Zambia

Country Operational Plan (COP) 2022

Strategic Direction Summary (SDS)

March 31, 2022

Contents

1.0 Vision and Goal Statement

The U.S. President's Emergency Plan for AIDS Relief (PEPFAR) Zambia program achieved 90-90-90 targets for HIV epidemic control in COP19 based on population and estimates of people living with HIV (PLHIV) at the time. In COP20 and COP21, PEPFAR Zambia focused on treatment retention and viral load (VL) suppression with person-centered approaches and prevention of new HIV infections through evidence-based strategies. These approaches have moved Zambia closer to epidemic control. In COP22, PEPFAR Zambia will capitalize on and maintain gains made over the past five years, striving toward sustained epidemic control through laser focus on addressing missed opportunities for population groups that have not fully benefitted from HIV prevention, care, and treatment: children, adolescents, and young people (AYP), and key populations (KPs). PEPFAR Zambia remains focused on providing quality, comprehensive care while ensuring the safety of healthcare providers and beneficiaries.

HIV models suggest that the number of new HIV infections in Zambia still exceeds the number of deaths amongst PLHIV. Though the updated Spectrum 2022 model shows that this gap has reduced by 70% since 2010, the country must invest strategically to achieve sustained HIV epidemic control. In COP22, this will require vigilant attention to equity in service delivery and person-centered HIV prevention, care and treatment programs that reduce persistent inequities experienced by children, AYP, particularly adolescent girls and young women (AGYW), and KPs.

In COP22, PEPFAR Zambia will pursue an aggressive case-finding strategy to interrupt the HIV transmission cycle by identifying and retaining children, AYP, and KP on treatment. Effective testing modalities, including facility- and community-based safe and ethical index testing, including testing of biological children, and social network strategy (SNS) testing – informed by recency testing to map transmission hotspots – will optimize case finding among populations who have eluded reach. Based on screening and testing outcomes, PEPFAR Zambia will immediately link individuals to treatment or comprehensive HIV prevention programs.

In COP22, PEPFAR Zambia will maintain focus on treatment retention and VL suppression, optimizing treatment through the continued transition of all eligible PLHIV on anti-retroviral treatment (ART) to the more efficacious dolutegravir-based regimen and providing multi-month dispensation (MMD) of ART to all eligible clients, including children. Moving into COP22, PEPFAR Zambia will focus on increasing VL coverage of pregnant and breastfeeding women (PBFW), children and AYP, leveraging Ministry of Health (MoH)-led pediatric and adolescent surges to provide family-centered and adolescent-friendly packages of care. PEPFAR Zambia will also train Zambian government healthcare providers and civil society organizations (CSOs) to spread key messages on HIV treatment literacy, including promulgating the message that an undetectable VL equals untransmittable HIV risk through sexual contact (U=U) to encourage PLHIV to stay on treatment. PEPFAR Zambia will also employ diagnostic network optimization approaches (DNO) for viral load and early infant diagnosis (EID) tests to increase access to these tests, maximize lab networking, and generate efficiencies to move towards near-universal access to these two tests. PEPFAR Zambia aims to achieve 96% VL suppression by close of COP22.

Prevention of new infections remains central to attaining epidemic control. PEPFAR Zambia will embark on an ambitious expansion of access to and uptake of pre-exposure prophylaxis (PrEP), particularly for PBFW, AYP, and KPs. Recently released KP estimates will support precise targeting of KPs for PrEP initiation; recency testing will also inform the geographic direction of prevention efforts. The KP program will aim to ensure that 95% of KPs who test negative are offered PrEP. The operational unit (OU) will also continue to invest in voluntary medical male circumcision (VMMC) and condom and lubricant distribution, accompanied by investment in successful prevention programs, such as DREAMS.

The COVID-19 pandemic pushed PEPFAR Zambia to expand person-centered approaches that minimized recipients of care direct contact to health facilities to ensure their safety. As such, PEPFAR Zambia has significantly scaled MMD of ART, PrEP, and tuberculosis (TB) preventive therapy (TPT) in COP21, resulting in reduced interruption in treatment (IIT). COVID-19 adaptations such as MMD, coupled with community-based differentiated service delivery (DSD) models, have reached individuals with services based on their needs and preferences.

In COP22, PEPFAR Zambia will continue to rely upon these effective adaptations to HIV treatment and prevention to support resiliency in the face of the unpredictable and dynamic nature of the pandemic. These adaptations have become central to PEPFAR Zambia's commitment to providing person-centered services. The OU will expand facility- and community-based DSD models, such as the community post model, peer-led models, and adolescent-friendly safe spaces, to deliver more responsive, inclusive, and equitable HIV prevention, care, and treatment services. Program data indicates that these DSD approaches are effective in improving VL literacy, reducing IIT for PrEP and ART, and increasing VL suppression.

PEPFAR Zambia works with the Zambian government to advocate for increased domestic resources to reach and sustain epidemic control. A critical aspect of sustaining gains requires a responsible transition of the PEPFAR-supported staff paid through international non-governmental organizations (NGOs) to local NGOs and the Zambian government. PEPFAR Zambia has facilitated this transition by financing government-to-government (G2G) agreements in eight provinces, accompanied by technical assistance to train healthcare workers (HCWs) and build capacity in critical service delivery areas. PEPFAR Zambia monitors all investments to ensure allocation of resources where the burden is greatest. The specificity in data required by PEPFAR Zambia's implementing partners (IPs) provides essential performance data that allows for strategic program adaptations and continuous quality improvement (CQI).

2.0 Epidemic, Response, and Program Context

2.1 Summary statistics, disease burden and country profile

Zambia is a lower, middle-income country (GNI: 3,360 per capita, PPP, World Bank 2020) with an estimated population of 19,990,677 (COP22 Data Pack). According to the 2018 Zambia Demographic Health Survey (ZDHS) Final Report, 11.1% of persons aged 15-49 are living with HIV

(14.2% of adult women, 7.5% of adult men). HIV prevalence among children under 15 is estimated to be 0.7% (Spectrum 2022).

In 2022, 1,336,056 Zambians are estimated to be living with HIV (COP22 DataPack). Using these estimates, women remain disproportionately affected (62%) by HIV; AGYW between 15 and 24 years of age have an incidence rate of 0.5% compared to 0.2% for adolescent boys and young men (ABYM) in the same age group (Spectrum 2022). New infections among young women are consistently more than double those among young men (Spectrum 2022). Of the total people estimated to be living with HIV, 90% are on ART and 86% are estimated to be virally suppressed (Spectrum 2022, FY22 Q1 MoH program results). The ART coverage for adult males above the age of 15 is 88% compared to ART coverage of 92% among adult women above the age of 15 (Spectrum 2022, FY22 Q1 MoH program results). ART coverage among children living with HIV (CLHIV) less than 15 years of age is 72% (COP22 DataPack, MoH results).

For KPs, robust data on population size and HIV impact remains a challenge. Integrated biological and behavioral surveillance (IBBS) surveys were recently completed in COP21 for men who have sex with men (MSM) and people who inject drugs (PWID). Preliminary MSM IBBS results informed MSM size estimates in COP22 and preliminary results from both surveys informed the COP22 strategy. Population size estimates from the MSM IBBS were key inputs into COP22 KP size estimates, and data on PrEP awareness and uptake further informed PrEP programming. In COP22, PEPFAR Zambia will implement an IBBS for female sex workers (FSW) to better understand the HIV epidemic among this population and strengthen size estimates.

Geographically, the 2018 ZDHS shows that Copperbelt and Lusaka provinces have the highest HIV prevalence (15.4 and 15.1%, respectively) and absolute HIV burden (250,329 and 353,808, respectively using 2018 census population data), accounting for 49% of Zambia's total PLHIV. Prevalence is greater than 10% in Central (12.4%) Western (10.6%), and Southern (12.4%), while below 10% in Luapula (7.9%), Eastern (7.4%), Northern (5.6%), Northwestern (6.1%), and Muchinga (5.4%).

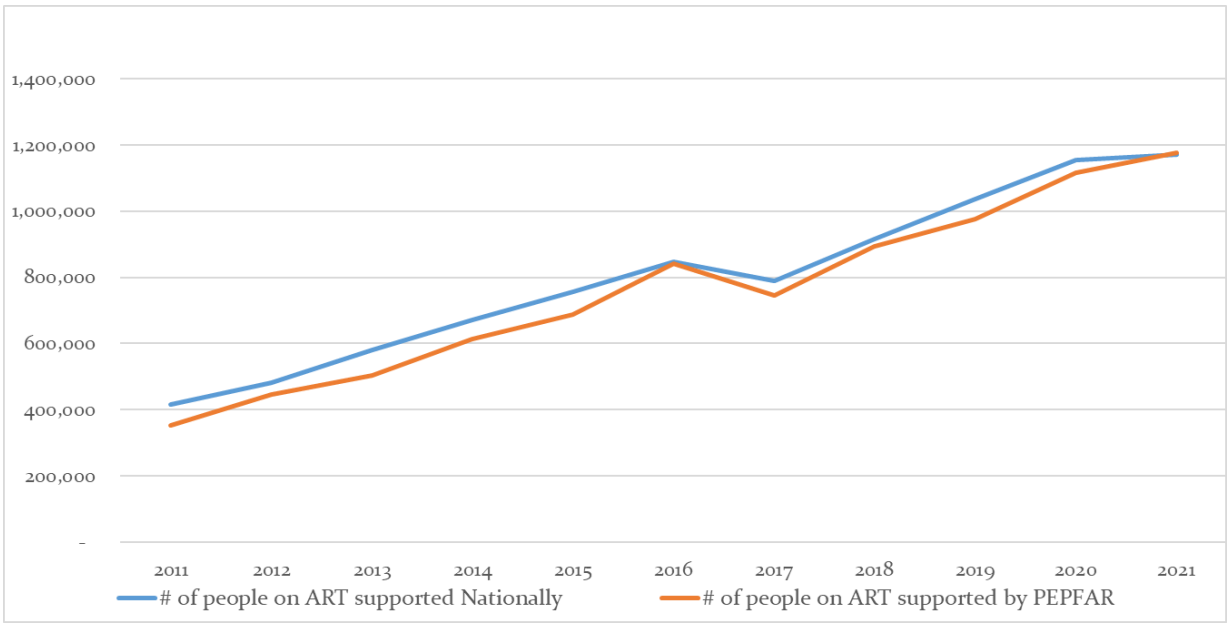
ZAMPHIA 2021 concluded data collection in December 2021. PEPFAR Zambia used these results to inform the COP22 strategy, but as results are preliminary and subject to change, they cannot be incorporated into the SDS at this time. Spectrum data for morbidity and mortality approximates the total number of deaths attributed to AIDS in 2021 as 19,327.

Table 2.1.1 Host Country Government Results															
	Total		<15				15-24				25+				Source, Year
			Female		Male		Female		Male		Female		Male		
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Total population	19,990,677		4,271,659	21	4,352,411	22.0	2,128,233	11	2,129,836	11	3,668,065	18	3,440,473	17	COP22 DataPack
HIV prevalence (%)				0.7		0.8		5.2		2.0		19.4		13.4	Spectrum, 2022
AIDS deaths (per year)	19,327		1,176		1,207		1,543		944		7,785		6,671		Spectrum, 2022
# PLHIV	1,336,056		30,065		30,763		102,624		40,319		690,354		441,931		COP22 DataPack
Incidence rate (Year)		0.2		0.05		0.05		0.5		0.2					Spectrum, 2022
New infections (Year)	37,799														Spectrum, 2022
Annual births	675,479														Spectrum, 2022
% of pregnant women with at least one ANC visit		97													ZDHS, 2018
Pregnant women needing ARVs	50,283														Spectrum, 2022
Orphans (maternal, paternal, double)	1,321,341														Spectrum, 2022
Notified TB cases (Year)	51,898														HMIS, 2021
% of TB cases that are HIV infected		36													DATIM, 2021
% of males circumcised		31								37.4					ZDHS, 2018 (Total: 15-59)
Estimated population size of MSM*	128,053														JHU, 2022
MSM HIV prevalence		21													
Estimated population size of FSW	142,725														JHU, 2022
FSW HIV prevalence		40													
Estimated population size of PWID	26,840														JHU, 2022
PWID HIV prevalence		15													

Table 2.1.2 95-95-95 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	19,990,677	7%	1,336,056	1,232,725	1,197,694	90%	96%	2,391,234	174,976	157,757
Population <15 years	8,624,070	1%	60,828	41,621	43,761	72%	89%	181,802	5,747	5,834
Men 15-24 years	2,129,836	2%	40,319	33,567	35,417	88%	90%	209,521	5,276	4,767
Men 25+ years	3,440,473	13%	441,931	405,750	391,283	89%	96%	595,320	62,163	55,042
Women 15-24 years	2,128,233	5%	102,624	88,409	92,356	90%	93%	614,475	25,146	22,212
Women 25+ years	3,668,065	19%	690,354	663,378	634,877	92%	97%	790,116	76,644	69,902
MSM	128,053	21%	26,887		844	3%				
FSW	142,725	40%	57,092		4,207	7%				
PWID	26,840	15%	4,031		147	4%				
Transgender	11,435	22%	2,521		101	4%				

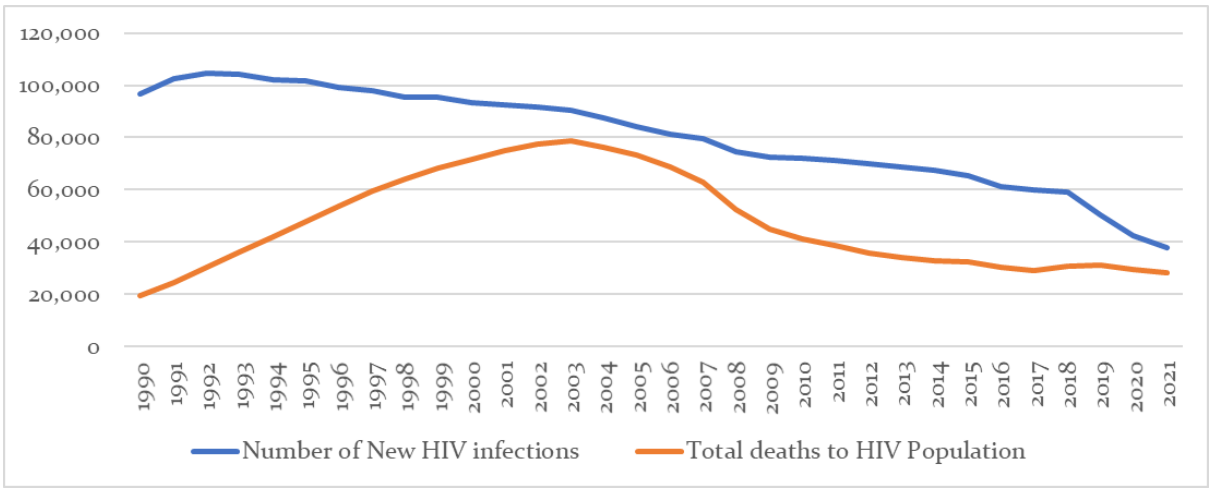
Source: COP22 DataPack

Figure 2.1.3 Updated National and PEPFAR Trend for Individuals Currently on Treatment



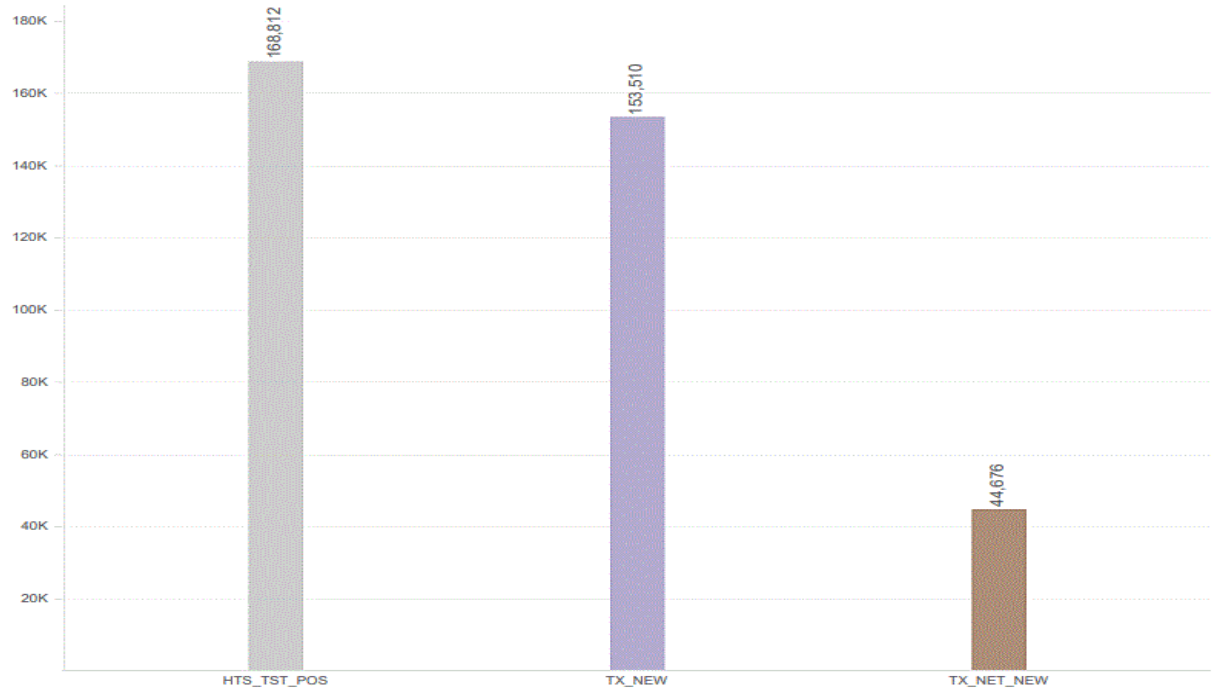
Source: Spectrum 2022

Figure 2.1.4 Updated National and PEPFAR Infections and All-Cause Mortality among PLHIV



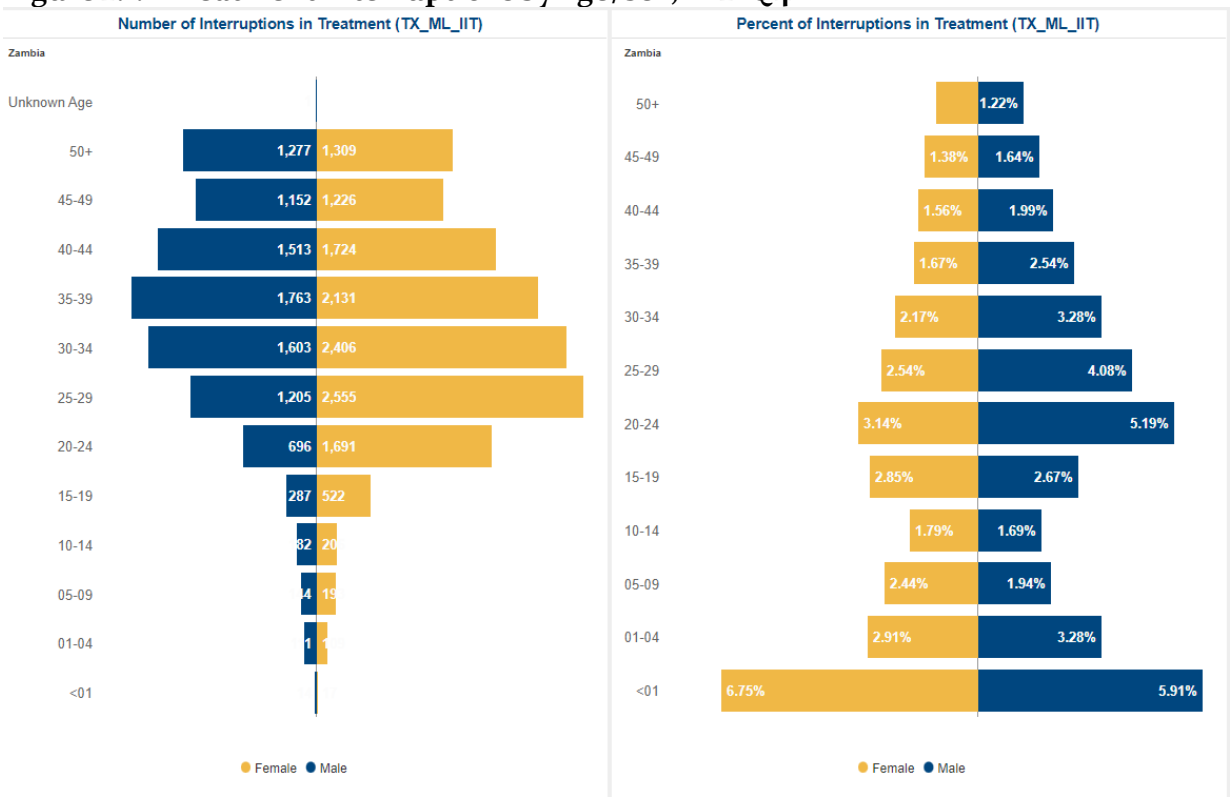
Source: Spectrum 2022

Figure 2.1.5 Case Finding, Linkage and Net Growth of the ART Program in FY21



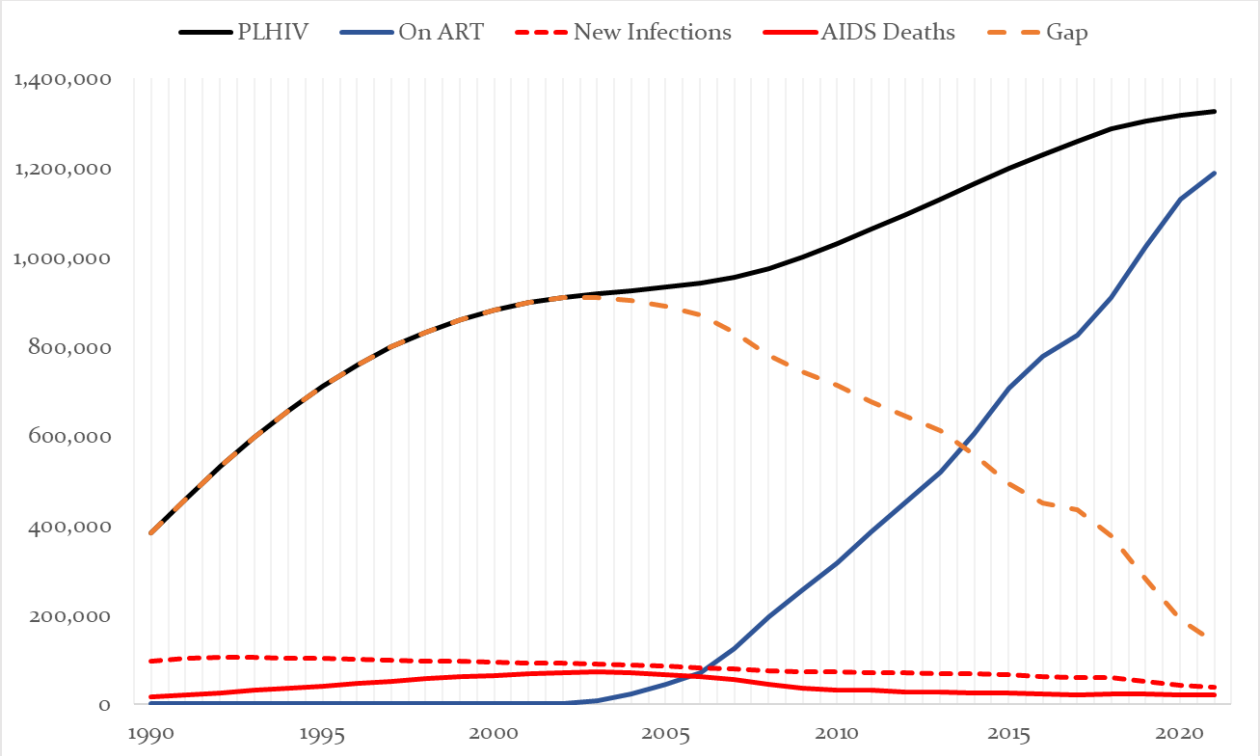
Source: Panorama

Figure 2.1.6 Treatment Interruptions by Age/Sex, FY21 Q4



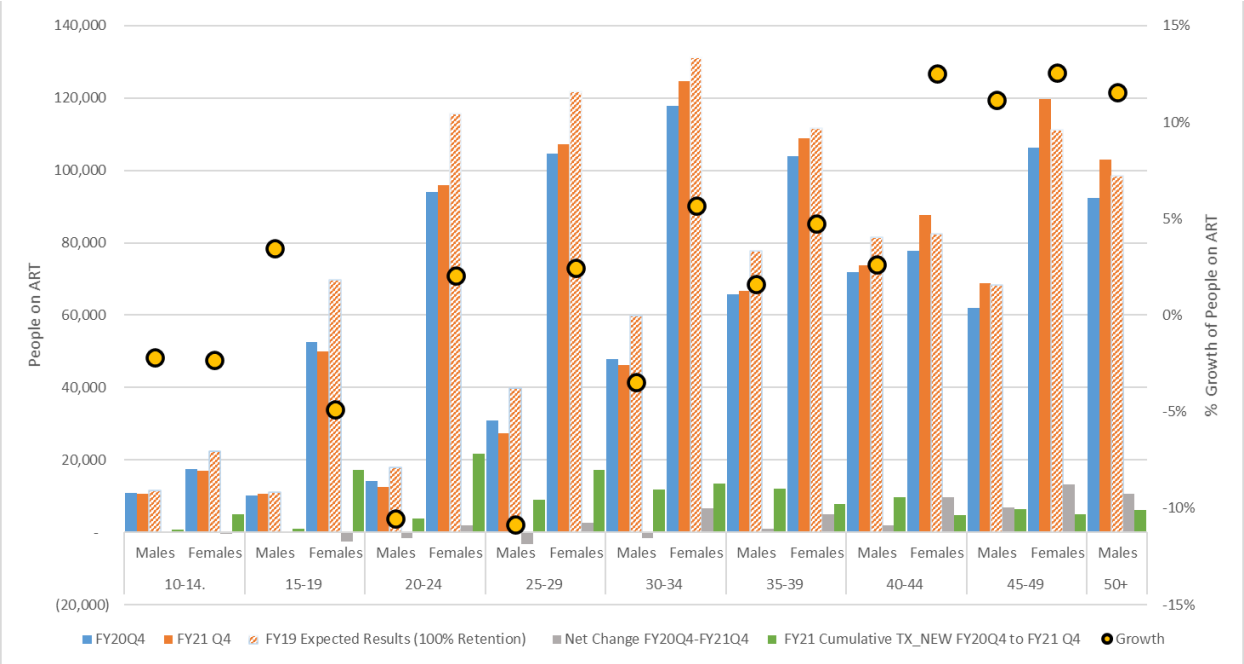
Source: Panorama

Figure 2.1.7 Epidemiologic Trends and Program Response for Zambia



Source: Spectrum 2022 COP Planning File

Figure 2.1.8 Net Change in HIV Treatment by Sex and Age Bands 2020 Q4 to 2021 Q4



Source: Panorama

2.2 New Activities and Areas of Focus for COP22

In COP22, PEPFAR Zambia will build upon successful approaches to deliver high-impact interventions that prevent new infections and support treatment continuity and VL suppression. PEPFAR Zambia will implement highly targeted HIV testing strategies to ensure that children, AYP, and KPs are diagnosed and treated early. Important strategies remain index testing of sexual partners and children of PLHIV and SNS testing for AYP and KPs. PEPFAR Zambia will support continuity of treatment for priority populations, including people with disabilities, by implementing person-centered DSD models such as community ART models, such as mobile ART and home ART delivery. PEPFAR Zambia is committed to delivering comprehensive HIV prevention interventions to priority populations such as AGYW, PBFW, and KP. These strategies, described in detail below, will help the OU respond to missed opportunities in prevention, care, and treatment in cooperation with the Zambian government, cooperating partners and CSOs.

2.2.1 DREAMS and AGYW

In COP22, PEPFAR Zambia's DREAMS portfolio will focus on providing high-quality prevention services to AGYW, their families and communities with renewed focus on identification of the most at-risk AGYW, including persons with disabilities, young PBFW, AGYW engaged in transactional sex and KPs. An intentional data-driven focus relying, in part, on recency results from DREAMS catchment areas will inform outreach to AGYW. DREAMS and other adolescent-focused programs will train and engage AYP as peer educators to conduct case finding, creating economic opportunities and building case finding capacity within the health sector. The OU will expand the number of DREAMS Centers within three existing sub-national units (SNUs): Mazabuka and Monze (Southern) and Mongu (Western) districts to address unmet needs of AGYW, while strengthening the quality of HIV prevention services, including expanded access to and uptake of PrEP and increased access to mental health services. An outcome assessment planned for COP22 will inform development of maintenance and sustainability plans in collaboration with implementing partners, the Global Fund for AIDS, Tuberculosis, and Malaria (GFATM), and the MoH.

2.2.2 Key populations

In COP22, PEPFAR Zambia will scale up differentiated, person-centered HIV prevention, care, and treatment services to ensure that KPs receive confidential, safe, and quality services. Combination HIV prevention approaches including behavioral, biomedical, and structural approaches will continue to be used to reduce new HIV infections among KPs. PEPFAR Zambia will scale up PrEP significantly through community-based DSD models for expanded access to required services. By scaling up training for community volunteers and HCWs on provision of KP-friendly services and placing KP champions in health facilities, the OU will address stigma and discrimination faced by KPs within the health system. Outreach to KPs will be enhanced through social media platforms that link KPs to appropriate services, including appointment management, treatment literacy, and adherence support. PEPFAR Zambia will engage KP-led and KP-competent organizations to design, implement and monitor services, building their capacity to

manage KP programs that adhere to PEPFAR minimum standards. PEPFAR Zambia is committed to the "do no harm" principle that emphasizes voluntary, confidential, non-coercive and non-discriminatory services for KPs. Collaboration with the KP Protection Network will support PEPFAR Zambia's commitment to providing services that do not cause harm to KPs.

2.2.3 Pre-exposure prophylaxis

PEPFAR Zambia will continue to strengthen PrEP provision in COP22, with the aim of initiating over 138,000 clients on PrEP, with specific focus on PBFW, AGYW, and KPs. As of COP21 Q1, 31,434 clients had been initiated on PrEP, representing 35% of the annual target. PrEP access also increased among eligible PBFW, KPs, AGYW in both DREAMS and non-DREAMS districts. Increasing access to PrEP through community-based DSD models, especially among populations that are at higher risk of HIV infection, remains a priority in COP22. Given the epidemiological importance of KPs to epidemic control, PEPFAR Zambia will work closely with the Zambia KP CSO consortium to ensure that more eligible KPs initiate PrEP and receive the required support to continue to use it. PEPFAR Zambia will continue to work closely with the GRZ and GFATM to ensure consistent supplies of PrEP commodities.

2.2.4 Case finding and linkage

In COP22, PEPFAR Zambia plans to conduct 2,762,586 and identify 103,750 HIV positive individuals and link 101,919 to treatment. The expected yield is 5% with a linkage rate of 98%. PEPFAR Zambia will use a strategic mix of HIV testing modalities, including index testing, provider-initiated testing and counseling (PITC) within health facilities, SNS testing, and HIV self-testing (HIVST), to achieve these ambitious HIV case finding targets. Strengthened case finding using peer-led models and community posts will improve testing coverage among underserved or marginalized populations, including children, AYP, KPs, and men. PEPFAR Zambia will actively link all individuals newly diagnosed with HIV to treatment and individuals found to be HIV negative to evidence-based prevention programs and/or services, such as DREAMS, VMMC, and PrEP.

2.2.5 Orphans and vulnerable children (OVC)

In COP22, PEPFAR Zambia will scale up OVC services from eight to nine provinces. Core elements of the OVC program will remain the same and center on enrollment of and service delivery to priority OVC sub-populations, including CLHIV, HIV-exposed infants (HEI), children of PLHIV, children of KPs, and survivors of gender-based violence (GBV). Evidence-based interventions will ensure children are healthy by improving access to health and HIV services; safe by improving child protection and prevention of GBV; stable by improving household economic security; and schooled by improving retention and progression in school. In COP22, the OVC program will play an integral role in the continuing pediatric surge by supporting continuity of care for CLHIV and proactively responding to children's needs through routine case conferencing between the OVC case manager and clinical partners in an effort to attain good clinical outcomes

2.2.6 Voluntary medical male circumcision

In COP21, PEPFAR Zambia aims to reach 80% of males 15-29 years old in covered geographic areas. Aligned with PEPFAR guidance, PEPFAR Zambia only offers VMMC services to males aged 15 years and older. At COP21 Q1, PEPFAR Zambia had already reached 49% of the annual target of 228,001 with 89% of males in the target age group of 15-29 years. In COP22, Zambia will continue to support the MoH in coordination and implementation of VMMC services, including scale-up of the Shang Ring device; enhanced national adverse events surveillance through systematic use of the adverse events tracker; and development of policy documents and guidelines.

2.2.7 Cervical cancer

In COP21, PEPFAR Zambia has supported district-wide coverage of cervical cancer screening services, with 903 static and outreach sites across 112 PEPFAR-supported districts. To improve treatment rates, PEPFAR Zambia has established services or provided transport and assisted referrals for loop electrosurgical excision procedure (LEEP) services for clients referred from health facilities without operating theaters. In collaboration with other stakeholders, including UNITAID, Clinton Health Access Initiative (CHAI), World Bank, World Health Organization (WHO), and GFATM, PEPFAR Zambia has continued to support the MoH in creating an enabling environment for improved cervical cancer programs through the development of relevant policy documents, guidelines and training materials; capacity building, including training and mentorship; procurement of necessary equipment; laboratory and pathology support; and strengthened monitoring and evaluation (M&E) systems. Efforts to bolster MoH capacity for diagnosis and treatment of cervical cancer will continue in COP22.

2.2.8 Treatment

At COP21 Q1, PEPFAR Zambia recorded 1,175,403 people on HIV treatment, representing a treatment coverage of 88% based on the current PLHIV estimate of 1,336,056. Despite this achievement, persistent HIV treatment coverage gaps remain, especially among children, AYP, and KPs. The OU has implemented evidence-based interventions such as quality improvement and assurance, MMD, and enhanced management of advanced HIV disease (AHD) to improve treatment uptake and to reduce ITT, with the aim to decrease from the current 7% to goal of <5%. In COP22, PEPFAR Zambia will focus on immediate linkage to treatment of all individuals newly identified as HIV-infected, leveraging community-based programs to support treatment continuity for children, AYP and KPs. By the end of COP21, PEPFAR Zambia will have transitioned all eligible clients to dolutegravir-based regimens. The OU will extend technical assistance to MoH for implementation of its AHD program, which includes integration of TPT, cryptococcal meningitis screening, and treatment of non-communicable diseases (NCDs), to prevent mortality.

2.2.9 Viral load coverage

To attain an ambitious target of 95% VL coverage in COP22, PEPFAR Zambia will address support systems gaps by improving efficiencies in the VL task network by replacing aging VL platforms; facilitating VL commodity security; and improving access to VL results. Implementing the DNO program has been instrumental in realizing improvements in VL coverage though gaps remain. Through these efforts, the OU plans to achieve a less than 24-hour turnaround time (TAT) for all EID and priority VL results (for children and PBFW). In addition to these systems investments, PEPFAR Zambia will expand the promotion of VL literacy through the U=U campaign and also leverage CSOs to conduct VL literacy training of trainers. Community-led monitoring (CLM) results routinely demonstrate limited access to and understanding of results.

2.3 Investment Profile

The Zambian government continues to demonstrate high levels of commitment to the HIV response, with its contributions to human resources for health, policy guidance, and infrastructure serving as the backbone of the health system and all epidemic control efforts. The U.S. government through PEPFAR, followed by the GFATM, provides essential financial and technical assistance to bolster the government's HIV response and fill gaps.

Zambia's economic performance has slowed in recent years due to falling copper prices, declines in agricultural output and power generation, and inadequate policy adjustment to these shocks. In 2020, the Zambian economy recorded the deepest recession in more than twenty years. A depreciating Zambian Kwacha (ZMW) along with COVID-19-related expenses led to ballooning government expenditure resulting in a fiscal deficit. The Zambian government's total public debt to foreign and local lenders approached $27 billion at the end of June 2021 (Ministry of Finance, 2021), representing 115% of GDP. The value of the ZMW has remained weak, hovering around 18 ZMW-to-1 USD since January 2021.

The COVID-19 pandemic exacerbated Zambia's economic pressures, weakening the local economy. The high cost of servicing debts, accumulation of arrears to suppliers, depreciation of the ZMW, increasing inflation and other economic challenges are persistent threats to the country's financial stability and could impede its ability to support the goals of maintaining epidemic control. Unsustainable debt hit a peak during the COVID-19 crisis, leading Zambia to default on a Eurobond loan. However, the government under President Hakainde Hichilema, who took office in August 2021, has signaled interest in restoring Zambia's economic credibility through negotiations with the International Monetary Fund.

With focus on fiscal prudence, a gradual recovery is expected. Inflation rates have dropped precipitously from 24.6% in July 2021 to 14.2% in February 2022 (Zambia Statistics Agency (ZamStat) 2022); GDP growth is projected to average 2.8% over 2021-23. Higher copper prices, the commissioning of a new hydropower station, and a return to normal rainfall patterns are expected to support growth in agriculture and electricity production, key contributors to Zambia's industry and service sectors. Timely achievement of macroeconomic stability will largely depend on debt

restructuring progress, fiscal consolidation efforts, and access to COVID-19 vaccines. Prolonged fallout from COVID-19 could amplify fiscal and domestic liquidity challenges and lengthen the time for Zambia to embark on key macroeconomic and structural reforms (World Bank, 2021).

The 2020-23 Economic Recovery Program (ERP) is the basis for the government's broad policy direction to address these challenges going forward. Specifically, the ERP states that fiscal adjustment will be achieved through domestic resource mobilization, expenditure rationalization, and reducing the pace of debt accumulation. In addition, the Zambian government is working with creditors to restructure their external debt portfolio and is also engaged with the International Monetary Fund to secure financial assistance through a reform program that would help stabilize the macroeconomic outlook of the country.

Given these significant economic constraints, success in maintaining epidemic control in COP22 will depend upon strong partnership between PEPFAR Zambia and the Zambian government. PEPFAR Zambia will continue to work collaboratively with GFATM and other donors to strengthen government efforts to increase efficiencies in health expenditures and to support capacity to effectively plan for sustainable high-impact interventions, thus facilitating the Zambian government's increased share of financial responsibility for the HIV response.

Table 2.3.1 Investment Profile (Funding Landscape) for HIV Programs						
	Total	Domestic Gov't	Global Fund	PEPFAR	Other Funders	Trend
	$	%	%	%	%	2018-2022
Care and Treatment	$317,617,475	14%	13%	73%	0%	
HIV Care and Clinical Services	$228,672,110	6%	18%	75%	0%	
Laboratory Services incl. Treatment Monitoring	$48,299,486	10%	1%	89%	0%	
Laboratory Services incl. Treatment Monitoring	$40,645,879	60%	0%	40%	0%	
HIV Testing Services	$18,570,202	0%	19%	80%	0%	
Facility-Based Testing	$4,865,424	0%	41%	59%	0%	
Community-Based Testing	$9,014,953	0%	11%	89%	0%	
HIV Testing Services (Not Disaggregated)	$4,689,825	0%	14%	86%	0%	
Prevention	$58,596,558	7%	10%	83%	0%	
Community mobilization, behavior and norms change	$11,658,410	0%	14%	86%	0%	
Voluntary Medical Male Circumcision	$12,295,116	0%	7%	93%	0%	
Pre-Exposure Prophylaxis	$15,509,187	0%	1%	99%	0%	
Condom and Lubricant Programming	$3,563,999	0%	45%	55%	0%	
Opioid Substitution Therapy	$0					
Primary Prevention of HIV & Sexual Violence	$1,891,795	0%	1%	99%	0%	
Prevention (Not Disaggregated)	$13,678,051	31%	10%	59%	0%	
Socio-economic (incl. OVC)	$30,204,889	0%	9%	91%	0%	
Case Management	$4,569,291	0%	0%	100%	0%	
Economic Strengthening	$4,156,134	0%	0%	100%	0%	
Education Assistance	$4,927,516	0%	0%	100%	0%	
Psychosocial Support	$8,398,362	0%	0%	100%	0%	
Legal, Human Rights and Protection	$673,718	4%	0%	96%	0%	
Socio-economic (Not Disaggregated)	$7,479,868	0%	37%	63%	0%	
Above Site Programs	$47,465,331	1%	21%	78%	0%	
HRH Systems	$5,903,006	0%	50%	50%	0%	
Institutional Prevention	$0					
Procurement and Supply Chain Management	$9,838,723	0%	30%	70%	0%	
Health Mgmt Info Systems, Surveillance, and Research	$16,752,554	0%	15%	85%	0%	
Laboratory Systems Strengthening	$10,660,136	0%	5%	95%	0%	
Public Financial Management Strengthening	$1,375,825	0%	32%	68%	0%	
Policy, Planning, Coordination and Management of Disease Ctrl Programs	$2,326,182	30%	9%	61%	0%	
Laws, Regulations and Policy Environment	$0					
Above Site Programs (Not Disaggregated)	$608,905	0%%	18	82%	0%	
Program Management	$57,432,017	0%	18%	82%	0%	
Implementation Level	$57,432,017	0%	18%	82%	0%	
Total (incl. Commodities)	**$529,886,472**	**9%**	**14%**	**77%**	**0%**	
Commodities Only	**$152,795,762**	**0%**	**28%**	**72%**	**0%**	
% of Total Budget	29%					

Source: HIV Resource Alignment. Domestic Government and Other Funders data included where available. PEPFAR regional program data were not available disaggregated by country for 2018-2019.

Table 2.3.2 Investment Profile (Budget Allocation) for HIV Commodities, 2022						
	Total	Domestic Gov't	Global Fund	PEPFAR	Other Funders	Trend
	$	%	%	%	%	2018-2022
Antiretroviral Drugs	$84,386,016	0%	37%	63%	0%	
Laboratory Supplies and Reagents	$32,550,482	0%	6%	94%	0%	
CD4	$803,700	0%	0%	100%	0%	
Viral Load	$16,578,863	0%	0%	100%	0%	
Other Laboratory Supplies and Reagents	$15,167,920	0%	14%	86%	0%	
Laboratory (Not Disaggregated)	$0					
Medicines	$3,882,171	0%	3%	97%	0%	
Essential Medicines	$2,351,490	0%	5%	95%	0%	
Tuberculosis Medicines	$1,528,192	0%	0%	100%	0%	
Other Medicines	$2,489	0%	100%	0%	0%	
Consumables	$9,819,262	0%	45%	55%	0%	
Condoms and Lubricants	$2,719,105	0%	56%	44%	0%	
Rapid Test Kits	$5,704,142	0%	51%	49%	0%	
VMMC Kits and Supplies	$1,396,015	0%	0%	100%	0%	
Other Consumables	$0					
Health Equipment	$0					
Health Equipment	$0					
Service and Maintenance	$0					
PSM Costs	$22,157,831	0%	26%	74%	0%	
Total Commodities Only	**$152,795,762**	**0%**	**28%**	**72%**	**0%**	

Source: HIV Resource Alignment. Domestic Gov't and Other Funders data included where available. PEPFAR regional program data were not available disaggregated

Table 2.3.3 Annual 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	$6,620,000	$1,170,000	7	$10,000,000	Maternal, newborn and child health (MNCH) activities support health systems strengthening and community engagement around high-impact interventions to save lives. These efforts address the leading causes of MNC death and advance Zambia toward better health services and universal healthcare for all. Complement PEPFAR and FP activities, particularly through close provincial and district level collaboration.
USAID TB	$6,000,000	$3,500,791	5	$9,100,000	TB activities strengthen high-quality DOTS expansion and enhancement, address TB-HIV, multidrug resistant TB and the needs of poor and vulnerable populations in six high-burden target provinces, engage all categories of care providers, and

Table 2.3.3 Annual 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**
					enable and promote operational research
USAID Malaria	$30,000,000	$13,709,500	7	$0	Malaria activities scale up proven prevention and treatment interventions to reduce malaria illness and death and support the Zambian government's malaria elimination goals primarily in five provinces. Interventions include distribution of insecticide-treated nets, indoor residual spraying, malaria case management, intermittent preventive treatment to pregnant women, behavior change, policies and guidelines and strengthening management capacity at a provincial and district levels.
USAID Family Planning	$8,175,000	$2,450,000	8	$10,000,000	Reproductive health/FP activities will increase modern contraceptive prevalence rates in women of reproductive age through increased access to and improved quality of family planning services in targeted sites via a strengthened, community-based FP service delivery system.
CDC (ARPA)	$13,500,000	Yes	5	$42,126,000	COVID response, cornerstone project, laboratory & surveillance program and data modernization.
USAID (Non-PEPFAR ARPA)	$22,557,800	Yes	2	$0	COVID vaccine scale-up, case management, laboratory and data strengthening and HR support.
CDC (Global Health Security)	$300,000	Yes	1	$8,000,00	Support for Zambian National Public Health Institute and disease outbreak response
CDC (NCIRD)	$500,000	Yes			Influenza surveillance
Total	**$64,795,000**	**$20,830,291**	**27**	**$71,226,000**	

Source: CDC HQ supported Cooperative agreements; USAID's approved FY2021 Operational Plan; COP20.

2.4 National Sustainability Profile Update

PEPFAR Zambia used a transparent and participatory process to complete the Sustainability Index and Dashboard (SID) in 2021. PEPFAR and UNAIDS co-convened multi-stakeholder SID and responsibility matrix (RM) consultative workshops, attended by representatives from several host government ministries and departments, multilateral organizations, and civil society. During the workshops, stakeholders sought understanding and consensus on sustainability progress across different domains and elements of the HIV response; validated major donors' responsibilities towards programmatic and financial sustainability; and began discussions on priority investments needed to increase sustainability of the HIV response. The MoH validated the identified sustainability strengths and vulnerabilities and discussed opportunities to align responsibilities and resources to advance epidemic control.

2.4.1 Progress toward addressing sustainability strengths

Market Openness (9.05): This element score has increased from 8.76 in 2019. National government and donor policies do not grant exclusive rights for the government or another local provider to provide HIV services; limit the patient's choice of providers or products; limit the ability of the local manufacturing industry to compete with the international market; limit the use of alternative financing mechanisms; limit the ability of licensed, local providers to provide certain direct clinical and support services; or create geographical barriers for local providers to supply goods, services or labor, or invest capital. Health facilities and training institutions are required to obtain a government-mandated license and accreditation to provide HIV services and training, and the enforcement of accreditation places equal burden on non-government institutions and government institutions.

Performance Data (8.23): This element score has reduced from 9.50 in 2019. The 2020 census was postponed due to COVID-19. The resulting lack of accurate population estimates contributed to this drop in score. The country has a harmonized set of complementary information systems, managed and operated by the host country government with technical assistance from external agencies and institutions. The host country government finances most (50-90%) routine collection of HIV service delivery data. These data are collected by age and sex, program, and geographic area on a quarterly basis. Data is not disaggregated by population, such as people with disabilities, FSW, MSM, people in prisons, and clients of sex workers. The Zambian government routinely analyzes service delivery data to measure program performance, and structures, procedures and policies exist to assure data quality.

Planning and Coordination (8.00): This element score reduced from 9.00 in 2019. Zambia has a costed, multi-year national HIV strategy, which is updated at least every five years, and includes critical response components of prevention and treatment, epidemiologically significant KPs and OVC. The Zambian government leads the development and revision of the National AIDS Strategic Framework (NASF) with participation from civil society and external institutions. Additionally, the GRZ routinely tracks HIV services supported by CSOs, private sector and donors, leading processes to convene stakeholders. During SID consultations, stakeholders raised

concerns about the National HIV/AIDS/STI Council's (NAC) capacity to fulfill its mandate to coordinate the national HIV response with limited financial resources. Amendment of the National HIV/AIDS/STI/TB Council Act, 2002, has reached an advanced stage and once passed into law, technical and financial support will be required to build NAC's coordination capacity.

Private Sector Engagement (8.29): This element score has increased from 5.71 in 2019. The Zambian government has formal channels and opportunities for diverse private sector entities to engage and provide feedback on HIV policies, programs, and services. Strong linkages and referral networks exist between on-site workplace programs and public health facilities. Private health providers are legally allowed to provide HIV services and the host government has policies in place that allow for utilization of the private sector for health commodity supply chain functions. Private sector stakeholders demonstrate interest in supporting the HIV response, and the MoH has a national framework in place to engage with the private sector. However, SID stakeholders noted insufficient information to assess private sector's financial or programmatic contributions. The strong score reflects, perhaps, a positive enabling environment for private sector participation in the HIV response. The Zambian government through MoH and NAC must strengthen efforts to collect data from the private sector. A deliberate policy and strategy to engage the private sector, given that a significant proportion of the population accesses health services through private health providers, is necessary.

2.4.2 Progress toward addressing sustainability vulnerabilities

Civil Society Engagement (4.17): This element score has reduced from 5.58 in 2019. Although no laws restrict civil society's role in oversight of the HIV response, civil society continues to play a diminished role despite existence of national coordination mechanisms for CSO engagement. The GRZ does not have dedicated domestic resources to support civil society's participation in the HIV response. No law, policy or regulation permits CSOs to be funded from a government budget for HIV services through open competition. CSOs rely predominantly on external donors for financial and technical support. Limited appreciation and support for civil society's invaluable role in community-based service delivery undermines efforts to advance epidemic control, according to SID stakeholders. Stakeholders indicated the need to advocate for enactment of laws and policies that make public and private sector funding more accessible to CSOs; include CSOs in the national decentralization policy or social impact grants provided by the private sector; allocate a proportion of resources from major funding sources for CSO capacity building and HIV prevention programs; and strengthen CSO self-coordination.

Laboratory (4.86): This element score has reduced from 5.41 in 2019. The country has a costed and approved national laboratory strategic plan, and regulations are in place to monitor the quality of laboratories and point of care testing sites. An administrative entity (MoH Pathology and Laboratory Services Unit) has specific authority to manage laboratory services at regional and district levels across all sectors, but it lacks sufficient budget. There are inadequate qualified laboratory personnel to achieve sustained epidemic control and less than 10% of laboratory services are financed by domestic resources. SID participants noted laboratory services and supply chain disruptions caused mainly by COVID-19 and additional strain on laboratory services, which

were diverted to the COVID response. Additionally, the Zambian government's allocation for lab commodity procurement is low, which has resulted in commodity gaps. There is need for increased Zambian government allocations to laboratory services and more involvement of the government in negotiations with manufacturers and vendors to address COVID-induced supply disruptions. Furthermore, the MoH staffing structure requires re-alignment to meet existing demand for laboratory services.

Domestic Resource Mobilization (5.24): This element score has reduced from 5.56 in 2019. The country has a long-term financing strategy for HIV that integrates social health insurance, public subsidies, and national budget provisions for public health. There is explicit HIV funding within the national budget, which reflects all sources of funding including external donors. However, only eight percent of general government expenditure goes to health; 44.6% of total health expenditure is financed by external resources. Less than 10% of the annual HIV response is financed by domestic public and private sector funding, and the national budget does not articulate any HIV goals or targets. The average execution rate for budgeted domestic HIV resources over the last three years is less than 50%. Participants noted that COVID-19 amplified the economic pressures on the country, contributing to reduced budget execution in the last 18 months. The United States Government (USG) intends to provide technical assistance to the Zambian government to increase domestic resource mobilization and advocate for increased allocation of resources to the health sector, though greater technical and financial support from other stakeholders is required to realize improvements under this element.

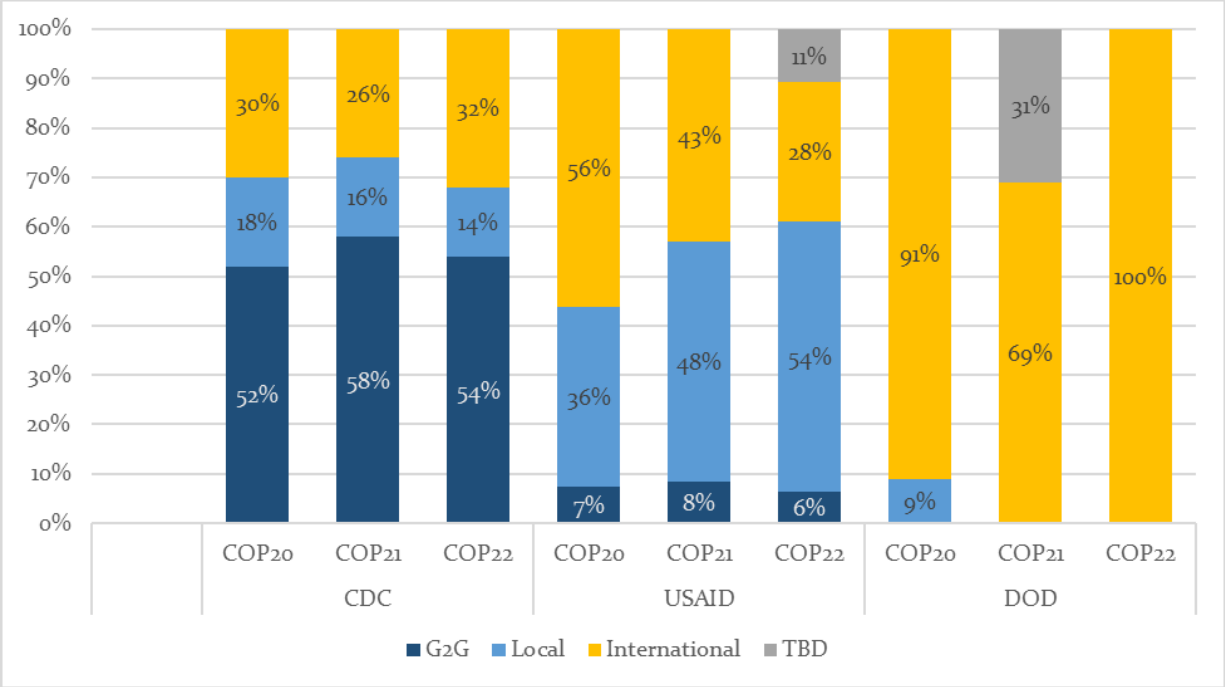
Commodity Security and Supply Chain (6.04): This element score has increased from 4.79 in 2019. The host country government manages processes and systems to reduce HIV-related commodity stock-outs at all levels. The country has a national supply chain plan that guides investments, but domestic resources fund less than 50% of its implementation. Domestic resources fund 10-49% of ARV procurements, while rapid test kit, laboratory commodities and condom procurements are almost entirely procured with external resources. A national supply chain assessment has not been done within the last three years. PEPFAR Zambia continues to advocate to the Zambian government to increase allocations for commodity procurement and supply chain systems strengthening to reduce dependence on external funding.

2.4.3 Transition to indigenous partners

CDC and USAID have increased the proportion of funds awarded to local organizations and government-to-government (G2G) agreements since COP20 (Figure 2.4.1). At the beginning of COP21, CDC and USAID had awarded the majority of funding to local and governmental partners. CDC's phased transfer of direct service delivery to Provincial Health Offices (PHOs) has focused on sustainability, increased capacity, empowering local government leadership, and improved financial management and oversight. Similarly, USAID will continue to provide government-to-government (G2G) funding and, in COP21, awarded new activities to community-based prevention and treatment partners. In COP22, PEPFAR Zambia will ramp up efforts to build the organizational capacity of local partners in financial management, human resources management, monitoring and evaluation, etc., as a path toward long-term sustainability. Figure 2.4.1

demonstrates the increased transition to indigenous partners across agencies. DOD is constrained by restrictions on military-to-military funding. However, DOD will continue to look for opportunities to increase the funding for local partners.

Figure 2.4.1: Transition to Local/Indigenous Partners by Agency

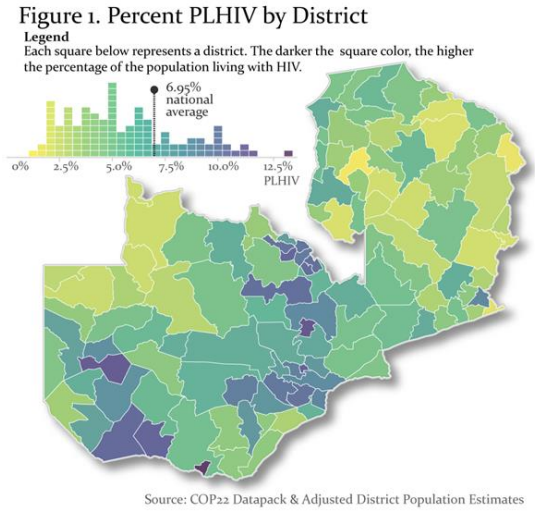


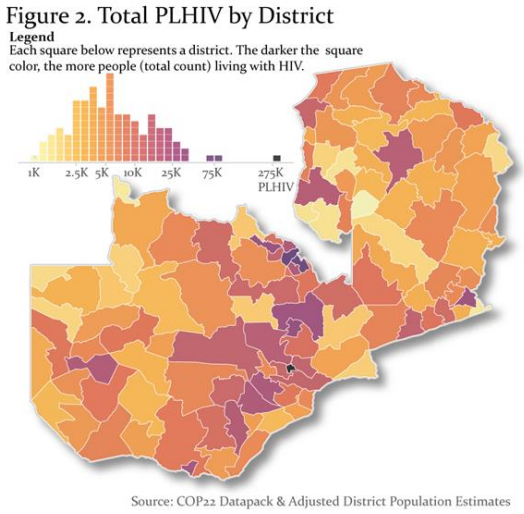
Source: COP22 FAST

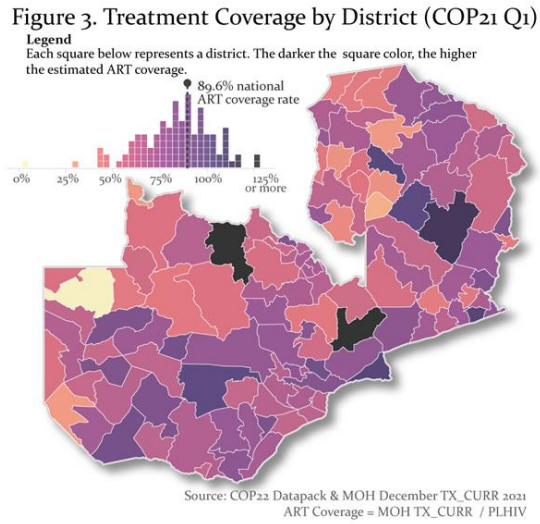
2.5 Alignment of PEPFAR Investments Geographically to Disease Burden

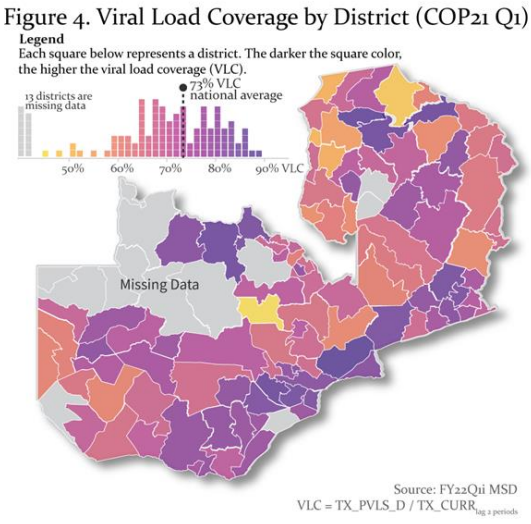
An essential component of the annual COP design process is the refinement of the geographic alignment of PEPFAR investments to disease burden. As in past planning cycles, PEPFAR Zambia relied upon Spectrum models by working closely with the Zambian National Spectrum team, which includes UNAIDS, MoH, the Zambia Statistics Agency (ZamStat), and NAC. The team ran the draft national PLHIV estimates through geospatial HIV modeling software to generate district-level estimates for sex and five-year age bands. The 10 sustained districts and five central support districts constitute 2% and 1% of the PLHIV burden for Zambia, respectively. Sustained and five central support districts maintained their prioritizations from COP21 given the lower burden of PLHIV relative to the attained and scale-up districts. Five formerly central support districts in COP21 were prioritized as aggressive scale up districts in COP22 to further close national ART coverage gaps. The national Spectrum team continues to refine national and provincial PLHIV estimates. PEPFAR Zambia will revisit the above estimates if the final national estimates are significantly different from the estimates used to develop targets for COP22.

Figure 2.5.1 PLHIV, Treatment Coverage and Viral Load Monitoring Coverage









Source: Estimates from 2018 National HIV/AIDS/STI/TB Council Management Information Systems, targets from COP22 DataPack

2.6 Stakeholder Engagement

PEPFAR Zambia proactively engages external stakeholders in the national HIV response throughout COP design, implementation, and monitoring. Engagements with external stakeholders, including SID consultations, PEPFAR Oversight and Accountability Response Team (POART) reviews, civil society engagement, CLM, and national technical working group (TWG) meetings, create opportunities throughout the COP cycle for diverse stakeholders to identify challenges, discuss priorities and provide feedback on the direction of COP22.

PEPFAR Zambia and MoH have collaborated continuously throughout the development and planning of COP22, but engagement extends beyond the COP planning cycle. Throughout COP implementation, MoH and PEPFAR Zambia strategize across technical fields and geographic areas. Not only does MoH participate in quarterly POART and CLM reviews, the MoH actively participated in the SID and RM 2021 consultations to assess programmatic and financial sustainability of the HIV response. At subnational level, collaboration with PHOs and district health offices (DHOs) supports regular, joint site-level data reviews that inform program adaptation for more responsive, impactful services.

PEPFAR Zambia works closely with UNAIDS, GFATM and other external bilateral and multilaterals throughout the COP cycle to align investments in the national HIV response. PEPFAR Zambia collaborates closely with UNAIDS and the Zambian government to develop annual Spectrum estimates, including PLHIV. PEPFAR Zambia also engages regularly with GFATM to avoid duplication of effort and leverages resources with specific focus on commodity procurement and KP and AYP programs. PEPFAR Zambia continues in-country dialogue through the Country Coordinating Mechanism (CCM), and Geneva-based staff as part of the funding request process to ensure coordination of proposed resources to address unmet gaps and support for the Zambian government to reach the goals laid out in national planning documents.

PEPFAR Zambia equally values the perspective and contributions of civil society in the HIV response and regularly engages civil society across the COP cycle. CSOs have actively engaged in design of the CLM approach in Zambia and will continue to offer insight into CLM through quarterly stakeholder meetings. CSOs also participated in SID and RM 2021 consultations, advocating for greater recognition of their contributions to the national HIV response, and will continue to participate in POART reviews to lend feedback on program performance.

Though PEPFAR Zambia actively engages the private sector for focused discussions related commodity security and supply chain management, private sector is largely absent from broader engagement related to Zambia's HIV response. Greater effort is required to meaningfully engage private sector. See Section 2.4, National Sustainability Profile Update, for additional information on coordination with private sector.

When the COP22 planning season began, these regular and valued consultations with MoH, UNAIDS, GFATM and civil society – among other stakeholders -- had established a strong foundation from which to prioritize COP22 strategies in response to remaining stubborn gaps.

The COP22 External Stakeholders Meeting offered an opportunity for PEPFAR Zambia to communicate progress of the HIV program. Equally, the Zambian government, NAC, GFATM, and civil society presented their respective programs and discussed gaps and strategies in support of the COP22 planning process. Weekly meetings during the COP design phase provided a platform for PEPFAR technical working groups to present strategies and seek feedback from external stakeholders. This interactive dialogue afforded an opportunity for ongoing dialogue and discussion of COP22 strategies which culminated in the present strategy.

2.7 Stigma and Discrimination

Discrimination against people living with and affected by HIV is often driven by existing discrimination based on social-economic status, ethnicity, gender, gender identity and sexuality among other factors. People who inject drugs, sex workers, MSM, and transgender men and women are further victimized and criminalized. Resulting internalized HIV stigma undermines access to, availability of, and willingness to initiate prevention, HIV testing, treatment, and care services, which negatively impacts HIV health outcomes. To achieve 95-95-95 targets, PEPFAR Zambia commits to addressing HIV stigma and discrimination, leaving no one behind on the path toward sustained epidemic control.

Key populations: Severe stigma and discrimination of KPs, compounded by laws that criminalize KP communities, limit access to and uptake of HIV services along the treatment cascade from prevention to VL suppression. PEPFAR Zambia will collaborate with MoH and KP-led and -competent organizations to support policies and implement strategies that reduce discrimination. Community-based, CSO-driven DSD models have helped to provide better quality services to KPs; PEPFAR Zambia will scale up creative and impactful DSD models in COP22 to ensure safety and security of KPs who access HIV services. Trainings designed to help HCWs feel confident and become competent in delivering services to KPs will also continue. PEPFAR Zambia will collaborate with the KP Protection Network to improve procedures for tracking, reporting, and responding to incidents of discrimination within the health system. Finally, the OU will continue to work with NAC to support training of media outlets to improve societal understanding of KPs and how the issues that affect them are reported.

Adolescent girls and young women: Gender discrimination and GBV fuel the HIV epidemic. Gender norms exacerbated by taboos about sexuality influence the ability of AGYW to protect their health and prevent acquiring HIV, seek health services and make informed decisions about their sexual and reproductive health (SRH) and lives. Poor HCW interactions with youth – often biased by personal judgements about sex and sexuality – discourage AGYW from seeking essential HIV and health services. Expansion of adolescent-friendly health services delivered by skilled HCWs and trained peer educators will help to alleviate barriers to accessing essential HIV and SRH services. In particular, peer-led interventions that enlist members of specific at-risk groups – persons with disabilities or young mothers – help AGYW navigate the health system with confidence. Community mobilization that engages adolescent boys and young men, community and faith leaders, and other change agents supports subtle changes in gender, social and cultural norms that ease discrimination and normalize HIV services for AGYW.

Pediatric/CLHIV: Addressing persistent barriers to case finding and treatment provision for CLHIV and their caregivers is a critical aspect of the pediatric program. Pediatric case finding has been hampered in part due to stigma associated with HIV and the implications of a child's status on revealing the HIV status of the parents. This is addressed through normalizing HIV testing among children under the "Know Your Child's Status" (KYCS) national campaign, for which PEPFAR Zambia plans to engage additional support from influential societal figures in Zambia, such as the First Lady. In addition, caregiver support groups to assist with adherence and

disclosure will be bolstered with help from community and OVC partners in COP22 to address issues around stigma and discrimination that impact caregivers and children living with HIV and negatively affect their ability to continue in care. There are also plans to train school administration and teachers at boarding schools, where children and adolescents may face discrimination and negative attitudes that result in unnecessary barriers to adherence to treatment and continuing their care.

3.0 Geographic and Population Prioritization

To sustain the gains and meet the target of 95% of PLHIV on ART by the end of COP22, PEPFAR Zambia has prioritized several areas. These include targeted prevention, optimized HIV testing, accelerated pediatric and adolescent surges, and improved ART linkage rates for priority populations, including children, AGYW, AYP, and KPs.

Based on Spectrum 2022 population estimates, women remain disproportionately affected by HIV (61.4%); new infections among young women are consistently more than double those among young men. As of COP21 Q1, the largest treatment gaps were observed in CLHIV under 10 years old and AYP between the ages of 15 and 24. ART coverage for those under one year is at 6% as of COP21 Q1; ART coverage increases to 55% and 59%, respectively, for boys and girls aged one to nine. Pediatric VL coverage and suppression stood at 74% and 91%, respectively, as of COP21 Q1. Even with concerted efforts to reach adolescents, PEPFAR Zambia anticipates that treatment gaps will persist. As of COP21 Q1, coverage of AGYW between 15-19 and 20-24 years old is at 59% and 66%, respectively; for ABYM between 20-24, treatment coverage is low (46%).

For KPs, PEPFAR Zambia undertook a size estimate exercise in 2021, which estimated the population of MSM to be 128,053 with a HIV prevalence of 21%; PWID to be 26,840 with an HIV prevalence of 15%; FSW to be 142,725 with an HIV prevalence of 40%; and transgender (TG) estimated to be 11,435 with an HIV prevalence of 22%.

In COP22, PEPFAR Zambia will initiate 101,780 clients on treatment to reach a TX_CURR target of 1,274,049, representing ART coverage of 95%. This represents 803,415 PLHIV on treatment in attained districts and 394,915 in scale-up districts. PEPFAR will continue to align resources and activities to the high HIV burden geographic areas with focus on the scale-up districts that contribute to approximately 32% of unmet need for ART (Table 3.1). Given the gaps for children and AYP, PEPFAR Zambia will intensify effective case-finding strategies to identify and initiate 27,833 children and AYPs on treatment.

In COP22, PEPFAR Zambia will focus on identifying and linking children, AYP, and KPs to treatment and keeping them on treatment. COP21 high-impact initiatives, such as community post models, adolescent-friendly services, index testing and SNS testing, which have proven effective in finding and retaining PLHIV on treatment will continue in COP22.

The pediatric surge, which began in COP20, will remain an integral approach to improve and retain pediatric clients. The pediatric surge focus in COP22 will be on provision of pediatric-

focused mentorship at all facilities to ensure a basic level of comfort with initiating children on ART and enabling family-centered care to improve retention. The OVC program, expanding from eight to nine provinces in COP22, will complement clinical components of the pediatric surge, while DREAMS, Rise Up!, and other community partners will align case finding and linkage efforts in support of the MoH adolescent surge. Finally, additional efforts will focus on improving HIV case finding among KPs, linking 95% of those who test positive for HIV to treatment. PEPFAR Zambia will link individuals who test negative to appropriate and comprehensive HIV prevention services, inclusive of PrEP. Specific details on case identification and treatment linkage for all priority and KPs are detailed in Section 4.0.

COP22 targets will result in 95% ART coverage by age and sex in high-burden districts and an overall national ART coverage rate of 95%. To achieve this, COP22 will focus on retaining the individuals who are on treatment by ensuring that they receive quality HIV services through person-centered DSD models that allow them to continue treatment. PEPFAR Zambia will leverage the feedback from CLM and ongoing routine CSO engagement to improve the quality of services being offered in PEPFAR supported health facilities. Feedback gathered through CLM will support person-centered and equitable services that respond to the unique needs of PLHIV.

Requested information on VMMC coverage and saturation is covered in Section 4.3.6.

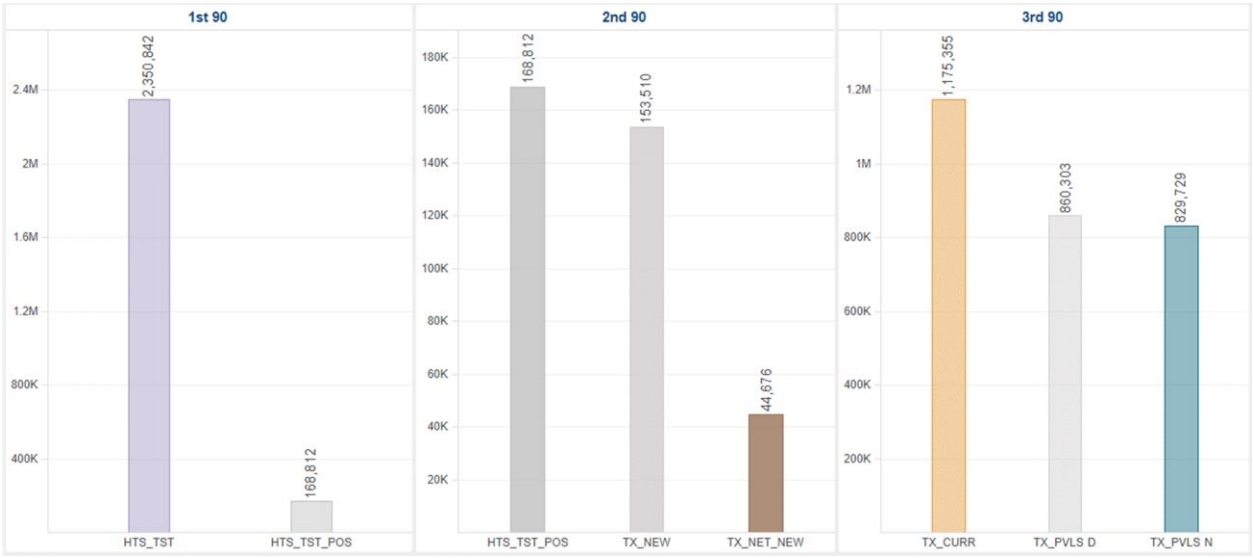
Table 3.1 Current Status of ART saturation

Prioritization Area	Total PLHIV/% of all PLHIV for COP22	# Current on ART (FY22 Q1)	# of SNU COP21 (FY22)	# of SNU COP22 (FY23)
Attained	862,364/65%	758,936	32	32
Scale-up Saturation	377,438/28%	327,188	53	54
Scale-up Aggressive	52,299/4%	32,113	8	15
Sustained	27,145/2%	22,583	10	10
Central Support	16,810/1%	11,113*	13	5

*Source: COP22 DataPack (*Central Support TX_CURR: HMIS)*

4.0 Person-centered Program Activities for Epidemic Control

Figure 4.0.1 Overview of 95/95/95 Cascade, FY21



Source: Panorama

Revised PLHIV estimates indicate an absolute treatment gap of 138,362 (Table 2.1.2). PEPFAR Zambia will focus on finding the missing, linking them to treatment, and supporting treatment continuity. In COP22, PEPFAR Zambia will address missed opportunities for case finding in children, AYP, and KPs. Strategies to improve testing efficiencies will include facility- and community-based index testing, SNS testing and HIVST. An aggressive case finding strategy using a mixed-modality approach that leverages the strengths of community partners to identify the most challenging to find populations will bridge the treatment gap and move Zambia closer to epidemic control.

4.1 Finding People with Undiagnosed HIV and Starting Them on Treatment

Case finding is the gateway to effective epidemic control and bridges the HIV prevention and treatment cascades. To accelerate progress toward 95-95-95 goals, an effective, targeted, smart, and efficient case finding program that leverages the expertise of community and treatment partners is needed in Zambia. While PEPFAR Zambia has improved targeted testing programs for index cases among adults, more work is required to optimize case finding for children, AYP, and KPs. A mixed modality approach to find the hardest-to-reach population is necessary, while honing the general testing strategy for efficiency and maximized outcomes to identify and link PLHIV to life-saving ART.

PEPFAR Zambia will use a strategic mix of HIV testing modalities to achieve ambitious HIV case finding targets. These approaches include safe and ethical index testing, PITC within health facilities, SNS testing, and use of HIVST. PEPFAR Zambia will continue to use active linkage

strategies to ensure all newly diagnosed PLHIV are linked to HIV treatment services and all HIV negative individuals to high-impact HIV prevention services including DREAMS, VMMC, and PrEP. Peer educators provide a bridge between communities and health facilities, supporting newly-diagnosed AYP and KPs to navigate the initial challenges of treatment initiation.

Across testing modalities, PEPFAR Zambia will support DSD models tailored to the specific needs of children, AYP, and KPs to improve linkage to and continuity of treatment for all PLHIV. For example, availability of immediate ART offered as a multi-month starter pack will support linkage to treatment for individuals newly diagnosed with HIV, while helping PEPFAR Zambia achieve a 98% linkage rate in COP22.

PEPFAR Zambia will continue to support quality HIV testing in COP22 through provider training, targeted technical support, and proficiency testing. All sites providing HIV testing will undergo site certification and certification of testers as required by MoH policy. PEPFAR Zambia will prioritize safe and ethical index testing and strategically link facility-based testing to high-yield diagnostic testing (e.g., TB, malnutrition, STI). Testing protocols will follow WHO guidance to ensure consent, confidentiality, adequate counseling, correct results, and connection to treatment. IPs will support training in GBV, IPV and VAC screening for all healthcare providers who conduct index testing and work closely with post-violence services and programs to increase safe screening. PEPFAR Guidance on Implementing Safe and Ethical Testing Services will guide the program's index testing efforts.

4.1.1 Case finding strategies

In COP22, safe and ethical index testing will remain the primary case finding approach for PEPFAR Zambia, as this modality continues to yield a high number of individuals testing positive for HIV. As of COP21 Q1, facility-based index testing identified 47.4% of newly identified PLHIV and 53.6% of newly identified CLHIV. COP21 Q1 results showed that the PEPFAR Zambia program reached 75,441 individuals with index testing with an elicitation ratio of 1:2. Of those who accepted, 76% of the contacts elicited were tested, identifying 19,052 new individuals testing positive with a positivity rate of 25%. Of the 19,054 individuals identified as HIV positive, 43% were adult women and 39% were adult men. AGYW and ABYM accounted for 12% and 3% of the positive results, respectively, while approximately 3% represented children less than ten years.

In health facilities, index testing will target all newly diagnosed individuals identified as HIV positive, high VL patients and patients on treatment, but who have incomplete index testing, to link them to community health workers (CHWs) for follow up of their sexual partners and biological children. In addition, PEPFAR Zambia will continue to expand the use of registers for patients with unsuppressed VL to prioritize their sexual partners for index testing. PEPFAR will, however, ensure that index testing remains voluntary; no client will be forced to take up the service. PEPFAR Zambia will prioritize index testing of pediatrics, AYP, and KPs and ensure IPs receive training to assess and respond to situations that involved violence against children (VAC), GBV and intimate partner violence (IPV).

PITC accounts for the second largest volume of new diagnoses. In COP22, PEPFAR Zambia will continue to support universal testing within ANC and PMTCT services, TB and STI clinics, and inpatient wards. Outpatient departments and VMMC platforms will use a standardized risk screening tool to identify high-risk individuals for testing. (Use of the pediatric HIV screening tool has been suspended since COP21 Q1 out of concern for screening out too many children who are eligible for testing.) OVC partners will also conduct a risk assessment to identify children at high risk of HIV without a documented test result based on the principles of family testing (biologic parent living with HIV, biologic sibling living with HIV, mother deceased), targeted risk-based testing (e.g., violence survivor, unsafe injection, blood transfusion, etc.), or diagnostic testing (e.g., poor growth/nutrition, known or suspected TB, or other potential opportunistic infection). Once identified, OVC IPs will link the child to a facility or community site for HIV testing.

A key programmatic shift in testing in COP22 involves retesting of negative PBFW after ANC1 to systematically identify incident infections after ANC1 in the prenatal period, as well as during breastfeeding. Although the current national guidelines recommend testing of all PBFW every three months, this has not been implemented with fidelity due to limitations in test kits as well as human resources (HR) in MNCH to conduct high volume of re-testing. PEPFAR Zambia will work with MoH to recommend a more systematic re-testing schedule at labor and delivery (or at the first postnatal visit if the woman does not deliver at a facility), nine months and 18 months postnatal during the breastfeeding exposure period. The latter two time points coincide with the measles Expanded Program for Immunization (EPI) schedule, when all babies are supposed to be brought in to health facilities to receive the immunization. We will implement a tracking system to ensure all negative mothers bring in their children for EPI at nine and 18 months so that they can be retested at those time points.

In COP22, PEPFAR Zambia will continue to scale-up SNS testing, a peer-driven, incentive-based, chain referral method to reach and provide HIV testing, treatment, and prevention services to KPs. SNS is a high-yield modality that PEPFAR Zambia started implementing in COP21. While the yield from SNS is 21%, the volume of positives remains low. SNS services are mainly provided in collaboration with public health facilities and at safe spaces identified in the community in consultation with KPs. In COP22, PEPFAR Zambia will focus on scaling-up SNS to additional facilities and community sites based on lessons learned from COP21 implementation to increase the number of KPs and other at-risk populations reached through this modality, such as AYP In addition, PEPFAR Zambia will integrate index and SNS services by offering SNS referral coupons to KP clients who are unwilling or unable to provide the names or contact information of their sex or needle-sharing partners during the elicitation interview but willing to share the referral coupon with their network. In COP22, PEPFAR Zambia will explore the use of SNS with other high-risk groups, including AYP.

HIV self-testing is an important tool for improving HIV testing coverage among underserved populations. In COP22, PEPFAR Zambia will strategically use HIVST to support at-risk populations who may not be easily reached through routine HIV testing in health facilities and

may prefer to test in the privacy of their homes. PEPFAR Zambia will rely on caregiver-assisted testing to reach children over two in their homes, while also offering HIVST to at-risk PBFW and older men, particularly those who identify as MSM. HIVST will not replace testing using rapid test kits (RTKs), but will merely be used as a screening tool for high-risk, priority populations. IPs will use differentiated strategies, including referral cards, outreach follow-up, and phone calls and text messages to remind those who screen HIV positive with a self-test kit to seek confirmatory testing and immediately start treatment if diagnosed as HIV positive. PEPFAR Zambia will also strengthen collaboration between the OVC and DREAMS programs to ensure OVC and AGYW, who might not otherwise seek HIV testing at health facilities, have increased access to HIVST. Secondary distribution of HIV self-test kits within index testing services will improve the number of contacts who are tested. PEPFAR Zambia will prioritize HIVST distribution in health facilities in high-burden areas with low ART coverage. PEPFAR Zambia will continue working closely with NAC, IPs and CSOs to increase awareness of and demand for HIVST through education and sensitization activities, including social media.

Finally, PEPFAR Zambia will continue to scale up recency testing in COP22 to characterize incidence, identify demographic and geographic outbreaks, and target HIV services to effectively break the cycle of transmission. Recency testing will continue to be provided in Lusaka, Copperbelt, Central and Southern Provinces. In COP22, the program will expand to 3 new DREAMS districts including Kasama (Northern), Mongu (Western), and Chipata (Eastern). The goal is to utilize recency results to identify specific sub-district areas of higher transmission (particularly amongst AGYW) to target DREAMS and AGYW interventions. PEPFAR Zambia will expand the recency program to more sites within these provinces. Recency results have already supported identification of demographic and geographic patterns of new HIV infections. PEPFAR Zambia has shared this information with MoH to shape an appropriate public health response. Recency testing will remain a critical surveillance tool in COP22, and PEPFAR Zambia will improve use of recency data to implement responses that advance epidemic control.

4.1.2 Children living with HIV

In COP21, the pediatric program has focused on completing family index testing in pediatric surge sites located primarily at high-volume facilities. Despite challenges with documentation and reporting coverage of family index testing completion, many of the IPs involved in testing have been able to achieve high (>80%) coverage at their respective facilities. However, despite increases in index testing volume, the absolute number of positive children identified through this modality has remained stagnant, raising concerns that the index testing efforts may not focus where the children are more likely to be found. Further analysis comparing testing volume of children against adults revealed that larger facilities (TX_CURR >3,000) are more likely to perform pediatric testing relative to adult testing volume compared to smaller facilities; however, smaller facilities (TX_CURR <500) found more children relative to the number of adults identified. These findings, along with prior analyses that revealed relatively high relative proportion of positive children coming from smaller facilities, suggest that PEPFAR Zambia should pivot testing to smaller facilities instead of the current focus on the larger facilities. As such, PEPFAR Zambia will focus on boosting pediatric testing efforts in COP22 in the smaller

facilities that had not previously received as much support for family index testing compared to the surge (large) sites.

PEPFAR Zambia will continue facility-based testing of children at high-yield entry points such as TB, malnutrition clinics, and inpatient wards. The MoH suspended use of the pediatric HIV risk screening tool in COP21 Q1 out of concern for under-testing of eligible children. This suspension remains in effect at the time of this writing, but the OU anticipates validation results of the existing pediatric HIV screening tool to be available by the end of COP21 and that a new validated tool will be developed based on the findings and will be implemented in COP22. PEPFAR Zambia will ensure the validated tool is implemented with fidelity and monitored continuously for signs of screening out too many children, by providing continuous mentorship and oversight to partners implementing the screening tool.

A key component of the pediatric case finding strategy in COP22 is to amplify community-based case-finding to identify children. PEPFAR Zambia will leverage community testing partners who have a strong track record of finding other "hard-to-find" and "hard-to-reach" populations such as men and KPs; expand community posts or similar community-based models to facilitate testing services to hard-to-reach populations; and ensure completion of index testing of mothers, including AGYW and/or KPs.

In COP22, PEPFAR Zambia will focus on "missed opportunities" in the PMTCT/HEI cascade, by systematically increasing re-testing of women during the breastfeeding period at nine and 18 months – when over half of mother-to-child transmissions occur. This approach aligns with the measles immunization schedule and current WHO guidance for re-testing PBFW and will allow for better detection of incident infections among women, thereby preventing subsequent transmission to women's children.

4.1.3 Adolescents and young people

Program data indicates equally low treatment coverage and VL suppression rates among AGYW and ABYM, pointing PEPFAR Zambia toward a case-finding strategy that focuses on the unique needs of all AYP (15-24). Improving case finding efforts to reach AYP living with HIV, especially AGYW, will be a critical focus for PEPFAR Zambia in COP22. The MoH's adolescent surge provides a strong roadmap for PEPFAR Zambia to follow and build upon to reach more AYP, through a mix of case finding modalities that demonstrably work, including community-based index testing, HIVST, and SNS. PEPFAR Zambia will continue to advocate for a lower age of consent to reduce age-related barriers to HIV testing among AYP.

To reach undiagnosed AYP living with HIV and link them to treatment, PEPFAR Zambia will support IPs to strengthen and expand the number of health facilities that provide high-quality, facility-based adolescent-friendly spaces with comprehensive HIV services, including SRH services. Providers will receive training in effective provision of adolescent-friendly services that

guarantees age-appropriate, integrated service provision. Additionally, PEPFAR Zambia recognizes the importance of community-based safe spaces for AYP. Beyond existing safe spaces for AGYW in communities, such as DREAMS Centers and Rise Up! Houses, PEPFAR Zambia will support increased availability of and access to similar safe spaces for all AYP through community partners and partnership with the GFATM. Peer-led index testing and self-testing, complemented by SNS testing for hard-to-reach AYP, will offer tailored testing options. PEPFAR Zambia will make deliberate use of recency testing to identify hotspots where implementing partners will intensify community-based testing finding strategies.

PEPFAR Zambia recognizes that all AYP, including AGYW, have unique needs and therefore a one-size-fits-all approach will not close the HIV treatment gap for this population. In COP22, PEPFAR Zambia will engage AYP directly to learn from their perspectives and insights and make program changes and shifts to meet their needs. PEPFAR Zambia will work with clinical and community partners to elevate the voices of young people in Zambia. Use of evidence-based, peer-led models will not only strengthen case identification efforts, but also linkage to HIV prevention interventions, as appropriate. Increased use of six-month MMD among AYP, matched with peer support and digital retention reminders, will support ART adherences and VL suppression.

4.1.4 Men

Though PEPFAR Zambia will prioritize interventions that address treatment and retention gaps among children, AYP, and KPs in COP22, the OU will continue to implement high-impact interventions to identify, link, and retain men in care and treatment. This supports PEPFAR Zambia's commitment to person-centered, equitable, and inclusive services to all PLHIV. PEPFAR IPs will provide intensive mentorship to improve provider elicitation skills to increase case finding through contact elicitation of female index clients. PEPFAR will continue working with CSOs and IPs to improve monitoring of IPV in the index testing program. PEPFAR Zambia will provide appropriate training and mentorship, covering IPV screening and actions required to ensure safety of the client with adherence to WHO 5Cs (Consent, Confidentiality, Counseling, Correct Results and Connection to Services).

The Zambia Ending AIDS (ZEA) Campaign will continue in COP22, focusing on provinces and districts with the highest disease burden among men. Targeted social and behavior change (SBC) strategies under the ZEA Campaign, such as use of SNS referral coupons and outreach through social media, will be used to encourage more men, particularly older men who identify as members of KP communities, to seek HIV prevention services, including HIV testing. PEPFAR Zambia will also ensure fast linkage to ART and DSD models that are acceptable and meet the needs of older men.

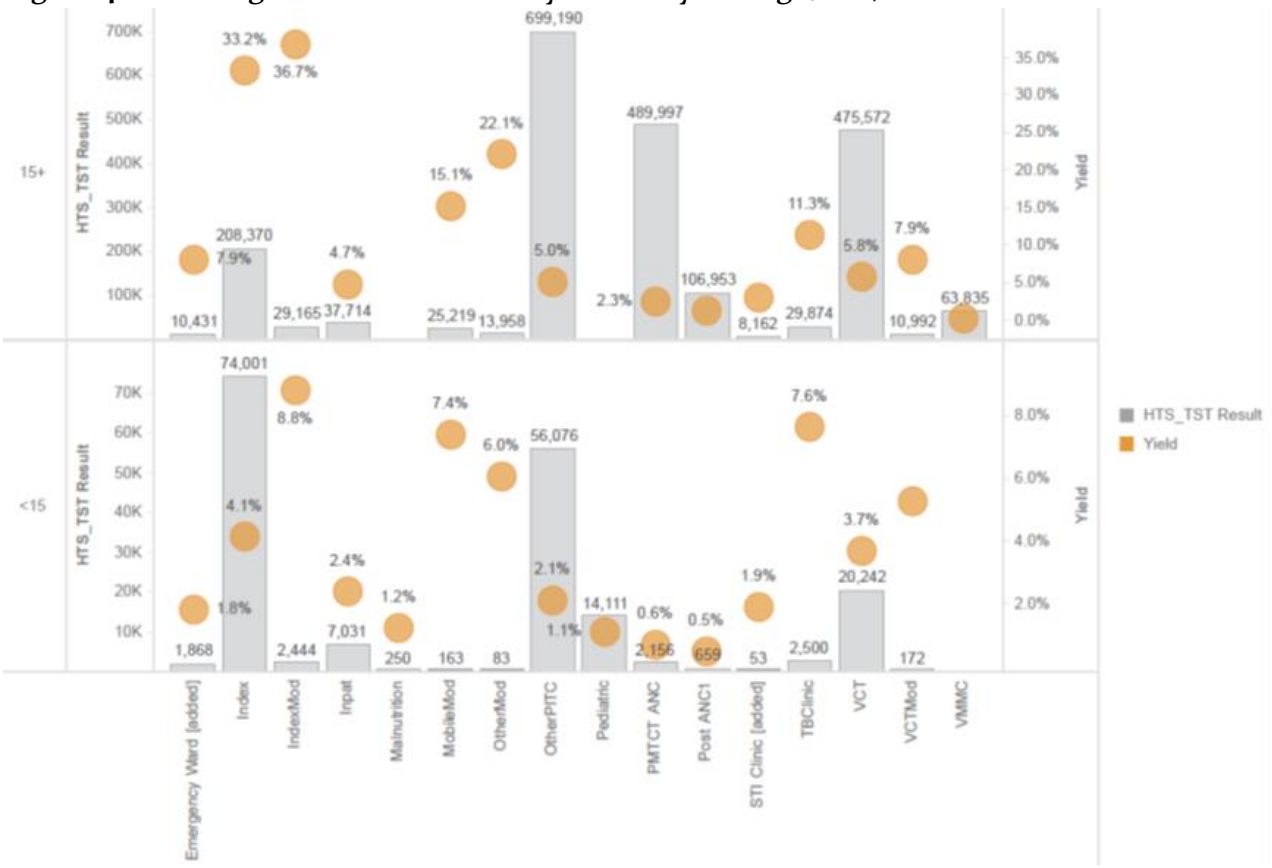
For men of all ages, the OU will expand implementation of male-friendly services (e.g., weekend and after-hours services, use of male providers, differentiated HTS where men are found) as these small, yet impactful interventions, have been proven to work in encouraging men to access health

services. PEPFAR Zambia will also scale up implementation of the community post model in marketplaces, bus stations and faith communities in high-burden districts in Zambia. PEPFAR Zambia's implementing partners will support peer-led models for case identification and treatment linkage, as such models have proven powerful tools to close treatment gaps among men. Direct engagement with ABYM as peer educators will ensure efforts to improve case identification for ABYM are truly peer-led and reach those "missing" from treatment.

PEPFAR Zambia will continue to provide HIVST in informal and formal workplaces where men are found, including construction sites, markets, sugar plantations, farms, and bus stations. Unassisted targeted testing is an effective way to reach at-risk persons in the community, and this will be expanded in COP22. In COP22, PEPFAR Zambia will also strive to expand and strengthen partnerships with the private sector, such as mining, agriculture, and transportation companies, to increase access to HIV testing services and linkage to treatment. Truckers and other mobile populations such as fishing communities and cross-border traders will remain a focus of the program.

Because the MenStar Coalition has proved to work in finding unreached males, the OU will use lessons learned from that approach to provide positive, empowering messages, and bring services that meet men's needs, closer to where they are found, such as in community post model.

Figure 4.1.1 Testing Volume and Yield by Modality and Age/Sex, FY21



Source: Foundry

4.2 Ensuring ART Continuity and Viral Load Suppression

PEPFAR Zambia has made significant progress towards achieving the UNAIDS 95-95-95 targets with over 1.1 million PLHIV on ART as of COP21 Q1. Treatment retention has improved from 73% in COP16 to 89% in COP21 Q1 (Patient-based analysis using SmartCare data, 2021). The OU recorded a loss of about 14,000 individuals from the treatment cohort in the first quarter of COP21 and attributes a proportion of this loss to data quality issues identified during data quality assessments (DQAs) conducted in December 2021. Through the DQAs, PEPFAR Zambia observed incorrect capture of patient transfers between health facilities and data entry backlogs for eLast health facilities. In the same period, retention dropped from 93% to 89%. To achieve the treatment retention benchmark of 95%, PEPFAR Zambia will need to address data quality and program quality gaps.

To address program quality, PEPFAR Zambia will continue to address barriers to access that undermine treatment continuity, including sub-optimal counseling; use of less tolerable regimens; health facility congestion; long distances; undifferentiated services for children, AYP, and KPs.

To address the geographic barriers to access, PEPFAR Zambia will continue to decentralize ART service provision through the community post model, bringing services to PLHIV where they live and work. The community post model has demonstrated better retention (97%) as compared to the standard of care (93%) in most facility-based ART sites (Patient level EHR data, APR 2021). PEPFAR Zambia will address knowledge gaps in HIV and VL literacy with an enhanced treatment literacy strategy, focusing on health facilities and districts with significant linkage and retention gaps. Where poor service quality creates barriers to HIV services in health facilities, PEPFAR Zambia will implement rational appointment systems to allocate specific days and times for ART services, such as weekends for school-going children, AYP, and continuous quality improvement (CQI) approaches to address needs of clients who miss appointments or interrupt treatment. Populations with lower ART linkage and viral suppression rates, including pediatrics, AYP, men and KPs, will receive focused support as noted below.

To address retention challenges among children and AYP on treatment, PEPFAR Zambia will continue to participate in the pediatric surge, while also contributing to the adolescent surge championed by MoH. Additional detailed information on efforts to improve ART linkage and viral suppression rates for these populations is included in Section 4.4.1. Proposed approaches and activities include the following:

- For children, PEPFAR Zambia will scale up community support for all children by expanding the OVC program from eight to nine provinces in Zambia; assign community case managers to every child, especially those living with HIV, and his or her family enrolled in the OVC comprehensive model; and facilitate clinical visits through escorted referrals and transport refunds.
- For AYP, PEPFAR Zambia will invest in community-based, asset-based, peer-led models that have proven effective in improving ART linkage and VL suppression. Expansion of

adolescent-friendly HIV and SRH services in health facilities and through community posts, for example, will encourage AYP to seek services in a safe and supportive environment. Increased use of six-month MMD among this population, coupled with digital retention reminders, will support ART adherence and VL suppression.

To support children and adolescents living with HIV (ALHIV) whose parents are also on treatment, PEPFAR Zambia will expand family-centered DSD models that offer full coverage allowing mothers, fathers and their children to be seen at the same health facility on the same day and at the same time.

Equitable and inclusive services that offer the same high quality of care to all PLHIV are critical to achieve epidemic control. Therefore, in COP22, PEPFAR Zambia will also support various DSD models that respond and cater to the needs of unstable and priority populations, including PBFW, individuals newly-initiated on ART, unsuppressed individuals, and KPs. Additional DSD measures to reduce interruption in treatment will include MMD of ARVs and support for ART home deliveries, to facilitate access to individuals with mobility challenges; mobile ART clinics, to reach truck drivers, migrant workers, fisher folk and mobile military units; community ART access points or community posts, to reach AYP, KPs, and others who are unable to access health facilities safely or confidently. Integration of NCD care into ART services, and mental health services, such as the Common Elements Treatment Approach (CETA), provide essential services that further support adherence to treatment. PEPFAR Zambia will use CLM feedback to refine DSD approaches to be responsive to and inclusive of all PLHIV.

Comorbidities associated with advanced HIV disease, such as TB and cryptococcal meningitis, are a common cause of interruption in HIV treatment. In COP 22, PEPFAR Zambia will continue to support procurement of commodities such as lumbar puncture kits, CrAg tests, Urine LAM, C-reactive protein, and medications to diagnose and treat these opportunistic infections. In COP 22, Zambia will also address the following:

- TB prevention: Prevention of TB, which is the leading cause of death among PLHIV, will be achieved by continuing TPT surge activities designed to reach all eligible clients including children. In COP22, PEPFAR Zambia aims to provide shorter regimens, specifically 3HP as the mainstay of treatment, subject to global supply availability.
- Intensified TB case finding: PEPFAR Zambia will screen presumptive TB cases among PLHIV with GeneXpert and manage cases based on results. To improve diagnostic yield, PEPFAR Zambia will also scale up urine LAM testing and place digital x-ray platforms in high-volume sites.
- Cryptococcal infection: Recipients of care with a CD4 <200 cells/µL will be screened for cryptococcal disease using serum CrAg. PEPFAR Zambia will treat CrAg-positive patients with or without meningitis for cryptococcal infection.
- Cervical cancer: Women living with HIV have a five-fold higher risk of cervical cancer compared to the general population. With support from UNITAID/CHAI and other stakeholders, PEPFAR Zambia will continue to provide cervical cancer screening using visual inspection of the cervix with acetic acid (VIA) or human papillomavirus (HPV) DNA

testing and treatment services for eligible women recipients of care, aiming to provide treatment to at least 90% of those who screen positive.

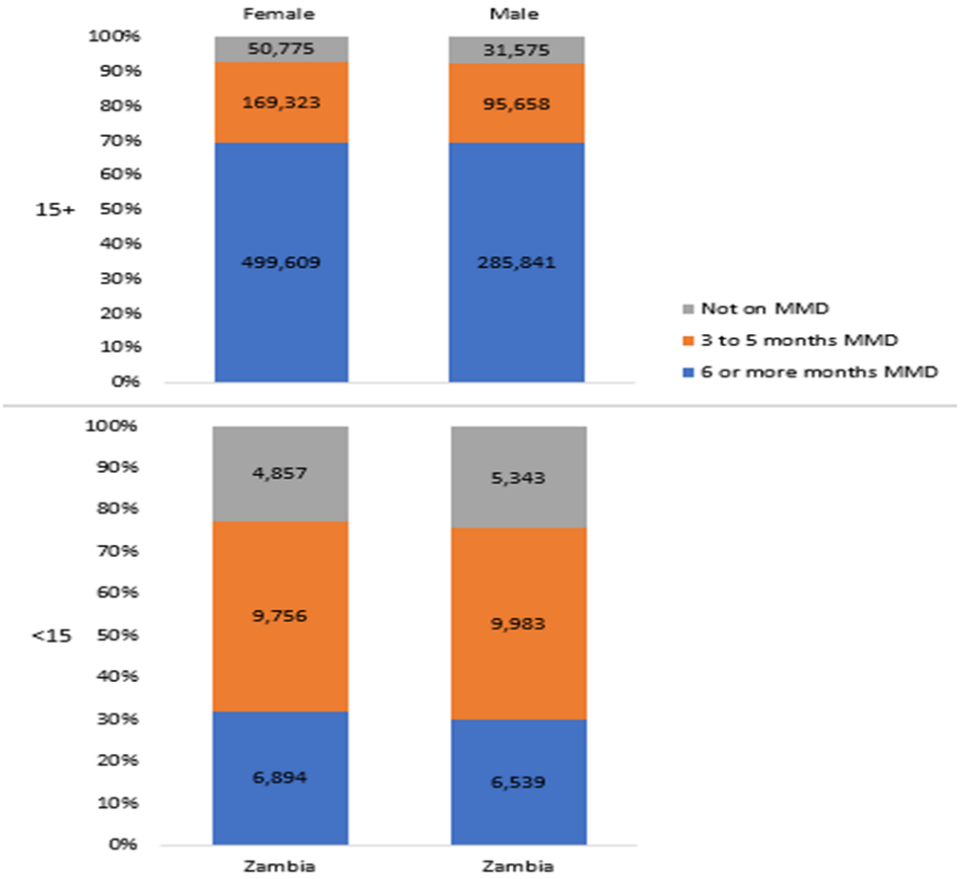
VL monitoring is important to understand treatment efficacy. VL coverage has improved from 37% in COP18 Q1 to 75% at COP21 Q1. VL coverage dropped over the last four quarters from 80% to 75% due to COVID-19 supply chain disruptions and lab-level issues such as machine breakdown, inadequate human resources for health (HRH), and inefficient lab information systems. To achieve full coverage for all districts and populations, PEPFAR Zambia will replace aging machines, enhance commodity security, ensure adequate HRH, and scale-up DBS to attain higher pediatric VL coverage. HCWs are often challenged with phlebotomy in this population; on-site mentorship will improve sample collection skills and confidence.

In the 2020 Zambia Consolidated Guidelines, the MoH has increased frequency of VL monitoring for PBFW from every six to three months. This more aggressive approach will facilitate early identification of any treatment failure among PBFW and more timely remedial action to reduce mother-to-child transmission (MTCT). To further improve VL testing coverage among children and PBFW, PEPFAR Zambia will continue to scale up point-of-care (POC) testing for VL using GeneXpert for about 70% of all priority VL specimens (for PBFW and children).

To improve VL suppression among children under 15 years old, PEPFAR Zambia will continue phasing out Non-Nucleoside Reverse Transcriptase Inhibitors-based regimens and replace them with more efficacious DTG and Protease Inhibitor-based regimens. Given the known implementation challenges with LPV/r granules, the country plans to transition all eligible children (over four weeks of age and weighing more than 3 kg) to DTG-based regimens.

To strengthen data quality, PEPFAR Zambia has introduced a national web-based, facility-level SmartCare Plus (SmartCare+) to track patients on HIV treatment and facilitate real-time deduplication of patient-level information. SmartCare+ will allow PEPFAR Zambia to report patient-level retention, rather than proxy retention. Proxy retention measures may incorrectly estimate attrition as evidenced by the triangulation of program and patient-level data. EHR patient-level analysis indicated that approximately 6% of client records are duplicates. This is due, in part, to silently transferred patients being treated as new patients at sites receiving them and patients who have absconded from HIV treatment returning as new on HIV treatment. To address the issue of transferred patients not being captured in the system, the program will introduce a patch in SmartCare that will allow patients to be entered into the system as transferred-in at receiving sites. To address the issue of treatment for experienced patients appearing as new, PEPFAR Zambia will continue to support baseline VL testing for all newly-identified positives at the point of diagnosis. This is also needed for recency testing and has been included in national HIV guidelines as of 2021.

Figure 4.2.1 Number and Percent Contribution of Clients Receiving MMD by Age/Sex, FY21



Source: Panorama

Figure 4.2.2 Viral Load Outcomes, FY21

Source: Panorama

4.3 Prevention

4.3.1 DREAMS and AGYW

In 2021, over 40% (14,611) of new HIV infections in Zambia occurred among AYP (15-24) with AGYW bearing the greatest burden: AGYW comprise 78% of new infections for this growing population. For this reason, PEPFAR Zambia will continue to focus on prevention of new infections among AGYW not only through DREAMS but also through focused support from community-based prevention partners outside of DREAMS catchment areas and districts. PEPFAR Zambia's strategy to prevent new infections among AGYW directly supports the MoH adolescent surge, which prioritizes improved access to HIV prevention services, including sexual and gender-based violence, and increased numbers of adolescent-friendly spaces in communities.

In COP22, PEPFAR Zambia will continue to provide comprehensive prevention services under DREAMS in 14 high-burden districts, while establishing six new DREAMS Centers across three districts (Mazabuka, Monze and Mongu) to meet unsatisfied demand for HIV prevention services. To continue to drive down HIV incidence among AGYW – which has reduced dramatically by 61% between 2000 and 2020 (Spectrum 2022) – PEPFAR Zambia must intensify efforts to identify and serve "missing" or "hidden" AGYW. Hotspot mapping will remain an effective tool to identify the most at-risk AGYW in DREAMS districts and beyond. In COP22, PEPFAR Zambia will prioritize recency expansion to DREAMS and AGYW priority areas. Improved use of recency results will inform geographic planning for adolescent-friendly prevention services within districts.

PEPFAR Zambia leverages multiple entry points to identify AGYW who are most vulnerable to HIV and will place particular emphasis on identifying and engaging pregnant AGYW and young mothers in DREAMS. Working with clinical partners, DREAMS will strengthen ties to antenatal care (ANC), family planning (FP), and sexually transmitted infection (STI) platforms in health facilities to identify and refer AGYW to the program. PEPFAR Zambia will also prioritize inclusion of AGYW with disabilities as DREAMS mentors, peer educators, and program participants. DREAMS will continue to work with respected community and faith leaders and other community-based organizations to identify and recruit AGYW from community spaces, including schools and churches. In COP22, PEPFAR Zambia will require community-based prevention partners to apply similar strategies to offer equitable, person-centered HIV prevention services.

PEPFAR Zambia mobilizes communities for change through school-based HIV prevention and violence prevention programs and, as such, will continue to support the Ministry of General Education's roll-out of Comprehensive Sexuality Education and violence prevention programs in select schools across the 14 DREAMS districts. Community mobilization that engages ABYM, community and faith leaders, and other change agents supports subtle changes in gender and social norms that decrease HIV risk for AGYW. PEPFAR Zambia will make active referrals to GBV One Stop Centers, where AGYW receive comprehensive post-violence care, including provision of post-exposure prophylaxis (PEP) and emergency contraception. PEPFAR Zambia will maintain GBV prevention and crisis response as core components of safe spaces and expand provision of mental health services within safe spaces, like DREAMS Centers and Rise Up! Houses. In COP22,

PEPFAR Zambia will expand training of HCWs in Listen, Inquire, validate, Enhanced Safety and Support (LIVES) and DREAMS mentors and peer educators in the Listen, Ongoing Connection, Validate, Encourage Safety and Support (LOVES) curriculum to provide compassionate and continuing care to AGYW exposed to GBV. In addition, the Strong Minds mental health program, integrated into select DREAMS Centers, supports the emotional wellness and resilience of AGYW exposed to trauma.

Provision of needs-based, adolescent-friendly health services is critical to empowering AGYW to reduce their HIV risk. In addition to GBV prevention and response, other HIV prevention and risk avoidance or reduction strategies have included community mobilization for HIV testing services, linkage to treatment, condom promotion and distribution, and family planning services. In COP20, over 27,000 AGYW were initiated on PrEP in the 14 DREAMS districts, accounting for 71% of the total initiated on PrEP across Zambia. In COP22, PEPFAR Zambia will continue to expand coverage of PrEP services as an integral part of a comprehensive prevention package for AGYW aged 15 to 24 in DREAMS Centers and beyond. PrEP access and uptake will be facilitated by training clinical *and* community partners in adolescent-friendly PrEP service delivery, with emphasis on engaging female providers to deliver PrEP in health facilities, DREAMS Centers, Rise Up! Houses and other community-based safe spaces where AGYW access adolescent-friendly health services. DREAMS and PrEP mentors will play an enhanced role in providing adherence support to AGYW on PrEP under DREAMS and community-based prevention programs.

In COP21, DREAMS Zambia adopted two evidence-based curricula, BRAC ELA and Siyakha Girls, to offer a complete package of economic strengthening services as a bridge to wage employment or entrepreneurship for young women. These packages include advanced financial literacy, entrepreneurship skills, workforce development, and savings groups with linkages to formal banking. DREAMS will leverage existing public-private partnerships in diverse sectors, including information technology, construction, mining, and other trades to expand entrepreneurship, apprenticeship, and employment opportunities for AGYW. In COP22, DREAMS Zambia will develop a program to train AGYW as peer educators within the health system to intensify community-based case finding, counseling, and adherence support. By encouraging IPs to hire these trained AGYW peers, this program will not only create economic opportunities for AGYW, but also boost efforts to close case finding and treatment gaps for AYP. Finally, DREAMS will identify a more robust financial literacy model, which will complement the existing financial literacy content included in the Stepping Stones curriculum.

PEPFAR Zambia's commitment to the delivery of high-quality, evidence-based prevention interventions depends upon DREAMS mentors within the 14 DREAMS districts and peer educators in other community-based safe spaces who serve as role models and provide on-going support and individual follow-up with cohorts of AGYW. In COP21, PEPFAR Zambia refined mentor recruitment by standardizing selection criteria to ensure that DREAMS mentors have the motivation and competencies required to build positive relationships with AGYW and in their communities, and the willingness to learn technical skills required to deliver quality prevention

services. In COP22, PEPFAR Zambia's community-based prevention partners will expand similar peer-led approaches to improve access to and use of evidence-based prevention services.

DREAMS implementing partners use a database to track primary and secondary services delivered to unique AGYW. PEPFAR Zambia promotes use of data to inform program design. IPs conduct monthly analysis of site-level data to assess performance and implement course correction, as needed, and PEPFAR Zambia will coordinate semi-annual DREAMS review meetings across the interagency with IPs to monitor progress against priorities. As PEPFAR Zambia nears saturation in DREAMS districts, PEPFAR Zambia will begin developing maintenance plans with MoH, GFATM, implementing partners and other stakeholders. The results of the outcome assessment (planned for COP22) will inform the design of maintenance plans that assure sustained, high-quality HIV prevention services to AGYW in DREAMS districts and beyond.

Partnerships between clinics and communities, implementing partners, cooperating partners and government are necessary to ensure coordinated delivery of prevention services to AGYW. As such, PEPFAR Zambia will use active referrals between communities and health facilities and increased site-level collaboration among IPs to identify and reach AGYW with services tailored to their needs, HIV risk and age group. IPs serving KPs have streamlined processes to refer AGYW who identify as KPs to DREAMS and clinical services, while OVC IPs have developed stronger systems for bi-directional referrals between DREAMS, Rise Up!, and OVC platforms. PEPFAR Zambia will collaborate with the GFATM, the MoH and other stakeholders to develop a unified strategy to prevent new HIV infections for AGYW across PEPFAR Zambia. This includes leveraging adolescent-friendly safe spaces established or refurbished by GFATM and MoH to expand HIV prevention services to AGYW.

4.3.2 OVC

In COP22, PEPFAR Zambia's OVC program will focus on quality and fidelity of services for OVC and their families, while continuing to structure the program around three program models: preventive, comprehensive, and DREAMS. All services will remain oriented around the four domains of keeping OVC healthy, safe, stable, and schooled to prevent and mitigate the impact of HIV among OVC and their families. In COP22, PEPFAR Zambia will expand the OVC footprint from eight to nine provinces, including Northern Province, where CLHIV continue to demonstrate struggles with high interruption in treatment rates.

Under the preventive model, PEPFAR Zambia will continue to implement and scale up HIV and sexual violence prevention programs among 10–14-year-old vulnerable boys and girls, using evidence-based curricula like Coaching Boys into Men, Sinovuyo, Family Matters Program, and Stepping Stones. Active, accompanied referrals of vulnerable 15–20-year-old OVC to DREAMS also remains critical to ensuring that AGYW living in supported households are linked to comprehensive HIV prevention and sexual and reproductive health services.

To further reduce the vulnerability of 15-20-year-old children, adolescents, and youth to HIV infection, the OVC comprehensive model offers education bursaries to children and adolescents and household economic strengthening support, such as savings groups and agricultural inputs,

which defray household expenses that often expose OVC to greater risks. LIVES training for case workers facilitates identification of GBV and helps them provide compassionate first line psychosocial support to children exposed to violence and trauma.

Beyond provision of these structured, evidence-based interventions, PEPFAR Zambia's OVC program has formalized relationships with health facilities and treatment partners to strengthen HIV case finding and linkage to HIV prevention or treatment services. The OVC program will leverage the reach of CHWs to facilitate and complete family index testing for biological children of women living with HIV and siblings of CLHIV that are enrolled in the OVC comprehensive model. Facility-based caseworker follow-up and enrolment of young mothers and HIV exposed infants will also improve case identification and linkage to treatment, while integrated treatment literacy messages will support continuity of treatment among CLHIV.

4.3.3 Primary prevention

PEPFAR Zambia will continue to scale up primary prevention interventions among AYP to prevent HIV infection and other STIs. PEPFAR Zambia will support implementation of the recently developed National Condom Strategy, which adopts a total market approach. These interventions will complement conventional methods to ensure the availability of condoms in all health facilities and community-based safe spaces. PEPFAR Zambia will leverage the ZEA campaign to debunk myths and misconceptions limiting consistent use of condoms.

Prevention of and response to GBV in all its form is an essential component of a comprehensive primary prevention package. In COP22, community mobilization that engages community and faith leaders and ABYM, in particular, to evaluate and question harmful cultural and social norms will remain integral to efforts to prevent GBV. Survivors of emotional, physical and sexual violence will receive gender-sensitive post-violence care services that meet the unique needs of different populations, including children, AYP and KPs. LIVES and LOVES trainings for HCWs, CHWs and peer educators, such as DREAMS mentors, will improve the quality of care that survivors receive. See Section 4.3.8 for additional information on GBV prevention and response.

PrEP has proved effective in preventing incident HIV infection. In COP22, PEPFAR Zambia will continue to expand uptake of PrEP among PBFW, AYP and KPs, leveraging DREAMS Centers, Rise Up! Houses, adolescent-friendly safe spaces, faith-based communities, KP networks and peer educators to generate demand and support PrEP continuity. To further support PrEP continuity, PEPFAR Zambia will continue to review policy frameworks that support access to affordable and discreet alternatives to oral PrEP, such as the dapivirine vaginal ring, through the National PrEP Task Force. See Sections 4.3.8 and 4.4.3 for additional information.

VMMC remains an essential component of the country's HIV prevention strategy. PEPFAR Zambia will continue to extend VMMC to men between 15 and 29 years of age, to reduce incident infections among their sexual partners. See section 4.3.7 for additional information.

4.3.4 Children/PMTCT

The PMTCT program will continue to provide high coverage of testing at ANC1 and high linkage of positive pregnant women to ART. PEPFAR Zambia has realized success in reducing MTCT with

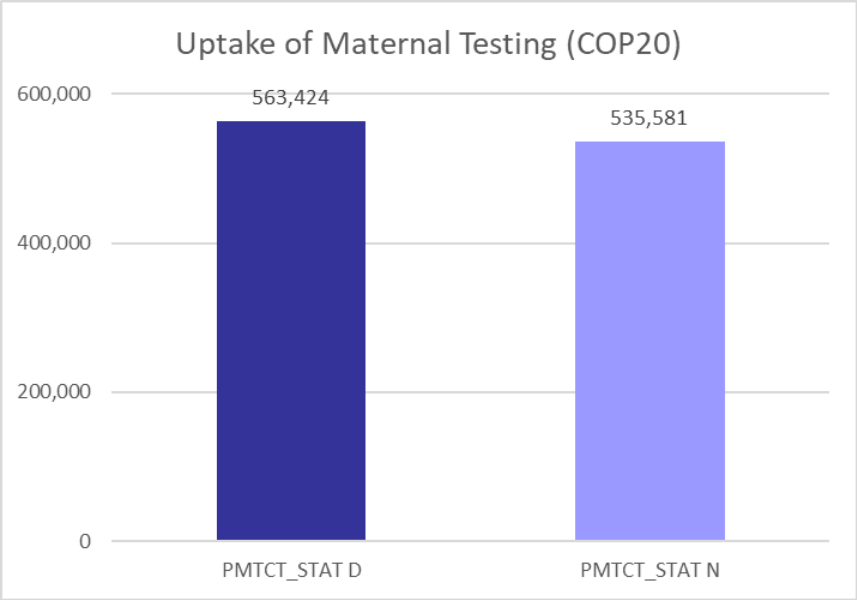
positivity yield at two months reducing from 2.2% in COP17 to 0.9% in COP20. Positivity of HEI at 12 months has also reduced from 3.0% to 1.1% over the same period. To address sub-optimal EID testing coverage in rural and remote districts, PEPFAR Zambia has scaled up EID testing on GeneXpert platform to 85 facilities in COP21; additional districts have adopted POC EID testing given the shorter TAT as compared to conventional PCR testing. Based on a national diagnostic DNO analysis that balanced sample referral transport and device-related costs per test, the COP22 plan for POC EID testing will continue to aim to reach approximately 70% of all EID tests to be conducted on POC, while the remaining 30% will be tested using conventional PCR. This will utilize both true-POC and near-POC using a hub-and-spoke model.

To improve retention of mother-infant pairs (MIPs) until the final outcome is determined, PEPFAR Zambia will continue to support mentor mothers to facilitate tracking of MIPs who miss appointments and/or experience interruption in treatment. Additionally, in facilities without mentor mothers, PEPFAR Zambia will support the use of peer volunteers or community-based volunteers, including safe motherhood action groups, to ensure adequate tracking of MIPs in these facilities. PEPFAR Zambia will also continue to use of the same appointments and tracking systems across MNCH care and ART clinics to improve retention of MIPs under care. In COP22, PEPFAR Zambia will continue to scale up positive infant audits to identify missed opportunities in the PMTCT cascade and to close identified gaps.

To prevent incident HIV infections among PBFW, PEPFAR Zambia will continue to scale up PrEP among PBFW in MNCH and family planning settings, particularly among AGYW with substantial risk of acquiring HIV. Continued use of risk screening in these settings will support identification of PBFW deemed "high risk" and referral for PrEP. Rather than providing PrEP in ART clinics, PEPFAR Zambia has made PrEP available in MNCH platforms and plans to expand services in family planning and SRH clinics. Finally, engagement of peer supporters, when available, will ensure community follow-up to support PrEP continuation during periods of risk and need.

For prevention of MTCT, maternal re-testing will continue at the recommended testing time-points in various service delivery areas, such as ANC, FP clinics, EPI clinics, MNCH; for any untested women, the OU will institute community follow-ups using established structures to ensure maternal re-testing. PEPFAR Zambia will implement a more systematic re-testing schedule after ANC1 – late pregnancy or at labor and delivery (or six days postpartum if not delivered at a facility), 9 months and 18 months – to increase testing during breastfeeding and identify incident infections during this period and align the testing points to the measles immunization schedule. PEPFAR Zambia will continue to encourage partner testing for women in ANC with plans to increase uptake of partner testing through provision of HIV self-test kits in COP22.

Figure 4.3.1 PMTCT Cascade



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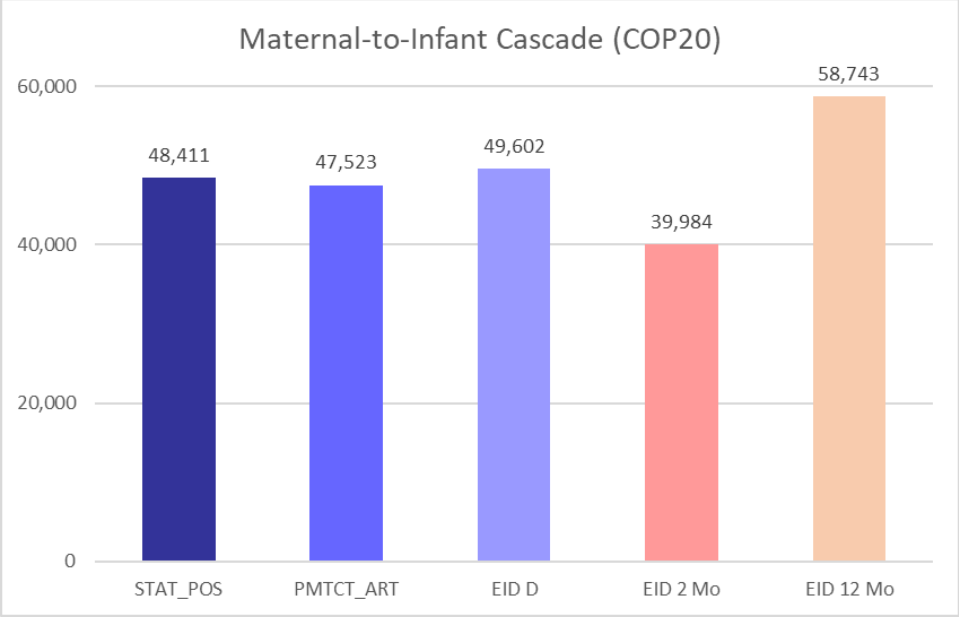


Source: *DATIM*

4.3.5 Key populations

Emerging evidence suggests that KPs and their sexual partners account for the majority of new HIV infections globally. For this reason, their access to and uptake of comprehensive HIV prevention, care, and treatment services is essential to achieving epidemic control. However, criminalization and stigmatization, often accompanied by high levels of violence, create barriers to accessing HIV services for KPs in Zambia.

Preliminary results from the Zambia 2021 IBBS studies on PWIDs, MSM and transgender individuals (in addition to other studies) suggest that HIV prevalence, STIs, substance abuse, and sexual and gender-based violence remain high among KPs. The studies also reveal low condom and limited uptake of PrEP. These gaps require a combination prevention approach that combines upstream and downstream strategies to address health and healthcare disparities and reduce new HIV infections among KPs.

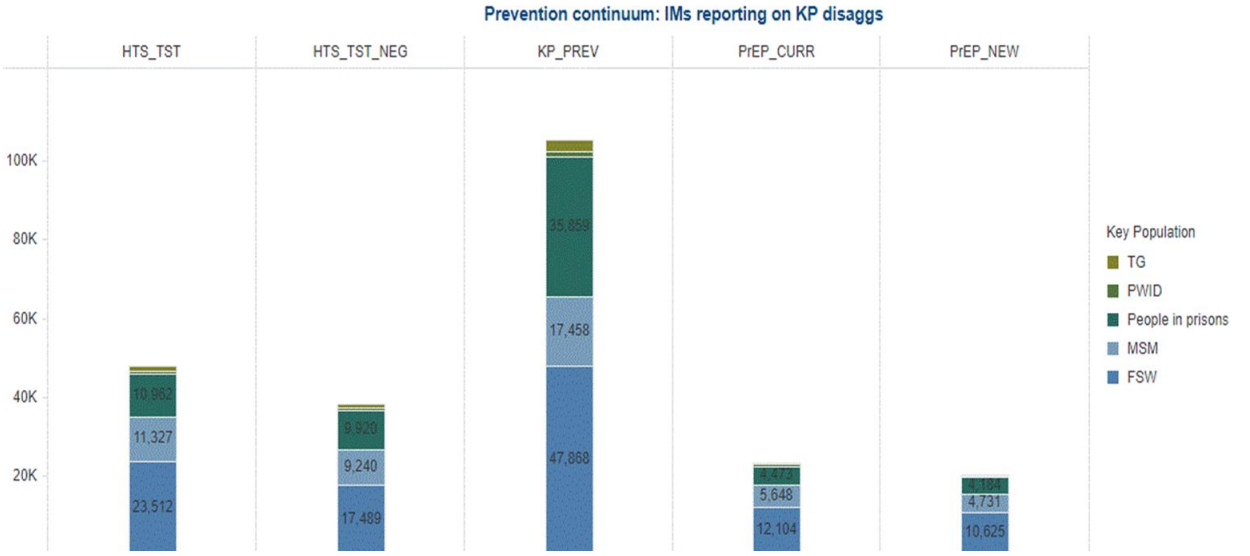
In COP22, PEPFAR Zambia will respond to these gaps by implementing evidence-based behavioral and biomedical approaches through DSD models tailored to the diversity of KPs. PEPFAR Zambia will scale up venue and network-based HIV testing approaches to improve case identification and linkage to treatment. Engagement of KPs to identify hotspots and reach individuals within their social networks will further support case finding.

PEPFAR Zambia's comprehensive prevention package for KPs will include intensive scale-up of PrEP through DSD models, such as community posts or KP-friendly safe spaces. Peer educators, with whom KPs identify and feel safe, will act as PrEP champions to not only promote PrEP initiation, but also continued use of and adherence to PrEP. Prevention services for KPs will also include sexual risk reduction education, promotion of condoms, and lubricant distribution. PEPFAR Zambia will ensure that KP sub-populations, such as people who inject drugs (PWID) and transgender individuals, have access to prevention services designed to meet their needs.

PEPFAR Zambia's support for KPs also extends to structural interventions. The OU will collaborate with the MoH and NAC to develop the necessary policy frameworks and guidance to support differentiated, inclusive care for the diversity of KPs. For example, work has begun to integrate the needs of PWIDs into policy frameworks to ensure equitable service delivery without fear of discrimination or punishment. Moving into COP22, PEPFAR Zambia will continue to adopt a "do no harm" lends and rights-based approach to improve equitable access to and uptake of HIV services and support the safety and security of KPs. The OU will address stigma and discrimination by engaging national level stakeholders to elevate the need for non-discriminatory, high-quality services for KPs. The OU will also engage leaders in the KP community in training healthcare providers, HCWs and peer educators in KP-friendly service delivery while also placing KP champions in health facilities to ensure unfettered access to services.

In COP22, PEPFAR Zambia will strengthen its collaboration with the Zambia KP CSO Consortium to improve planning, implementation, and monitoring of KP programs. The OU will build the capacity of the consortium of KP CSOs in program design, implementation, and monitoring. KP CSOs will continue to serve as PEPFAR sub-grantees to implement HIV prevention programs in different geographical regions to improve prevention outcomes among KPs.

Figure 4.3.2 Prevention Continuum by Key Population Group



Source: Panorama

4.3.6 Voluntary Medical Male Circumcision

PEPFAR Zambia's VMMC program has made strides in reaching males with the comprehensive package of HIV prevention services. From 2016 to December 2021, PEPFAR Zambia has reached more than 3.4 million males with VMMC services. PEPFAR Zambia has contributed to reaching 68% of the national total of males reached with VMMC services, with ABYM (15-29) comprising 51% of the those reached.

In COP21 Q1, 41% of men out of the 93,479 circumcised were tested for HIV, resulting in a positivity yield of 0.2%. This indicates that PEPFAR Zambia is reaching eligible males who benefit most from VMMC. The adverse event rate remains less than 2%, with the most serious AEs presenting post-operatively with infection or bleeding. Health facility staff attended to these adverse events with favorable outcomes.

PEPFAR Zambia continued to exceed targets even with disruptions to health services created by COVID-19. Despite suspension of community services, such as VMMC campaigns and mobile service delivery, VMMC continued at health facilities with strict adherence to COVID-19 mitigation and prevention guidelines.

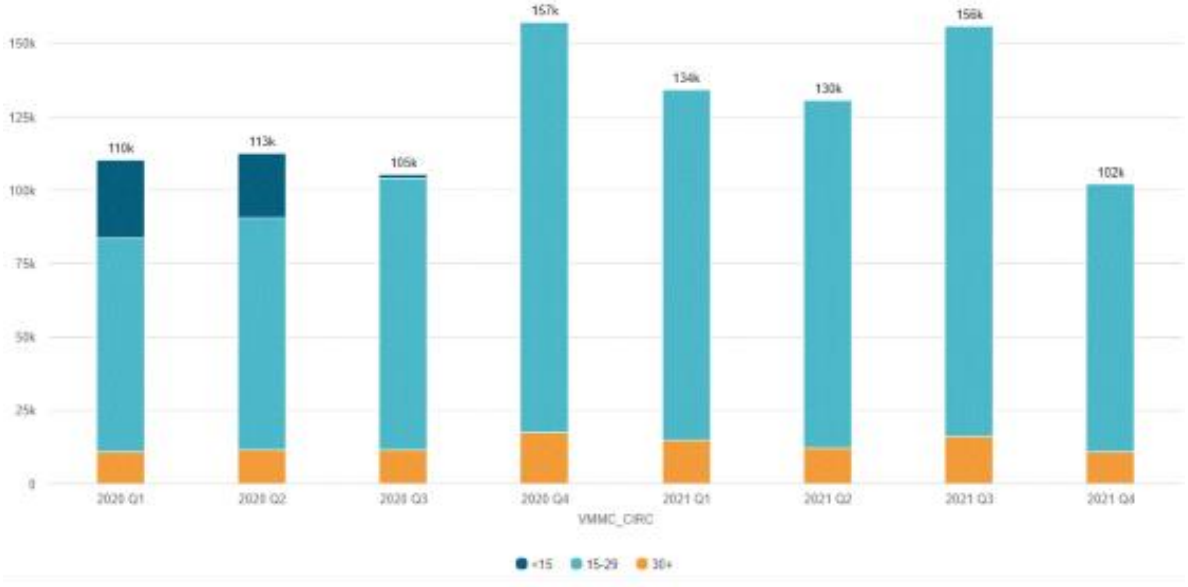
In COP21, PEPFAR Zambia has focused on SNUs with high HIV prevalence and unmet need for VMMC, applying concerted effort to find hard-to-reach males in farming blocks and fishing camps, for example, and striving to reach males aged 15-29 years. In COP19, PEPFAR Zambia completed active surveillance of the Shang Ring device and will offer the SR device to males above 15 years of age who prefer an alternative to surgery. In COP22, PEPFAR Zambia will continue to expand the choice of methods and increase the appeal of VMMC services by supporting scale-up and use of different VMMC devices, like the Shang Ring. Continued use of the hub-and-spoke model will improve access for clients in hard-to-reach areas. The VMMC program will support

stakeholder coordination, providing oversight and technical assistance to regional programs in quality assurance, CQI, promulgation of policy, and training of trainers.

In COP22, demand generation approaches will prioritize evidence-based interventions that reach males aged 15-29 years for immediate impact on the HIV epidemic. This will include the use of human-centered design; sport-based approaches like soccer galas; and community mobilization in which peer educators create demand and link clients to VMMC and other HIV services. The use of VMMC as an entry point to other health services presents an important opportunity for engaging ABYM in health services, with great potential for expanding access to HIV prevention, treatment, and care. Partnerships with traditional and community leaders to generate demand and promote program ownership is critical to demand creation strategies.

In COP22, PEPFAR Zambia will continue to support direct service delivery by supplementing the government's efforts in HRH by hiring professional and lay health workers. Enhanced on-site mentorship, supervision, and monitoring at site level will optimize efficiencies in service delivery; enforce compliance with medical ethics and human rights principles (informed consent, confidentiality, absence of coercion); and offer quality VMMC in sanitary conditions to promote client safety. The OU will also support procurement of VMMC commodities and rely on logistics tools to mitigate stock-out-related program disruptions. Data quality assurance coupled with iterative review and use of performance data will support CQI.

Figure 4.3.3 VMMC Quarterly Trends by Age



Source: Panorama

4.3.7 PrEP

Despite the mammoth increase in the number of people initiated on PrEP from COP19 to COP20, 45,926 and 131,260 respectively, HIV incidence remains significant among some populations. HIV prevalence among AGYW (15-24) is double that of their male age counterparts. Seroconversion rates among PBFW remain high, which results in the risk of vertical transmission to their children. Marginalized groups such as FSW, transgender people, people in prisons, people who

inject drugs (PWID), and (MSM) are also disproportionately affected by HIV in Zambia. The demonstrated resilience of Zambia's PrEP program presents a unique opportunity to ensure that at-risk populations have access to this potentially life-saving biomedical intervention. PEPFAR Zambia is focused on ensuring continued provision of high-quality PrEP services. In COP21 Q1, PEPFAR Zambia had already initiated 31,466 clients on PrEP.

PEPFAR Zambia has continued to grow the PrEP program, with 1,069 sites across 104 districts offering PrEP; this accounts for 90% of districts in the country as of COP21 Q1. Continued demand creation efforts through the Zambia Ending AIDS (ZEA) campaign and the use of gatekeepers and peer leaders to engage at-risk populations have significantly improved acceptability of PrEP, especially among AGYW and KPs, with the number of KPs initiated on PrEP increasing exponentially from 496 in COP17 to more than 20,000 in COP20. Despite the increase in the number of clients newly-initiated on PrEP, continuation rates among at-risk populations remain suboptimal. A cohort analysis of program data involving 60,000 clients initiated on PrEP since 2018 demonstrated that only 46% of clients initiated return three months after initiation; this rate diminishes to 20% after 12 months. Without improved PrEP continuation, especially among those with increased HIV risks, minimal progress will be made in reducing new HIV infections.

In COP22, PEPFAR Zambia will continue to provide PrEP as part of a package of comprehensive HIV prevention services that includes sexual risk reduction activities, HIV testing, STIs screening, condom distribution, contraceptives, PEP, and VMMC. With the increase of general awareness of PrEP in the country, PEPFAR Zambia will focus efforts on populations at higher risk of HIV infection, especially AGYW, KPs and PBFW, while supporting PrEP continuation while integrating PrEP within ANC, FP, STI and other health platforms to improve access and uptake. PrEP provision will include community-based DSD models for KPs and AGYW through community posts and safe spaces; AGYW will also access PrEP through DREAMS Centers and Rise Up! Houses. PEPFAR Zambia will integrate community-led PrEP into existing HIV services to support adherence. Health facility-based approaches will target PBFW and sero-discordant couples (SDCs).

In COP22, PEPFAR Zambia will continue to improve uptake of PrEP among PBFW to reduce HIV infections. Differentiating the provision of PrEP from ART to other departments within health facilities has reduced the workload of already overstretched ART providers and mitigated stigma and discrimination known to limit PrEP uptake in ART settings. PEPFAR Zambia will train and orient MNCH and FP providers to address inadequate knowledge and skills and reluctance of healthcare providers to screen and initiate PBFW on PrEP. Through continuous technical assistance and supportive supervision, PEPFAR Zambia will emphasize the importance of PrEP in reducing seroconversions among PBFW.

PEPFAR Zambia will work with the MoH through the National PrEP Task Force to advocate for the introduction and eventual inclusion into national guidelines of injectable PrEP. This new biomedical intervention is a potential game-changer in HIV prevention, especially for individuals who struggle with the pill burden of oral PrEP or worry about the lack of privacy that comes with keeping PrEP drugs at home.

PEPFAR Zambia will continue to support demand creation efforts for oral PrEP through the ZEA campaign. With community restrictions during the third and fourth waves of COVID-19, ZEA played an integral part in maintaining demand for PrEP among AYP through targeted messages on prevention products and services. The messaging has resonated with members of the public, particularly with men aged 25-39, with this group accounting for 30% of all clients initiated on PrEP in COP20. PEPFAR Zambia will use lessons learned from this notable success to further target AGYW and men with impactful messages to increase PrEP uptake in these two groups that are so critical to HIV epidemic control efforts in Zambia. In total, PEPFAR Zambia aims to initiate 140,000 clients on PrEP in COP22. This target is based on PrEP initiations in COP20 and COP21 Q1 performance and accounts for community needs.

4.3.8 Gender-based violence prevention and response

Gender-based violence is a pervasive threat that persists through harmful gender norms and inequality. Gender inequality results in unequal access to and uptake of HIV prevention, care, and treatment services. It also impacts an individual's ability to initiate and practice healthy behaviors, exercise their right to live free from violence, stigma, and discrimination, and achieve the highest attainable standard of health. Violence against children (VAC) undermines prevention and treatment outcomes and contributes to diminished well-being for children.

Although there is a dearth of local data on GBV in Zambia, evidence from the most recent Zambia Violence Against Children Survey (VACS), suggests that 27% of girls who had their first sex before the age of 18 years reported their experience as forced, coerced or non-consensual. Among sexual violence survivors aged 18- to 24-years-old, 19.8% of females and 24.6% of males knew where to seek help; only 1.4% and 7.2% of female and male survivors, respectively, sought help. In part, these gaps are attributable to weak GBV program coordination systems at national and subnational levels. PEPFAR Zambia has continued to fill these gaps by collaborating with the MoH and cooperating partners to prevent and respond to GBV in all its forms.

In COP22, PEPFAR Zambia will address GBV, gender equality, and VAC in HIV prevention services and across the clinical cascade. Survivors will receive gender-sensitive and trauma-informed post-violence care services that meet the unique needs of different populations, including children, AGYW, ABYM and KPs. HCWs and CHWs will continue to participate in LIVES and LOVES trainings to offer first-line support. For accurate reporting and provision of post-violence care to AGYW GBV survivors, PEPFAR Zambia will continue to strengthen active referral systems between DREAMS Centers, Rise Up! Houses, and GBV One Stop Centers.

In COP22, PEPFAR Zambia will ensure that IPs adhere to guidelines for routine screening for GBV and IPV in the context of PrEP, index testing, PEP, and care and treatment services. PEPFAR Zambia will strengthen and continue to support the provision of post-violence clinical care services at health facilities and existing GBV One Stop Centers. Services include psychosocial support, screening for sexual, physical, and emotional violence, victim support services through the Zambia Police Service, legal services, HIV testing, linkage to ART, and social protection.

PEPFAR Zambia will strengthen the quality of service by ensuring that the minimum standard of post-violence care is maintained at all service delivery points. PEPFAR Zambia will also provide GBV multidisciplinary training for health workers, police officers, relevant line ministries, anti-GBV cooperating partners, and other social services staff to strengthen knowledge, skills, compassion, and cooperation for GBV prevention, response, and care.

PEPFAR Zambia will continue to support community-based GBV prevention strategies to address the social and cultural norms, myths, and misconceptions that condone and motivate GBV. This will include the implementation of evidence-based curricula such as SASA! and Coaching Boys into Men. PEPFAR Zambia will also strengthen the linkage between community-based GBV prevention interventions, including GBV chiefdom secretariats, facility-based post-GBV care, GBV One Stop Centers, OVC programs, DREAMS Centers and Rise Up! Houses. With more health facilities providing high-quality post-violence services and linkage to HIV prevention and treatment services, survivors will receive timely support, such as PEP and SRH services.

At national level, PEPFAR Zambia will work with the Ministries of Health, Justice, Youth, Sport and Art, General Education, the Gender Division under the Office of the President, and cooperating partners to improve the policy and legal environment on GBV prevention and response. The OU will leverage media outlets to communicate positive gender practices through radio, television, and social media and dispel myths and misconceptions on GBV. Call-in hotlines will be supported to continue providing GBV information and referrals for post-violence services.

PEPFAR Zambia will continue to strengthen support for the monitoring GBV case identification, prevention, and response activities. This includes strengthening the existing government GBV information management system to track GBV cases at national and subnational levels.

In COP22, PEPFAR Zambia plans to reach 38,635 survivors of GBV. Service providers will provide improved post-GBV services for 28,581 survivors of physical or emotional violence. Through intensive strategies to improve screening for GBV and IPV, PEPFAR Zambia plans to reach 10,054 survivors with post-sexual violence care services.

4.4 Additional Country-specific Priorities Listed in the Planning Level Letter

The following section provides information on strategies or interventions to address country-specific priorities identified in the PEPFAR Zambia planning level letter. Additional information is provided throughout the SDS, namely in Sections 4.1 (Finding people with undiagnosed HIV), 4.2 (Ensuring ART Continuity and Viral Load Suppression), and 4.3 (Prevention).

4.4.1 Close pediatric and adolescent treatment gaps

PEPFAR Zambia has made significant strides in transitioning children and adolescents to optimal, Dolutegravir (DTG)-based regimens. This has resulted in improved VL suppression rates among children under 15 years of age from 76% in COP19 Q1 to 91% in COP21 Q1 and from 77% to 91% among AYP (15-19) in the same period. Persistent programmatic gaps remain in the continuum of care for children and adolescents resulting in suboptimal treatment coverage. The major challenges that the PEPFAR Zambia team will focus on in COP22 remain with case finding, continuity of treatment, and VL coverage.

In COP22, the primary case finding approach for children will focus on leveraging missed opportunities, starting from the PMTCT program and identifying incident infections among PBFW who are at high risk of transmitting to their infants if they remain undiagnosed and untreated. To strengthen case finding, PEPFAR Zambia will implement a more systematic re-testing schedule after ANC1, at labor and delivery, and at nine months and 18 months postnatal. The goal is to identify incident infections, place infants on ART prophylaxis, and ensure provision of EID, while linking the mother to ART and achieving VL suppression.

PEPFAR Zambia will also strengthen cohort monitoring among HEI along the testing cascade until ascertainment of final outcome at 24 months. To accomplish this, the OU will implement electronic cohort monitoring at a wider scale in COP22 by using the MNCH modules in SmartCare. Where this option is not yet available, continued use of the existing longitudinal paper-based register will allow for cohort monitoring of HEIs. To support retention of MIPs in the HEI testing cascade and ensure maternal viral suppression, the OU will expand the mentor-mothers model, which has achieved positive results in attaining higher EID coverage and lower VL suppression and MTCT among MIPs paired with a mentor mother. The mentor mother provides psychosocial support as well appointment reminders to MIPs to ensure the infants are tested per national guidelines. To track HEI who may have missed their final outcome status in the last two-to-five years, PEPFAR Zambia will ensure tracking of these infants in the community and fill these missed opportunities in pediatric case finding.

Family index testing remains the cornerstone strategy for pediatric case finding in COP22. However, rather than focusing testing efforts primarily in the larger pediatric surge facilities, the OU will pivot focus to smaller facilities, where it is likely to find more undiagnosed children of PLHIV, based on the number of children identified relative to adults in the last two years from the smaller volume facilities. This endeavor to increase index testing coverage in the smaller facilities will likely be more labor and resource intensive, given the remoteness of some facilities and lack of human resources at the facilities to conduct testing. As such, PEPFAR Zambia will deploy a roving testing team to focus on completion of family index testing at these facilities.

In COP22, PEPFAR Zambia will continue to offer PITC to sick children, especially in high-yield entry points such as TB, malnutrition clinics, and inpatient wards. In outpatient clinics, the MoH suspended use of the HIV screening tool in COP21 Q1, in response to the finding that the volume

of testing has markedly declined since the implementation of the screening tool, and along with the decline, a similar significant decrease in pediatric case finding. As such, there were concerns that the screening tool was screening out too many eligible children for testing. The implementation of the screening tool has also been varied, depending on the training of the cadre responsible for applying the screening questions, as well as whether adequate space and privacy could be ensured to allow respondents to answer the questions truthfully. MoH is currently validating the original screening tool to assess sensitivity/specificity of the questions; additional modifications may occur based on the results of the validation study. If a new screening tool is introduced in COP22, IPs will provide careful oversight of its implementation to ensure the tool is increasing testing efficiency without significantly impacting case finding volume.

A key strategic shift in pediatric case finding in COP22 is to leverage community partners, who have successfully achieved case finding of other priority populations such as men and KPs. Through community partners' extensive knowledge of the KPs in their communities, PEPFAR Zambia will identify more "hard-to-reach" children than possible through facility-based index testing. Community partners may establish community posts where, in partnership with clinical partners, AGYW and KPs may receive care and therefore reach their children through index testing. PEPFAR Zambia will ask community partners to focus specifically on pediatric case finding to identify children missed through index testing (i.e., out-of-school children, street children, survivors of sexual violence). An important consideration in pediatric case finding that should not be overlooked is around identifying children who are victims of sexual violence. Currently, such children are referred to organizations and agencies that provide One Stop Centers offering comprehensive services to address medical, legal and psychosocial needs. But the training to assess for and identify victims who are children must be more robust and include training for counselors who are involved in HIV testing. As PEPFAR Zambia continues to focus pediatric case finding efforts on family index testing (and therefore identification of vertically-infected children), the program will not overlook children who may be infected through sexual violence.

AYP case finding will also rely on family index testing by community-based OVC partners (which cover biological children up to 19 years), as well as testing of sexual partners and SNS testing. PEPFAR Zambia will leverage adolescent peers, such as AGYW enrolled in DREAMS and Rise Up! Houses, to be trained as peer educators to identify AYP who are missed in conventional case finding approaches. This includes AYP who may be at greater risk of HIV infection, including those who are out-of-school, engaged in transactional sex, differently abled, or part of the KP community. Community-based testing in marketplaces, bus stations, hair salons and barbershops, as well as social events (sports or concerts), will target AYP for case finding, with small incentives such as talk time or feminine hygiene products. As is the case for pediatric case finding, the main strategic shift in COP22 is the focus and reliance on community partners and their understanding of social networks and hotpots of high-risk AYP and how to reach them.

Rates of IIT among children and AYP continue to be unacceptably high. To address this issue in COP22, PEPFAR Zambia will leverage community partners such as the OVC IPs to provide the

necessary wraparound services to ensure children can continue their treatment. In COP22, the OVC footprint will expand to additional districts to provide comprehensive services for C/ALHIV. Where OVC services are not available, PEPFAR Zambia will provide resources to treatment partners to provide support to children through treatment supporters who are specifically trained to address the needs of children and their families, as well as provide nutritional and transport support to children and adolescents who are unable to come to their clinic appointments.

Access to quality pediatric services is a key aspect of ensuring treatment continuity, but not every facility in Zambia is currently providing pediatric HIV care. As such, many of these facilities end up referring children to higher level facilities which may often be far away. As a result, many of these children may drop out of care contributing to the high rates of interruptions in treatment. The OU will aim to ensure every facility is able to provide pediatric HIV services by training mentors to provide training and mentorship at every facility and ensure that such mentorship indeed occurs at every facility level. A layered approach to training healthcare providers and mentors will be necessary, including traditional lectures and presentations through virtual platforms, but also eLearning platforms for pediatrics and integration of a decision-making tool in SmartCare for clinicians to use when seeing pediatric patients. In addition, the 7040 hotline for pediatric consultations and questions will remain available. The goal in COP22 and beyond is to decentralize the Pediatric Center of Excellence (PCOE) model to every province, so that there will be at least one facility that will be a PCOE and provide the necessary training and mentorship to clinicians at all site levels. Where access to facility care may not be logistically feasible, treatment partners will need to consider mobile community ART clinics to reach these children.

Addressing pediatric morbidity and mortality is also a key aspect of ensuring continuity of treatment. To this end, PEPFAR Zambia will ensure that children are included in the advanced HIV disease (AHD) package of care, including improvements in TB prevention and diagnosis. The OU will scale up TB screening through community partners, such as the OVC case manager asking the TB screening questions during their home visits. The OU also plans to procure better TB diagnostics for children such as urine LF-LAM, use of stool specimens for GeneXpert, and digital chest x-rays. Cryptococcal meningitis is rare among children. However, it is a consideration for AYP, and thus health facilities will screen with CrAG if diagnosed with AHD and treated with fluconazole preemptive therapy if indicated. In addition, other causes of morbidity and mortality such as malnutrition and opportunistic infections will require provision of nutritional support and cotrimoxazole as part of the AHD package of care. Through mortality surveillance activities, PEPFAR Zambia will investigate the common causes of death for children and direct our programming priorities to address them.

PEPFAR Zambia will continue implementation of MMD for eligible children and adolescents, especially for those attending boarding schools. Weekend ART services and flexible hours, especially for school-going children and working caregivers will also support treatment continuity. To further improve AYP continuity of treatment, PEPFAR Zambia will engage more closely with the adolescent surge efforts led by the MoH. The priorities of the adolescent surge

include increasing the number of health facilities offering adolescent-friendly health services, as well as adolescent peer-led, asset-based programming to empower AYP to take ownership of their health to ensure adherence to ART, continuity of treatment and, ultimately, achieve VL suppression.

Although VL suppression among children has improved dramatically over the years with optimization of ART regimens for children (COP 21 Q1 VL suppression=91%), the VL coverage rates have remained stagnant at 73% at COP21 Q1. To improve VL coverage, PEPFAR Zambia will use point-of-care (POC) VL testing for priority populations, which include children and pregnant women. To ensure POC testing feasibility, commodity security of GeneXpert cartridges and reagents through a service-level agreement with the manufacturer is essential. In addition, phlebotomy remains a barrier for pediatric VL sample collection. To address this challenge, the OU will leverage use of dried blood spot cards for VL testing where plasma collection is not feasible and support procurement of microtainer tubes and other child-friendly phlebotomy supplies.

Finally, in COP22, PEPFAR Zambia will scale community VL sample collection, which has proved successful with close collaboration between OVC and clinical partners to arrange for home visits and conduct sample collection for children who have trouble accessing health facilities.

4.4.2 Focus on treatment continuity

Treatment continuity remains low for certain populations, including children, AYP, and KPs. In COP22, PEPFAR Zambia will intensify efforts to improve adherence to ART in health facilities and communities where high IIT rates persist. To address geographic barriers, PEPFAR Zambia will decentralize ART service provision through community-based approaches that bring services closer to PLHIV where they live and work. The community post model has demonstrated better retention (97%) as compared to the standard of care (93%) in most facility-based ART sites (Patient-level EHR data, APR 2021). PEPFAR Zambia will address gaps in HIV and VL literacy with an enhanced treatment literacy strategy, focusing on health facilities and districts with significant linkage and retention gaps. Where poor service quality creates barriers to HIV services in health facilities, PEPFAR Zambia will implement rational appointment systems and CQI approaches for clients who miss appointments or interrupt treatment. Populations with low ART linkage and VL suppression rates, including pediatrics, AYP, men and KPs, will receive focused support. In COP22, PEFAR Zambia will focus on uniform implementation of these strategies at health facilities and surrounding communities where the most significant treatment and suppression gaps remain. For additional information, please refer to Section 4.2, Ensuring ART continuity and VL suppression.

4.4.3 Expand PrEP for AGYW and key populations

In COP22, PEPFAR Zambia will apply a person-centered approach to PrEP provision for AGYW and KPs. Through its implementing partners, PEPFAR Zambia aims to empower AGYW and KPs to take charge of their own health rather than acting as passive recipients of prevention services.

This care strategy is based on the belief that patient views, input, and experiences improve overall health outcomes. One way to involve patients in their own health is by improving interactions between patients and healthcare providers, making care feel empathetic and compassionate, not merely transactional. When people are more involved in their own care, they are more likely to seek services.

PEPFAR Zambia will work diligently to ensure equity in PrEP provision. For PrEP, equity means taking deliberate steps to facilitate access to health services for populations that, for one reason or another, are shut out of public health services. For AGYW, this means accessing PrEP in an environment where HCWs will not reprimand them for being promiscuous. For KPs, this means leveraging individuals and networks of people with whom they identify and feel safe. Equitable and inclusive service delivery that does not castigate or shame any person will require IPs to continue building the capacity of healthcare providers in supported health facilities to provide adolescent-friendly and KP-competent support free of judgement.

PEPFAR Zambia will improve the quality of services, centering efforts not only on PrEP initiation, but also on ensuring that at-risk clients are provided with the necessary support to continue PrEP and minimize the risk of contracting HIV. In COP22, PEPFAR Zambia will initiate 94,073 KPs (FSWs, MSM, transgender people, and people in prisons), 50,000 AGYW, 28,000 PBFW, and 20,000 sero-discordant couples (SDCs). PEPFAR Zambia will also target members of the general population, including (but not limited to) members of the military, migrant workers, men at higher risk such as truck drivers, and fisher folk.

PEPFAR Zambia will continue to build capacity of DREAMS mentors to provide comprehensive psychosocial support to AGYW in DREAMS across 14 districts. Implementing partners will support PrEP surges, which are peer-led, demand-generation and adherence support approaches in which mobilizers support client follow-up or demand generation and identify possible PrEP clients or provide on-going support to existing PrEP clients. This process is supervised by a community mobilization officer for quality control, while the service provider is stationed at the site to meet clients who are escorted by mobilizers.

For KPs, IPs working to provide community-based PrEP will continue to leverage social networks and grassroots structures that work with these vulnerable populations. In COP21, implementing partners are concretizing engagement with KPs by providing subgrants to KP-led organizations to strengthen uptake of PrEP. PEPFAR Zambia is also increasing KPIF coverage from three to 16 districts. Further expansion will be considered in COP22.

4.4.4 Align OVC programs to pediatric treatment sites

In COP22, PEPFAR Zambia's OVC program will work together with clinical partners to conduct joint case conferencing in support of pediatric case finding, linkage to treatment, and VL testing. OVC and clinical partners will collaborate in pediatric surge sites and surrounding communities under the guidance of formal memoranda of understanding (MOUs) signed between partners.

Facility-based case workers assigned to the OVC program will work with health facility clinical staff to identify mothers living with HIV and HEIs. They will identify adolescent mothers, virally unsuppressed mothers, cases of interrupted treatment, and CLHIV to enroll them in the OVC program. PEPFAR Zambia will also link vulnerable individuals to community case workers who will provide family-based index testing within households, VL collection, treatment literacy and adherence support, and comprehensive family-based case management. These interventions will not only facilitate pediatric HIV case finding to close the pediatric treatment gap, but also improve ART linkage and adherence along the HIV treatment cascade.

4.4.5 Address structural barriers for key populations

Structural barriers act beyond the individual level to create unfavorable environments that restrict or impede support for, access to, and uptake of HIV prevention, care, and treatment services by KPs. These barriers, among others, include limited financial means, stigma and discrimination, restrictive laws and policies, and social and cultural norms about sexuality.

In COP22, PEPFAR Zambia will address these gaps by expanding the KP Protection Network, comprising different stakeholders (law enforcement, paralegals, healthcare providers and peers) who respond when KPs come into conflict with the law. The KP Protection Network will provide legal literacy to inform KPs of their rights, thus enabling them to seek redress in a timely manner through appropriate avenues. In COP22, PEPFAR Zambia will collaborate with the MoH and IPs to advocate for policies that enshrine equitable treatment for all individuals, regardless of sex, gender identity, age, or ability; this includes support for patients' rights charters.

Greater engagement of KPs in the design and implementation of CLM – as well as a greater focus on the KP experiences in the health system – will also provide an avenue to respond to suboptimal service delivery and unfair or discriminatory treatment toward KPs. PEPFAR Zambia will continue to train HCWs on gender and sexual diversity and on KP-competent and -friendly service delivery to meet needs of KPs harmed by HCWs and address stigma and discrimination. Through the national KP TWG and KP CSO consortium, PEPFAR Zambia will also continue to encourage KP CSOs' involvement in the design, implementation and monitoring of KP programs to ensure programs respond meaningfully to the unique needs of different KP groups. Finally, PEPFAR Zambia will continue to work with the NAC to support the education of media personnel to improve reporting on KPs and the issues that concern and affect them.

4.4.6 Resolve commodity gaps

An uninterrupted supply of commodities remains a critical component of PEPFAR Zambia's strategy to maintain gains made in achieving epidemic control. In September 2021, the MoH dissolved the board of the Zambia Medical and Medicines Supply Agency (ZAMMSA) and appointed new board members in February 2022. To mitigate any risks to commodity security caused by this transition, PEPFAR Zambia will orient the ZAMMSA board on commodity procurement and management beginning in COP21. In COP22, PEPFAR Zambia will continue to engage the ZAMMSA in the management and distribution of health commodities to ensure

improved commodity availability at service delivery points (SDPs). The OU will build the capacity of ZAMMSA to provide effective oversight of the supply chain and take on the responsibility of procuring some HIV commodities. In COP22, PEPFAR Zambia will support a local private sector entity to manage the distribution system to improve commodity availability at SDPs.

4.5 Additional Program Priorities

4.5.1 Policy and guidelines changes

PEPFAR Zambia will continue to scale up and implement high-impact strategies with fidelity, while also mitigating the effects of COVID-19 for both HCWs and individuals on treatment. These high-impact strategies include but are not limited to:

- Implementation of test-and-start;
- MMD for all eligible recipients of care;
- TLD optimization, inclusive of children weighing less than 20 kg; and
- Elimination of informal user fees.

The major policy changes for clinical services included in the updated 2022 Zambia Consolidated Guidelines are the adoption of baseline VL testing for recipients of care that are newly diagnosed with HIV and those newly initiated on treatment. The new guidelines have also removed the need for VL testing and viral suppression status for transitioning recipients of care to the DTG-based regimens. Additionally, the country will adopt the triple elimination of MTCT of HIV, hepatitis B, and syphilis in accordance with the 2021 WHO guidelines.

4.5.2 Safe and ethical index testing

In COP22, PEPFAR Zambia will continue to implement safe and ethical index testing as guided by the PEPFAR minimum standards, in collaboration with the district and the health facility in-charges. Safe and ethical index testing will continue to be offered to eligible clients, including newly diagnosed PLHIV and those with unsuppressed VL. PEPFAR Zambia will ensure that index testing remains voluntary, and that no client is coerced to participate in index testing. IPs will link partners and children who test positive for HIV to treatment; HIV negative contacts will be linked to age-appropriate, evidence-based HIV prevention strategies, such as PrEP, condoms and VMMC.

IPV risk screening is a standard procedure for index testing services. IPV risk screening ensures that no harm comes to the index client because of index testing services. PEPFAR Zambia will continue to monitor supported sites to verify compliance with WHO guidelines. For other priority populations, PEPFAR Zambia will focus on strengthening index testing by continuously building the capacity of implementing partners through refresher trainings and mentorship visits to ensure that CHWs implement quality index testing with fidelity.

PEPFAR Zambia will strengthen the collaboration between health facilities and CHWs to ensure all individuals newly diagnosed with HIV are assigned to a CHW for follow-up of their sexual

partners and biological children less than 19 years old. PEPFAR Zambia will prioritize index testing of children, AYP, and KPs.

PEPFAR Zambia, the Zambian government, and CSOs will work together to guarantee the safety and security of the clients. All PEPFAR IPs have undergone training in the LIVES curriculum. The LIVES curriculum trains healthcare providers to identify violence in a clinical setting and provide first-line support. In COP22, PEPFAR Zambia will remain proactive and work with CSOs, IPs, and the Zambian government to enhance access to referral services for GBV, IPV, and VAC.

PEPFAR Zambia will provide enhanced oversight during site visits and site improvement through monitoring system (SIMS) exercises to ensure that IPs adhere to guidelines for safe and ethical index testing. In COP22, capacity building, monitoring and routine feedback with CHWs will support development of the skills set necessary to elicit information on IPV, provide counseling, and refer individuals for necessary services. IPs will monitor adverse events with the Zambian government and CSOs to ensure that any reports of IPV or other social harms associated with index testing are immediately addressed.

In COP22, PEPFAR Zambia will work closely with IPs, MoH, and CSOs to monitor, review and use data from site assessments to confirm compliance with safe and ethical index testing guidelines. If site assessments reveal gaps in meeting required standards, PEPFAR Zambia will impose a pause in index testing. In such instances, PEPFAR Zambia will support the IP to address deficiencies before safe resumption of index testing. Finally, PEPFAR Zambia will employ routine monitoring of safe and ethical index testing using SIMS Core Essential Elements related to Standards for Monitoring Ethical and Safe Services.

4.5.3 Program direction based on program performance

The 2022 Spectrum report shows a decrease in the estimated national population from the 2021 report, primarily due to use of a new CSO-produced population projection that was approximately 2.5 million lower than the Grid3 population used in COP21. This has resulted in a significant decrease in the PLHIV estimate, from 1,494,170 in COP21 to 1,336,056 in COP22. As of COP21 Q1, 1,197,703 individuals were currently on treatment, representing 90% ART treatment coverage at the national level based on the COP22 PLHIV estimates (Spectrum 2022, MoH results). Of these individuals, 1,75,403 received treatment at PEPFAR-supported sites.

To accelerate performance in COP22, PEPFAR Zambia will aim to achieve 95% (1,274,049) treatment coverage of PLHIV across the OU by the close of September 2023. To achieve these targets, PEPFAR Zambia will focus on scaling up DSD models that support treatment continuity and providing adequate support for immediate tracking of recipients of care who miss appointments or interrupt treatment. To further close the treatment gap, PEPFAR Zambia will scale up strategies that have demonstrated high yields, including index testing, family index texting, targeted testing using HIV risk screening tools, and SNS testing. These case finding strategies will target populations that have eluded identification and treatment with a specific focus on children, AYP, and KPs.

4.5.4 Implementing partner management

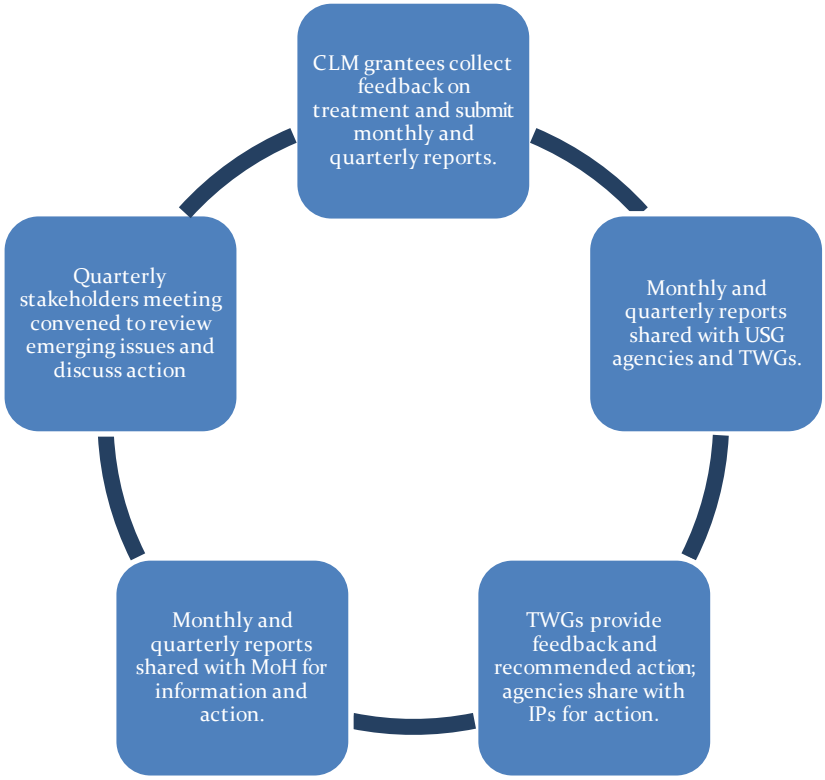
PEPFAR Zambia does not anticipate major changes related to IP management in COP22. PEPFAR Zambia will continue to implement an enhanced partner management system to ensure financial and performance accountability necessary to achieve and sustain HIV epidemic control. This includes regular and structured monitoring of performance on a weekly, monthly, and quarterly basis, as well as targeted site visits. Each activity manager, contracting officer's representative, or program officer reviews outlays monthly to monitor spending, achievement of targets and ensure alignment with the approved COP budget. Given the impact of COVID-19 on the team's ability to conduct consistent in-person site visits during the last implementation year, PEPFAR Zambia will focus on ramping up in-person monitoring during the remainder of COP21 moving into COP22.

4.5.5 Community-led monitoring

In COP21, PEPFAR Zambia implemented a CLM strategy in Zambia's 10 provinces in partnership with civil society. CLM focuses on gathering perspectives from the diversity of recipients of care, including AYP, KPs, and caregivers of CLHIV, and using their feedback to inform and adapt program strategies. During quarterly CLM stakeholder meetings, PEPFAR Zambia engages interagency TWGs, IPs, and MoH at all levels to identify trends that facilitate or diminish provision of quality services. CLM feedback and action points are integrated into quarterly POART calls to provide contextual information on the service experience of individuals on treatment in PEPFAR-supported health facilities. The feedback loop (Figure 4.5.1) demonstrates PEPFAR Zambia's cyclical approach to CLM implementation. In addition, PEPFAR Zambia has begun to support the capacity CLM grantees to collect and manage data and write reports that accurately reflect feedback

In COP22, PEPFAR Zambia will work with CSOs to adapt the CLM tool to include a marker for deliberate capture of perspectives from KPs, AYP, people with disabilities, and CLHIV and their caregivers. PEPFAR Zambia will leverage technical staff, as needed, to support CLM identifying and engaging KPs in data collection, mapping hotspots, and ensuring a do-no-harm approach that protects KP identities. CLM grantees will collect feedback on pediatric and AYP service experiences through PEPFAR pediatric and adolescent surge sites to solicit feedback on service quality across the treatment cascade. This will help address the pediatric and AYP service gaps and improve alignment of COP22 activities with specific AYP and pediatric needs ensure their voices are heard and they are not left behind.

Figure 4.5.1 PEPFAR Zambia CLM Feedback Loop



4.6 Commodities

Ensuring that HIV commodities are fully supplied and accessible to all patients is a critical priority for achieving the 95-95-95 epidemic control targets. For COP22, PEPFAR Zambia used Spectrum modeling outputs incorporating adjusted ZamStat population projections to quantify ARV and non-ARV commodities. COP22 TX_CURR targets were used to estimate commodities needed, which determined commodity requirements for COP22 and included a three-month buffer stock for ARVs and non-ARVs commodities. Through regular monthly meetings with MoH, GFATM, and ZAMMSA, PEPFAR Zambia will assess ongoing needs by continually monitoring stock on hand, planned shipments, and commodities procured to avert stock imbalances or possible wastage. Such measures will ensure adequate stocks are available throughout COP22 to meet the needs of PLHIV.

PEPFAR Zambia will continue to engage the Zambian government and stakeholders to ensure commodity security and build a sustainable supply chain. Specifically, PEPFAR will:

- Support the forecasting and quantification for all required commodities. PEPFAR Zambia will provide the required technical assistance to the MoH to lead this process.
- Increase visibility to the point of service to strengthen demand planning, optimize operations, and promote appropriate use of products by providers, pharmacists or dispensers, and consumers.

- Accelerate utilization of private sector capabilities to improve supply chain efficiency and client experience, specifically to strengthen last-mile distribution to ensure commodity availability at the lowest levels of the health system.
- Proactively monitor and mitigate risks to ensure supply of affordable, quality-assured, safe, and effective products to clients.

PEPFAR Zambia is committed to person-centered HIV treatment services. All PLHIV will be offered TLD as the preferred first-line regimen for HIV treatment. The transition to TLD 90-count bottles began in December 2019. By end of COP21, PEPFAR aims to reach 90% of adults on TLD; by end of COP22, the OU aims to achieve 100%. All individuals on TLD will be offered MMD. PEPFAR Zambia has transitioned from TLD 90-count to orders of TLD 180-count bottles in COP21. This switch will decrease the burden on limited storage space in facilities, facilitate more discreet drug collection, and improve retention. Adult ARVs are funded by PEPFAR, GFATM and the Zambian government, with a projected gap of $15.4 million in COP22. Through regular commodity planning meetings, PEPFAR Zambia has already begun to engage GFATM and MoH on strategies to close this funding gap and ensure commodity security.

Beginning in COP20 Q3, Zambia started phasing out LPV/r-based regimens and started transitioning pediatric patients to optimized DTG-based regimens. In COP22, orders of DTG 10mg and DTG 50 mg are planned as 90-count bottles. Pediatric ARVs are funded by PEPFAR, GFATM, and the Zambian government, with a projected gap of $400,000 in COP22.

For effective supply chain management of VL commodities, PEPFAR Zambia established the goal of providing VL testing to over 50% of recipients of care at baseline, and to 100% of TX_CURR. PEPFAR Zambia continues to provide technical assistance to the ZAMMSA and MoH to manage and maintain cold chain systems that ensure full stock availability of all reagents, consumables, and calibrators needed to conduct VL tests.

In COP21, the country did not have a funding gap projected for HIV VL/EID lab commodities, which are currently purchased through reagent rental agreements with Hologic and Roche; lab commodities are funded by PEPFAR, GFATM, and the Zambian government. However, in COP22, PEFPAR Zambia anticipates a funding gap of $14.1 million, which is mainly attributed to VL, CD4, chemistry reagents and controls. PEPFAR, MoH, and GFATM will continue to work together to find efficiencies in the lab sector that will reduce the funding gap.

Finally, the country did not face a funding gap for condoms and personal lubricants in COP21 but projects a gap of $4.75 million in COP22. Throughout COP21 and into COP22, PEPFAR Zambia will work closely with the Zambian government, GFATM and UNFPA to mobilize resources for condoms and personal lubricants.

USAID plans to support a private sector entity with responsibility for providing 3rd party logistics (3PL) services to enhance the efficiency of drug and medical supplies delivery to service delivery points (SDPs) by September 2022.

Table 4.6.1 Funding Gap					
Commodity Group	Commodity Funding Need (US$)	USG Commitment (US$)	GF Commitment (US$)	GRZ Commitment (US$)	Annual (Gap) or Surplus (US$)
ARVs	$103,684,407	$51,842,203	$16,442,615	$20,000,000	($15,399,588)
PrEP- TE/TL	$8,910,854	$5,959,908	$0	$0	($2,950,946)
TPT	$5,250,778	$3,348,134	$564,474	$1,338,170	$0
OIs	$3,431,477	$3,431,477	$0	$0	$0
HIV Tests	$7,201,482	$5,787,313	$1,414,169	$0	$0
Other HIV Tests	$1,177,954	$585,888	$233,984	$0	($358,082)
VL/EID/CD4	$41,457,867	$28,558,214	$1,737,704	$1,604,196	($9,557,753)
Lab - HIV Specific	$18,657,804	$11,391,494	$0	$2,658,026	($4,608,284)
Condoms and lubricants	$6,354,280	$1,599,998	$0	$0	($4,754,282)
Total	$196,126,901	$112,504,629	$20,392,946	$25,600,392	($37,628,935)

Source: 2021 National Lab Commodities Forecasting and Quantification Report and the 2021 National ARV Forecasting and Quantification Report, COP22 proposed funding and proposed GFATM concept note with GRZ/MoH

4.7 Collaboration, Integration and Monitoring

4.7.1 Strengthening cross technical collaboration and implementation

PEPFAR Zambia has continued to collaborate with GFATM, UNAIDS, and MoH on all technical aspects of program implementation. These engagements have stimulated broad participation in the HIV response, which includes representation from several host government ministries and departments, multilateral organizations, local and international non-governmental organizations, and CSOs.

PEPFAR Zambia and external stakeholders hold a common understanding of USG support as related to sustainability and continuity of programs and activities. PEPFAR Zambia collaborates with PHOs and DHOs to convene regular joint site-level data reviews, conduct site visits to identify performance weaknesses, and develop remediation plans. Once assessed, PEPFAR supported sites work with the relevant agency to develop remediation plans and track progress toward site-specific benchmarks and targets. IPs follow-up with sites through technical supportive supervision to improve site-level performance in coordination with the MoH. PEPFAR Zambia technical staff participate in the monthly provincial surge review meetings and meet routinely within the national TWG structure to escalate and address policy barriers, respond to technical issues, and share best practices. PEPFAR Zambia supports weekly Extension of Community Health Outcomes (ECHO) sessions to enhance the technical skills of healthcare providers. In COP20, ECHO sessions rolled out to all provinces in Zambia; in COP21, PEPFAR Zambia has continued to scale up the ECHO model by supporting the addition of more spoke sites; this work will continue in COP22.

With PEPFAR Zambia support, in COP21, the Ministry of Defense (MoD) has established a forum for the Zambian Defense Force (ZDF) to meet and interact with senior command to review

program gaps across poorly performing sites. In addition, enhanced joint facility assessments facilitate on-the-spot program correction. The enhanced site assessments have produced additional benefits of increased collaboration among stakeholders; more creative problem solving; and improved service delivery. With the onset and ongoing waves of the COVID-19 pandemic, PEPFAR Zambia has relied more on virtual platforms to conduct meetings and sites visits. These platforms will continue to provide space for MoD, ZDF and DoD to review performance and adapt, as necessary, in COP22.

In COP22, PEPFAR Zambia will continue as a voting member of the CCM as well as a seat on the CCM Oversight Committee. CDC and USAID will continue serving in leadership roles in the Health Cooperating Partners (CP) Group, while the PEPFAR Coordination Office (PCO) will lead the HIV CP Group. PEPFAR Zambia will engage GFATM to proactively address commodity gaps and align AYP and KP programming. PEPFAR Zambia will continue to work closely with UNAIDS on strategic information, advocacy for pediatric case finding, and capacity building and coordination for the MoH and civil society.

4.7.2 Strengthening IP management and monitoring

PEPFAR Zambia prioritizes partner management and monitoring, despite COVID-19 pandemic impacts that limits the ability of PEPFAR Zambia teams across all agencies to conduct in-person, focused TA. Innovative approaches, including the continued roll-out of virtual platforms, ensure strong program oversight and partner management that address site level challenges as they emerge. The continuation of the enhanced management system, and review of weekly, monthly, and quarterly reporting on 95-95-95 indicators, supports the financial and performance accountability necessary to achieve and sustain HIV epidemic control. By leveraging the established continuous feedback loop, PEPFAR Zambia actively participates in a collaborative IP management and monitoring approach that supports evidence-based best practices, responding to identified barriers and gaps with real-time solutions.

USAID leverages the presence of technical staff at the provincial levels to routinely monitor IP performance together with the Zambian government. USAID conducts Enhanced Site Visits (ESVs) regularly every month in collaboration with activity managers, IPs, and the provincial host government. While reviewing data to determine progress against targets, USAID identifies both best practices and performance gaps. Where gaps are identified, corrective measures are undertaken promptly to ensure sites remain on track to achieve objectives. Activity managers and the strategic information team work with all parties to hold weekly situation room meetings and regular field visits and DQAs to augment provincial staff efforts. To ensure sustainability, USAID emphasizes collaborative actions at facility level between IP and government staff to enhance skills transfer in preparation towards Zambia's journey to self-reliance. USAID is also cementing the use of performance-based contracts which tie contractor fee payments to the achievement of results. The ability to harness these collective monitoring resources at agency, government, and IP level in a regular, standardized, and timely approach has resulted in significant improvements across the treatment cascade.

In collaboration with the Zambian government, CDC conducts granular site management as a strategy for partner management by focusing on performance improvement at the site level. CDC also supports weekly virtual situation rooms (SRs) with each province to assess their performance. The situation rooms are led by the PHOs (primary DSD partner) and are attended by the provincial, district, and facility level staff, including TA IPs and CDC. In these SRs key performance metrics and sites are identified, discussed, and monitored in collaboration with the Zambian government district and provincial health offices. CDC also supports two staff members (management and technical) per province to provide more direct support to, and monitoring of, the program. Focused site visits to underperforming sites were undertaken by mentors and other program officers at district and provincial levels to quickly fix performance gaps as they are identified. On a monthly basis, CDC has cooperative agreement meetings with all partners (DSD, TA, community partners) to assess overall performance.

DOD uses a person-centered approach to monitoring and evaluation. This approach focuses on IPs having a clear understanding of the technical guidance on program implementation and PEPFAR requirements to ensure that client needs are met. Further, DOD implements a full scale EHR system in all military facilities to enhance data management in support of a person-centered approach in monitoring and evaluation. Partner performance is assessed through collaborative meetings; regular review of PEPFAR Zambia results using the daily situation room; and enhanced monitoring of program implementation through joint SIMS visits with ZDF personnel. DOD further provides TA to partner staff in program implementation, and DOD uses virtual platforms, such as ECHO, to conduct meetings to mitigate the risk of COVID-19.

In COP22, PEPFAR Zambia team will use a combination of virtual and in-person site visits to provide targeted and efficient partner management approaches. PEPFAR Zambia will continue to expand its practice of utilizing evidence-based best practices and adaptive management to respond to identified gaps and barriers as they occur. PEPFAR Zambia will proactively collaborate with the MoH, GFATM, and other stakeholders, to support efficient and effective implementation that ensure continuity and sustainability of HIV care, treatment, and prevention services.

4.7.3 Improving integration of key health system interventions

PEPFAR Zambia priorities have directed the implementation of key health system interventions, including supplementing the Zambian government's HRH efforts and electronic health record management. To achieve COP22 programmatic priorities, PEPFAR Zambia recognizes that a robust clinical and community health workforce is essential. Currently, the MoH employs more than 62,000 staff, including 38,000 clinical staff and 1,365 community health assistants across the country. This represents nearly 50% of MoH's total staffing requirement. In PEPFAR-supported facilities, the MoH employs 44,676 staff, including 16,336 clinical staff and 423 CHWs.

In COP21, PEPFAR Zambia has supplemented HRH staffing levels by maintaining salaries, stipends, and in-kind support for 1,481 clinical staff and 13,493 lay workers at facility and community levels. These supplemental support staff were deployed based on the geographical distribution of the TX_CURR gap, with more CHWs deployed to high-burden provinces. This

deployment of PEPFAR-supported staff will routinely incorporate HRH reviews (including site and individual performance reviews) into site and partner-level management to identify sites where increased or optimized HRH support is necessary. In COP21, the Zambian government has committed to engage about 11,200 HCWs in different roles. Though significant, staffing gaps will persist. In COP22, PEPFAR Zambia will continue to advocate for the Zambian government to recruit more HCWs and support Zambian government efforts to strengthen human resource management to optimize use of existing staff.

Community engagement in the HIV response will remain essential in COP22. CHWs, inclusive of peer educators who represent the diversity of Zambia's population, will strengthen case finding strategies, support linkage to treatment, provide adherence support, and promote VL testing. CHWs provide the backbone of the community post model and other community-based DSD models. In COP22, CHWs will support the pediatric surge; provide peer support to AYP, including AGYW, through facility- and community-based adolescent-friendly safe spaces; and offer discreet services to KPs.

To support this valuable cadre of CHWs, PEPFAR Zambia continues to dialogue with the MoH Community Health Unit on refinement of standards for CHWs within the national HIV response; current standards apply to the general population. PEPFAR Zambia will continue to invest energy in the revision and roll-out of standardized incentives, training packages, and guidelines for CHWs, as well as harmonization of data collection tools for CHWs. PEPFAR Zambia has revamped the role of Neighborhood Health Committees, community-based support groups formed under the guidance of health personnel, to manage the performance of CHWs and maximize their contribution to advancing progress towards HIV epidemic control. PEPFAR Zambia will continue to support the development of the Community Health Information Management Tool as an extension of the Human Resource Information System (HRIS) to improve coordination of the community health workforce for service provision.

PEPFAR Zambia will continue to invest in the National HIV Clinical Mentoring and ECHO programs. The weekly ECHO virtual learning platform creates space for continuous learning based on actual cases observed in health facilities. ECHO ensures that HCWs receive mentorship on key clinical issues on a regular basis and will ultimately improve quality clinical care at health facilities. Currently, 311 ECHO sites are in the 10 provinces, primarily in peri-urban and urban settings with internet connectivity. across the 10 provinces of Zambia, most of which are in peri-urban settings with internet connectivity. In COP21, PEPFAR Zambia expanded to 15 rural and 30 peri-urban sites, which will require IT and power generation support. PEPFAR Zambia will expand to an additional 50 sites in COP22.

PEPFAR Zambia will continue to support interventions to increase the timely availability of high-quality data and promote its use to enhance program performance to achieve better health outcomes. This includes the use of data generated through case-based surveillance systems; provision of tools and technical assistance to improve program data quality and support HIV-related surveillance, such as HIV recency and mortality surveillance; building HMIS management

capacity by utilizing an MoH standardized approach and support tools; and building the capacity of local partners to utilize data.

In accordance with the Zambia National Digital Strategy to improve data management, patient management, and patient tracking, PEPFAR Zambia will continue to support the SmartCare patient-level EHR system. This system currently includes 95% of all individuals on ART in a total of 1,649 sites. PEPFAR will roll out the improved web-based version of SmartCare+ to high volume sites that account for 73% of reported individuals on ART. Key features of this upgraded system include person-centered enhancements such as patient satisfaction surveys by SMS that trace back to the specific provider; automated return and notification of lab results; improved patient identification incorporating lessons learned from the current implementation of fingerprint biometrics technology for unique identification; and the creation of a centralized patient index that also helps with individual tracking and identification.

PEPFAR Zambia supports interoperability among information systems to improve retention and close monitoring of VL suppression. PEPFAR Zambia will support implementation of a health information exchange that establishes links between laboratory information systems (LIS), the electronic supply chain management information system (eSCMIS,) and SmartCare to create one shared individual record to facilities where these systems are deployed. This health information exchange will support efficient tracking of the 95-95-95 cascade and the availability of adequate stocks of medications and commodities at facility level. PEPFAR Zambia supported the development of the National Data Warehouse, which gathers data from disparate systems (EHR, LIS, eSCMIS and HRIS) to create data analytics and visualizations that provide a broader view of the state of the epidemic. With support from Palantir, PEPFAR Zambia will support enhancement of National Data Warehouse functionality and visualization to improve data utilization for program management at all levels. PEPFAR Zambia will also support the continued sub-national roll-out of the HRIS to support human resource deployment and management.

4.7.4 Improving quality and effectiveness of service delivery

The 2020 Zambia Consolidated Guidelines for Treatment and Prevention of HIV Infection outlines Zambia's strategic approach for implementing DSD models that support person-centered services and improved health system efficiency. DSD models can be grouped into four categories: (1) healthcare worker managed group, in which individuals receive ART refills in a group supported by a HCW or CHW; (2) PLHIV-managed group, in which clients receive their ART refills in a group managed by PLHIV themselves (e.g., community adherence groups; (3) out-of-facility managed, individuals for whom ART refills are provided outside of health facilities (e.g., health posts, home delivery, and community-based drug pick-ups); and (4) in-facility managed models, in which ART refill visits are separated from clinical consultations. When clients have an ART refill visit, they bypass any clinical staff or adherence support and proceed directly to receive their medication (e.g., appointment spacing and "fast-track"). The guidelines also recommend that all stable clients should be on MMD, defined as MMD of six months.

As part of the MoH strategy to prevent and reduce transmission of COVID-19 by decongesting health facilities, the National TB Program also transitioned to a DSD model. The TB program issued guidance to allow dispensation of TB drugs for up to one month during the intensive phase and every two months during the continuation phase. TPT dispensation was aligned to ART dispensation, so clients were receiving three or six months TPT dispensation.

In COP22, PEPFAR Zambia will leverage the work of community and treatment IPs to continue scaling up successful DSD approaches, including weekend clinic hours, men-friendly clinics, adolescent-friendly health services, and MMD for ARVs and TB drugs, to improve quality of care, retention in care, and reduce congestion at health facilities. PEPFAR Zambia will adapt and expand DSD models for children, AYP, men, and KPs who have lower case finding, linkage, treatment coverage, retention and VL suppression rates. PEPFAR aims to have 100% of first-line therapy clients on TLD by close of COP21.

PEPFAR Zambia will continue to support the clinical mentorship program to ensure staff at all levels of the health service delivery system are equipped with the relevant knowledge and skills necessary to provide equitable, non-stigmatizing, high-quality, population-sensitive services to all individuals seeking health services.

4.7.5 Supporting community-led monitoring

PEPFAR Zambia will continue to hold scheduled quarterly stakeholder meetings to share CLM findings and agree on recommended actions to address emerging issues. The stakeholder meetings will include participation of PEPFAR Zambia, IPs, CLM grantees, MoH, NAC, CSOs and other cooperating partners. The meetings will include review of previous action points to ensure progress against identified challenges. To support continuous use of feedback, PEPFAR Zambia will share monthly reports with MoH and engage the MoH to address specific issues prior to each stakeholder meeting. Refer to Figure 4.5.1.

4.7.6 Ensuring above service delivery activities are related to reaching epidemic control

PEPFAR Zambia reviewed monitoring, evaluation, and reporting (MER), the SID and RM 2021, and SIMS results and findings to determine above service delivery investments to achieve epidemic control. Though significant progress has been made in aligning above service delivery interventions to epidemic control priorities, PEPFAR Zambia has identified constraints related to HRH, procurement and supply chain management, and domestic resource mobilization. These include:

- Restrictive age of consent policy limits adolescent HIV testing and access to other HIV and SRH services to those 16 years of age and older.
- Available funding for CSOs is limited, with CSOs relying primarily on external sources.
- Private sector engagement in the HIV response is limited. While the private sector provides HIV services, particularly in urban areas, limited information is available on its contribution to the HIV response.

- No domestic resources, specific service provision or surveillance exists for KPs. No definitive health workforce transition inventory/plan has been developed.
- Inadequate and/or uneven HCW capacity to provide HIV services across the country.
- Interruptions in commodity supply disrupt service delivery.
- Low HIV and health domestic resource financing and budget execution.

In COP21, PEPFAR Zambia allocated $32,564,223 to above service delivery interventions. In COP22, PEPFAR Zambia will invest $32,803,271 to implement above site and above service delivery interventions, including those that will address these highlighted challenges.

4.7.7 Use of unique identifiers across sites and programs in clinical settings

PEPFAR Zambia plans to continue the rollout of the web-based SmartCare plus system in coordination with the use of SmartCards and fingerprint biometrics across targeted sites and programs in COP22 to improve unique identification. PEPFAR Zambia will continue to collaborate with the MoH and Palantir to automate data sharing from the National Data Warehouse to the Foundry system for program analytics. PEPFAR Zambia will also integrate other individual-level systems such as the eLMIS (commodities) and lab information systems with the national EHR to improve capacity for longitudinal tracking across systems at facility level and further integration into the National Data Warehouse for higher level analytics and visualization.

The challenge of unique identification has been observed within and across sites through such ways as silent transfers, where clients move from one site to another without identifying at the destination site that they are already on treatment at the origin site. This leads to duplicate registration under the PEPFAR Zambia program. This also occurs within a site when a client is initiated on ART in one clinical area then referred to the ART clinic for lifelong treatment. The individual is registered a second time with an identifier different from the original.

In sites that use the SmartCare national EHR system, PEPFAR Zambia has employed several solutions to better assure unique identification. The strategy for COP22 will include the deployment of the web based SmartCare+ system, whose key attribute is a centralized database that provides for a single centralized patient index for real time look up for patient tracking. This system will be deployed in a cumulative total of 311 of the highest volume sites by the end of COP22. This will account for 73% of reported TX_CURR. The remaining sites will continue to employ the use of SmartCards for purposes of electronically documenting transfers and fingerprint biometrics to augment the need for site level unique identification. The case for these lower volume sites accounting for 27% of TX_CURR is that they are relatively rural and remote and do not offer the opportunity for silent transfers to occur. When the transfer is officially documented on the patient smart card, the full patient record is also updated on the card that then helps with the assurance of continuity of care for the next healthcare provider if that receiving site also has the SmartCare system.

In COP22, the use of fingerprint biometrics is being deployed as an integrated part of the SmartCare+ solution to provide an additional biomarker to improve the system's ability to uniquely identify clients as they receive services in facilities. Biometrics will help in reconciling

fragmented client records, as clients move from sites that have SmartCare+ to those that are using the legacy system and vice versa. The benefit for unique identification is that the web-based platform means that every client has one record that is shared across sites that they visit, thereby minimizing the risk of duplication of records. PEPFAR Zambia intends for the web-based platform to be implemented in 131 sites by close of COP21, expanding to an additional 180 sites in COP22, equating to a cumulative total of 311 sites by the end of COP22. This combination of the solutions identified will improve confidence in client identification for patient care and reporting.

4.8 Targets by Population

Table 4.8.1 ART Targets by Prioritization for Epidemic Control

Prioritization Area	Total PLHIV	Expected current on ART (APR FY22)	Additional patients required for 95% ART coverage	Target current on ART (APR FY23) *TX_CURR*	Newly initiated (APR FY23) *TX_NEW*	ART Coverage (APR 23)
Attained	862,364	823,547	0	803,415	57,492	93%
Scale-Up Saturation	377,438	342,896	15,670	350,483	24,611	93%
Scale-Up Aggressive	52,299	29,920	19,764	44,432	8,438	85%
Sustained	27,145	20,919	4,869	24,678	1,787	91%
Central Support	16,810		4,857*	0	0	66%
Commodities	n/a	n/a	n/a	n/a	n/a	n/a
Total	1,336,056	1,268,420*	56,272	1,274,136*	101,868	91%

**Total also includes military COP21 TX_CURR (51,138); and COP22 TX_CURR (51,128) and TX_NEW (9,540); Source: COP22 DataPack, DATIM* Central Support FY22 Results, HMIS*

Table 4.8.2 VMMC Coverage and 15-29 Targets in Scale-up Districts

SNU	Population Size Estimate (SNUs)	Current Coverage (FY22)	VMMC_CIRC (FY23)	Expected Coverage (FY23)
Central	179,306	92%	20,186	105%
Copperbelt	65,251	69%	9,580	84%
Eastern	213,784	117%	17,811	125%
Luapula	110,539	105%	4,174	109%
Lusaka	30,743	157%	9,989	193%
Muchinga	108,001	101%	5,571	106%
Northern	110,151	62%	5,957	67%
Northwestern	88,879	18%	-	18%
Southern	216,380	110%	15,088	117%
Western	104,502	129%	8,182	138%
Total	**1,227,536**	**97%**	**96,538**	105%

Source: DATIM, COP22 DataPack

Table 4.8.2 shows that most provinces in the country have attained VMMC saturation for the 15-29-year-old age group. However, on the ground, ABYM within this age group continue to present at VMMC sites in large numbers to seek services. Of note, traditional circumcision is a cultural practice in Northwestern province, hence the lower coverage. PEPFAR Zambia does not capture data on traditional circumcisions.

Table 4.8.3 Target Populations for Prevention Interventions to Facilitate Epidemic Control			
Target Populations	**Population Size Estimate* (SNUs)**	**Disease Burden***	**FY23 Target**
AGYW (PP_PREV)	1,651,005*	5% HIV prevalence	291,231
FSW (KP_PREV)	142,725	40% HIV prevalence	37,178
MSM (KP_PREV)	128,053	21% HIV prevalence	24,010
PWID (KP_PREV)	26,840	15% HIV prevalence	3,619
Prison population (KP_PREV)	--	--	26,449
TG (KP_PREV)	11,435	HIV prevalence unavailable	2,817
TOTAL	**2,359,461**	--	**550,386**

*Source: Spectrum 2022, JHU 2022, COP22 DataPack, *DREAM SNU*

Table 4.8.4 Targets for OVC and Linkages to HIV Services					
SNU	**Estimated # of Orphans and Vulnerable Children**	**Target # of active OVC (FY23 Target) OVC_SERV <18 Comprehensive**	**Target # of OVC (FY23 Target) OVC_SERV <18 Preventative**	**Target # of active OVC (FY23 Target) OVC_SERV <18 DREAMS**	**Target # of active beneficiaries receiving support from PEPFAR OVC programs whose HIV status is known in program files (FY23 Target <18) OVC***
Military	--	9,977	--	--	9,977
Chibombo	26,001	4,986	652	--	6,234
Chikankata	--	2,022	258	--	2,528
Chilanga	--	2,418	1,082	--	3,024
Chililabombwe	15,540	1,556	--	--	1,948
Chingola	44,883	5,488	9,420	5,938	5,488
Chipata	45,015	2,994	13,185	7,170	3,740
Chisamba	--	1,790	234	--	2,240
Choma	21,612	5,670	742	--	7,086
Chongwe	20,595	3,388	3,409	--	4,234
Kabwe	25,242	6,279	11,414	12,733	7,850
Kafue	21,387	2,806	602	--	3,508
Kalabo	11,697	2,066	54	--	2,066
Kalomo	32,316	2,984	380	--	3,728
Kalulushi	14,183	2,148	1,460	--	2,684
Kaoma	15,639	1,712	1,799	--	1,904
Kapiri-Mposhi	29,558	4,287	7,281	9.916	5,360
Kasama	23,083	2,534	1,000	9,528	3,168
Katete	17,963	2,214	--	--	2,214

Table 4.8.4 Targets for OVC and Linkages to HIV Services					
SNU	Estimated # of Orphans and Vulnerable Children	Target # of active OVC (FY23 Target) OVC_SERV <18 Comprehensive	Target # of OVC (FY23 Target) OVC_SERV <18 Preventative	Target # of active OVC (FY23 Target) OVC_SERV <18 DREAMS	Target # of active beneficiaries receiving support from PEPFAR OVC programs whose HIV status is known in program files (FY23 Target <18) OVC*
Kazungula	12,631	2,298	234	--	2,298
Kitwe	88,723	12,246	16,760	14,546	12,246
Livingstone	16,323	4,760	8,646	9,220	5,950
Luanshya	27,124	3,554	6,315	7,738	4,444
Lusaka	130,497	28,272	26,082	21,916	35,338
Mansa	28,310	2,620	--	--	2,620
Masaiti	12,806	--	829	--	--
Mazabuka	43,273	5,462	714	6,003	6,826
Mbala	17,936	962	--	--	1,204
Mkushi	14,272	1,452	184	--	1,814
Mongu	28,034	5,078	5,512	5,129	5,642
Monze	27,714	5,550	726	6,955	6,936
Mpongwe	9,380	2,020	--	--	2,529
Mpulungu	9,507	1,062	--	--	1,062
Mufulira	28,806	4,536	5,492	6,843	4,536
Mumbwa	16,852	3,621	488	--	4,526
Namwala	7,262	2,966	376	--	3,706
Nchelenge	15,527	2,252	--	--	2,252
Ndola	91,037	9,382	18,499	15,851	11,728
Petauke	16,275	2,292	476	--	2,864
Senanga	10,798	1,674	1,236	--	1,860
Serenje	16,308	1,782	--	--	2,226
Sesheke	9,341	2,162	1,217	--	2,404
Sinazongwe	7,303	1,092	140	--	1,368
Solwezi	22,504	3,444	2,499	--	4,304
TOTAL	**1,073,257**	**177,858**	**149,397**	**139,486**	**209,664**

Source: ZamStat 2022, COP22 DataPack

4.9 Cervical Cancer Program Plans

Cervical cancer is the leading cause of cancer deaths in Zambia, and most women with cervical cancer are also living with HIV. Since 2006, PEPFAR Zambia has collaborated with the MoH and other donors to implement cervical cancer screening services using visual inspection with acetic acid, which is a same-day, screen-and-treat approach. Treatment options include thermal ablation

for eligible pre-cancerous lesions and LEEP or punch biopsy for women with ineligible lesions. Cold coagulation is conducted at a smaller scale due to limited availability of nitrous oxide.

PEPFAR Zambia offers standalone screening services and integrated services through ART clinics. In COP21, approximately 81% (94/116) of districts have at least one VIA site where screen-and-treat services are offered; approximately 74% (86/116) of districts have one LEEP site. LEEP sites are placed in facilities with operating theatres and access to blood product services. Invasive cervical carcinoma cases are referred to provincial hospitals or the Cancer Diseases Hospital in Lusaka for management. In COP21, a total of 1,006 PEPFAR-supported static sites were offering cervical cancer services, with additional screening conducted through mobile outreach services.

In COP22, PEPFAR Zambia will screen 266,683 women living with HIV (WLHIV) on ART. In alignment with PEPFAR and the WHO guidelines, Zambia is committed to making HPV DNA testing the gold standard for cervical cancer screening. However, procurement challenges related to COVID-19 limited availability of necessary HPV DNA commodities. Using HPV DNA, PEPFAR Zambia screened 7,944 women using HPV DNA tests, representing only 3% of the 264,800 women screened for cervical cancer. HPV positivity was 29%; completed treatment rates varied by SNUs.

In COP22, PEPFAR Zambia will continue to strengthen screening services. PEPFAR Zambia will focus on approaches that target the screening of WLHIV and women reporting to ART clinics, while using adherence counsellors and HIV advocacy groups, such as the Network of Zambian People Living with HIV/AIDS, to generate testing demand in communities. IPs will continue to strengthen referral systems and linkage services through improved health literacy among healthcare providers and CHWs to ensure consistent cervical cancer screening of WLHIV. In addition, the development of relevant guidelines, SOPs, job aides and training materials will remain critical to effective delivery of cervical cancer services.

In COP22, PEPFAR Zambia will scale screen-triage-and-treat using VIA and cryotherapy or thermal ablation in all sites. In addition, LEEP services will be scaled up, including referral services to improve treatment rates. Stronger pathology services and biopsy referral systems through expansion of histopathology services and specimen evaluation, including telepathology, remain critical for improved results return of specimens. Continued technical supportive supervision and mentorship will ensure VIA and LEEP quality assurance; participation in TWGs, ECHO, and other relevant meetings will assist in stakeholder and telemedicine coordination.

4.10 Viral Load and Early Infant Diagnosis Optimization

PEPFAR Zambia plans to achieve 95% VL coverage by the end of COP21 and beyond through improved efficiencies in the VL task network; replacement of aging VL platforms; VL commodity security, and improved visibility of VL samples and results.

To promote efficiency in VL work, the OptiDX-based DNO database and software is fully implemented, to include the entire health facility, referral route and laboratory map, and current targets for VL, EID, and GeneXpert tuberculosis testing. The laboratory network is 100%

integrated and guided by DNO. DNO suggested plans for CAP CTM replacement; the MoH and the manufacturer have endorsed these plans. To be fully realized, replacement plans will require implementation of a service-level agreement with Cepheid. In COP22, PEPFAR Zambia will directly integrate HR, data systems, instrument capacity, and utilization into OptiDX and monitor supply chain, waste management and funding in parallel. These efforts will enable 123 hubs (facilities with a GeneXpert and a centrifuge) and their 817 supported spokes (smaller facilities) to submit microtainer EDTA blood for EID and routine phlebotomy for VL on GeneXpert, enabling less than 24 turnaround time for all EID and priority VL.

Conventional machine capacity and existing VL referral systems will continue to cater to EID and priority VL within short distances from the VL labs and all routine VL testing, including DBS, for VL. DBS for viral load is available to sites that have intermittent sample referral challenges and all pediatric clients. By the end of COP21, digital results return will be 100% available; the DISA lab information management system will be installed on all GeneXperts doing EID and priority VL; and sample referral systems will be 100% on call. The lab team will assist supply chain teams in forecasting and continuously updating VL and EID-relevant commodities needs. All elements of a full-spectrum VL system will be in place to achieve 24-hour turnaround of all EID and priority VL and over 95% VL coverage in COP22.

5.0 Program Support Necessary to Achieve Sustained Epidemic Control

Analyses of the SID 2021 findings, along with MER results, SIMS visit reports and other sources, identified key systems barriers and sustainability vulnerabilities that must be addressed to achieve and maintain epidemic control. The systems barriers include inadequate supply chain (specifically commodity distribution); inadequate domestic resource mobilization (DRM); inadequate health workforce; inadequate local support for lab laboratory systems; and inadequate civil society engagement. Other key barriers relate to limitations in patient tracking using EMR, especially in the context of silent transfers, and the fact that subsystems are not sufficiently integrated leading to suboptimal use of information. The SID process identified six sustainability vulnerabilities that have been prioritized in COP21: commodity security and supply chain; epidemic and health data; laboratory; service delivery; DRM; and HRH. PEPFAR Zambia will continue to address these priorities into COP22.

Inadequate human and infrastructure capacity to commence and retain patients on treatment results in suboptimal quality of care and congestion of health facilities. With a clinical HCW to population ratio of 12 per 10,000 and 50% of positions on the MoH's establishment remaining vacant, the country has inadequate numbers of HCWs to achieve optimal linkage and retention. Activities to resolve this gap include preservice training of HIV nurse practitioners, recruitment and deployment of professional and lay staff, and the use of G2G agreements with Provincial Health Offices and other entities to fill staffing gaps (with the view of transitioning them to the GRZ payroll). PEPFAR Zambia has supported the continued roll-out and integration of the HRIS with the professional regulatory councils and payroll/staff returns to improve HR management.

PEPFAR Zambia continues to support the operationalization of the national community health strategy that harmonizes the training, job descriptions, incentive packages, legal framework, and the Community Health Information Management Tool for CHWs. PEPFAR Zambia has developed an HRH Inventory Tool to track investments and inform decisions on effective resolution of staffing gaps in HIV service delivery. In COP22, PEPFAR Zambia will work with MoH to develop and begin implementation of a joint health workforce optimization and transition plan.

In COP22, PEPFAR Zambia will continue with test and start strategy with 80% initiated on ART on the same day. To improve continuity of treatment, PEPFAR will continue the implementation of DSD models, including community-based ART models and MMD. Additionally, scale-up of DSD for unstable recipients of care will be prioritized. PEPFAR Zambia will improve patient tracking by supporting the upgrade and maintenance of SmartCare, as well as integration with other systems to optimize data use. This includes continued support to enhance National Data Warehouse functionality and visualization to improve data utilization for program management. Additionally, PEPFAR Zambia will support laboratory optimization, integration of laboratory information systems, and lab quality assurance to improve VL coverage and suppression. These activities will focus on high burden geographic areas and/or populations, including children, AYP, and KPs for epidemic control.

Inadequate commodity security results from breakdown in planning and distribution along the continuum of care. HTS, EID and VMMC commodities are particularly vulnerable to disruptions. In COP22, PEPFAR will improve stock availability at facility level by engaging a private sector third-party logistics provider to distribute commodities, rolling out eLMIS to all facilities in priority districts, and strengthening commodity forecasting and quantification capacity.

During COP21 implementation, PEPFAR Zambia conducted Surveillance, Research, and Evaluation (SRE) activities including:

- HIV case surveillance
- HIV recent infection surveillance
- KP integrated bio-behavioral surveys
- HIV drug resistance surveillance
- HIV-associated mortality surveillance

Together, the above activities will not only help PEPFAR Zambia better understand the dynamics of the HIV population but will significantly improve the precision with which the program adjusts to accelerate towards the goal of sustained HIV epidemic control. These activities, along with a planned positive infant audit and pediatric case characterization activity will carry into COP 22.

PEPFAR Zambia will continue to work closely with and leverage resources of stakeholders, including the GFATM, the Zambian government, and civil society. PEPFAR Zambia has set measurable annual benchmarks and outcomes for each investment and will use them to monitor implementation and achievement of results. The goal of PEPFAR Zambia's systems investments will address systems barriers to the timely identification, initiation, and retention of clients on

ART and provide quality care to PLHIV. PEPFAR Zambia will have reached its goal when the rate of new infections and mortality due to HIV significantly decreases from year to year.

6.0 USG Operations and Staffing Plan to Achieve Stated Goals

CDC: CDC will not request any new positions in COP22. Of the positions reported for recruitment in COP21, all have been filled by CDC internal staff and external candidates. Some positions have fallen vacant due to internal staff movements into new positions and resignations from CDC. These are being prepared for recruitment of which 3 positions may undergo possible repurposing (1 US direct hire (USDH) and 2 locally employed staff (LES)). CDC will continue to invest in training for all filled positions based on identified training needs.

In COP21 Q1, CDC took advantage of the reduced COVID-19 numbers to conduct the first cycle of SIMS/granular site management (GSM) comprehensive assessments. These assessments included both technical and management and operations staff trained in SIMS/SDMS. CDC intends to complete the remainder of the scheduled assessments during COP22 with the help of field staff stationed in the provinces. Follow-up assessments will be conducted with technical assistance IPs.

COP22 cost of doing business (CODB) has increased slightly due to maintenance requirements at the CDC offices and the replacement of the roof for CDC Zambia.

Department of Defense: During COP21, due to COVID 19 constraints and limited access to military sites, DOD has worked to maintain the significant gains and achievements of the previous year's COP targets and activities. This has meant consistent engagement with the host country military IPs on multiple communication and virtual platforms. This was a critical strategy to keep the program moving forward, as DOD worked to facilitate start-up and finalize site handover. In COP21, DOD worked on the SABERS study and this will inform programs; through its IP, DOD invested in the ZDF ECHO platform to foster engagement and continued learning.

DOD Zambia will continue to build upon its accomplishments, while at the same time working with our Zambian military partners and IP to address the gaps in lagging activities. To this end, DOD will not request any new staff positions in COP22; all planned positions have been filled.

In COP22, DOD will continue to engage military leadership in finding long-lasting solutions to address remaining gaps and make sustainable investments in electronic platforms to improve data systems and integration of programs into the military human resource structures and systems. DOD will continue to address issues of equity and strengthen access to services and integrate stigma and discrimination initiatives across all programs.

Peace Corps: Peace Corps Zambia works to ensure efficient alignment of staffing, which is responsive to the PEPFAR business model and program priorities in Zambia. Proposed staffing positions funded by PEPFAR are 23, with no changes in staffing numbers. Structurally, the

Medical Officer position, which has been vacant since its inception, has been replaced by the Medical Officer position based on the needs to better support the PEPFAR program.

PEPFAR Coordination Office: The PEPFAR Coordination Office (PCO) was restructured in 2020 to better align with PEPFAR's priorities around DREAMS and CLM. The PEPFAR Coordination Office is not requesting any new positions in COP22.

PCO is currently fully staffed, with two of the previous vacant positions having been filled, namely the PEPFAR Deputy Country Coordinator and the External Engagement Advisor. The PEPFAR Deputy Country Coordinator position was filled successfully, and the selected candidate assumed the position in November 2021. PCO also identified a candidate for the External Engagement Advisor; the successful candidate assumed the position in August 2021.

Recruitment of the PEPFAR Deputy Country Coordinator and the External Engagement Advisor positions have changed PCO's CODB budget. The External Engagement Advisor position is funded through PCO's CODB budget. The funding for the PEPFAR Deputy Country Coordinator has been reallocated to the USAID budget, as this position was hired under a USAID mechanism.

USAID: USAID has implemented a robust partner management plan and data driven approach that has resulted in marked achievements in meeting COP targets. The proposed staffing plans ensure that USAID can meet both administrative and partner management requirements that USAID has instituted to improve partner performance. This includes monthly data and financial performance reviews and targeted site visits. USAID has outlined a site visit strategy that will be implemented both by Lusaka and provincial staff. USAID currently has provincial offices in Luapula, Northern, Copperbelt and Central provinces. In addition, USAID is currently working to hire and place staff in Muchinga and Southern. The USAID provincial offices support the implementation of G2G agreements in the first four provinces mentioned, and coordinate USAID's IPs operating in those provinces to ensure alignment of work plans with provincial Zambian government plans.

USAID is requesting three new positions in COP22. This includes a Budget and Operations Specialist who will strengthen financial and expenditure support and provide TA to local partners; a Local Capacity Adviser who will manage capacity-building TA to local IPs; and a USPSC HIV/TB Division Team Lead, to fill a projected vacancy by the current Foreign Service Officer (FSO)-lead in July 2022.

A major USAID program shift that started in COP19 to focus on support for G2G and local partners will continue in COP22. USAID has focused on completing the recruitment of staff for positions approved in COP 21 to ensure a full staff complement required to deliver COP objectives and targets, as well as manage the continued transition to local partners.

APPENDIX A – Prioritization

Continuous Nature of SNU Prioritization to Reach Epidemic Control

Table A.1 SNU Prioritization

Appendix%20A%20
COP22%20SNU%20P

APPENDIX B – Budget Profile and Resource Projections

B1. COP22 Planned Spending in alignment with planning level letter guidance

Table B.1.1 COP22 Budget by Program Area

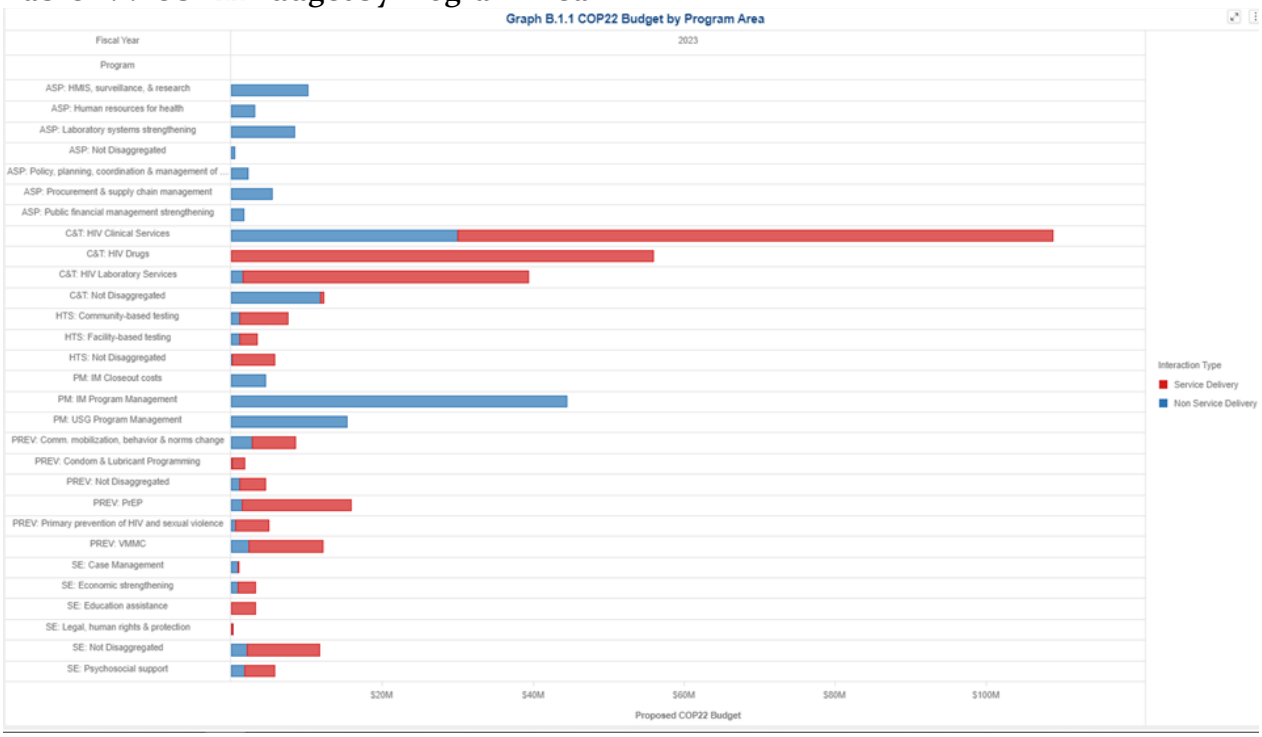


Table B.1.2 COP22 Budget by Program Area

Table B.1.2 COP22 Budget by Program Area

Program	Metrics	Proposed COP22 Budget			Percent of Proposed COP 22 Budget		
	Sub-Program	Non Service Delivery	Service Delivery	Total	Non Service Delivery	Service Delivery	Total
Total		$155,243,687	$246,356,313	$401,600,000	39%	61%	100%
C&T	Total	$43,367,016	$173,116,848	$216,483,864	20%	80%	100%
	HIV Clinical Services	$30,007,164	$78,852,802	$108,859,966	28%	72%	100%
	HIV Drugs		$55,928,551	$55,928,551		100%	100%
	HIV Laboratory Services	$1,578,800	$37,841,695	$39,420,495	4%	96%	100%
	Not Disaggregated	$11,781,052	$493,800	$12,274,852	96%	4%	100%
HTS	Total	$2,379,800	$14,230,026	$16,609,826	14%	86%	100%
	Community-based testing	$1,099,800	$6,359,200	$7,459,000	15%	85%	100%
	Facility-based testing	$1,150,000	$2,267,500	$3,417,500	34%	66%	100%
	Not Disaggregated	$130,000	$5,603,326	$5,733,326	2%	98%	100%
PREV	Total	$8,210,122	$39,622,582	$47,832,704	17%	83%	100%
	Comm. mobilization, behavior & norms change	$2,722,412	$5,776,442	$8,498,854	32%	68%	100%
	Condom & Lubricant Programming	$60,000	$1,680,000	$1,740,000	3%	97%	100%
	Not Disaggregated	$1,117,060	$3,431,114	$4,548,164	25%	75%	100%
	PrEP	$1,434,000	$14,494,386	$15,928,386	9%	91%	100%
	Primary prevention of HIV and sexual violence	$805,000	$4,350,000	$4,955,000	12%	88%	100%
	VMMC	$2,281,660	$9,880,640	$12,162,300	19%	81%	100%
SE	Total	$5,621,738	$19,386,857	$25,008,595	22%	78%	100%
	Case Management	$848,225	$126,566	$975,791	87%	13%	100%
	Economic strengthening	$897,221	$2,313,913	$3,211,134	28%	72%	100%
	Education assistance		$3,217,766	$3,217,766		100%	100%
	Legal, human rights & protection	$3,682	$200,000	$203,682	2%	98%	100%
	Not Disaggregated	$2,149,110	$9,563,000	$11,712,110	18%	82%	100%
	Psychosocial support	$1,725,500	$3,962,612	$5,688,112	30%	70%	100%
ASP	Total	$31,367,271		$31,367,271	100%		100%
	HMIS, surveillance, & research	$10,193,000		$10,193,000	100%		100%
	Human resources for health	$3,123,521		$3,123,521	100%		100%
	Laboratory systems strengthening	$8,361,500		$8,361,500	100%		100%
	Not Disaggregated	$421,000		$421,000	100%		100%
	Policy, planning, coordination & management of disease control programs	$2,235,250		$2,235,250	100%		100%
	Procurement & supply chain management	$5,413,000		$5,413,000	100%		100%
	Public financial management strengthening	$1,620,000		$1,620,000	100%		100%
PM	Total	$64,297,740		$64,297,740	100%		100%
	IM Closeout costs	$4,560,000		$4,560,000	100%		100%
	IM Program Management	$44,454,988		$44,454,988	100%		100%
	USG Program Management	$15,282,752		$15,282,752	100%		100%

Table B.1.3 COP22 Total Planning Level

Table B.1.3 COP22 Total Planning Level

Metrics	Proposed COP22 Budget		
Operating Unit	Applied Pipeline	New	Total
Total	**$50,398,383**	**$351,201,617**	**$401,600,000**
Zambia	$50,398,383	$351,201,617	**$401,600,000**

Table B.1.4 COP22 Resource Allocation by Program and Beneficiary

Table B.1.4: COP22 Resource Allocation by Program and Beneficiary

Operating Unit	Metrics	Proposed COP22 Budget							Percent to Total						
	Beneficiary	C&T	HTS	PREV	SE	ASP	PM	Total	C&T	HTS	PREV	SE	ASP	PM	Total
Zambia	**Total**	**$216,483,864**	**$16,609,826**	**$47,832,704**	**$25,008,595**	**$31,367,271**	**$64,297,740**	**$401,600,000**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
	Females	$13,963,709		$12,001,678	$13,388,610	$300,000		**$39,653,997**	6%		25%	54%	1%		**10%**
	Key Pops	$330,000	$1,135,000	$8,944,915	$1,000,000	$950,000		**$12,359,915**	0%	7%	19%	4%	3%		**3%**
	Males	$6,330,000	$1,600,000	$11,160,876	$1,300,000			**$20,390,876**	3%	10%	23%	5%			**5%**
	Non-Targeted Pop	$187,608,158	$12,163,626	$10,670,935	$177,000	$28,283,436	$64,297,740	**$303,200,895**	87%	73%	22%	1%	90%	100%	**75%**
	OVC			$2,147,500	$8,809,194	$650,000		**$11,606,694**			4%	35%	2%		**3%**
	Pregnant & Breastfeeding Women	$5,850,000	$547,200	$1,535,500		$20,000		**$7,952,700**	3%	3%	3%		0%		**2%**
	Priority Pops	$2,401,997	$1,164,000	$1,371,300	$333,791	$1,163,835		**$6,434,923**	1%	7%	3%	1%	4%		**2%**

B.2 Resource Projections

PEPFAR Zambia based resource projections on an incremental budgeting methodology consistent with The Office of the U.S. Global AIDS Coordinator and Health Diplomacy (OGAC) guidance and the funding allocation to strategy tool (FAST) process. The COP21 budget offered the base for budgeting, as shown in the FAST tool. Any incremental budget adjustments in the COP22 budget reflect subtle changes in IM allocations based on performance and outlays, were made at the IM level based on past performance against targets and outlays; COP20 results; projected targets and outlays for COP22; and program shifts between COP periods. PEPFAR Zambia promoted innovation in the budgeting process by undertaking a complete assessment of funding requirements for new IMs prior to budget setting and continuing IMs where strategy shifts warranted changes in funding.

Throughout the resource allocation process, PEPFAR Zambia engaged in thoughtful and deliberate discussions to determine the most efficient and effective use of the COP22 budget to ensure that it advances sustained epidemic control. Following a technical priority-setting process, which encouraged and collected stakeholder feedback, TWGs (prevention, community services, clinical services, health systems strengthening, and strategic information) worked together to establish targets, ensuring strong coordination across program areas. The TWGs triangulated program and fiscal performance data from prior annual progress reports and COP21 Q1 results. The TWGs also conducted a review of literature on unit costs to inform decision making. Other sources of data to inform the resource projections were gap analyses conducted in close collaboration with the Zambian government through national TWGs and CSOs engaged in diverse program areas.

APPENDIX C – Tables and Systems Investments for Section 6.0


Key Systems Barriers-E.pdf


Zambia_COP22 SRE_Tool.pdf


Zambia_COP22 Table 6-E.pdf


Appendix%20C%20 COP22%20KP%20Bu

APPENDIX D – Minimum Program Requirements

Minimum Program Requirement	Status for COP21 Implementation
Care and Treatment	
1) Adoption and implementation of Test and Start, with demonstrable access across all age, sex, and risk groups, and with direct and immediate (>95%) linkage of clients from testing to uninterrupted treatment across age, sex, and risk groups.	**Status:** Complete The "Test and Start" protocol is part of the Zambia Consolidated HIV Treatment Guidelines. Unless there is an immediate contraindication, all newly identified HIV-infected people are offered treatment immediately.
2) Rapid optimization of ART by offering TLD to all PLHIV weighing ≥30 kg (including adolescents and women of childbearing potential), transition to other DTG-based regimens for children who are ≥4 weeks of age and weigh ≥3 kg, and removal of all NVP- and EFV-based ART regimens.	**Status:** Complete The preferred first line HIV treatment in both adults and children in Zambia should contain DTG. • TLD: Uptake is now at more than 90 percent for all TLD-eligible HIV-infected individuals • DTG 10 mg: Transition of approximately 12,000 children from Lopinavir to DTG 10 mg began in August 2021; as of November 2021, 2111, children were on DTG 10 mg) • EFV is being phased out rapidly. • NVP regimens for treatment have been phased out completely.
3) Adoption and implementation of differentiated service delivery models for all clients with HIV, including six-month MMD, decentralized drug distribution, and services designed to improve identification and ART coverage and continuity for different demographic and risk groups.	**Status:** Complete **1.** MMD: About 93 percent of clients on HIV treatment are on MMD. **2.** 6MMD: About 60 percent of clients are on six-month MMD.
4) All eligible PLHIV, including children and adolescents, -should complete TB preventive treatment (TPT), and cotrimoxazole, where indicated, must be fully integrated into the HIV clinical care package at no cost to the patient.	**Status:** In process 74 percent of adults and children completed a course of TPT between FY19 and FY21. a. Provider hesitancy to initiate TPT due to limited diagnostic capacity to rule out active TB. Reduced global availability of GeneXpert cartridges due to COVID pandemic. b. With transition to MMD and DSD, fewer patients visit facilities where TPT is initiated.
5) Completion of Diagnostic Network Optimization (DNO) activities for VL/EID, TB, and other coinfections, and ongoing monitoring to ensure reductions in morbidity and mortality across age, sex, and risk groups, including 100% access to EID and annual VL testing and results delivered to caregiver within 4 weeks.	**Status:** Complete To improve lab outcomes, the deployment of all lab inputs and/or capabilities in Zambia (machines, human resources, transport, etc.) will be informed by DNO. • Machines: Viral work will be done on the COBAS 6800 and 4800, Hologic Panther, and GeneXpert machines; TB work will be performed on the GeneXpert. • All other capabilities (transport, human resources, lab information systems, etc.) will be positioned to support the machine arrangement.

	• End-point: Achieve a 24-hour turnaround time for EID and priority viral loads and two weeks for all other viral loads.
Case Finding	
6) Scale-up of index testing and self-testing, ensuring consent procedures and confidentiality are protected and assessment of intimate partner violence (IPV) is established. All children under age 19 with an HIV positive biological parent should be offered testing for HIV.	**Status:** Complete Stock-outs of self-testing kits reduced testing coverage, as did attrition of community-based volunteers; IPs report challenges in tracking completion coverage rates of family index testing (i.e., proportion of HIV positive women with children who have children tested); and centrally-supported facilities without PEPFAR support are unfamiliar with the Know Your Child's Status campaign.
Prevention and OVC	
7) Direct and immediate assessment for and offer of prevention services, including pre-exposure prophylaxis (PrEP), to HIV-negative clients found through testing in populations at elevated risk of HIV acquisition (PBFW and AGYW in high HIV-burden areas, high-risk HIV-negative partners of index cases, KPs and adult men engaged in high-risk sex practices)	**Status**: In process Poor PrEP continuation rates due, in part, to restricted movements and limited community-based outreach during COVID waves; cultural and social barriers result in lower PrEP initiation rates among pregnant and breastfeeding women.
8) Alignment of OVC packages of services and enrollment to provide comprehensive prevention and treatment services to OVC ages 0-17, with particular focus on 1) actively facilitating testing for all children at risk of HIV infection, 2) facilitating linkage to treatment and providing support and case management for vulnerable children and adolescents living with HIV, 3) reducing risk for adolescent girls in high HIV-burden areas and for 10-14 year-old girls and boys in regard to primary prevention of sexual violence and HIV.	**Status:** Complete The OVC portfolio includes the Comprehensive, Preventive, and DREAMS models to vulnerable children and AGYW in Zambia across the interagency. The comprehensive package provides comprehensive prevention and treatment services to OVC ages 0-17 and includes facilitated testing for all children at risk of HIV infection and linkage to treatment and care for C/ALHIV. The DREAMS and preventive models also reduce risk for adolescent girls in high HIV-burden areas and for 10–14-year-old girls and boys, respectively, in regard to primary prevention of sexual violence and HIV.
Policy & Public Health Systems Support	
9) In support of the targets set forth in the Global AIDS strategy and the commitments expressed in the 2021 political declaration, OUs demonstrate evidence of progress toward advancement of equity, reduction of stigma and discrimination, and promotion of human rights to improve HIV prevention and treatment outcomes for KPs, adolescent girls and young women, and other vulnerable groups.	**Status:** In process Progress towards advancement of equity, reduction of stigma and discrimination, and promotion of human rights to improve HIV prevention and treatment outcomes for KPs, adolescent girls and young women, and other vulnerable groups is in process. Activities include training of HCWs in the provision of KP-friendly health services, which addresses stigma and discrimination, and improves the treatment outcomes for KPs, increased knowledge of rights of KP, and more KP organizations running safety and security interventions. Barriers remain, including: i. Prohibitive legal environment which criminalizes same-sex relations and sex work. ii. Closure of hotspots during COVID waves that limited community-based HIV activities. iii. Limited knowledge of KP human rights, complicated by religious beliefs, which leaves KP

	vulnerable to discrimination, stigma and human rights violations.
10) Elimination of all formal and informal user fees in the public sector for access to all direct HIV services and medications, and related services, such as ANC, TB, cervical cancer, PrEP and routine clinical services affecting access to HIV testing and treatment and prevention.	**Status:** In process Zambia does not have a formal user fees policy which would include a combination of any of the following: drug costs, supplies and medical material costs, entrance fees or consultation fees paid at each visit. However, select services attract a subsidy from patients: a) a one-time registration fee to facilitate/procure a registration card and/or a book for recording; b) initial radiographs, c) self-referral (i.e., patients who avoid navigating the primary healthcare system by self-referral to a higher-level of care). These out-of-pocket costs can potentially reduce access to HIV care, especially among most vulnerable populations (though there is no formal evidence of this).
11) OUs assure program and site standards, including infection prevention & control interventions and site safety standards, are met by integrating effective Quality Assurance (QA) and Continuous Quality Improvement (CQI) practices into site and program management. QA/CQI is supported by IP work plans, Agency agreements, and national policy.	**Status:** Complete Quality assurance is an integral part of HIV programming in Zambia and focuses on data and contents of the program such as: a) laboratory (where the hallmark is maintenance of minimum standards and patient care (where the hall marks are patients' clinical and surrogate outcomes). These are monitored in a structured manner using internal and external quality improvement and assessment.
12) Evidence of treatment literacy and VL literacy activities supported by Ministries of Health, National AIDS Councils and other host country leadership offices with the general population and healthcare providers regarding U=U and other updated HIV messaging to reduce stigma and encourage HIV treatment and prevention.	**Status:** In process At policy level, the Zambian Republican President officially launched the U=U campaign. The MoH continues to promote awareness amongst service providers and the community on the need for all HIV-infected clients to achieve HIV viral suppression. At community level, civil society organizations and political and traditional leaders continue to engage stakeholders on the same subject. As a result, the following have improved: 6MMD, retention in treatment, and VL coverage and VL suppression.
13) Clear evidence of agency progress toward local partner direct funding, including increased funding to KP-led and women-led organizations in support of Global AIDS Strategy targets related to community-, KP- and women-led responses	**Status:** In process USAID and CDC provide funding to the Zambian government through G2G and cooperative agreements. For COP19, COP20 and COP21 DOD's allocation to local, indigenous partner direct funding was 10%, 4% and 0% respectively. In COP21 100% was allocated to an international partner because DOD only has one partner implementing both the facility and community program. USG is making progress towards more direct funding to local partners for key population-led responses. USG has not yet started directly funding women-led responses. KP organizations face complicated application processes and registration challenges.
14) Evidence of partner government assuming greater responsibility of the HIV response including demonstrable evidence of year after year increased resources expended	**Status:** In process Although the GRZ has steadily increased budgetary allocation for health (2020 ZMW9.3 billion; 2021 ZMW9.6 billion; 2022 ZMW13.9 billion), the sector budget as a proportion of the

	national budget has reduced (2020 8.8%; 2021 8.1%; 2022 8.0%). With the rapid depreciation of the local currency in 2020 - 2021, the USD equivalent of the 2021 health budget was $480 million compared to $548 million in 2020 (-11%).
15) Monitoring and reporting of morbidity and mortality outcomes including infectious and non-infectious morbidity.	**Status:** Complete Forty facilities in seven provinces conduct verbal autopsies and transmit data to the mortality surveillance database. Data analysis and dissemination is occurring. Verbal autopsy coverage of community deaths at each facility varies. Some sites have low volume of community deaths brought into mortuaries. With CDC support, MoH is proactively addressing system gaps to improve this program.
16) Scale-up of case surveillance and unique identifiers for patients across all sites.	**Status:** Complete • Case-based surveillance analysis and data collection transitioned to use of routine country data systems; therefore, all facilities using SmartCare in all ten provinces are now included in case-based surveillance. • Routinizing use of data for surveillance and program improvement has been a challenge, but data analysis and use workshops and increased data. dissemination planned for COP21. • Reconceiving systems to use routine data will result in greater coverage and enhanced sustainability.

APPENDIX E – Assessing Progress towards Sustainable Control of the HIV/AIDS Epidemic

1. Misalignments between Investments and Outcomes

Figure E.1.1. Trends in Investments and SID Scores for System-Related Elements

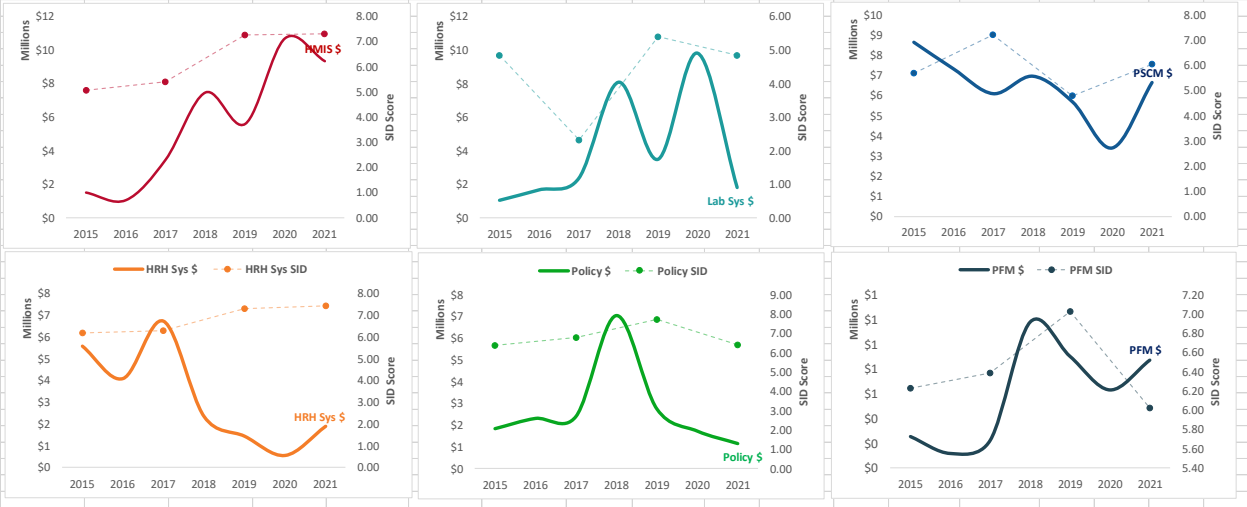
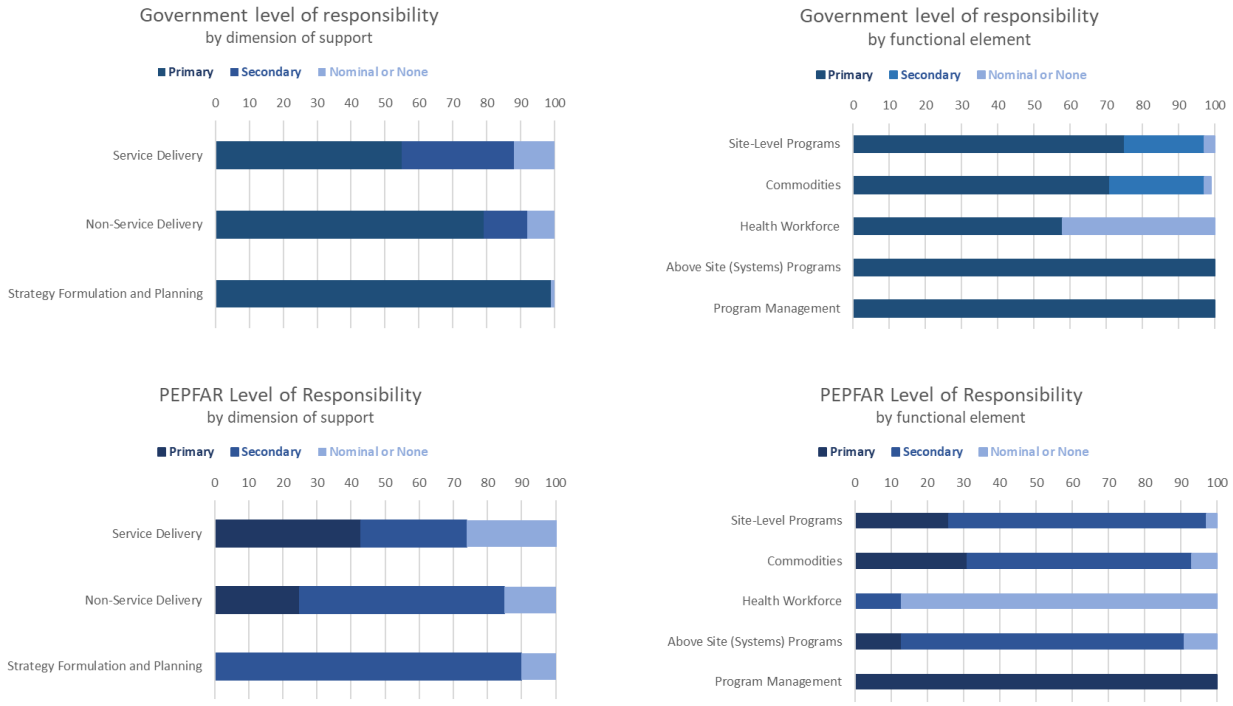


Figure E.1.2. Percent Primary Responsibility Ratings from Responsibility Matrix



Source: PEPFAR Zambia Responsibility Matrix, 2021

The national HIV program is primarily implemented in MoH facilities. The program uses government systems, including financial management systems and health information systems. The host government generally leads strategy formulation and planning processes. For these

reasons, the Zambian government has primary responsibility for above site programs. The Zambian government implements the national HIV response with substantial financial and technical support from external sources, including PEPFAR and GFTAM. To ensure sustainability, the Zambian government (and other local entities) must invest more heavily in the HIV response.

999Figure E.1.3. Assessing PEPFAR Zambia Expenditure Trends by Interaction Type and Epidemic Control Status

Zambia	Service Delivery	Commodities	Non-Service Delivery	Above Site	Program Management	1st 95 (Known Status)	2nd 95 (On ART)	3rd 95 (Virally Suppressed)
2018	$115,264,522	$108,323,875	$49,123,359	$34,614,997	$62,006,565	87%	87%	83%
2019	$117,439,942	$115,641,204	$44,140,752	$21,881,358	$51,346,075	99%	87%	90%
2020	$120,166,678	$105,980,250	$44,144,076	$26,840,432	$50,718,130	90%	87%	93%
2021	$139,730,584	$109,325,006	$47,745,074	$21,726,589	$49,710,660	98%	90%	96%

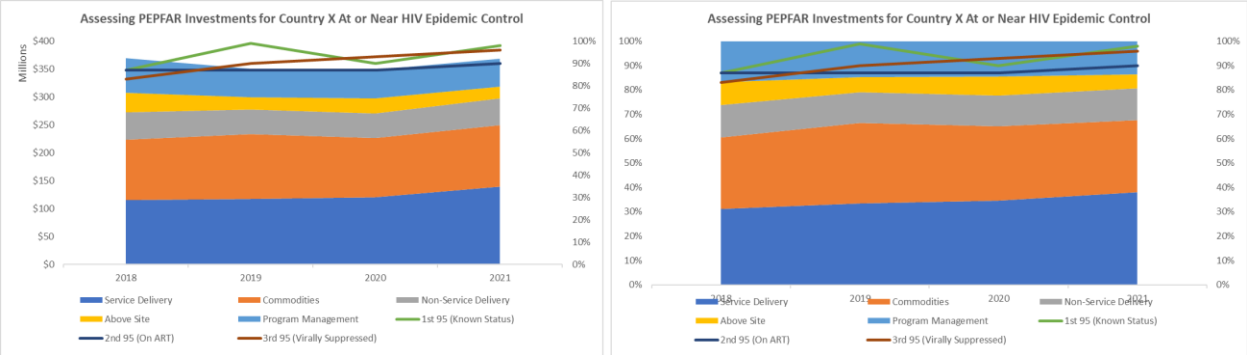
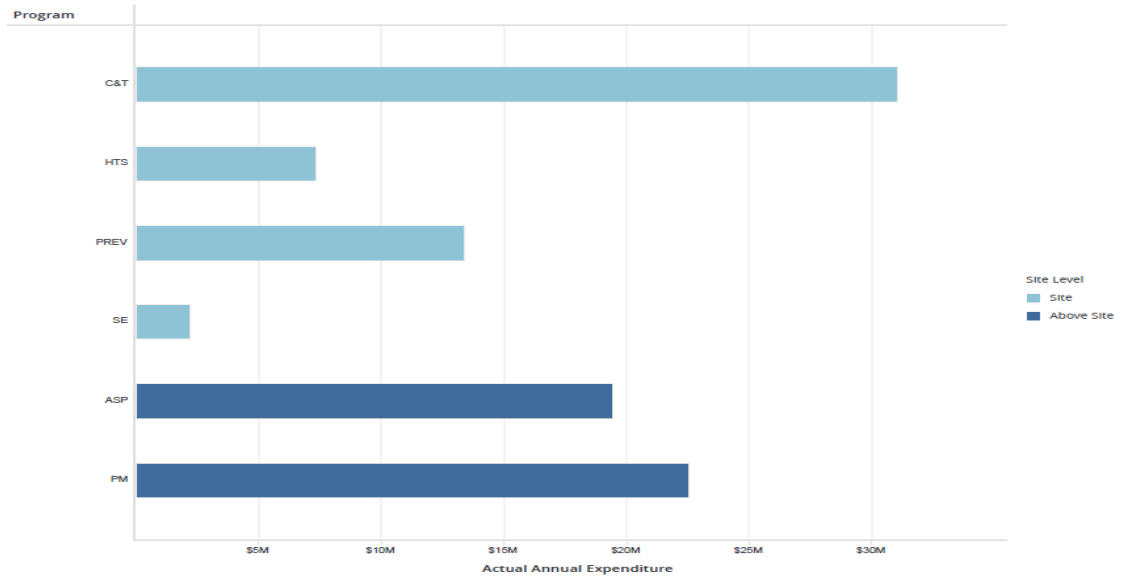


Figure E.1.4. Remuneration by Site/Above Site & Service Delivery/Non-Service Delivery in Zambia



In COP20, PEPFAR Zambia supported 22,910 HCWs (14,437 full time equivalent) at a total annual spend of $95,978,037 without fringe. A total of $36,102,914 (38%) was spent on service delivery staff (16,336) compared to $59,875,123 on non-service delivery staff (6,574). In addition, 56%

($54,018,753) of the total supported site-level activities; 32% ($19,421,875) above site programming; and 38% ($22,537,409) program management. This indicates that non-service delivery staff cost more than service delivery staff; the focus of PEPFAR Zambia's HRH support is service delivery.

2. Areas for Transition

Careful analysis of SID 2021 results and Table 6 point to three areas for transition in COP22.

Laboratory QMS: Efficient and reliable medical laboratory services, including quality laboratory testing, are essential to a functioning health system and patient treatment outcomes. Quality laboratory results are dependent on a robust QMS, which helps to promote laboratory accreditation (ISO-15189). In COP22, PEPFAR Zambia will support transition of QMS programs and activities from supporting implementing partners to the MoH, based on an agreed-upon plan. The MoH will assume responsibility for administering the QMS mentorship program (i.e., coordination of this program to include schedules, trainings, and workshops); procurement of laboratory supplies and commodities (e.g., external quality assessment (EQA) material); payment of laboratory accreditation fees; operationalization of the Quality Assurance Coordinating Unit (QACU); administration of the laboratory certification program; and set-up of a centralized national EQA program. To mitigate potential risks, IPs supporting the QMS program will provide TA to the MoH. This transition will not impact proposed budgets, program activities, or metrics. A QMS team, inclusive of MoH, interagency and IP staff, and QMS TWG meet weekly and monthly, respectively, to support active management of the transition.

HRH Transition: In COP20, PEPFAR Zambia supported 22,910 HCWs who contributed to the achievement of program targets and progress made towards epidemic control. To maintain epidemic control, the MoH needs adequate numbers of HCWs with the appropriate mix of skills who are equitably distributed across Zambia. In COP21, PEPFAR Zambia will begin high-level engagement with the Zambian government to discuss the transition of USG-supported staff to the national payroll. PEPFAR will also continue to transition direct service delivery to PHOs, which has allowed for the management of PEPFAR-supported staff in alignment with Zambian government human resource systems and paved the way for staff transition. In COP22, PEPFAR Zambia will work with MoH to develop a joint multi-year HRH optimization and transition plan. Given current economic challenges in the country, the OU anticipates a multi-year process with tangible benchmarks to transition PEPFAR-supported staff to the Zambian government.

Extension for Community Healthcare Outcomes (ECHO): The ECHO model provides a platform for individuals supporting the country's health system to access critical life-saving knowledge while receiving mentorship and ongoing support to make a difference in their community. Experts and participants learn from one another, as well as subject matter experts, and knowledge is refined and tested through local experience. In COP22, the ECHO model in Zambia will further evolve with the devolution of the ECHO model from the central hub to provinces, where subject matter experts at the provincial levels will receive mentorship to lead ECHO sessions. In addition, administrative functions at the central hub level, such as coordination and M&E, will transition from our international partner to the MoH.

3. Engagement with Partner Country Governments in COP22 to Ensure Sustainability of Core Elements of the HIV Response

Zambia has a costed National AIDS Strategic Framework 2017-2021. Updated every five years, the strategic plan addresses required thematic areas. The strategy is a national document and, as such, the Zambian government seeks input from a variety of stakeholders, including PEPFAR, GFATM, cooperating partners and civil society. However, the private sector, including corporate businesses, has not engaged substantially in strategy development, despite their known contributions to the HIV response. The last strategy came to an end in December 2021; plans to develop the next strategy are underway. PEPFAR Zambia will engage the MoH to encourage the participation of diverse stakeholders, including the private sector, in strategy development.

The MoH National HIV/AIDS TWG coordinates technical aspects of the national HIV program; NAC coordinates KP and condom programming. Task forces at national and sub-national levels, including the National AIDS Task Force, Provincial AIDS Task Forces, and District AIDS Task Forces, coordinate implementation of the HIV response. However, deficits exist across these levels due to inadequate financial resources, and this weak coordination results in duplication of partner efforts, particularly at decentralized levels. PEPFAR Zambia will engage MoH and NAC to strengthen the coordination mechanisms and improve implementation at lower levels. PEPFAR will also work with the Zambian government to remove restrictive legal or policy frameworks for HIV program implementation that discourage access to HIV services for AYP and KPs.

CSOs play an essential role in implementing and monitoring Zambia's HIV response, while also shaping advocacy strategies. However, no legal frameworks compel the Zambian government to fund CSOs. In COP22, PEPFAR Zambia will continue to advocate for policies and laws that support access to public and private sector funding for CSOs. In collaboration with the MoH, GFATM, NAC, and CSOs, PEPFAR Zambia will support stronger self-coordination mechanisms.

Only 50% of positions on the staff establishment of the Zambian health system are filled, which challenges implementation of the national HIV program. To support program implementation, PEPFAR Zambia has engaged clinical and lay staff to cover the human resource deficit, especially in high-volume facilities. PEPFAR Zambia continues to support the development of the MoH Community Health Worker Framework that recognizes non-formalized workers and in-service training through the National Training Operational Plan. PEPFAR Zambia supports the training of HIV Nurse Prescribers (HNP). The HNP program, present in Zambia's 10 provinces, will begin transition to the Zambian government in COP22. To improve human resource management, PEPFAR continues to support the roll-out of the integrated HRIS which is over 90% functional.

Commodity availability at SDPs is critical for the effective implementation of the national HIV response. In COP22, PEPFAR Zambia will procure 57% of the total HIV commodities required, while GFATM and the Zambian government have committed to contribute 10% and 13%, respectively. A funding gap of $37.6 million (19%) remains. Ongoing discussions between the Zambian government, GFATM, and PEPFAR indicate that this gap may reduce substantially.

4. Agreements and plans on Data Use and Sharing and Quality Control

In COP22, PEPFAR Zambia will depend upon the strong and long-standing partnership between the stakeholders who invest in epidemic and health data in the country. PEPFAR Zambia and MoH routinely share their respective results from DATIM and HMIS. These results, including those from centrally-supported facilities, are reviewed quarterly as part of the data alignment exercise. PEPFAR-supported routine program activities and surveillance program data, including recency, case-based surveillance, and mortality, are available to stakeholders, including the Zambian government, via dashboards. Routine data reviews with stakeholders provide avenues to discuss progress and program improvement. Quarterly results, including CLM feedback, are disseminated via stakeholder calls. This transparency and collaboration continue to strengthen the program. Personally identifiable information is only available to individuals who receive permission through an established data sharing agreement. for whom permission has been granted as part of a protocol and/or data sharing agreement.

Data quality continues to be a high priority for PEPFAR Zambia and the MoH. PEPFAR Zambia conducts an annual joint DQA with the MoH. In COP21, the DQA focused on PMTCT and TX_CURR, which helped to improve the accuracy of this year's Spectrum model and results. The DQA also included centrally-supported sites to identify any potential challenges and strengthen M&E systems moving forward. Further investments in data quality activities, including strengthening SmartCare and routine reporting systems, will continue to improve data quality in the coming year. PEPFAR IPs are expected to conduct routine data quality improvement activities, and USG staff are routinely reviewing results to strengthen data quality.