trained in good manufacturing practice (GMP) and good procurement practices (GPP).	Number of local vendors eligible for USG funded procurements	Monitor and provide technical support to local vendors and manufacturers to increase the number eligible for USG funded procurement.				
2. Facility level electronic stock management system is not fully rolled out	eLMIS installed in 1500 PEPFAR supported ART facilities (now in 258 facilities)	eLMIS rolled to 350 health facilities	eLMIS rolled to 1000 health facilities	Number of facilities using eLMIS	Strengthen data quality within the eLMIS system through roll out of eLMIS to 300 facilities	HTXS	\$3,583,783	18160 (AIDSFree)	Commodity Security and Supply Chain(5.69)
	1. Ninety percent of facilities capture data in eLMIS system 2. Integrated data repository for logistics reports created and interoperable with existing systems	600 facility staff members trained in eLMIS. Supervisors trained in using data from eLMIS to make key and informed supply chain decisions.	1200 facility staff members trained in eLMIS. Supervisors trained in using data from eLMIS to make key and informed supply chain decisions.	Number of facility staff members trained in eLMIS. Number of supervisors trained in using data from eLMIS to make key and informed supply chain decisions.	1. Training of 600 facility staff members in eLMIS 2. Training of supervisors in using data from eLMIS system to make key and informed supply chain decisions for commodity forecasting and quantification at facility, district, provincial and national level		OHSS	\$500,000	

	eLMIS rolled out to ZDF service delivery points	1. eLMIS installed in 20 ZDF delivery points 2. 20 ZDF staff trained in eLMIS	1. eLMIS installed in 12 ZDF delivery points 2. 12 ZDF staff trained in eLMIS	1. Number of delivery points in which eLMIS installed. 2. Number staff trained in eLMIS	1. Install eLMIS in 32 ZDF service delivery points 2. Train laboratory and pharmacy assistants from the 32 ZDF units in eLMIS	OHSS	\$163,713	10984 (PCI)	Commodity Security and Supply Chain(5.69)
		10 storage in a box units procured and installed.	10 storage in a box units procured and installed.	Number of storage in a box units procured and installed.	Procure and install 20 storage in a box units at selected facilities with inadequate storage space in priority districts				Commodity Security and Supply Chain(5.69)
		5 warehouse in a box (WIB) units procured and insatalled in selected priority districts.	Warehousing equipment procured and installed in 5 WIBs	Site inspection reports that verify that WIBs have been installed, fully equipped and operational.	Procure and install 10 WIB in selected priority districts.				

3. Insufficient storage space, transport and distribution capacity at localized levels; and training of staff	Ninety percent of facilities have adequate storage space to meet storage requirements. More efficient dispensing of medicines to ART clients.	Assessment tools produced and pre-tested	Assessment complete and report submitted.	Assessment tools Assessment report	Conduct an assessment to understand storage capacity requirements at the district and health facility level	HTXS	Existing COP 16 funds will be utilized as these activities are part of the COP16 Impact Fund proposal	18159 (GHSC)				
		40 Central medical stores staff trained .	40 Central medical stores staff trained.	Number of staff trained in warehouse management, procurement, forecasting and quantification.	Strengthen operational efficiency and supply chain management capacity at the central medical stores through training of staff in warehouse management, procurement, forecasting and quantification.							
		40 MOH staff trained .	40 MOH staff trained.	Number of staff trained in warehouse management, procurement, forecasting and quantification.	Strengthen in-country logistics and supply chain systems to ensure un-interrupted supply of key health commodities to health facilities through training of staff in warehouse management, procurement, forecasting and quantification							
		10 delivery vehicles procured.	10 delivery vehicles procured.	Number of delivery vehicles procured.	Procure 13 delivery vehicles to support last mile distribution of Health commodities from regional hub to service delivery points.							
		1 warehouse constructed in Copperbelt by end of September 2017	=	Completed warehouse in Luanshya	Improve infrastructure to allow for adequate and appropriate storage space					OHSS	\$0 11627 (DAO)	Commodity Security and Supply Chain(5.69)
			Innovative technological innovations implemented (e.g. pharmacy dispensing units, prepacking technology and predispensed medicine collection solutions.)		Implement Centralized Chronic Medicines Dispensing and Distribution.					HTXS	\$500,000	18304 (EQUIP), 17413 (SAFE)

4. Last mile distribution network is still incomplete	Last mile distribution network completed; No stock outs of any HIV commodities at any facility Improved stock availability at service delivery points.	Transport network optimization assessment completed.	Transport network optimization strategy implemented.	Assessment report. Documented evidence of implementation of Transport network optimization strategy (Procurement TWG meeting minutes)	Support implementation of Transport network optimization strategy	OHSS	\$54,571		10985 Commodity Security and Supply Chain(5.69)
[Add rows as needed]									
TOTAL							\$8,337,945		

Table 6.1.3 Key Programmatic Gap #3: Viral Load Infrastructure

Key Systems Barrier	Outcomes expected after 3 years of investment	Year One (COP/ ROP16) Annual Benchmark	Year Two (COP/ ROP17) Annual Benchmark	Relevant Indicator or Measurement Tool	Proposed COP/ROP 2017 Activities	Budget Code(s)	Activity Budget Amount	Implementing Mechanism	Relevant SID Element and Score (if applicable)
1. Inadequate number and use of VL machines	1. 80% VL machines are utilized at maximum capacity 2. 90% adult PLHIV on treatment are receiving annual VL test, and all pediatric receiving VL tests every 6 months	95% of HIV patients on ART have at least one viral load result per year	75% of HIV patients on ART have at least one viral load result per year	85% of HIV patients on ART have at least one viral load result per year	Improve Lab-Clinical interface, strengthen and address all gaps within the viral load testing spectrum	HLAB	\$217,208	10984 (PCI); TBD (incountry lab); EQUIP; APHL	Laboratory (4.86)
						OHSS	\$19,844	10984 (PCI)	Laboratory (4.86)
		1. 67 Qualified Laboratory staff in VL machine use and maintenance by Sept 2017 2. SPOs available at all laboratories by September 2017. 3. On site Quarterly Mentorship provided by September 2017	1. 67 Qualified Laboratory staff in VL machine use and maintenance by Sept 2018 2. Up dated SPOs available at all laboratories by September 2018. 3. On site Quarterly Mentorship provided by September 2018	1. Number Qualified Laboratory staff in VL machine use and maintenance 2. Number sites with updated Laboratory SOPs 3. Number sites received on site Quarterly Mentorship	1. Train laboratory staff in viral load equipment use and maintenance 2. Provide standard operating procedures (SOPs) to all supported laboratories 3. Quarterly technical support and on site mentorship	HLAB	\$540,428	14507 (FHI); 10207 (Twinning); 10984 (PCI); 17479 (APHL)	Laboratory (4.86)
						OHSS	\$454,768	14507 (FHI), 17479 (APHL)	Laboratory (4.86)
		Improved infrastructure at 5 VL and 5 district hub labs	Improved infrastructure at 5 VL and 5 district hub labs	Number of VL and district hub labs with improved infrastructure	Improve laboratory infrastructure at Maina Soko and 6 other VL labs to serve priority districts	HTXS	\$2,100,000	11627 (DAO), 17479 (APHL), 18531 (SCS)	Laboratory (4.86)
		Assessment of 4 labs completed to inform requirements for set up of LIS with dashboard capabilities	LIS with dashboard capabilities set up and running in 10 VL labs	Assessment Report. Site visit reports.	Establish viral load data warehouse (1)	HTXS	\$500,000	18304 (EQUIP)	Laboratory (4.86)
		QA and support provided to 20 labs by September 2017	QA and support provided to 20 labs by September 2018	Number Labs that received QA and support	QA, and support to Laboratories	HLAB	\$593,649	10984 (PCI)	Laboratory (4.86)

		<p>1. Backup reagents procured when need arises</p> <p>2. Trained HCWs at facilities where samples are collected and processed</p>	<p>1. 7 VL equipment procured/reagent rental and placed where the capacity is reached.</p> <p>2. Backup reagents procured when need arises</p> <p>3. Trained HCWs at facilities where samples are collected and processed</p>	<p>1. 7 VL equipment procured/reagent rental and placed where the capacity is reached.</p> <p>2. Backup reagents procured when need arises</p> <p>3. Trained HCWs at facilities where samples are collected and processed</p>	<p>1. Reagent rental</p> <p>2. Training HCWs</p> <p>3. Cold chain support</p>	<p>HLAB</p>	<p>\$2,782,593</p>	<p>18159 (GHSC), 17413 (SAFE), 17399 (DISCOVER), 17513 (MOH), 10236 (UTH)</p>	Laboratory (4.86)
						<p>HTXS</p>	<p>\$6,095,446</p>		
1. VL results received within policy timelines (specific to each lab's standard operating procedures (SOP))	20 ZDF staff able to collect , package, transport and maintain tracking for DBS specimens by September 2017	20 ZDF staff able to collect , package, transport and maintain tracking for DBS specimens by September 2018	Number sites able to collect , package, transport and maintain tracking for DBS specimens	Train ZDF staff in collection, packaging and transportation of DBS specimens and maintaining a separate tracking system for VL shipment documentation		<p>HLAB</p>	<p>\$57,922</p>	<p>10984 (PCI), 10225 (EPHO), 10227 (WPHO), 14420 (LPHO), 14421 (SPHO)</p>	Laboratory (4.86)
	PCR DBS courier system incorporated into 20 military and other GRZ VL programs by September 2017	PCR DBS courier system incorporated into 20 military and other GRZ VL programs by September 2017	Number sites with effective courier system	Integrate lessons from the PCR DBS courier system and the "Mwana" text message technology and incorporate into military and other GRZ VL programs to enable the efficient transportation of specimens and reduced turnaround time		<p>OHSS</p>	<p>\$317,504</p>	<p>10984 (PCI), 10225 (EPHO), 10227 (WPHO), 14420 (LPHO), 14421 (SPHO)</p>	Laboratory (4.86)

2. Weak sample transport systems

<p>1. Procurement of cooler boxes, invertors, biohazard bags, batteries, solar panels, freezers for priority districts; including 54 ZDF sites</p> <p>2. Establishment of 5 district hubs for strengthening EID and viral load testing</p> <p>3. Introduction of Courier System for delivery of DBS and viral load samples to referral centers to improve viral load testing and EID</p> <p>4. Expanding Program Mwana SMS initiative to 5 VL labs</p>	<p>1. Procurement of cooler boxes, invertors, biohazard bags, batteries, solar panels, freezers for priority districts; including 54 ZDF sites</p> <p>2. Establishment of 5 district hubs for strengthening EID and viral load testing</p> <p>3. Introduction of Courier System for delivery of DBS and viral load samples to referral centers to improve viral load testing and EID</p> <p>4. Expanding Program Mwana SMS initiative to 5 VL labs</p>	<p>1. Number of sample transportation bikes, cooler boxes, invertors, biohazard bags, batteries, solar panels, freezers, helmets</p> <p>2. Number of hubs established</p> <p>3. Number of new sites enrolled into project mwana system</p>	<p>1. Procurement of motorbikes, cooler boxes, invertors, biohazard bags, batteries, solar panels, freezers, helmets</p> <p>2. Establish 3 hubs for strengthening EID and viral load testing</p> <p>3. Introduce Courier System for delivery of DBS and viral load samples to referral centers to improve viral load testing and EID</p> <p>4. Strengthen Program Mwana SMS initiative</p>	HLAB	\$645,605	<p>14507 (FHI), 10236 (UTH), 17479 (APHL), 17413 (SAFE), 17399 (DISCOVER), 10224 (NAC), 10225 (EPHO), 14420 (LPHO), 14421 (SPHO), CIDRZ-TBD, FBO-TBD, 11627 (DAO)</p>	<p>Laboratory (4.86)</p>
				HTXS	\$5,853,558		

Insufficient number of laboratory technicians	An additional 2 lab techs are seconded to each lab with a VL machine in PEPFAR priority provinces	14 dedicated laboratory staff recruited for 7 additional VL labs	6 additional laboratory staff recruited for VL labs (with increasing number of machines and VL labs; and running of 2nd shifts)	Number of laboratory staff recruited for VL labs	Recruitment of 20 Lab staff	HTXS	\$600,000	14507 (FHI), 10225 (EPHO), 10227 (WPHO), 14420 (LPHO), 14421 (SPHO), CIDR2 TBD, 17413 (SAFE)/17399 (DISCOVER)	Human Resources for Health (6.17)
		Standardized lab request forms, SOPs for Blood collection, processing and testing and job aids printed.	Print standardized forms, SOPs and job aids and distribute to all VL labs and health facilities in priority districts	Number of standardized forms, SOPs and job aids printed	Finalize and print standardized forms, SOPs and job aids	HTXS	\$200,000	10236 (UTH)	Human Resources for Health (6.17)
		12 provincial laboratory staff centrally trained	Refresher training for 12 provincial laboratory staff	Number of lab staff trained	Central lab staff training (11)	HTXS	\$100,000	10236 (UTH)	Human Resources for Health (6.17)
		25 health workers trained per priority district in collection, processing and shipping of VL samples	25 health workers trained per priority district in collection, processing and shipping of VL samples	Number of health workers trained in collection, processing and shipping of VL samples	Train staff in collection, processing and shipping	HTXS	\$1,150,000	14420 (LPHO), 14421 (SPHO), 10225 (EPHO), 10227 (WPHO), CIDR2 TBD, SAFE, EQUIP	Human Resources for Health (6.17)
Inconsistent power supply	1. All PEPFAR supported VL machines have uninterrupted power supply during hours of operation 2. All PEPFAR supported EMR have uninterrupted power supply during hours of operation	Alternative/backup power solutions implemented at 7 VL and district hub labs	Alternative/backup power solutions implemented at 10 VL and district hub labs	Number Central Lab with improved power supply	Power improvements (central labs and facility labs) – 7 solar panel systems procurement and installation, 7 inverters, 7 batteries and 7 UPS units	HLAB	\$115,844	10984 (PCI); 14507 (FHI)	Laboratory (4.86)
						HTXS	\$2,067,200	17413 (SAFE), 11627 (DAO), 17479 (APHL)	Laboratory (4.86)
						OHSS	\$297,660	14420 (LPHO), 14421 (SPHO), 10225 (EPHO), 10227 (WPHO)	Performance Data (6.96), Service Delivery (4.72)
<i>[Add rows as needed]</i>									
TOTAL							\$24,709,230		

Table 6.2.1: Test and START

Key Systems Barrier	Outcomes expected after 3 years of investment	Year One (COP/ ROP16) Annual Benchmark	Year Two (COP/ ROP17) Annual Benchmark	Relevant Indicator or Measurement Tool	Proposed COP/ROP 2017 Activities	Budget Code(s)	Activity Budget Amount	Implementing Mechanism	Relevant SID Element and Score (if applicable)
1. Insufficient resources for commodities	National needs for commodity procurement met through commitments from GRZ and other stakeholders	USG contributes 2% to national need.	USG contributes 2% to national need.	USG procurement documentation. Forecasting and Quantification Reports. National Budget (Yellow Book)	Procure high energy protein supplements (HEPS) for use in therapeutic feeding for malnourished adult ART clients and OVC	OHSS	\$19,844	10984 (PCI)	Commodity Security and Supply Chain (5.69)
		USG contributes 85% to national need.	USG contributes 65% to national need.	USG procurement documentation. Forecasting and Quantification Reports. National Budget (Yellow Book)	Procure HIV test kits	HVCT	\$7,843,600	18161 (GHSC-RTK)	Commodity Security and Supply Chain (5.69)
		USG contributes 66% to national need.	USG contributes 46% to national need.	USG procurement documentation. Forecasting and Quantification Reports. National Budget (Yellow Book)	1. Procurement ARVs to meet a portion of the GRZ national target through strategic sourcing 2. Procure ARV drugs including ARV drugs for PMTCT-B+, ACTs DREAMS and, test and start initiatives in support of the GRZ National ART program	HTXD	\$66,450,447	18159 (GHSC)	Commodity Security and Supply Chain (5.69)
		USG contributes 94% to national need.	USG contributes 94% to national need.	USG procurement documentation. Forecasting and Quantification Reports. National Budget (Yellow Book)	Procure opportunistic infections drug, with special emphasis on procurement Cotrimoxazole (both adult and pediatric formulations) and support community ART services	HBHC	\$5,795,333	18159 (GHSC)	Commodity Security and Supply Chain (5.69)
		75 % of facilities reporting no stock outs of viral load and CD4 reagents	90 % of facilities reporting no stock outs of viral load and CD4 reagents	Stock Inventory Reports at central and decentralized level	Ensure that viral load and CD4 reagents are in sufficient supply and available at health facilities through an efficient and accountable logistics and supply chain system	HTXS	\$20,792,013	18159 (GHSC)	Commodity Security and Supply Chain (5.69)
						PDCS	\$181,881	18159 (GHSC)	Commodity Security and Supply Chain (5.69)
						PDTX	\$2,772,268	18159 (GHSC)	Commodity Security and Supply Chain (5.69)
USG Manage and coordinate all national forecasting and quantification meetings for commodity security	Increased GRZ engagement in managing and coordinating national forecasting and quantification meetings for commodity security	Number of national forecasting and quantification meetings attended	Support for forecasting and quantification for commodity security	OHSS	\$49,610	13787 (CHAZ)	Commodity Security and Supply Chain (5.69)		
2. Commodity Storage and Distribution	See Table 6.1.2								
TOTAL							\$103,904,996		

Table 6.2.2: New and efficient service delivery models

Key Systems Barrier	Outcomes expected after 3 years of investment	Year One (COP/ ROP16) Annual Benchmark	Year Two (COP/ ROP17) Annual Benchmark	Relevant Indicator or Measurement Tool	Proposed COP/ROP 2017 Activities	Budget Code(s)	Activity Budget Amount	Implementing Mechanism	Relevant SID Element and Score (if applicable)	
1. Limited HRH (including Community Health Assistants)	All PEPFAR priority districts are adequately staffed with CHAs per the government's Staffing Establishment (staffing plan). Increased productivity and quality of service in supported districts				Refer to Table 6.1.1					
2. Limited viral load knowledge and capacity	1. All VL machines are utilized at maximum capacity (50,000-90,000) tests per years per machine depending on machine type 2. All adults PLHIV on treatment are receiving annual VL test, and all pediatric receiving VL tests every 6 months				Refer to Table 6.1.3					
3. Limited EMR Coverage	All HIV patients have established EMR profiles and SmartCards				Refer to Table 6.1.1					
<i>[Add rows as needed]</i>										
TOTAL								50		

Table 6.3 Other Proposed Systems Investments									
Activity	For each activity, indicate which of the following the activity addresses: 1) First 90; 2) Second 90; 3) Third 90; or 4) Sustained Epi Control. (Teams may select more than one.)	Outcomes expected after 3 years of investment	Year One (COP/ROP16) Annual Benchmark	Year Two (COP/ROP17) Annual Benchmark	Relevant Indicator or Measurement Tool	Budget Code(s)	Activity Budget Amount	Associated Implementing Mechanism ID	Relevant SID Element and Score (if applicable)
Finance									
Support finalization, dissemination and implementation the National Healthcare Financing Strategy, and build capacity in public financial management to improve accountability	1,2,3,4	National HCF Strategy completed and increased accountability in use of public resources; expenditure reports made available to public	Costed NHCFS and Implementation Plan completed and disseminated. Budget execution in supported PHOs and DHOs at 70%	Documented implementation of NHCFS. Budget execution in supported PHOs and DHOs at 80%	Approved National HCF Strategy and Implementation Plan. National HCF TWG Meeting Minutes. Annual Provincial and District Financial Reports.	OHSS	\$158,752	17425 (SBH)	Domestic Resource Mobilization (5.56), Technical and Allocative Efficiencies (6.90)
Governance									
Provide leadership and support for national and district-level data use for decision-making		Demonstrated use of data for decision-making by Districts and MOH	Provide 2 training sessions and mentorship in data use to key district and national level decision-making personnel in decision making roles	Provide 4 training sessions (quarterly) and mentorship in data use to key district and national level decision-making personnel in decision making roles	Number of training sessions in data use for key district and national level decision-making personnel in decision making roles	OHSS	\$396,880	17513 (MOH), 10207 (Twinning), 18323 (BroadReach)	Epidemiological and Health Data (4.62)

HRH - Systems/Institutional Investments									
Provide management and leadership training to facility and program managers at PMOs, DMOs and health facilities and support FETP	1,2,3,4	Ninety percent of facility managers trained and mentored to improve HIV program management capacity at all levels of health system	220 managers at provincial, district and facility level trained in management and leadership.	250 managers at provincial, district and facility level trained in management and leadership.	Number of managers at provincial, district and facility level trained in management and leadership.	OHSS	\$595,320	17425 (SBH), 11694 (SMDP), 17513 (MOH)	Human Resources for Health (6.17)
Strengthen structures and systems for QI, clinical mentorship and central-level coordination	1,2,3,4	Ninety percent of facility and central-level managers trained and mentored to improve quality of HIV services	125 managers trained and mentored to improve quality of HIV services.	125 managers trained and mentored to improve quality of HIV services.	Number of manager trained and mentored. QI committee meeting minutes. Performance assessment and technical support supervision reports (Center, PHO and DHO).	OHSS	\$520,905	17425 (SBH), 17513 (MOH), 17514 (Jpiego)	Human Resources for Health (6.17)
1. Support pre-service training (MMED ID, NEPI & HIV Specialists) for health providers in advanced modules of epidemiology and biostatistics 2. Develop competencies among MOH staff in field epidemiology, including quality improvement, through the Zambia Field Epidemiology Training Program with field assignments to HIV control units	1,2,3,4	1. MOH staff in leadership positions (Director, Deputy Director, Team Lead) with demonstrated competencies in field epidemiology, quality improvement, and using data for decision making increase by 200%	Skills lab equipment procured for three nurse midwifery schools. 120 nurse midwives graduate with PEPFAR support . Pre-service training on health informatics/ENR established.	Skills lab equipment procured for four nurse midwifery schools. 120 nurse midwives graduate with PEPFAR support . 4 leaders trained in field epidemiology.	USG procurement documentation and site visit reports. Number of new health workers who graduate from pre-service training institution with PEPFAR support. Number of people trained in field epidemiology. Establish pre-service training on health informatics/EMR use to support HIV/AIDS treatment and epidemic control in Zambia.	OHSS	\$671,395	17425 (SBH), 10235 (SOM), 13684 (ZEPACT), 10207 (Twinning), 17513 (MOH), 10235 (SOM), 11694 (SMDP), TBD (HRH)	Human Resources for Health (6.17)
Improve HR management and performance through roll out of HRIS, national Performance Management Package (PMP) and Annual Performance Appraisal System (APAS)	1,2,3,4	MOH using real time HR data to inform decisions on health worker training, recruitment, deployment and retention. Increased health worker productivity.	HRIS rolled out to 10 districts. 75 MOH staff trained/oriented in PMP and APAS.	HRIS rolled out to 10 districts. 75 MOH staff trained/oriented in PMP and APAS.	HRIS reports. Number of people trained/oriented in PMP and APAS	OHSS	\$793,760	17425 (SBH), TBD (HRH), 17513 (MOH)	Human Resources for Health (6.17)
Support development, dissemination and implementation of HRHSP 2017-22	1,2,3,4	HRHSP completed and disseminated	Costed HRHSP completed and disseminated.	Documented implementation of HRHSP	Approved National HRHSP. National HRH TWG Meeting Minutes.	OHSS	\$49,610	17425 (SBH)	Human Resources for Health (6.17)

Inst & Org Development										
Provide technical assistance to GRZ for national surveys	1,2,3,4	Improved quality of national surveys by GRZ to inform programs	Support routine surveillance activities within MOH to better quantify disease burden for programming	Support routine surveillance activities within MOH to better quantify disease burden for programming	Number of routine surveillance activities completed by MOH	OHSS		\$99,220	18527 (M&E/FETP/NPHI), 18332 (Pop Council), 17513 (MOH)	Epidemiological and Health Data (4.62)

Laboratory									
Address major service and quality gaps in clinical laboratories through training of effective senior managers to increase accountability of laboratory staff	1,2,3,4	Lab managers in 17 facilities trained and mentored for improved laboratory management, performance of HIV testing and related assays and general productivity	17 lab managers at VL and other accreditation targeted facilities trained and mentored to improve laboratory management, performance of HIV testing and related assays and general productivity	17 lab managers at VL and other accreditation targeted facilities trained and mentored to improve laboratory management, performance of HIV testing and related assays and general productivity	Number of laboratory managers trained and mentored	HLAB	\$945,595	17513 (MOH), 10207 (Twinning), 17478 (CLSI), 14420 (LPHO), 14421 (SPHO), 10227 (WPHO), 10225 (EPHO)	Laboratory (4.86)
Expand enrollment and number of analyses evaluated in Proficiency Testing (PT) programs	1,2,3,4	Increased testing reliability and decreased time to diagnosis	Expand enrollment to all 16 VL labs, and number of PT analytes	Sustain enrollment in all 16 VL labs, and number of PT analytes	Number of laboratories enrolled in PT programs and number of PT analytes covered	HLAB	\$156,147	10236 (UTH)	Laboratory (4.86)
Capacity building for independent evaluation of new diagnostics	1,2,3,4	Ten laboratory staff members trained to increase capacity for evaluating new diagnostics	Train 10 laboratory staff members to increase capacity for evaluating new diagnostics including POC	Train 10 laboratory staff members to increase capacity for evaluation new diagnostics including POC	Number of laboratory staff trained in evaluation of new diagnostics	HLAB	\$274,136	17513 (MOH), 10236 (UTH), 17499 (TDRC)	Laboratory (4.86)
Continue and extend SLMTA training programs toward accreditation of laboratories in high impact provinces and targeted facilities	1,2,3,4	Ninety percent of participating facilities achieve perfect PT scores through increased laboratory testing reliability and decreased turnaround time	90% of participating sites achieve perfect score	Maintain 90% of participating sites achieve perfect score	Percentage of participating sites achieving perfect scores	HLAB	\$753,491	17513, (MOH) 17477 (ASM), 17478 (CLSI), 17891 (ASLM)	Laboratory (4.86)
Continue and expand EQA activities in high impact provinces and targeted sites for laboratory diagnosis of HIV, TB and other comorbidities and opportunistic infections	1,2,3,4	Ninety percent of participating facilities achieve perfect PT scores through increased laboratory testing reliability and decreased likelihood of treatment errors	90% of participating sites achieve perfect score	Maintain 90% of participating sites achieve perfect score	Percentage of participating sites achieving perfect scores	HLAB	\$252,684	10236 (UTH), 17499 (TDRC)	Laboratory (4.86)
Address national deficiencies in procurement and distribution of laboratory supplies	1,2,3,4	Tests available in 17 labs to address commodity stock outs	Ensure all VL labs have continuous supplies	Ensure all VL labs have continuous supplies	Number of VL labs and hubs with uninterrupted supplies during a 1 year period	HLAB	\$21,452	17513 (MOH)	Laboratory (4.86)

Address national deficiencies in biosafety training for laboratory staff and implementation of biosafety procedures in clinical laboratories	1,2,3,4	Increased safety in HIV testing and related laboratory testing procedures	Ensure that staff in 50% of all VL labs are trained in biosafety and follow biosafety measures	Ensure that staff in 100% VL labs are trained in biosafety and follow biosafety measures	Number of facilities with staff trained in biosafety	HLAB	\$380,149	17513 (MOH), 10236 (UTH), 17479 (APHL)	Laboratory (4.86)
Enhance QA procedures for HIV Rapid Testing in Zambia	1,2,3,4	Ninety percent of participating facilities achieve perfect PT scores through increased improved laboratory testing reliability and decreased likelihood of treatment errors	90% of participating sites achieve perfect score	Maintain 90% of participating sites achieve perfect score	Percentage of participating sites achieving perfect scores	HLAB	\$156,147	10236 (UTH)	Laboratory (4.86)
Improve and re-establish diagnostic bacteriology services toward control of opportunistic infections and comorbidities in PLHIV in high impact provinces and targeted sites	1,2,3,4	Improved treatment outcome through diagnosis and control of opportunistic infections in 5 facilities	Set up microbiology testing at 5 facilities in high burden districts	Set up microbiology testing at 5 facilities in high burden districts	Number of facilities with capacity to perform microbiology testing	HLAB	\$537,746	17513 (MOH), 17477 (ASM), 17479 (APHL)	Laboratory (4.86)
Support to Zambia through CDC HQ initiatives for broad health infrastructure improvements.	1,2,3,4	Ninety percent of laboratory managers trained and mentored to improved epidemiological data to guide diagnosis and therapy	90% of VL and other accreditation targeted laboratories trained in epidemiological and clinical data analysis	Maintain 90% of VL and other accreditation targeted laboratories trained in epidemiological and clinical data analysis	Number of laboratories with staff trained in data analysis	HLAB	\$706,686	17513 (MOH), 17479 (APHL), 10207 (Twinning)	Laboratory (4.86)
Work toward establishment of a National Public Health Laboratory in Zambia	1,2,3,4	National Public Health laboratory manager trained and mentored to improve testing reliability and accurate survey data for strategic information initiatives	Establishment and management of the national public health laboratory	Support the maintenance of the national public health laboratory	Launch of the national public health laboratory	HLAB	\$224,002	17513 (MOH), 17479 (APHL)	Laboratory (4.86)
Expand availability of Laboratory Information and Data Management Systems in high impact provinces and at targeted sites	1,2,3,4	Establishment and maintenance of lab information system at five facilities to improve patient care and records management	Establishment and maintenance of lab information system at five facilities to improve patient care and records management	Establishment and maintenance of lab information system at five facilities to improve patient care and records management	Number of laboratories with LIS	HLAB	\$202,550	17479 (APHL)	Laboratory (4.86)

Work to improve and enhance curriculum development, pre-service training and staff retention for laboratory staff	1,2,3,4	Revision of national lab technologies training program curriculum to improve patient care	Revise laboratory training curriculum	Ensure implementation of revised curriculum	Laboratory training curriculum revised and implemented	HLAB	\$80,415	17478 (CLSI)	Laboratory (4.86)
Strategic Information									
Support the national health information system	1,2,3,4	1. Increased accuracy, availability, timeliness, access and use of quality program data at the national level and in all provinces to support epidemic control 2. Improved facility-level national health information system data entry 3. Improved data use for patient care and HIV program management at 90% of facility sites in all PEPFAR-supported districts and provinces	50% of PEPFAR-supported districts and provinces should show an increase in quality of program data use	90% of PEPFAR-supported districts and provinces should show an increase in quality of program data use	Number of PEPFAR-supported districts and provinces showing increase in quality of program data use	HVSI	\$6,310,000	10225 (EPHO), 10227 (WPHO), 14420 (LPHO), 14421 (SPHO), 13580 (CIDRZ), 17497 (SMACHT), 18327 (FBO), 18323 (BroadReach), 18528 (IntraHealth), 10984 (PCI), 14507 (FHI), 17413 (SFAE), 17425 (SBH), 17439 (MEASURE)	Epidemiological and Health Data (4.62)
HIV Impact Assessment (HIA) support for ongoing analysis and additional testing		1. Provide for return of 100% of results to regional sites 2. Accurate estimates of HIV incidence using CD4/viral load results 3. Lag avidity	Support ongoing PHIA analysis and additional testing	Support other national surveys (ANC, HIV DR, STI) activities		HVSI ; MTCT	\$1,470,000	17499 (TDRC)	Epidemiological and Health Data (4.62)

Integrated Bio-Behavioral Surveillance System (IBBSS)	4	3	1. Approval of KP protocols	1. Complete data collection for size estimation	Completed IBBSS protocols and data collection	HVTI	\$1,340,000	10224 (NAC), 13033 (POPCOUN)	Epidemiological and Health Data (4.62)
Systems Development									
TOTAL							\$17,097,045		