Mozambique Operational Plan (COP/ROP) 2017 Strategic Direction Summary

Table of Contents

1.0 Goal Statement

The overarching goal of the United States Government (USG) for the President's Emergency Plan for AIDS Relief (PEPFAR) in Mozambique is to support country efforts to achieve epidemic control by 2020 through evidence-based policies and interventions to drive progress and save lives.

PEPFAR will achieve this goal by working with the Mozambican National HIV/AIDS Control Program and with the National AIDS Council (CNCS), Global Fund (GFATM), UNAIDS, civil society, and other multilateral and implementing partners to design, implement, coordinate, and monitor a cohesive, ambitious strategy to achieve epidemic control.

Analysis of available data and consultations between the National HIV/AIDS Control Program and PEPFAR resulted in ambitious targets and a focus on the provinces and districts with the highest unmet need for HIV services. COP17 includes targets to enroll 375,202 new people living with HIV (PLHIV) into care and treatment services and to maintain 1,262,208 PLHIV on treatment. In this COP, PEPFAR-Mozambique has reclassified priority districts based on estimates of progress in achieving adequate coverage for epidemic control. There are 85 Scale-Up districts as compared to 78 for COP16, 27 of which were reclassified as Aggressive Scale-Up to step up the efforts in Gaza, Inhambane, Maputo Province, Niassa, Sofala and Zambezia. All Scale-Up districts will receive focused support to expand access to and utilization of HIV prevention and care and treatment services.

In addition to geographic shifts, tailored programming will be delivered to populations who are at elevated risk for HIV acquisition and are currently under-served. Efforts will reach young people in high-burden districts aged 15 – 29, retain pregnant women and children on treatment, improve EID access and linkage, expand programming for key populations (MSM, FSW, prisoners, PWID) and priority populations (miners, clients of sex workers, etc.), and reduce the gap between the proportion of men and women initiating ART.

The Government of the Republic of Mozambique (GRM) has made a commitment to evidence-based policies essential to achieving epidemic control, including nationwide implementation of Test and Start (T&S) in 2018, differentiated service delivery approaches, and routine viral load testing. Simultaneously, PEPFAR is committed to intensive management of implementing partners, with improved onsite monitoring, more frequent analysis of program data, and in-depth regular engagements with partners to discuss implementation progress and facilitate sharing of best practices.

Zambezia has the largest number of PLHIV in all of Mozambique and has long contended with the lowest coverage. For this reason, COP17 includes a Zambezia-specific plan (Zambezia Action Plan – ZAP) that will focus resources through interagency investment to rapidly improve early case identification, linkage, treatment initiation, retention, viral suppression, quality of services, infrastructure, information systems, and supply chain/laboratory logistics.

Finally, PEPFAR recognizes the vital and increasing role that communities and civil society have in addressing the epidemic in Mozambique. They have a direct stake in the success of these endeavors and provide invaluable perspective on the daily realities of the epidemic. PEPFAR will continue to strengthen these partnerships to ensure programming that is both relevant and effective, focused on the health needs of Mozambicans.

2.0 Epidemic, Response, and Program Context

2.1 Summary statistics, disease burden and country profile[1]

Mozambique is a country of approximately 29 million people[2] challenged by a generalized HIV epidemic. National HIV prevalence is estimated at 13%, with substantial variation in provincial prevalence ranging from 5% in Tete Province to 24% in Gaza Province.[3] At the end of 2016, there were an estimated 1.9 million PLHIV, with a higher prevalence among women, 15% vs. 10% among men.[4] Prevalence among adolescent girls 15-19 is estimated at 6% and among young women 20-24 is estimated at 13%, compared to 2% and 5% among adolescent boys and young men.[5] Additional sub populations have higher prevalence, please see table 2.1.1. Of the estimated number of PLHIV, 45% are currently on ART. The HIV epidemic has contributed to a reduced life expectancy of 55 years, and there are approximately 2 million orphaned children, of whom 800,000 were orphaned by HIV.

Despite encouraging economic growth, estimated at over 7% over the last three years, Mozambique's economy suffered a major blow following the discovery of nearly $2 billion in government-backed hidden debt in 2015 and 2016, which contributed to rapid inflation, a depreciating national currency, and reduced growth rates falling from 6.6% in 2015 to an estimated 4.5% to 3.7% in 2016. While the economy is expected to rebound slightly in 2017, the Human Development Index ranks Mozambique 180 out of 187 countries.[6] Sixty percent of Mozambicans live on less than $1.25/day with a gross national income of $600 per capita.[7] Seventy percent of Mozambicans are estimated to be poor and 37% destitute with substantial variation by region and province (see Figure 2.1.1).[8]

[1] A new HIV prevalence survey (*Inquérito de Indicadores de Immunização, Malãria e HIV/SIDA em Moçambique – IMASIDA*) is currently in draft. Preliminary prevalence estimates were generously provided by GOM for calculation of PEPFAR COP17 targets. These preliminary estimates are included here and are reflected in the PLHIV estimates described throughout the text but will be replaced by official GOM estimates later this year.

[2] UNDATA, 2016

[3] INSIDA, 2009

[4] EPP SPECTRUM Version 5.4.2014; 2015 estimate

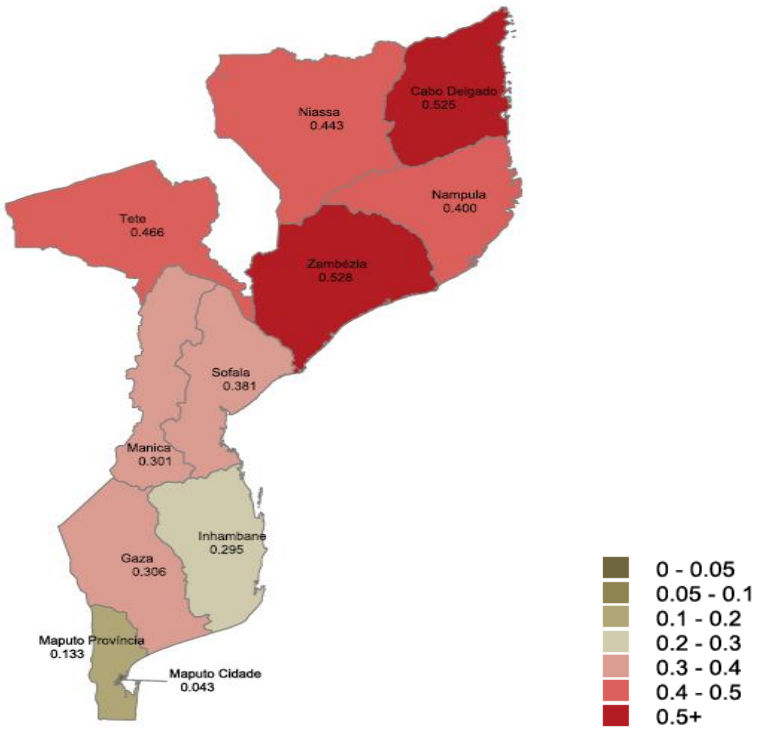
[5] AIDS Indicator Survey INSIDA, 2009

[6] Human Development Report, 2015, UNDP

[7] World Bank, 2014

[8] Oxford Poverty and Human Development Initiative (2016). "Mozambique Country Briefing", Multidimensional Poverty Index Data Bank. OPHI, University of Oxford. Available at: www.ophi.org.uk/multidimensional-poverty-index/mpi-country-briefings/

Figure 2.1.1: Global Multidimensional Poverty Index* in Mozambique by Province



The MPI, developed in 2010 by UNDP, is calculated by combining the incidence of poverty multiplied by the average intensity of poverty. Intensity of poverty is assessed across three dimensions: health, education and living standards.

Several key health indicators show some key improvements. Antenatal care (ANC) coverage, defined as at least one ANC clinic visit, increased to 93% with 70% of women delivering in a health facility.[9] Under-five child mortality was 90/1,000 live births, declining from 103/1,000 live births in 2010.[10] Malaria, acute respiratory infections, and vaccine-preventable diseases are the main causes of child mortality, with malaria contributing to one-third of deaths. Forty-three percent of children-under-the-age of 5 years are stunted.

The Gender Inequality Index synthesizes gender-based inequalities in three dimensions – reproductive health, empowerment, and economic activity – on which Mozambique ranks 135 of 155 countries. Mozambique has high rates of early marriage, 60% of women age 25-49 were married before age 20, and 40% of Mozambican women become pregnant before the age of 20. The adolescent pregnancy rate is 137.8 births per 1,000 live births and the risk of death among pregnant teenagers is four times higher than for women above the age of 20. Only 1.5% of adult women have reached at least a secondary-level of education compared to 6% of men.[11]

Population-level data from 2009 estimated 10% of all cohabiting heterosexual couples were

[9] IMASIDA, 2015
[10] Mozambique DHS, 2011 & UNICEF, 2012
[11] Human Development Report 2014, UNDP

serodiscordant and 58% of PLHIV did not know their HIV status. Among women age 15-49 who had sexual intercourse in the last 12 months, 8% reported using a condom during last intercourse (19% urban, 3% rural). The proportion increased to 16% among similar aged men (33% urban, 7% rural). Male circumcision (MC) is reported at 63%, with geographic variations ranging from 9% in Tete Province and 95% in Niassa Province.

A Modes of Transmission Model conducted in 2013 shows that 29% of new infections were among sex workers, their clients and men who have sex with men (MSM), and 26% of new infections occur among people in stable sexual relationships, due in large part to high rates of serodiscordance and low rates of condom use among couples. People in multiple concurrent partnerships contributed to 23% of new adult infections. Mobile and migrant workers such as miners, agricultural workers, prison populations, the military, and truck drivers also constitute priority populations.[12]

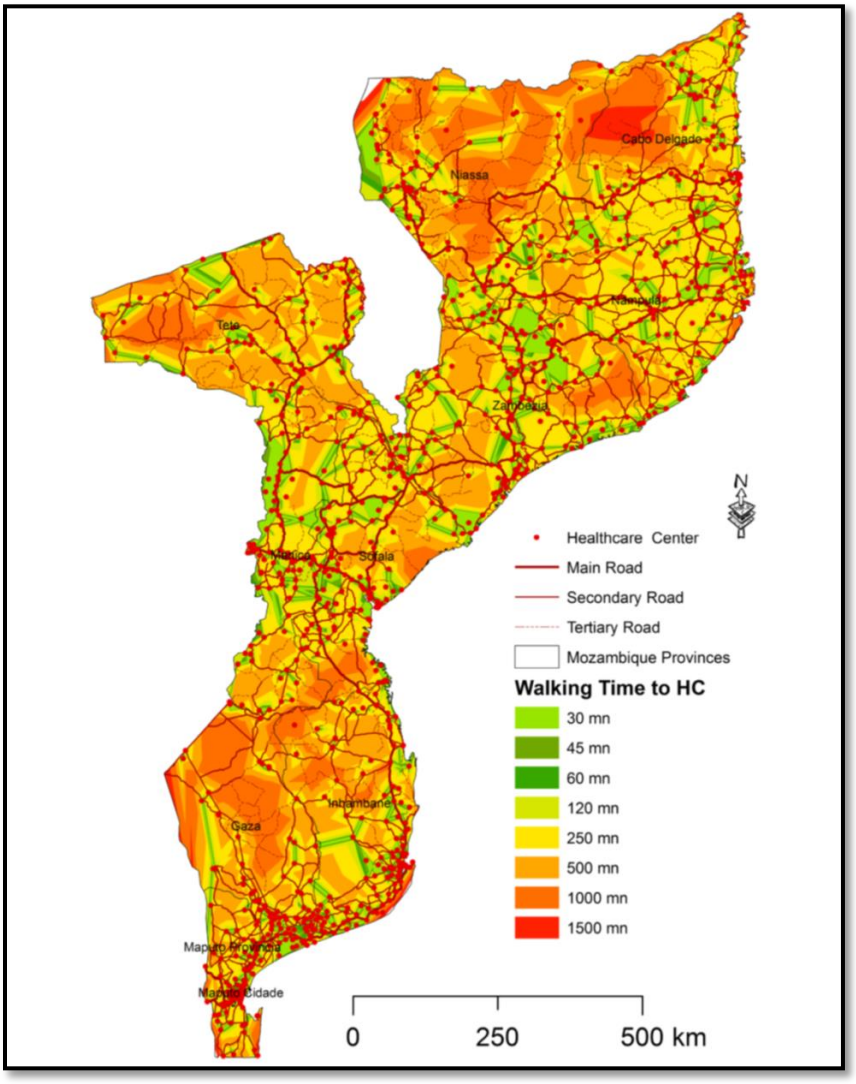
Mozambique has low national retention rates. Twelve month retention among PLHIV newly initiating ART was 70% at APR16. Rates are even lower in pregnant women, children under 15, and adolescents 15-19 (61%, 69% and 69% respectively at APR16). PEPFAR Mozambique is currently planning and implementing innovations at the facility and community level to retain and track PLHIV on treatment (additional details in Section 4).

The health system contends with major challenges, including limited funding, insufficient infrastructure, and a critical shortage of human resources. Over 90% of Mozambicans live in an underserved primary health care area defined as over a one hour walk from a primary health care center (Figure 2.1.2).[13] Overall, the ratio of population per hospital bed is 1 bed per 1,038 persons, with substantial variation across the country.[14] Human resources for health (HRH) are severely constrained with 7.8 doctors, 26.8 nurses, and a total of 100.2 health care workers (HCW) per 100,000 people.[15] Together with uneven geographic distribution and limited supervision, there are an inadequate number of trained and competent HCW in all cadres.

The GRM is responsible for the oversight of policies and regulations, as well as the coordination of services. Information systems and monitoring and evaluation (M&E) efforts are heavily supported by external funding and are challenged to provide timely and accurate health data. Supply chain and commodities management is fragile and is an area where PEPFAR provides substantial technical assistance (TA). The laboratory network to support HIV care and treatment (C&T) also requires significant investment to expand diagnostic capacity; at present only 344 of 1,438 health units that have laboratories.

[12] Military – Seroprevalence and Behavioral Epidemiology Risk Survey in the Armed Forces of Mozambique 2010
[13] Luis & Cabral, Geographic accessibility to primary healthcare centers in Mozambique, 2016
[14] MISAU/MOH – DRH. Relatório Anual dos Recursos Humanos. Maputo, Abril 2014
[15] MOH/MISAU, 2016. WHO (2006) estimates 230 medical professionals per 100,000 people as a minimum threshold necessary to provide essential health interventions.

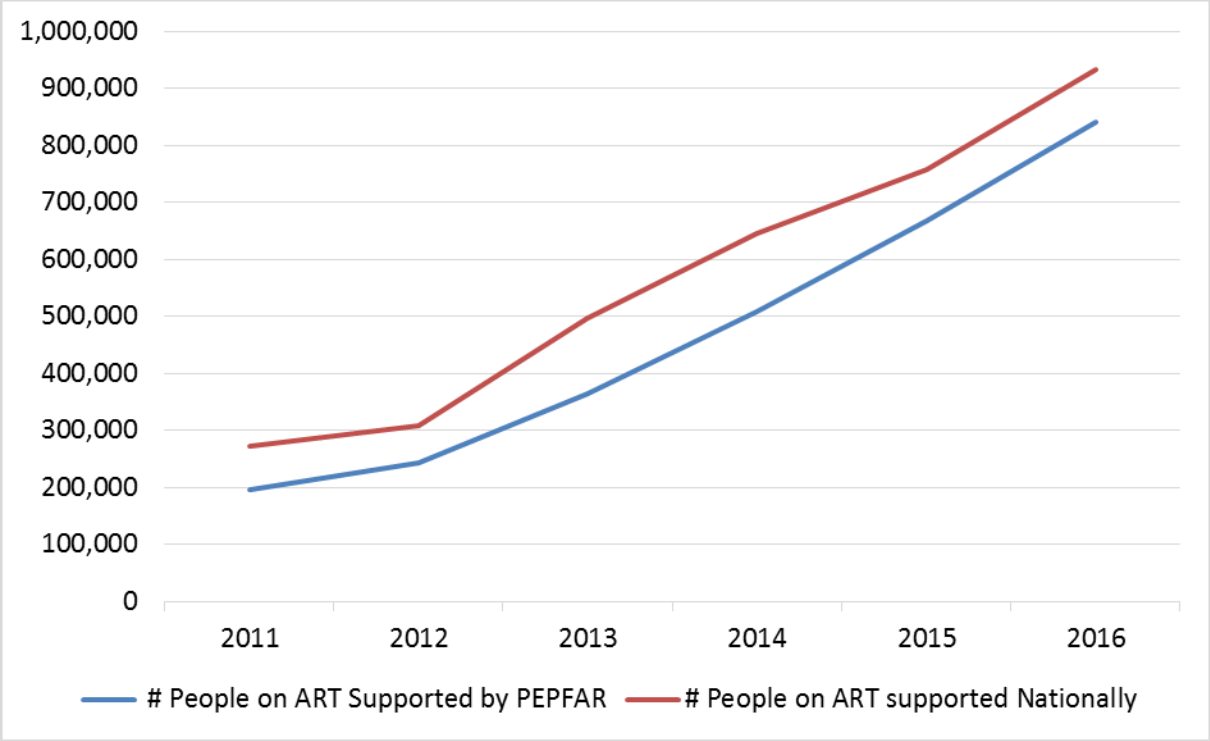
Figure 2.1.2: Walking Time (in minutes) to Primary Healthcare Centers in Mozambique (Luis & Cabral, 2016)



Despite these challenges, there has been remarkable progress. Since 2011, the number of people on ART has increased threefold, with dramatic change since the launch of the MOH's national *HIV and AIDS Response – Strategic Acceleration Plan for Mozambique 2013*-2017. The number of health facilities offering ART increased from 255 in 2011 to 1,149 by the end of 2016. In 2016 alone, 292,224 adults newly initiated ART. Based on data from MOH and PEPFAR, approximately 900,000 adults were estimated to be on ART at the end of 2016. [16]

[16] MOH estimated 934,357 PLHIV on ART at the end of calendar year 2016; using PEPFAR data in sites supported by PEPFAR and MOH data from sites that were not it was estimated that approximately 872,593 were on treatment at the end of FY16 (September 30, 2016).

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



There has also been remarkable progress in T&S for pregnant women attending ANC clinics. ART coverage increased from 12% of all HIV-infected pregnant women in 2012 to 93% in 2016. Progress among children has been slower. The total number of children on treatment was 62,396 at the end of 2016, approximately 41% of the total estimated pediatric PLHIV (see Table 2.1.2).

In February 2016, the MOH announced its decision to adopt the UNAIDS 90-90-90 goals and the revised WHO guidelines released September 30, 2015. Mozambique initiated ART for all patients at CD4<500 in March 2016, and began phased rollout of T&S in August 2016. Over half of all PLHIV live within current T&S districts, and the remainder will be covered during FY17 and FY18. To support the new T&S treatment thresholds, Mozambique is transitioning to three-month scripting for stable ART patients, increased availability of viral load (VL) monitoring, and reduced frequency for clinical check-ups to decongest health facilities. The National HIV Strategic Plan (*Plano Estratégico Nacional* de *Resposta ao HIV e SIDA-PEN IV*) is now being implemented and will be updated based on the revised national HIV treatment policies for the period 2017-2019.

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	27,843,933		6,178,412	22%	6,143,501	22%	2,844,271	10%	2,753,706	10%	5,363,172	19%	4,560,871	16%	2017 Census Data (INE 2007)
HIV Prevalence (%)		13%*		1.5% **		1.3% **									Prelim. Estimates 2015 National Survey
AIDS Deaths (per year)	52,737		3,667		3,774		1,516		1,355		17,646		24,779		Spectrum 2017***
# PLHIV	1,925,519		77,332		78,815		134,032		79,943		924,392		630,993		Spectrum 2017***
Incidence Rate (Yr)		0.4%						0.8 %		0.5 %					Spectrum 2017***
New Infections (Yr)	98,325		6,097		6,259		21,531		13,510		26,418		24,522		Spectrum 2017***
Annual births	1,087,000														UNICEF 2014
% of Pregnant Women with at least one ANC visit		93%													Prelim. Estimates 2015 National Survey
Pregnant women needing ARVs	131,975														Spectrum 2017***
Orphans: Total, AIDS	1,991,430, 803,905														Spectrum 2017***

Table 2.1.1 Host Country Government Results (continued)			
	Total		*Source, Year*
	N	%	
Notified TB cases (Yr)	61,559		Global tuberculosis report 2016
# (%) of TB cases that are HIV infected	29,827	51%	Global tuberculosis report 2016
% of Males Circumcised		48%	DHS 2011
Estimated Population Size of MSM*	Maputo City – 10,121 Beira – 2,624 Nampula/Nacala – 3,069		MSM IBBS 2011
MSM HIV Prevalence		Maputo City – 8.2% Beira – 9.1% Nampula/Nacala – 3.7%	MSM IBBS 2011
Estimated Population Size of FSW	Maputo City – 13,554 Beira – 6,802 Nampula – 6,929		FSW IBBS 2011-2
FSW HIV Prevalence		Maputo City – 31.2% Beira – 23.6% Nampula – 17.8%	FSW IBBS 2011-2
Estimated Population Size of PWID	Maputo City – 1,684**** Nampula – 520****		PWID IBBS 2013
PWID HIV Prevalence		Maputo City – 50.3%**** Nampula – 36.8%****	PWID IBBS 2013
Estimated Size of Priority Populations - Adolescent Girls & Young Women (15-24)	2,844,271		Census 2017
Priority Populations Prevalence - Adolescent Girls & Young Women (15-24)		11%	INSIDA 2009

*15-49 year olds
**0-11 year olds
***2017 PLHIV estimates from preliminary Spectrum files developed by MOH, UNAIDS & PEPFAR for use in COP17 planning – Preliminary Estimates, 2015 National Survey, Spectrum v.5.4, provincial (not regional), CD4500 + TS ; prevalence estimates are not yet official and are not being released until sometime after April 16, 2017.
****Preliminary data

Table 2.1.2: Preliminary revised 90-90-90 cascade: HIV diagnosis, treatment and viral suppression

Epidemiologic Data					HIV Treatment and Viral Suppression			HIV Testing and Linkage to ART Within the Last Year		
	Total Population Size Estimate (2017)#	HIV Prevalence	Estimated Total PLHIV (2017)	PLHIV diagnosed	On ART (Sept., 2016)	ART Coverage (estimated national)	Viral Suppression	Tested for HIV (FY16)	Diagnosed HIV Positive	Initiated on ART (FY16)
	(#)	(%)	(#)	(#)	(#)	(%)	(%)	(#)	(#)	(#)
Unofficial estimates of PLHIV based on new preliminary results of 2015 National Survey*					PEPFAR / MOH combined data for FY16**			PEPFAR data, sites with coarse age disaggregations***		
Total population	27,843,933	UNK	1,925,519	UNK	872,593	45%	UNK	4,614,766	335,276	227,576
Age <15 years	12,321,913	UNK	153,770	UNK	62,396	41%	UNK	UNK	UNK	17,100
Age 15+ years	15,522,020	UNK	1,771,749	UNK	810,197	46%	UNK	UNK	UNK	210,476
Unofficial estimates of PLHIV based on preliminary estimates, 2015 National Survey					PEPFAR data, sites with fine age disaggregations****			PEPFAR data, sites with fine age disaggregations****		
Total population	27,843,933	UNK	1,925,519	UNK	581,460	N/A	UNK	2,818,334	233,178	114,194
Age <15 years	12,321,913	UNK	153,770	UNK	39,692	N/A	UNK	620,757	14,393	9,117
Age 15-24 years	5,597,977	UNK	213,979	UNK	85,649	N/A	UNK	1,012,100	62,259	27,191
Age 25+ years	9,924,043	UNK	1,498,685	UNK	456,119	N/A	UNK	1,185,477	156,526	77,886

#Census projection for 2017 from 2007 census

*2017 PLHIV estimates from preliminary Spectrum files developed by MOH, UNAIDS & PEPFAR for use in COP17 planning – preliminary results, 2015 National Survey, Spectrum v.5.4, provincial (not regional), CD4500 + TS

**MOH estimated 990,085 PLHIV on ART at the end of 2016; using PEPFAR data in sites supported by PEPFAR and MOH data from sites that were not it was estimated that approximately 872,593 were on treatment at the end of 2016.

**PEPFAR APR 2016 data (excludes NA sites); PEPFAR estimates that 90% of PLHIV on ART are in PEPFAR-supported DSD & TA sites so coverage estimates were calculated as (On ART / Total PLHIV)

***A growing number of sites were able to report age-disaggregated data each quarter. By the end of FY16, 95% of TX_NEW, 74% of TX_CURR, and 57% of HTC_TST were reported in finer age disaggregations.

Table 2.1.2 90-90-90 cascade: HIV diagnosis, treatment and viral suppression (continued)

	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 (estimated national)	Viral Suppression	Tested for HIV	Diagnosed HIV Positive	Initiated on ART
	(#)	(%)	(#)	(#)	(#)	(%)	(%)	(#)	(#)	(#)
MSM	Maputo City – 10,121 Beira – 2,624 Nampula/Nacala – 3,069	Maputo City – 8.2% Beira – 9.1% Nampula/Nacala – 3.7%	Maputo City - 830 Beira - 239 Nampula/Nacala - 114	UNK	UNK	UNK	UNK	UNK	UNK	UNK
FSW	Maputo City – 13,554 Beira – 6,802 Nampula – 6,929	Maputo City – 31.2% Beira – 23.6% Nampula – 17.8%	Maputo City – 4,229 Beira – 1,605 Nampula – 1,232	UNK	UNK	UNK	UNK	UNK	UNK	UNK
PWID	Maputo City – 1,684^ Nampula – 520^	Maputo City – 50.3%^ Nampula – 36.8%^	Maputo City – 847^ Nampula – 191^	UNK	UNK	UNK	UNK	UNK	UNK	UNK
Priority Pop – Adolescent Girls	2,844,271	11.10%	134,035	UNK	UNK	UNK	UNK	UNK	UNK	UNK

^Preliminary data

2.2 Investment Profile

National Health Budget. The GRM's total budget allocated to health in 2016, the most recent year for which data are available, was US $343 million, representing 7.7% of the total national budget.[17] Twenty three percent was dedicated to the central ministry level, 54% to the Provincial Directorates of Health (*Direcção Provincial de Saúde* - DPS), 7% to central hospital of Maputo, and 16% to the Central Medical Stores (*Central de Medicamentos e Artigos Médicos* – CMAM) inclusive of medicines.[18]

HIV Expenditures. The 2014 National AIDS Spending Assessment (NASA) showed a 28% increase in HIV expenditures from US $260.3 million in calendar-year (CY) 2011 to US $332.5 million in CY14 (74% PEPFAR). PEPFAR and GFATM finance the bulk of the HIV response. The GRM is the third-largest individual source of funding, with US $16.2 million allocated to HIV in 2014. Despite having doubled from 2004 to 2014, domestic public sector HIV expenditure represented only 5% of overall HIV expenditures in 2014. The latest data from the Global AIDS Monitoring Report 2016 indicate total HIV expenditures remained stagnant at US $341 million in 2015 and US $333 million in 2016. USG and Global Fund represented 87% of the total HIV expenditure for each of those years. [19]

Expenditure towards Health System Strengthening. In 2013, US $292 million was invested in health systems (52% domestic public resources, 23% PROSAUDE and 24% from other external partners). According to NASA, in 2014 US $137.6 million was spent in HIV-specific HSS funding, including expenditure for laboratories (US $16.1 million); SI, surveys, and surveillance ($24.2 million); and others not specified (US $43.6 million).

Expenditure by Cost Category. The financing landscape changed significantly from 2014 to 2016, although most commodities for HIV continue to be financed by international partners. In 2014, 100% of ARVs were procured through international mechanisms such as the Pooled Procurement Mechanism and the Supply Chain Management System (SCMS) and financed by international donors, including PEPFAR (52%), the GFATM (45%), and UNITAID (3%). GFATM became the major financing mechanism during 2016 for key HIV/AIDS commodities like ARVs, CD4 and RTKs. UNITAID (implemented by CHAI) no longer funds pediatric ARVs, testing, and other diagnostics such as PIMA CD4 and conventional EID PCR.

The GRM pays HCW salaries (estimated at US $12 million in 2011)[20] and costs related to implementation (facility maintenance, transport, etc.). According to the 2014 NASA, 40% of labor costs for HIV treatment in 2011 were supported by the state budget, with an additional 8% from Mozambique's Common Health Sector Common Fund (PROSAUDE).

[17] MISAU DAF REIO, 2016
[18] MISAU DAF REIO, Table 3.1, 2016
[19] CNCS GAM, 2017
[20] MISAU/MOH, Plano Estratégico para TB

It is estimated that 11% of the MOH recurrent expenses are allocated to HIV and TB. Other domestic spending from MOH covers lab reagents, materials and specific services. In addition to these allocations to the MOH, the GRM also allocated funding to the CNCS for the coordination of the national HIV response and to civil society organizations for community activities.

Planned Government Contributions. The GRM has committed to increase domestic public expenditure for health by an additional US $35 million between 2018 – 2020 in accordance with the Global Fund counterpart financing agreement. The MOH will continue to finance a large portion of human resources, health facility infrastructure, supply chain and the CNCS. The Ministry of Defense (Ministério da Defesa Nacional -MDN) will continue to invest in the military health care systems in support of its armed forces, civilian dependents and communities surrounding military bases.

Data Availability and Estimations. Overall health sector expenditures are estimated from the MOH annual execution budget reports (*Relatorios de Execução Orçamental*), complemented by estimations made by WHO and the United Nations Children's Fund (UNICEF). The MOH does not track or report spending by disease category. Reporting of HIV specific funding is based on the NASA, elaborated by CNCS, which details HIV expenditure by financing source, programmatic area, beneficiary population or geographical location. Data available cover the years 2004 to 2014. HIV funding for 2015 and 2016 was estimated using the FY16 PEPFAR Expenditure Analysis, Official Development Assistance to Mozambique Database (ODAMOZ), commodity consumption data from CMAM, estimates from GRM expenditures for human resources and other donor reports. A new NASA report updated with 2017 data will be available by mid-2018.

Conclusion and Next Steps. Despite positive projections, the GRM will not be able to fully cover the costs of its response to HIV (and TB and Malaria). The estimated resource gap from 2018 to 2020 will be at least US $225 million if current levels of expenditures remain constant[21], representing 36% of the Government's Health Sector Budget for the same period. Subsequent to that projection, the 2016 debt crisis resulted in significant GRM spending cuts across the board including in the health sector. Such reduced spending is expected to continue in 2017.

Over the past few years the GRM has increased investment in the health sector in local currency; however the proportion of the total domestic budget allocated to health continues to fall well below the 15% commitment made in the Abuja Declaration. Given the recent fiscal crisis, additional expansion in the short-to-medium term is unlikely. Over the longer term, with significant increased state revenues from extractive industry gains expected within the next 15-20 years, the GRM can prepare to increase its investments in, and ownership of, the health sector, including the fight against HIV/AIDS. It is essential for the GRM, GFATM, and PEPFAR to work closely to create a clear and sustainable financing plan for anti-retroviral (ARV) drugs and other

[21] Projections based on CNCS NSP IV projected costs 2017 and GAM 2017 indicator 8.1. The projections do not take into consideration updated HIV prevalence from IMASIDA 2015.

commodities and to execute timely disbursements. The MOH, with PEPFAR support, is completing a Health Financing Strategy, and discussions are underway between the MOH and the Ministry of Finance (*Ministério da Economia e Finanças* - MINEF) regarding implementation of innovative financing mechanisms.

Table 2.2.1: HIV Expenditure by Programmatic Area in Mozambique

Program Area	Total Expenditure (million USD)	% PEPFAR	% GF	% GRM	% Other
Clinical care, treatment and support	90.6	68%	20%	2%	10%
Community-based care, treatment, and support	7.9	92%	N/A	2%	6%
PMTCT	22.1	75%	10%	4%	11%
HTC*	14.2	81%	12%	4%	3%
VMMC	17.6	99%	1%	0%	0%
Priority population prevention	5.0	44%	7%	7%	43%
Key population prevention**	3.5	49%	7%	N/A	45%
OVC	6.2	84%	N/A	4%	12%
Laboratory	16.1	75%	2%	9%	13%
SI, Surveys and Surveillance***	24.2	90%	N/A	5%	5%
HSS	43.6	89%	N/A	7%	4%
Total	**250.9**				
Missing:	81.6				
Other prevention expenditure	28.3	43%	17%	4%	35%
National coordination and program management	44.0	81%	2%	8%	9%
Enabling environment & other social services	9.4	35%	16%	22%	27%
TOTAL	**332.5**	**74%**	**9%**	**5%**	**12%**

* Includes VCT, PICT and blood safety (PMTCT testing included under PMTCT)

** Refers to prevention for vulnerable groups, accessible population and prevention for youth

*** National M&E, operational research, surveillance, information technology, research

Source: National Aids Spending Assessment (NASA) for the period 2014 in Mozambique, Conselho Nacional de Combate ao HIV/SIDA (CNCS), September 2016.

Table 2.2.2: Annual Procurement Profile for Key Commodities

Commodity Category	Total Expenditure	% PEPFAR	% GF	% Host Country	% Other
ARVs	$97,156,020	40.6%	59.4%	---	---
Rapid test kits	$12,641,979	33.9%	66.1%	---	---
Other drugs	$11,170,128	40.4%	22.8%	36.9%	---
Lab reagents	$10,470,839	20.8%	79.2%	---	---
Condoms	$3,583,884	75.7%	---	---	24.3%
Viral Load commodities	$13,836,072	96.1%	3.9%	---	---
VMMC kits	$3,278,158	100%	---	---	---
Total	**$152,137,080**	**47%**	**52%**	**---**	**1%**

Table 2.2.2 is filled out based on the commodities arriving in Mozambique in FY17.

Table 2.2.3: USG Non-PEPFAR Funded Investments and Integration					
Funding Source	**Total USG Non-PEPFAR Resources**	**Non-PEPFAR Resources CoFunding PEPFAR IMs**	**# CoFunded IMs**	**PEPFAR COP CoFunding Contribution**	**Objectives**
USAID MCH	$14,050,000	$10,450,000	4	$266,000	Supply chain and improved systems strengthening; strengthened quality and safety of priority medicines; improved pharmaco-vigilance and rational use of drugs; expand coverage and improve quality of community health activities; improved the health status for women of childbearing age, particularly pregnant and lactating women and children under five year of age; training CHWs including immunization, prevention and management of preterm, intrapartum complications and infections.
USAID TB	$4,500,000	$300,000	1	---	Supply chain management by improving quantification, procurement and timely distribution of TB drugs.
USAID Malaria	$28,522,760	$18,173,110	3	---	Supply chain and improved systems strengthening, improved the health status for women of childbearing age, particularly pregnant and lactating women and children under five year of age; improved health behavior.
USAID Family Planning	$11,500,000	$4,850,000	4	---	Increased access to and use of voluntary FP contraceptive methods; commodities purchased including condoms, essential medicines, and diagnostics; improved maternal and child survival; Improved health behaviors; strengthened quality and safety of priority medicines; improved pharmaco-vigilance and rational use of drugs
USAID Nutrition	$5,700,000	$3,300,000	4	---	Increased capacity of MISAU to develop and implement nutrition-oriented policies and programs; improved positive health and nutrition behaviors; support the national malnutrition program.
Peace Corps	$7,500,000	---	1	---	Include, but not limited to: increased capacity of MOH, NGOs, community organizations, and CHWs to prevent and control HIV (non-PEPFAR resources pay for PC health staff and operations); increased capacity of MINEDH to prepare secondary school students for academic success (non-PEPFAR resources pay for staff and for education PCVs).
Total	**$71,772,760**	**$37,073,110**		**$266,000**	

Table 2.2.4: Annual PEPFAR Non-COP Resources, Central Initiatives, PPP, HOP						
Funding Source	**Total PEPFAR Non-COP Resources**	**Total Non-PEPFAR Resources**	**Total Non-COP Co-funding PEPFAR IMs**	**# Co-Funded IMs**	**PEPFAR COP Co-Funding Contribution**	**Objectives**
DREAMS Innovation	---	---	---	---	---	
VMMC – Central Funds	$11,352,508	---	---	8	$28,972,481	VMMC Central Initiative funds provide additional target-based funds to achieve ambitious VMMC targets.
LCI	---	---	---	---	---	
Other PEPFAR Central Initiatives	$10,000,000	---	---	8	$4,325,595	Health Information Systems for Impact
Other Public Private Partnership	$124,900	$236,850	---	1	$144,006	The CDC Anadarko PPP is a public private partnership with the natural gas corporation Anadarko for HIV testing and prevention education among female sex workers and adolescent girls and young women in Cabo Delgado.
Total	**$21,477,408**	**$236,850**	---	**17**	**$33,442,082**	

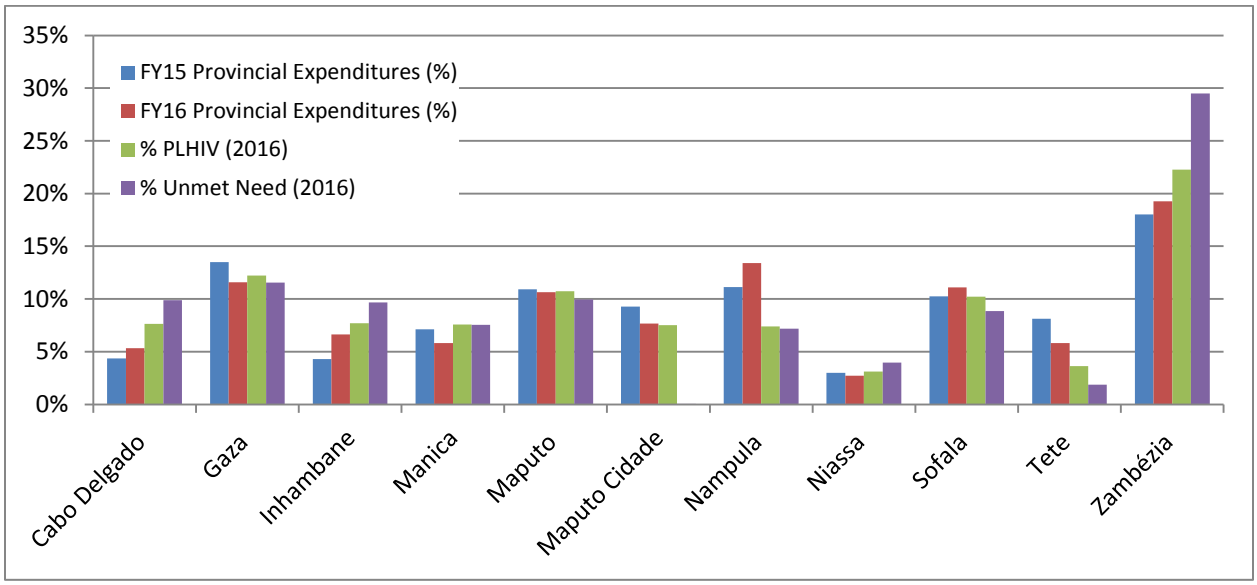
2.3 National Sustainability Profile Update

The overall sustainability context in Mozambique is broadly similar to the situation outlined in the SID review conducted for COP16. Over the past year the domestic economic situation has made it challenging for the GRM to mobilize increased resources for the HIV response. Similarly, there are continued issues with public access to information, private sector engagement, and laboratory systems. PEPFAR and the GF continue to support all of these domains and there are plans for a national laboratory strategic review during the COP 16 implementation period. One area of marked improvement is the GRM's engagement with civil society. During the current GF funding request development process there has been robust and transparent dialogue between CSOs and the Government which is encouraging for future collaborations.

2.4 Alignment of PEPFAR investments geographically to disease burden

Newly available PLHIV estimates identified substantially greater need for investment in Zambezia (see Figure 2.4.1). Figures 2.4.1a and 2.4.1b illustrate this need, with high disease burden and low treatment coverage in most districts within the province. COP17 allocates 18% of the target-based budget to Zambezia, which aligns with the percent allocation of targets. An additional 20% of the activity-based budget is allocated to the Zambezia Action Plan (ZAP) in addition to other, existing activities within the province (see Appendix D for details). Higher targets and thus more funding were also directed to several districts within Cabo Delgado, Inhambane, and Niassa.

Figure 2.4.1: PEPFAR FY15 and FY16 Expenditures Compared to % PLHIV and % Unmet Need by Province



FY15 and FY16 provincial expenditures are summed from district expenditures and exclude above national, national, commodities and military expenditures.

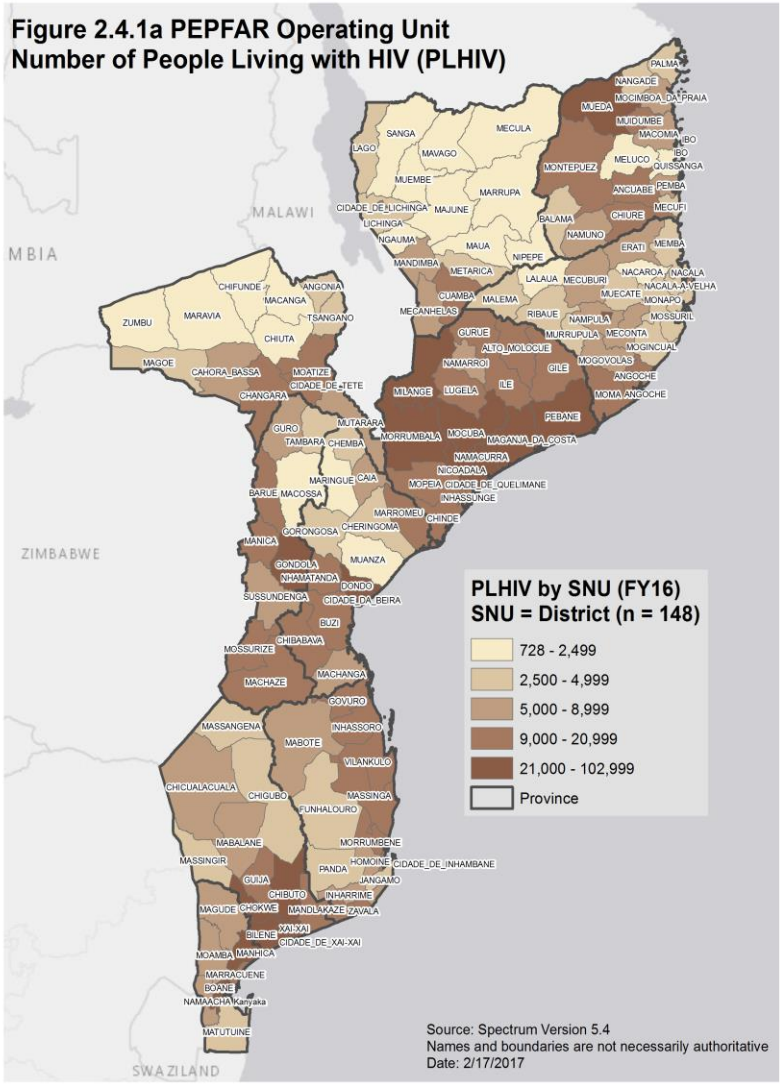


Figure 2.4.1a PEPFAR Operating Unit
Number of People Living with HIV (PLHIV)
MALAWI
MBIA
ZIMBABWE
SWAZILAND
PLHIV by SNU (FY16)
SNU = District (n = 148)
728 - 2,499
2,500 - 4,999
5,000 - 8,999
9,000 - 20,999
21,000 - 102,999
Province
Source: Spectrum Version 5.4
Names and boundaries are not necessarily authoritative
Date: 2/17/2017

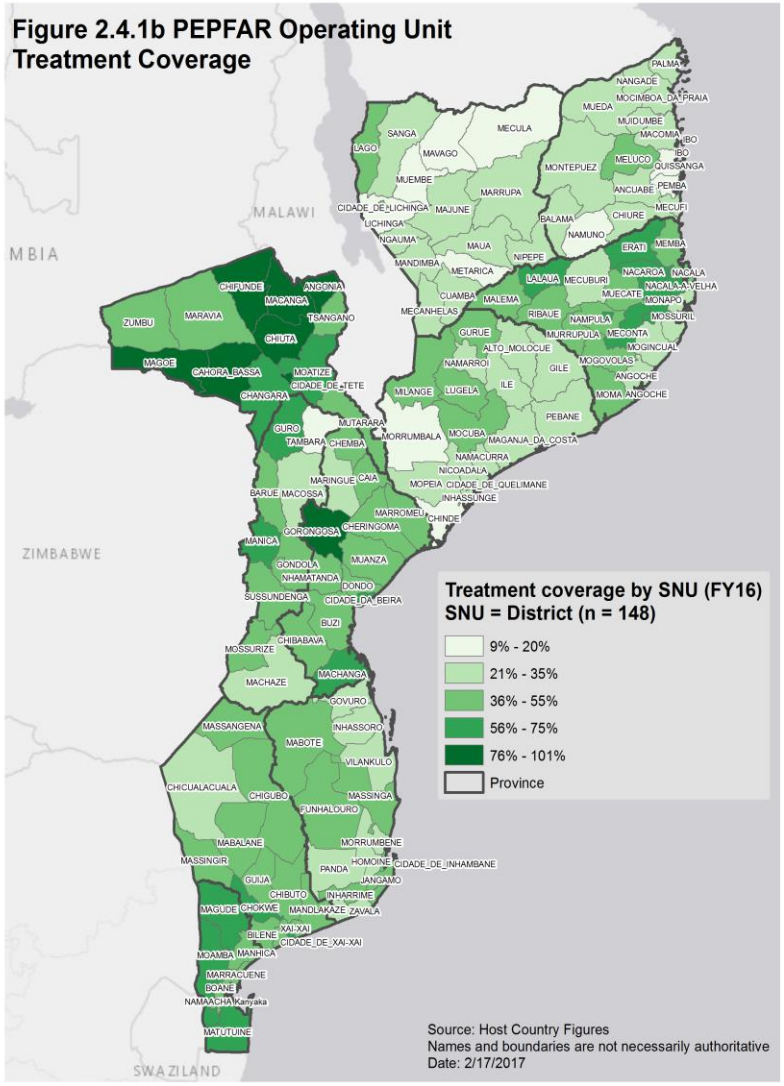


Figure 2.4.1b PEPFAR Operating Unit
Treatment Coverage
MALAWI
MBIA
ZIMBABWE
SWAZILAND
Treatment coverage by SNU (FY16)
SNU = District (n = 148)
9% - 20%
21% - 35%
36% - 55%
56% - 75%
76% - 101%
Province
Source: Host Country Figures
Names and boundaries are not necessarily authoritative
Date: 2/17/2017

2.5 Stakeholder Engagement

2.5.1 Host country government

PEPFAR-Mozambique is committed to strong engagement with the GRM on policy issues, alignment with national priorities, joint planning, implementation and performance reports, data sharing, regular coordination, communication with counterparts and, strategic discussion to develop a shared vision for substantial country ownership.

USG leadership holds regular meetings with the Minister and Vice Minister for Health and frequent policy and program consultations with the national directors of Planning & Cooperation, Medical Assistance, MOH, CMAM, Human Resources and heads of programs including HIV/AIDS, TB, PMTCT and Laboratory to ensure transparency, consistency, and to improve the alignment between USG and GRM/MOH priorities.

PEPFAR-Mozambique has two national level Government-to-Government (G2G) Cooperative Agreements (one with the MOH and one with the National Institute of Health), six agreements at the provincial level and provides district level sub-agreements through implementing partners and embedded technical advisors in the MOH. PEPFAR staff are active participants in MOH technical working groups. PEPFAR also contributes to provincial planning and engages with DPS to oversee program implementation and partner support through regular site visits and sharing Quality Assurance and Quality Improvement cycle results, Site Improvement through Monitoring Systems (SIMS) reports, and program results (Semi-Annual and Annual Reports).

PEPFAR collaborates closely with the CNCS, the National Institute of Health (INS) and the Ministry of Gender, Child, and Social Action, Ministry of Education and Human Development, Ministry of Defense, Ministry of Foreign Affairs, and Cooperation, Ministry of Finance, Civil Society and Community Stakeholders.

This level of engagement has enhanced PEPFAR's ability to participate in policy and planning, capacity building for country ownership and advocacy on behalf of the MOH with other parts of the GRM (especially MINEF and the Presidency).

2.5.2 Global Fund and Other External Donors

PEPFAR-Mozambique has engaged closely with GFATM, the Health Partners Group (HPG), and other key multilateral partners throughout the development of COP17. Members of the GFATM CCM, GF program management unit, UNAIDS, and HPG participated in a week-long COP planning retreat and provided input on key programmatic elements throughout the planning process.

PEPFAR-Mozambique has contributed to the on-going preparation of the GFATM funding request for 2018 – 2020 which has allowed for deduplication of investments and strategic alignment of activity planning. In addition, PEPFAR-Mozambique has a full-time GF Liaison who

attends all GFATM meetings in country, communicates regularly with the Fund Portfolio Manager (FPM) in Geneva, coordinates USG technical assistance to the GFATM, and works to harmonize the PEPFAR and GFATM programs.

GFATM staff (including the FPM), SI advisor, HSS and supply chain leads regularly meet with the PEPFAR team in Maputo to strengthen the programmatic synergies between PEPFAR and GFATM. In COP17, PEPFAR-Mozambique will continue to engage with GFATM to ensure both programs leverage their respective comparative advantages and eliminate duplicative activities. PEPFAR will continue to share information and solicit feedback before and after technical assistance visits and quarterly reporting. PEPFAR will also continue to work closely with GFATM to coordinate commodities planning as Mozambique progresses through phased implementation of T&S.

Beginning in 2016, the USG became a co-chair of the HPG and the HPG commodity planning technical working group. This has further strengthened PEPFAR-Mozambique's strategic engagement with other bi-lateral and multilateral partners and allows for members of the donor community to leverage their respective resources synergistically across the health sector.

2.5.3 Civil Society/Community

Over the past several years, PEPFAR-Mozambique has been engaged with the major Mozambican civil society platform (Plataforma da Sociedade Civil para a Saúde – PLASOC) that represents a considerable number of HIV-focused NGOs and CBOs based in the 11 provinces of the country. This engagement has facilitated open discussion of PEPFAR's programmatic direction, data and results. COP17 strategic planning reflects input of civil society partners.

For COP17 development, PEPFAR-Mozambique invited and supported civil society representatives from all the provinces to attend the COP17 retreat held January 25 - 27, 2017, as well as UNAIDS, WHO, CNCS, GFTAM, and Medecins Sans Frontieres. This retreat created the opportunity to exchange ideas with multiple stakeholders simultaneously about expectations for COP planning and PEPFAR's strategic direction. Open participation enriched the debate and made it possible to reach broad consensus regarding the path toward epidemic control.

After participating in the retreat, civil society provided written feedback in the areas of Human Rights & HIV Stigma and Discrimination, institutional capacity development, support to the HIV cascade, and retention of HIV-positive patients in C&T.

The technical working group will continue to meet with the PLASOC regularly throughout the implementation period to share information, and to solicit input into key programmatic issues and policy decision points.

2.5.4 Private Sector

The U.S. Government Public-Private Partnership (PPP) Interagency Working Group, which includes all Agencies operating in Mozambique, meets quarterly to provide a forum for coordination and sharing of best practices and opportunities for leveraging private sector resources to achieve shared development goals in Mozambique. Currently, three Agencies at Post manage 16 active partnerships totaling $116.5 million, of which $77.1 million are private sector contributions. Feedback from these forums was integrated into PEPFAR-Mozambique's program planning for COP17.

3.0 Geographic and Population Prioritization

Based on the updated epidemiologic data described in Appendix E, the PEPFAR team reassessed district prioritization categories based on 1) new coverage estimates and 2) new estimates of disease burden. The goal was to allocate resources to the areas with the highest burden and most unmet need.

Four provinces, Zambezia, Inhambane, Sofala, and Cabo Delgado, were noted to have substantially higher burden of HIV than previously estimated. Of these, the largest change in burden was in Zambezia, a province that was previously considered to have low coverage and the highest unmet need nationally. As a result of the severity of the epidemic in Zambezia, all districts will be categorized as Aggressive Scale-Up in COP17 with the aim of increasing the coverage from 35% in APR16 to 73% in FY19. There were six additional districts (five in Inhambane and one in Niassa) that had a substantial increase in estimated PLHIV, low ART coverage (<50%) or a high concentration of KPs that were reclassified as Scale-Up Aggressive districts. Conversely, four districts previously identified as Scale-Up were reclassified as Sustained.

On a national level, while 15 districts are expected to reach >80% coverage overall in FY17, only four of these (Cahora Basa, Chiuta, Gorongosa, Maputo City) are expected to achieve this level of coverage when stratified by gender and age. However, because Maputo City serves a wide catchment area with many patients living in neighboring districts, the decision was made to maintain Maputo City as Scale-Up Saturation. The remaining three districts will be categorized as Attained. Last, the updated denominator data requires re-evaluation of which districts are able to reach >80% coverage in FY18. Thus, 15 districts are reclassified from Scale-Up Saturation to Scale-Up Aggressive, and four districts from Scale-Up Aggressive to Scale-Up Saturation. Table 3.1 and Appendix A show comparisons of district categorization in COP17 vs. COP16.

Table 3.1: District Prioritization in COP17 vs. COP16

COP16 Prioritization	COP17 Prioritization			
	Attained	ScaleUp Sat	ScaleUp Agg	Sustained
Attained	2	-	1	3
ScaleUp Sat	-	19	15	-
ScaleUp Agg	-	4	35	5
Sustained	1	-	11	52

In addition to shifts in geographic focus, the PEPFAR team will increase outreach to populations that are currently under-served using intensified service provision models. COP17 intensifies efforts to reach and enroll men into treatment, retain pregnant and lactating women and children on treatment, improve EID access and linkage and expand programs to reach key and priority populations such as miners and prisoners. Currently there is a substantial gap between the proportion of men and women initiating ART with women making up 69% of new on treatment and 70% of current on treatment at APR16. While recent updates to ART eligibility guidelines expands eligibility among men diagnosed with HIV, significant outreach is still required to identify, enroll, and retain men on treatment. Similarly, while ART among pregnant women is at an all-time high nationally (93%), low 12-month retention in this population (61% at APR16) compromises both PMTCT and treatment efforts. Enhanced strategies to monitor and improve retention are among the core strategies described below.

By the end of FY17, 22 of 58 districts targeted for VMMC programs in COP16 are expected to reach or exceed 80% coverage among males aged 15-29. Eleven of these districts are in the southern most area of the country, Maputo Province and City, where the program will increase focus on males aged 10-14.

Through aggressive program implementation in the geographic areas and populations described, PEPFAR aims to support Mozambique in achieving its stated goal of >80% saturation nationally by 2020, with 22 Scale-Up districts reaching saturation by FY18, 43 by FY19, and all-Scale-Up districts reaching >80% coverage by 2020.

Table 3.2: Current Status of ART saturation

Prioritization Area	Total PLHIV/% of all PLHIV for COP17	# Current on ART (FY16)*	# of Districts COP16 (FY17)	# of Districts COP17 (FY18)
Attained	9,722 / 1%	10,575	5	3
Scale-up Saturation	473,855 / 25%	330,213	41**	23**
Scale-up Aggressive	1,234,125 / 64%	420,539	37	62
Sustained	207,817 / 11%	79,033	65	60
Central Support	N/A	N/A	N/A	N/A

*Includes results from sites with <4 visits in FY16

**Includes 7 districts in Cidade de Maputo which have been clustered into 1 SNU in Appendix A

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

4.1 Targets for scale-up locations and populations

4.1.1 Adult and Pediatric Treatment and Testing Targets

The PEPFAR-Mozambique team worked closely with the MOH to develop ambitious targets in order to rapidly move toward epidemic control. Initial treatment targets were developed to reach 80% coverage nationally by 2020, with faster growth anticipated in districts where current coverage is low and slower growth anticipated in districts nearing saturation. Districts where current coverage is below 40% were targeted for 50% annual growth, whereas districts nearing saturation were targeted for 15% annual growth. Districts that begin to implement T&S during the project period received an additional 10% increase in targeted coverage during the year of initial implementation.

There are districts in four provinces (Cabo Delgado, Inhambane, Niassa, Zambezia) that will not reach 60% coverage by FY19 with this approach. Based on the preliminary IMASIDA results, these four provinces have higher HIV prevalence than previously believed. Investments are increased in these provinces to ensure that all Scale-Up districts reach at least 70% coverage by FY19 and 80% coverage by FY20.

ART coverage for children <15 yrs was set to increase 10% from APR16 results in most provinces and to increase by 35% in Zambezia, where the number of infected children is high and the coverage is low. Ambitious targets were also set for pregnant women: 99% tested for HIV and 99% on ART, with 95% of HIV-exposed infants tested by 12 months, 80% of HIV-exposed infants tested by 2 months, and 95% of all HIV-infected infants on ART.

HIV testing targets were set based on the new on treatment target, reduced by the proportion of patients assumed to have been previously diagnosed (4-8%) and by the proportion identified through ANC testing. The proportion new on treatment from other HTS was then adjusted by a treatment eligibility assumption (78% or 100% depending on stage of implementation of T&S) and a linkage assumption (based on available proxy data) yielding the target positives from other HTS. The target positives were then distributed among testing modalities based on FY16 positivity and yield results.

VMMC, Key Population (KP), and small grants testing targets were separately produced based on technical considerations. For the first time in COP17, inpatient testing targets are set separately from other PICT, guided by inpatient data from the MOH.

In general, yield targets are based on FY16 data, except where data is not available. Adult index case testing yield targets are set at 15% and pediatric index-case testing yield targets at 1.5% in the community and 2.5% in facilities. Yield targets for new community-based testing for men is set at

7.5%. Inpatient yield is estimated from district ANC yield based on the ratio between inpatient yield and ANC yield from national MOH data with a cap of 40%.

A list of targets for scale-up districts is provided in Table 4.1.1. TX_NEW targets are based on the assumption that 12-month retention will improve from 70% nationally at APR16 to 75% in all sustained districts and 80% in all Scale-Up districts by FY18. Retention among those already on treatment for >1 year was assumed to be 92%, which is consistent with current estimates. Linkage to treatment was estimated using COP16 results and ranged from 54% to 95%. For children, where fewer data were available, linkage was estimated at 85%.

4.1.2 Voluntary Medical Male Circumcision (VMMC) Targets

VMMC targets were based on Project SOAR estimates of circumcisions among adult men age 15-29 needed to reach 80% coverage in the minimum feasible timeframes: one year in Maputo City, Maputo Province, Gaza, and Zambezia, two years in Tete, and three years in Manica. In Sofala, where IMASIDA 2015 data suggest coverage is substantially less than modeled by Project SOAR, the VMMC targets were adjusted upwards. To account for districts in which the model estimated high coverage but continued demand suggested otherwise, targets at the district and provincial level were kept at a minimum of four times the expected FY17 Q1 achievement. These assumptions result in projected coverage of 80% or more in 49 of 60 districts in which VMMC is implemented by the end of FY18, including all DREAMS districts. The total VMMC target in most provinces was calculated using the adult male target as 70% of the total target. In Maputo City (including Matola), the 10-14-year-old target was set at the number needed to achieve 80% coverage within one year.

4.1.3 Prevention Targets

Population sizes for KPs were estimated using the 2011 Integrated Behavioral and Biological Survey (IBBS), program data, and general population data. Since these estimates are only available for three large urban areas, target districts for COP17 were selected based on available data adjusted for urban population in each district and expert opinion regarding KP hotspots. Additional targeted districts were added in several provinces where current program data indicate that gains can be made.

KP_PREV targets for Female Sex Worker (FSWs) and Men who have Sex with Men (MSM) were calculated at 50-90% of the district population size in districts where programming has been ongoing, and at 20% - 40% in new districts that do not have historical achievement. Prison census information is not publicly available so targets were based on informal estimates and prior achievement, and are intended to approach 100% of population size. KP district level targets were not allowed to fall below historical achievement.

Priority populations include Adolescent Girls and Young Women (AGYW) aged 15 – 24 in DREAMS districts, miners, military, and men aged 15 – 29 who are not currently served by the health system. Community-based prevention work with miners will take place in Moamba

District and Inhambane City, with coverage targets over 80%. In non-DREAMS Scale-Up districts, DREAMS-like community-based prevention efforts will focus on men aged 15 – 29 who have not accessed the health system in over a year. The population size of this group is unknown due to the lack of data on the proportion of men who utilize the health system, but programmatic data will be gathered during activity recruitment to provide insight into men's use of clinical services. In DREAMS districts, community-based prevention activities will focus on women aged 15 – 24.

4.1.4 Orphans and Vulnerable Children (OVC) Targets

OVC target setting commenced with calculations of the adjusted 2016 Mozambican population size in the 0 – 19 age group, and projected from the 2007 census. Data from the 2011 DHS was used to calculate OVC prevalence by Province, adjusted to the district level. Targets were established assuming minimum coverage of 30% in all Scale-Up districts, with manual adjustments based on historical program data from APR15 and APR16 for the partner with historical performance: Scale-Up districts with low achievement were given more ambitious coverage targets in order to rapidly expand services in these areas, while high-performing districts were assigned targets at or above COP16 levels. Districts that did not report data in APR16 were given lower coverage targets to account for time and costs associated with commencing operations.

In COP17, the sex disaggregation assumption remains constant: 60% of OVCs served will be female and 40% male. DREAMS OVC targets comprise 30% of overall OVC targets in the six DREAMS districts. Other target assumptions included: 5% of beneficiaries will exit the program without graduating, 5% will transfer to other programs, 15% will graduate, and 8.2% will be newly added.

OVC_HIVSTAT is targeted at 25% of beneficiaries, based on program data from FY16.

Table 4.1.1: Entry Streams for Adults and Pediatrics Newly Initiating ART Patients in Scale-up Districts			
Entry Streams for ART Enrollment	**Tested for HIV** **(APR FY18) HTS TST**	**Newly Identified Positive** **(APR FY18) HTS TST POS**	**Newly initiated on ART (APR FY 18)** **TX_NEW**
Previously diagnosed and/or in care			24,133
Adult Testing			
Pregnant Women	1,089,975	60,165	59,757 (pregnant women)
TB Patients	39,595	9,420	
VMMC Clients	401,545	5,554	
Key Populations	42,510	4,175	
Priority Populations	1,280	225	
Index case testing	234,506	34,606	270,128 (other newly diagnosed adults)
Inpatient	85,699	18,260	
VCT	600,577	82,876	
Outpatient testing*	3,200,313	212,534	
Mobile testing	159,732	13,595	
Total Adult Testing	**5,855,732**	**441,411**	**329,885**
Pediatrics (<15) Testing			
HIV Exposed Infants	96,321	6,433	6,122 (HEI)
TB Patients	6,149	799	
Index case testing	37,057	566	15,062 (other newly diagnosed children)
Inpatient	75,085	1,877	
VCT	39,727	3,258	
Other PICT	503,856	12,777	
Total Pediatric (<15) Testing	**758,195**	**25,710**	**211,84**
TOTAL	**6,613,927**	**467,120**	**375,202**

***** This outpatient testing target refers to outpatient provider-initiated testing excluding testing of pregnant women, TB VMMC, and inpatient. It includes testing of persons in urgent care, emergency room, chronic disease consultation, at-risk pediatrics, subspecialty clinics, etc.

Table 4.1.2: VMMC Coverage and Targets by Age Bracket in Scale-Up Districts*

Province	District	Population Size Estimate		Current Coverage (in FY16)	VMMC_CIRC (in FY17)	VMMC_CIRC (in FY18)		Expected Coverage (in FY18)
		Total Male Population	Male Population, age 15-29	15-29	all	all	15-29	15-29
Zambézia	Alto Molocue	188,018	48,413	55%	7,484	11,519	8,063	82%
Manica	Barue	115,795	32,843	24%	7,092	8,983	6,288	61%
Gaza	Bilene	79,559	24,006	63%	1,917	3,179	2,225	84%
Maputo Província	Boane	78,203	22,251	103%	1,429	526	368	108%
Sofala	Buzi	92,098	25,457	48%	23,440	8,491	5,944	136%
Tete	Cahora Bassa	63,933	19,078	19%	6,085	5,960	4,172	67%
Sofala	Caia	72,291	17,706	16%	17,468	5,732	4,012	94%
Tete	Changara	99,515	28,015	10%	8,353	8,839	6,187	53%
Sofala	Chibabava	62,629	14,282	54%	7,167	7,949	5,564	121%
Gaza	Chibuto	100,723	27,517	47%	3,973	7,596	5,317	82%
Gaza	Chicualacuala	20,853	5,954	27%	3,316	7,194	5,036	138%
Zambézia	Chinde	65,776	15,320	48%	1,800	7,276	5,093	89%
Gaza	Chokwe	92,884	26,754	67%	3,053	2,449	1,714	85%
Sofala	Cidade Da Beira	232,157	82,322	78%	15,740	10,720	7,504	108%
Maputo Província	Cidade Da Matola	464,330	150,481	69%	8,341	19,467	5,816	78%
Manica	Cidade De Chimoio	163,791	52,998	40%	7,487	8,166	5,716	65%
Zambézia	Cidade De Quelimane	123,860	49,432	140%	12,697	9,731	6,812	187%
Tete	Cidade De Tete	111,274	36,491	35%	4,820	6,377	4,464	63%
Gaza	Cidade De Xai-Xai	60,145	20,350	80%	4,378	606	424	100%
Sofala	Dondo	88,534	30,080	100%	4,004	7,051	4,936	136%
Zambézia	Gile	99,162	23,429	57%	7,373	799	559	79%
Manica	Gondola	174,552	48,139	21%	10,926	14,091	9,864	58%
Sofala	Gorongosa	78,766	19,619	25%	16,617	5,560	3,892	95%
Gaza	Guija	43,891	11,753	53%	1,013	2,974	2,082	87%
Zambézia	Gurue	205,666	56,853	67%	10,948	3,749	2,624	85%
Zambézia	Ile	158,358	33,386	48%	12,778	10,200	7,140	88%

Zambézia	Inhassunge	48,731	13,486	49%	2,770	3,315	2,321	81%
Zambézia	Lugela	72,772	15,668	47%	0	5,973	4,181	
Gaza	Mabalane	19,075	5,388	33%	2,148	1,740	1,218	76%
Manica	Machaze	60,171	13,453	7%	4,943	4,875	3,412	50%
Zambézia	Maganja Da Costa	149,652	33,899	49%	10,972	7,701	5,391	83%
Maputo Província	Magude	29,380	7,835	82%	0	503	352	93%
Gaza	Mandlakaze	83,926	21,488	38%	5,728	7,256	5,079	79%
Maputo Província	ManhiÃƒÂ§a	130,783	36,503	79%	4,899	297	208	92%
Manica	Manica	145,241	44,858	58%	4,942	14,194	9,936	91%
Maputo Cidade	Maputo City Cluster	603,969	195,085	93%	19,050	1,543	0	99%
Maputo Província	Marracuene	72,309	20,155	53%	4,561	1,849	1,294	77%
Sofala	Marromeu	89,005	24,621	76%	6,708	6,217	4,352	116%
Maputo Província	Matutuine	20,288	5,304	65%	1,419	0	0	86%
Zambézia	Milange	317,557	76,287	64%	16,869	10,029	7,020	88%
Maputo Província	Moamba	33,680	9,699	74%	330	211	148	82%
Tete	Moatize	178,117	47,425	7%	14,826	16,572	11,601	52%
Zambézia	Mocuba	191,954	51,609	86%	7,322	2,817	1,972	102%
Zambézia	Mopeia	78,414	17,850	55%	1,193	6,869	4,808	88%
Zambézia	Morrumbala	230,606	51,765	47%	15,296	15,606	10,924	84%
Manica	Mossurize	129,292	34,468	7%	10,572	9,901	6,931	45%
Tete	Mutarara	136,603	30,194	3%	15,250	13,433	9,403	59%
Maputo Província	Namaacha	25,695	7,633	61%	0	1,547	1,083	79%
Zambézia	Namacurra	135,129	37,189	48%	8,725	8,849	6,195	80%
Zambézia	Namarroi	71,591	16,043	0%	0	6,760	4,732	
Sofala	Nhamatanda	141,425	40,850	59%	11,016	7,606	5,324	98%
Zambézia	Nicoadala	127,602	35,343	67%	7,194	12,309	8,616	108%
Zambézia	Pebane	113,217	25,337	48%	7,723	6,046	4,232	82%
Manica	Sussundenga	81,089	21,331	8%	0	9,078	6,354	37%
Gaza	Xai-Xai	117,118	33,726	49%	3,975	8,491	5,944	79%
	TOTAL	**6,771,154**	**1,897,421**		**398,130**	**376,771**	**254,847**	

***DOD targets not included.**

Table 4.1.3a: Target Populations for Prevention Interventions to Facilitate Epidemic Control, MSM				
Province	**District**	**Population Size Estimate**	**Goal % Tested Last 12 Months***	**FY18 Target**
Zambezia	Alto Molocue	500	40%	200
Gaza	Bilene	166	40%	66
Tete	Changara	654	44%	288
Gaza	Chokwe	294	40%	118
Sofala	Cidade Da Beira	2,694	45%	1,078
Manica	Cidade De Chimoio	616	45%	123
Maputo Province	Cidade Da Matola	4,657	35%	931
Inhambane	Cidade De Inhambane	310	40%	124
Niassa	Cidade de Lichinga	885	40%	354
Cabo Delgado	Cidade de Pemba	880	40%	352
Nampula	Cidade De Nampula	5,308	50%	2,654
Zambezia	Cidade De Quelimane	1,071	40%	428
Tete	Cidade De Tete	900	44%	396
Gaza	Cidade de Xai-Xai	294	40%	118
Niassa	Cuamba	424	40%	170
Manica	Gondola	154	40%	62
Zambezia	Gurue	500	40%	200
Nampula	Ilha de Mocambique	630	15%	94
Manica	Manica	616	40%	246
Maputo Cidade	Maputo City Cluster	2,889	60%	1,180
Inhambane	Maxixe	457	40%	183
Zambezia	Milange	500	40%	200
Maputo	Moamba	122	40%	49
Tete	Moatize	203	44%	89
Zambezia	Mocuba	821	44%	361
Nampula	Nacala	928	67%	619
Sofala	Nhamatanda	145	20%	29
Total		***27,618***	***39%***	***10,712***

*Coverage of percent knowing HIV status is unknown. HIV positive people are not excluded from this figure.

Table 4.1.3b: Target Populations for Prevention Interventions to Facilitate Epidemic Control, FSWs

Province	District	Population Size Estimate	Goal % Tested in Last 12 Months*	FY18 Target
Cabo Delgado	Ancuabe	313	20%	63
Cabo Delgado	Chiure	881	82%	723
Cabo Delgado	Cidade De Pemba	1,327	74%	983
Cabo Delgado	Macomia	512	30%	154
Cabo Delgado	Mocimboa Da Praia	942	98%	924
Cabo Delgado	Montepuez	613	88%	542
Cabo Delgado	Palma	703	83%	582
Gaza	Bilene	316	40%	126
Gaza	Chokwe	661	40%	264
Gaza	Xai-Xai	790	20%	158
Inhambane	Cidade De Inhambane	1,309	114%	1,491
Inhambane	Inhassoro	435	30%	130
Inhambane	Massinga	437	121%	530
Inhambane	Maxixe	2,152	36%	777
Inhambane	Vilankulo	1,001	124%	1,239
Manica	Cidade De Chimoio	1,862	80%	1,490
Manica	Gondola	610	97%	593
Manica	Manica	948	28%	264
Maputo Cidade	Maputo City Cluster	4,371	45%	1,958
Maputo Provincia	Cidade Da Matola	6,820	48%	3,274
Maputo Provincia	Moamba	222	40%	89
Nampula	Cidade De Nampula	8,615	40%	3,423
Nampula	Ilha De Mocambique	446	114%	509
Nampula	Meconta	937	53%	496
Nampula	Nacala	3,350	80%	2,680
Nampula	Nacala-A-Velha	322	46%	148
Nampula	Ribaue	750	20%	150
Niassa	Cidade de Lichinga	1,319	20%	264

Niassa	Cuamba	512	51%	260
Niassa	Mandimba	512	20%	102
Sofala	Cidade Da Beira	7,299	9%	683
Tete	Cidade De Tete	1,360	22%	300
Tete	Moatize	1,905	80%	1,524
Tete	Zumbu	290	20%	58
Zambezia	Alto Molocue	738	20%	148
Zambezia	Cidade De Quelimane	1,580	53%	832
Zambezia	Gurue	2,715	20%	543
Zambezia	Inhassunge	2,000	20%	400
Zambezia	Milange	1,735	20%	347
Zambezia	Mocuba	1,368	74%	1,018
Zambezia	Nicoadala	4,085	20%	817
Total		***69,062***	***45%***	***31,054***

*Coverage of percent knowing HIV status is unknown. HIV positive people are not excluded from this figure.

Table 4.1.3c: Target Populations for Prevention Interventions to Facilitate Epidemic Control, Prisoners				
Province	**District**	**Population Size Estimate**	**Coverage Goal**	**FY18 Target**
Cabo Delgado	Cidade de Pemba	681	40%	518
Gaza	Cidade de Xai Xai	1,742	40%	1,742
Gaza	Guija	400	40%	400
Gaza	Mabalane	1,478	40%	1,478
Inhambane	Cidade de Inhambane	1,075	40%	679
Inhambane	Inharrime	1,060	40%	1,060
Manica	Cidade de Chimoio	1,356	40%	846
Maputo Province	Cidade de Matola	3,403	40%	3,403
Nampula	Cidade de Nampula	2,762	40%	1,676
Nampula	Muecate	668	40%	267
Sofala	Cidade de Beira	3,570	40%	1,428
Zambezia	Cidade de Quelimane	2,625	40%	1,050
Zambezia	Gurue	1,000	40%	400
Zambezia	Ile	1,000	40%	400
Zambezia	Milange	1,000	40%	400
Zambezia	Mocuba	2,625	40%	1,050
Zambezia	Namacurra	1,000	40%	400
Total		***27,445***	***63%***	***17,197***

Table 4.1.4: Targets for OVC and Linkages to HIV Services

Province	District	Estimated # of Orphans and Vulnerable Children	Target # of active OVC (FY18 Target)	Target # of active beneficiaries receiving support from PEPFAR OVC programs whose HIV status is known in program files (FY18 Target)
			OVC_SERV	OVC
Zambezia	Alto Molocue	8,515	4,471	1,118
Cabo Delgado	Ancuabe	4,875	898	224
Nampula	Angoche	7,551	3,808	952
Manica	Barue	10,330	4,057	1,014
Gaza	Bilene	22,080	7,289	1,822
Maputo	Boane	21,032	22,396	5,599
Sofala	Buzi	12,193	3,981	995
Sofala	Caia	7,606	4,261	1,065
Tete	Changara	8,963	4,335	1,084
Sofala	Chibabava	8,164	3,783	946
Gaza	Chibuto	21,283	6,383	1,596
Gaza	Chicualacuala	4,188	1,919	480
Zambezia	Chinde	11,345	2,659	665
Cabo Delgado	Chiure	6,453	1,315	329
Gaza	Chokwe	23,138	8,496	2,124
Sofala	Cidade Da Beira	52,840	30,258	7,565
Maputo	Cidade Da Matola	84,559	17,979	4,495
Manica	Cidade De Chimoio	25,876	6,307	1,577
Inhambane	Cidade De Inhambane	4,006	12,261	3,065
Niassa	Cidade De Lichinga	8,849	8,529	2,132
Nampula	Cidade De Nampula	27,921	14,301	3,575
Cabo Delgado	Cidade De Pemba	10,929	3,977	994
Zambezia	Cidade De Quelimane	80,948	20,782	5,196
Tete	Cidade De Tete	15,948	8,142	2,036
Gaza	Cidade De Xai-Xai	16,080	6,307	1,577
Niassa	Cuamba	8,033	5,268	1,317
Sofala	Dondo	16,141	6,699	1,675
Zambezia	Gile	6,387	3,473	

				868
Manica	Gondola	15,721	8,215	2,054
Inhambane	Govuro	4,810	2,477	619
Gaza	Guija	10,764	4,142	1,036
Zambezia	Gurue	9,155	5,042	1,261
Inhambane	Homoine	4,189	2,296	574
Zambezia	Ile	10,310	5,268	1,317
Inhambane	Inharrime	4,842	3,494	873
Inhambane	Inhassoro	4,842	3,089	772
Zambezia	Inhassunge	10,561	3,258	815
Zambezia	Lugela	5,446	2,837	709
Manica	Machaze	8,285	4,059	1,015
Cabo Delgado	Macomia	3,628	1,247	312
Zambezia	Maganja Da Costa	20,485	8,420	2,105
Maputo	Magude	7,567	2,459	615
Nampula	Malema	3,510	2,718	680
Niassa	Mandimba	4,859	3,006	752
Gaza	Mandlakaze	12,981	4,330	1,082
Maputo	Manhica	34,157	12,126	3,031
Manica	Manica	18,358	5,346	1,336
Cidade Maputo	Maputo City Cluster	64,393	14,712	3,678
Maputo	Marracuene	19,684	6,053	1,513
Sofala	Marromeu	9,560	3,218	805
Inhambane	Massinga	9,021	8,642	2,160
Maputo	Matutuine	4,298	2,629	657
Inhambane	Maxixe	6,460	5,981	1,495
Niassa	Mecanhelas	8,750	5,783	1,446
Zambezia	Milange	13,367	5,108	1,277
Maputo	Moamba	8,226	3,650	912
Tete	Moatize	12,004	4,918	1,230
Cabo Delgado	Mocimboa Da Praia	4,137	714	178
Zambezia	Mocuba	17,341	7,599	1,900
Nampula	Moma	9,501	5,717	1,429

Cabo Delgado	Montepuez	6,029	1,192	298
Zambezia	Mopeia	8,824	2,713	678
Zambezia	Morrumbala	15,014	7,487	1,872
Inhambane	Morrumbene	6,961	3,914	978
Manica	Mossurize	7,714	2,623	656
Cabo Delgado	Mueda	10,421	1,907	477
Cabo Delgado	Muidumbe	6,841	1,226	306
Tete	Mutarara	6,062	5,256	1,314
Nampula	Nacala	8,160	5,247	1,312
Maputo	Namaacha	5,467	1,846	461
Zambezia	Namacurra	20,849	8,892	2,223
Sofala	Nhamatanda	12,693	5,021	1,255
Zambezia	Nicoadala	27,214	12,261	3,065
Zambezia	Pebane	18,960	9,107	2,277
Manica	Sussundenga	8,933	2,239	560
Inhambane	Vilankulo	9,472	2,993	748
Gaza	Xai-Xai	23,701	8,529	2,132
Inhambane	Zavala	4,705	2,748	687
Total		***1,125,465***	***468,086***	***117,021***

Program Area Summaries 4.2-4.10

4.2 Priority Populations Prevention

4.2.1 Key Populations

COP17 will increase investments in activities targeting KPs, expanding to seven new districts, including four new districts in Zambezia. Outreach to FSW and MSM will occur in the community and at health facilities employing a cascade approach to ensure linkages, treatment initiation, and retention in care.[22] KP interventions will be implemented with MSM in 26 districts, FSWs in 41 districts, and with prisoners in 17 districts.

A Technical Advisor and M&E positions will be supported within the MOH to improve data collection and monitoring of services in the 25 KP friendly health facilities. A national scale-up of a KP-friendly certification system is planned.

COP17 will support an IBBS for FSW and the PLACE Study in order to improve population size estimates. A comprehensive community-based case management approach using mobile technology will allow outreach workers to better track KPs, ensure referrals to health services and facilitate index case testing when appropriate. This will include targeted recruitment of MSM using social media sites to promote risk reduction and knowledge of available services.

With an estimated HIV prevalence of 24% among prisoners[23] targeted interventions will include training of peer educators, demand creation for HTS, VMMC, TB, and STI screening, and linkages to HIV C&T services. All prisons targeted for these interventions fall within Scale-Up districts. In addition, a demonstration project in Nampula will offer PWID addiction counseling, psychosocial support, and linkage to ART treatment and medication assisted harm reduction.

4.2.2 Prevention with Priority Populations: Integration of DREAMS into COP17

DREAMS will expand from five to six districts in three provinces (Gaza, Zambézia, Sofala). These districts have the highest HIV burden among AGYW. Feedback from DREAMS beneficiaries highlighted the acceptability and importance of linking clinical services to interventions that reduce structural drivers of HIV risk, especially socio-economic strengthening.

DREAMS will support the provision of youth-friendly health services, and strengthen bi-directional linkages between clinical and community platforms to ensure beneficiaries multiple interventions that address their risk context.

[22] Identify (KP Size and profile), Reach KPs, Test KPs, Continue Engaging HIV-negative KPs in Prevention, Enroll HIV-positive KPs in Care, Initiate on ART, Sustain on ART, Suppress Viral Load

[23] Republic of Mozambique Ministry of Justice, 2013, Assessment of the Situation of HIV, STIs and TB and Health Needs in Prisons in Mozambique.

School-based HIV prevention and FP interventions will reach AGYW aged 15 – 24, while education subsidies will target AGYW in the 10 – 19 age band who are most at-risk of dropping out during the primary-to-secondary school transition. Comprehensive socio-economic, parenting/caregiver, and social asset building activities will reach at-risk AGYW aged 15 – 24, and will be accompanied by proactive linkage to clinical services. A post-violence care training package will be expanded nationally, and intensified community-level screenings for gender-based violence will be expanded to all Scale-Up Aggressive sites.

4.2.3 Launch of DREAMS-Like Activities with Priority Populations Aged 15-29

DREAMS-like interventions will be adapted in 41 Scale-Up, non-DREAMS districts, focusing on: 1) men aged 15–29 who have not had contact with the health system in over a year, 2) girls aged 15–29 who are out-of-school, pregnant or lactating, and/or otherwise vulnerable to HIV and GBV, 3) other identified priority populations: miners, mobile populations, and clients of FSWs. Methodologies are evidence-based, multi-session, and harness curricula approved by OGAC to reduce HIV risk and harmful gender norms.

Interventions will be informed by assessments of barriers to health service utilization, and will generate demand for HTS, VMMC, and treatment for PLHIV. Mobile technology will be used to improve community linkages and facilitate follow up to increase the use of health services. Additionally, community modalities will be tailored to increase uptake of clinical services among other at-risk subgroups, including miners, military, and clients of FSWs.

4.3 Voluntary Medical Male Circumcision (VMMC)

In FY16, the VMMC program made a shift towards targeting the 15-29 year old age group; this shift is complemented by demand creation activities targeting clients aged 15 to 29. Mobile clinics and partner-funded transportation for clients will be scaled; a demonstration project is planned to evaluate compensation for lost wages. In Maputo City and Province, where modeling data suggests coverage is approaching 80%, the program will consolidate a maintenance program for adolescents aged 10-14 yrs.

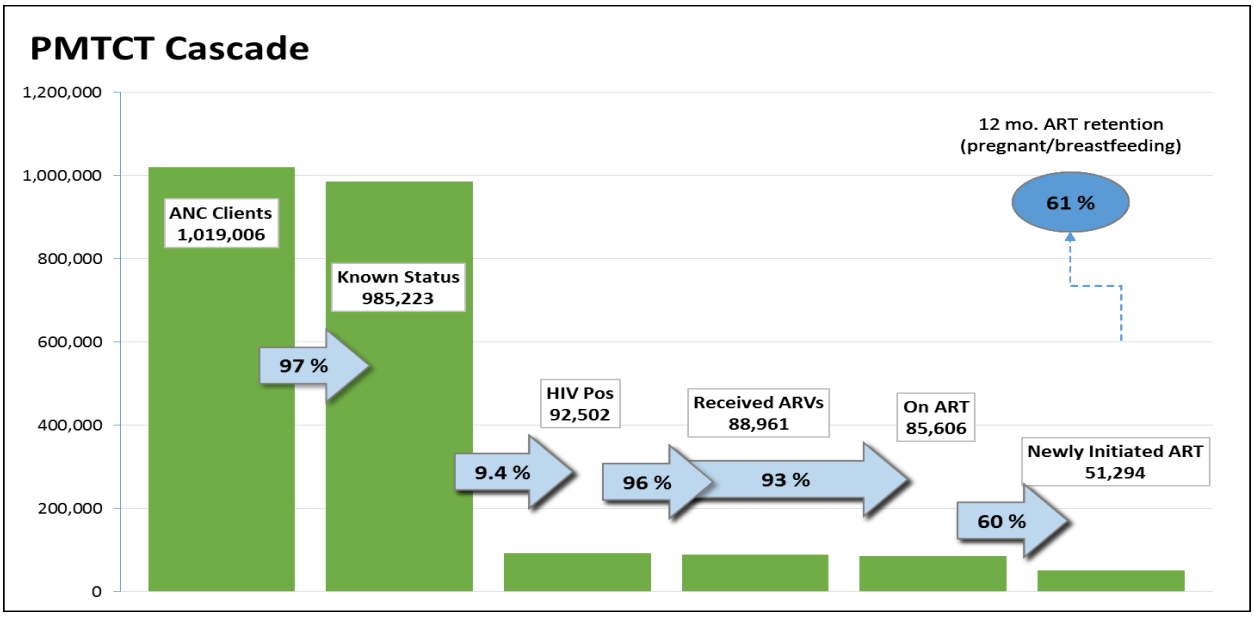
The level of PEPFAR support in districts that have achieved high VMMC coverage will be reduced with oversight provided by the MOH. During scale-up, emphasis will be placed on adverse event (AE) monitoring and reporting and strengthening of Quality Assurance and Quality Improvement methods that function independently of implementing partners. AE monitoring under a new MOH policy will ensure reporting consistency with MOH and PEPFAR requirements, and that clinical management of AEs remain under the exclusive purview of the MOH.

4.4 PMTCT

APR16 and SIMS data reflect three primary challenges for the PMTCT program: (1) retention of HIV positive women along the entire PMTCT care cascade, (2) viral suppression and appropriate utilization of VL monitoring among PBFW by clinicians, and (3) EID and linkage to treatment.

These areas will continue to be a focus for PEPFAR partners in FY18.

Figure 4.4.1: PMTCT Cascade, FY16



Interventions to address these issues include implementing the PMTCT communication strategy in health facilities and communities; expanding treatment for serodiscordant couples; and, supporting implementation of the Psychosocial Support and Positive Prevention Strategy (*Apoio Psicossocial e Prevencao Positiva* – APSS-PP).

PEPFAR-Mozambique will also support revitalizing and strengthening mother to mother support groups to provide peer support and ensuring that dedicated peer educators (mentor mothers) provide individualized, longitudinal case management to PBFW and their infants. PEPFAR will continue to support central level technical assistance to the MOH, provincial governments and PEPFAR IPs in the roll-out of the revised Maes para Maes (M2M) Strategy including design and dissemination of training and M&E tools. PEPFAR worked with the MOH to finalize this strategy, which mandates the presence of M2M groups and mentor mothers at all health facilities providing PMTCT, regardless of PEPFAR support.

PEPFAR will also fund a partner to develop model M2M sites at approximately 35 health centers to hire, train and supervise peer educators/mentor mothers dedicated to improving adherence and retention across PMTCT cascade. PEPFAR will support direct service delivery of this model in Zambezia with additional sites in two secondary provinces. A geographic placement matrix for final site determination is currently under development with MISAU.

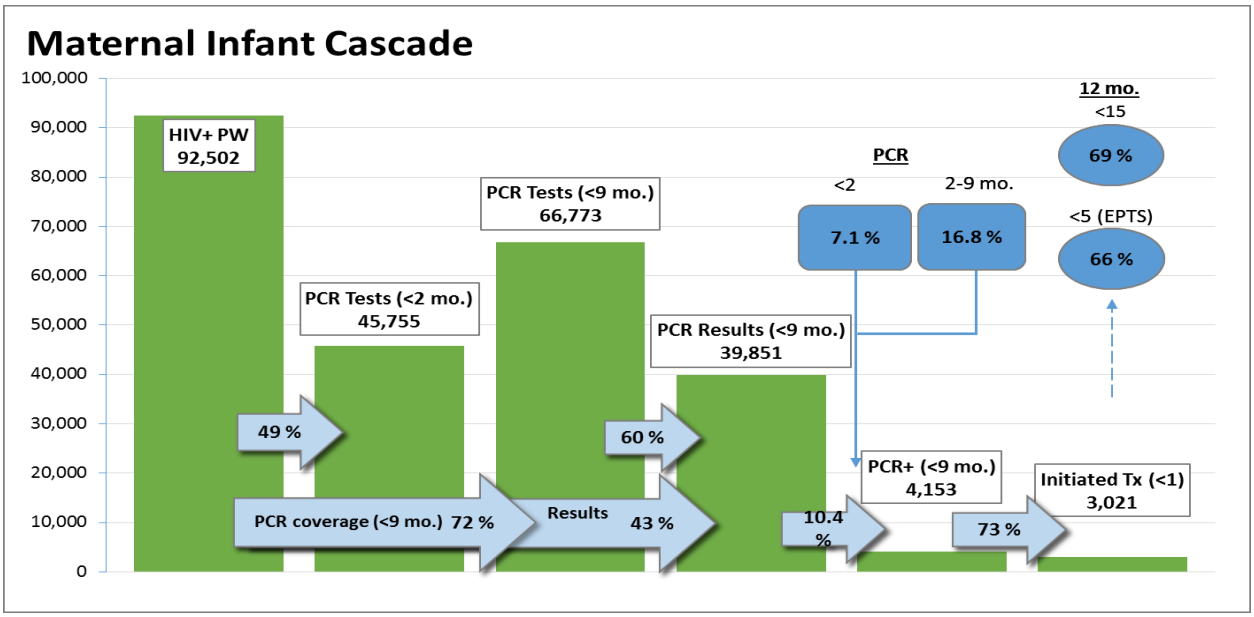
In FY18, PEPFAR-Mozambique will continue enhanced monitoring of retention and adherence in ANC, initiated in FY17 with monthly monitoring of adherence and retention indicators, monthly meetings with clinical implementing partners and enhanced monitoring visits to high priority

sites by PEPFAR technical staff.

Community-based interventions will improve follow-up for mother-baby pairs, increase male involvement and address the prevention and reduction of GBV including PEP, legal and psycho-social support. PEPFAR will continue to support the national quality improvement strategy for PMTCT which also includes early retention and use of VL monitoring.

PEPFAR supported the MOH to revise and roll-out PMTCT/MCH registers which will allow for longitudinal follow-up of pregnant women. PEPFAR teams will continue monitoring and mentoring health workers in consistent and accurate use of the new registers.

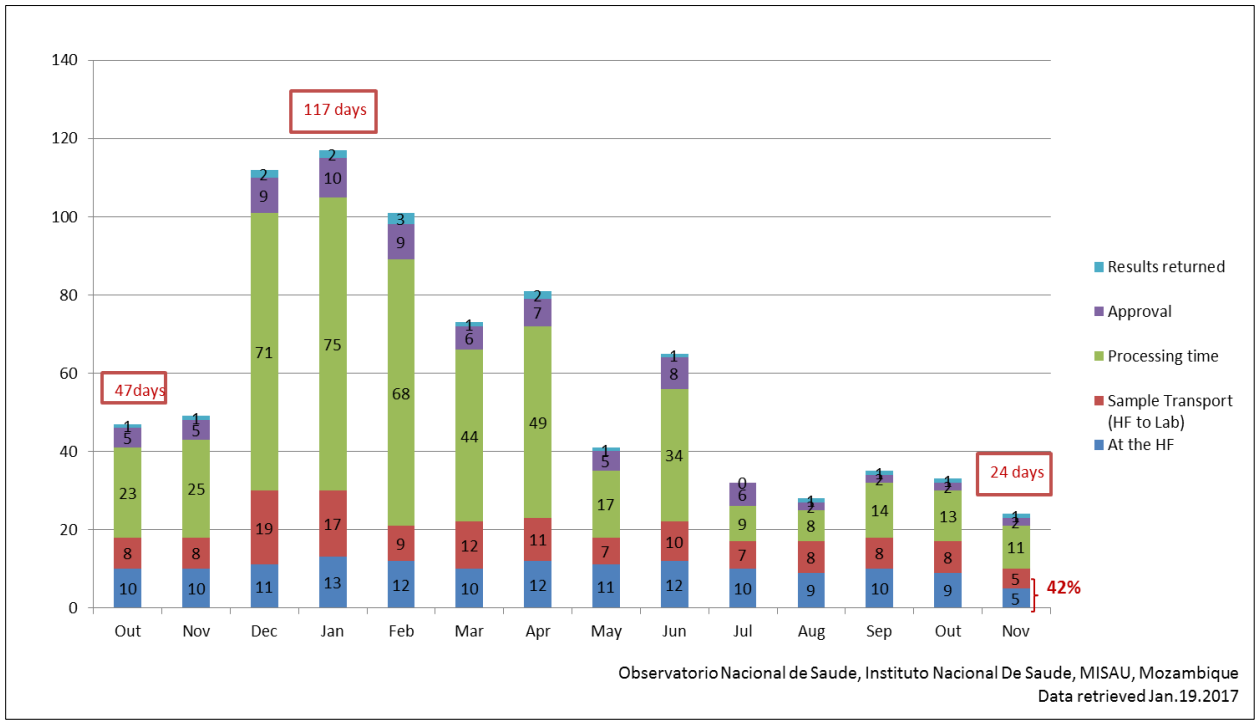
Figure 4.4.2: Maternal-Infant Cascade, FY16



Near the end of 2015, laboratories faced shortages of PCR EID reagents and test kits (Abbott) as support for procurement transitioned from UNITAID to the GFATM (Figure 4.4.3), resulting in a significant backlog of EID samples and increased TAT for EID PCR results. Sample transport will continue to be a focus in FY18 since 42% of the total turn-around-time now consists of time at the health facility or en route to the lab. Strategies to improve EID PCR include: training health providers on quality sample collection, training lab technicians on use of new technology, strengthening the laboratory forecasting and logistic system (including an early warning system to prevent backlogs and stock-outs), improving sample transport, and supporting rapid return of results to health facilities and caregivers. PEPFAR-Mozambique is also in evaluation phase of an EID PCR cohort monitoring tool that will be rolled out to support EID QI in high priority, high volume facilities.

Prompt ART initiation among HIV-infected infants will be closely monitored in FY18. PEPFAR-funded community workers will coordinate with the health facility to maintain lists of children needing follow up. Training in presumptive diagnosis and treatment of HEI is ongoing.

Figure 4.4.3: EID PCR Turn-Around Time (days) by Component, October 2015 to November 2016



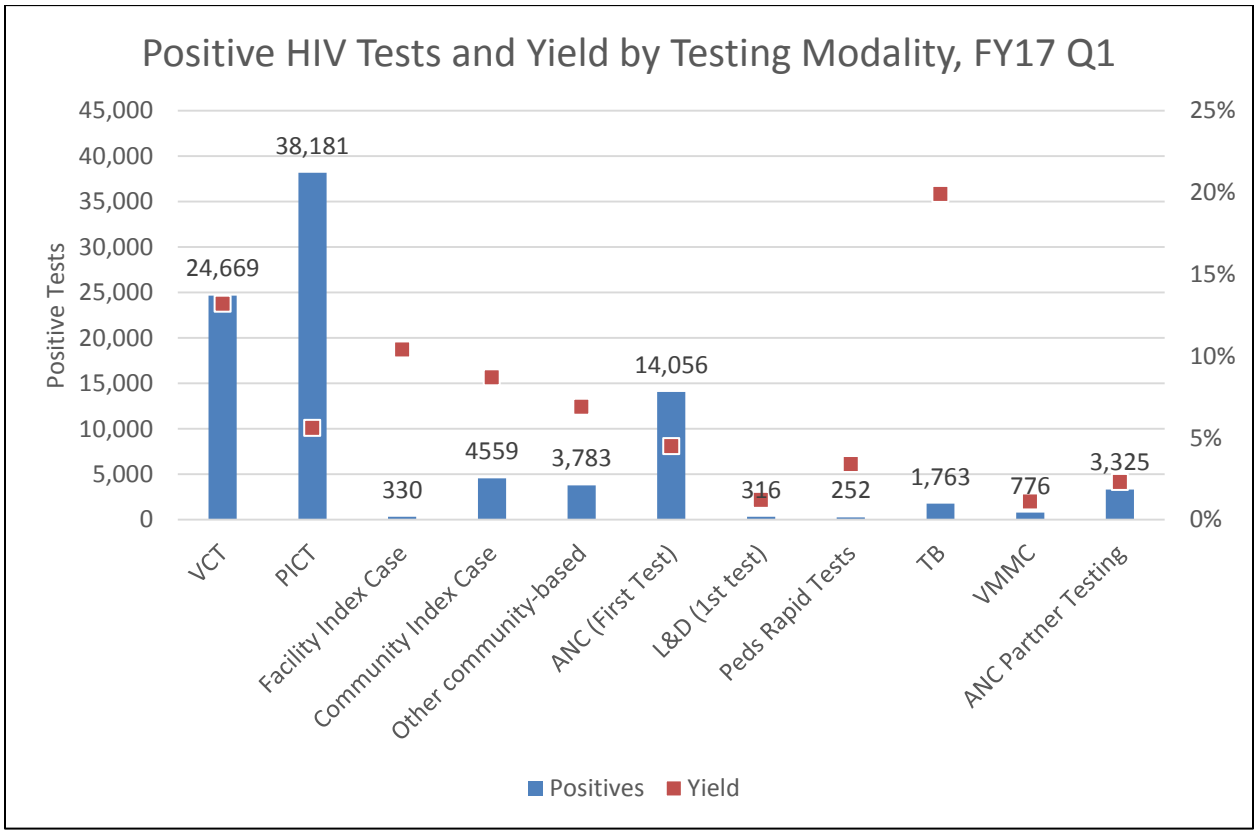
4.5 HIV Testing and Counseling

The primary objective of the HTS program is to identify and link HIV positive individuals to C&T services. Secondary objectives include increasing identification of men who are HIV positive (as they are currently underrepresented in HIV care), and maintaining test quality.

COP17 strategy focuses on high-volume, high-yield, scalable modalities. Figure 4.5.1 shows the trade-off between volume and yield in HTC in FY17 Q1. In FY16, 53% of all HIV diagnoses made outside of the ANC setting were made through PICT (50% in FY17 Q1), so optimization of this modality is paramount. Program data collection identified emergency rooms, urgent care, and inpatient settings as high-yield, underutilized PICT settings, which will be remediated in COP17 through efforts such as hiring of additional lay counselors, training of direct service providers, and refinement of symptom-based screening. Co-located VCT, the highest yield high-volume modality, was expanded to all feasible sites not requiring infrastructure investment in COP16. In COP17, we will add eight more sites in the most promising locations through placement of prefab testing facilities.

Index-case testing had a promising beginning in FY16 and will need to be brought to full scale in COP16 and COP17. A Military HIV Policy will be implemented, which includes a screening strategy for military recruits and staff. In four high burden Provinces, mobile clinics will be used to promote and implement opt-out HIV testing during health inspections of civilians enlisting in the armed forces. New community testing strategies are needed in Mozambique to identify PLWH who do not frequently use health clinics. In COP17, we will introduce comprehensive testing of selected high-prevalence districts modeled after the Project SEARCH experience in Kenya and Uganda. This approach involves enumeration of all adult residents followed by multidisease community health campaigns and household mop-up campaigns for untested persons.

Figure 4.5.1: Volume of HIV-Positive Tests and Yield by Modality in Quarter 1 of FY17



Strategies to ensure newly diagnosed PLHIV are enrolled in care include: reinforcement of post-test counseling, intensified coverage of peer educators to accompany clients and act as case managers, escorted referral into care services, introduction of real-time defaulter tracing systems to find and re-integrate diagnosed PLHIV into care services, expansion of the HTS one-stop model (the patient file is opened at the point of testing), same day consultation for newly diagnosed PLHIV in T&S sites, prioritization in non-T&S sites of newly diagnosed PLHIV in the

(usually long) lines to receive care services, and revision of HTS M&E tools to incorporate linkage measurement.

The 2016 PEPFAR-Mozambique Gender analysis emphasized the need to test men, particularly men under the age of 30 who do not present at the facility while they feel healthy. VCT, testing programs tailored for MSM, prisoner, and VMMC clients, and new mobile testing modalities for adult men of acceptable yield will be implemented in collaboration with the MOH and the Ministry of Labor or their designees. These include workplace testing integrated in a package of wellness services in high-risk industries (mining, etc.), university testing in select high-burden districts, index testing of presumptive TB cases, enhanced partner notification, and testing during VMMC demand creation events. In FY17, KP partners are introducing new community-level efforts to expand HTC, particularly among the MSM who are reluctant to seek testing in facilities. Approaches that are particularly successful will be scaled up in FY18.

Pediatric case identification continues to be a challenge beyond the early infant period. Continuing the strategy initiated in high volume facilities in late FY16, data will be collected on coverage and yield of routine testing in high risk medical departments serving children (inpatient, TB, high risk outpatient, emergency). Partners will mentor and train health providers on routine testing, implement clinical quality improvement, and use data to improve performance. In other medical departments serving children (well child, sick child, urgent care clinics), providers will receive additional training and mentoring on symptom-based testing.

PEPFAR will continue to support scale-up of community and facility-based index-case and OVC testing. Index-case testing in ANC will be a focus in FY18. A pediatric HIV screening tool is being adapted for a demonstration project in FY17 and should be ready for implementation during FY18 in collaboration with the MOH. Interim MOH guidance for pediatric PICT is presently in draft. A similar tool will be introduced for OVCs to identify those who should be prioritized for testing. COP17 will also intensify youth counseling and testing at adolescent friendly health units. A disproportionate number of HIV-infected children reside in Zambezia, so case-finding in Zambezia will be a priority focus of the pediatric program in FY18.

HTS partners are managed through a series of periodic contacts. Annual meetings bring together all partners for data review across all technical areas. Quarterly meetings are individually held with large partners to review performance across technical areas. Monthly HTS meetings convene all partners for focused review of a single HTS modality and sharing of best practices. Additional individual meetings are held with partners more frequently as required by performance.

The partner selection for new community-based testing targets for men was guided by demonstrated past performance in community-based testing. Community index-case testing targets were transferred from partner to partner in Zambezia and Inhambane Provinces based on differences in partner performance.

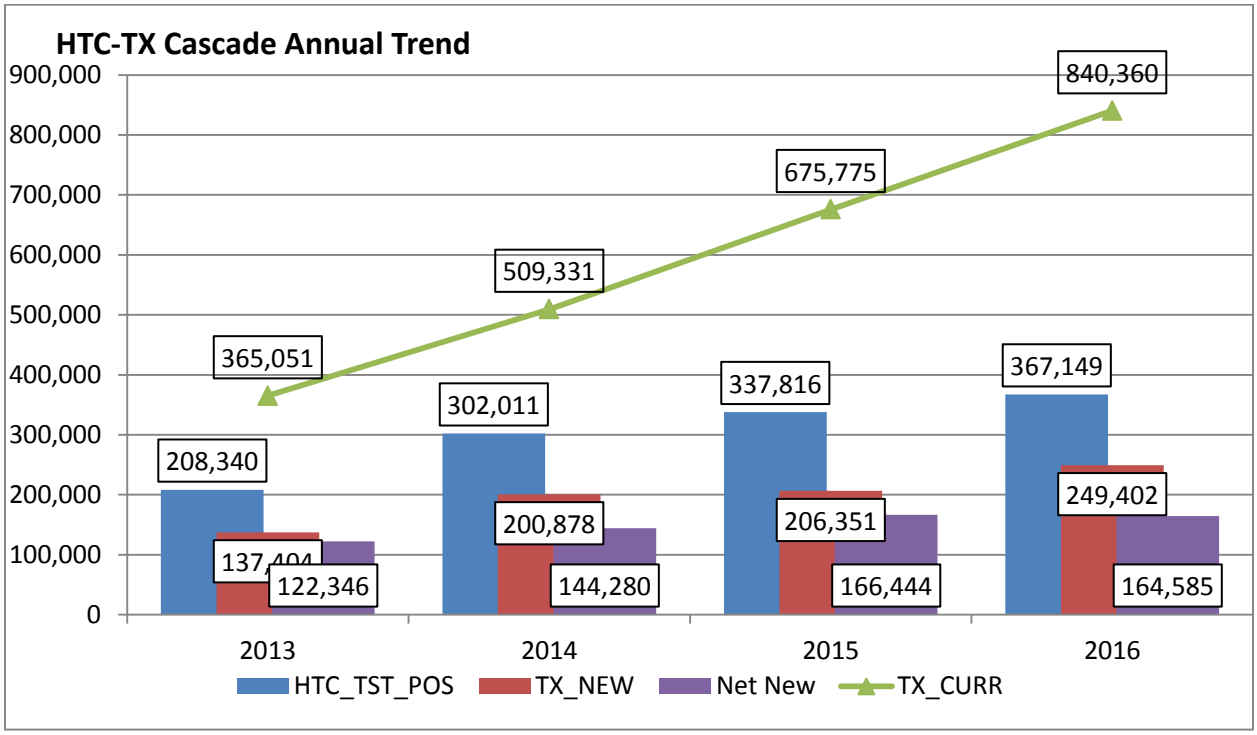
USG and the government of Mozambique are committed to increasing linkage to care. Additional information on approaches can be found in section 4.6.

4.6 Facility and Community-Based Care and Support

T&S was launched in Mozambique in August 2016 through phased implementation that is expected to be completed in 2018. In consideration of the sudden increase in demand and challenges in adherence and retention, MOH updated service delivery guidelines include 6-month clinical appointments and drug pick-ups through community adherence support groups (GAACs) for stable patients. In addition, new approaches, such as three month scripting and adherence clubs have been implemented and will be further scaled-up in FY18. A family approach strategy which was successful at improving retention in children and adults in Maputo Province will be rolled out nationally. The impact of these policies is expected to be an improvement in the quality of care and increased adherence and retention.

Challenges noted during COP15 included achieving treatment new targets (with overall 66% achievement at APR16), with special challenges initiating men and retaining those new on treatment (70% at APR16). In addition, while 97% of the treatment current target was achieved at APR16, ongoing data quality work is needed to support programmatic data use.

Figure 4.6.1: Annual Trend in Clinical Cascade, 2013-2016



IPs will continue to support the standard package of services defined in COP16 using a tiered approach, with the highest level of support in scale-up facilities (≥6 visits/year), decreased

support and visit-frequency in sustained facilities (4 visits/year), and a minimal package of support which includes QI support and central TA in central-support facilities (2 visits/year) (Table 5.11.1).

A comprehensive set of interventions to ensure the bidirectional linkages between facilities and communities will continue to receive support in COP17. Interventions aimed at improving case identification and linkage include the promotion and implementation of index-case testing/contact tracing for HIV and TB patients in the community; the expansion of male engagement to promote uptake of HIV testing and ART initiation; and the use of community dialogues facilitated by PLHIV and local community radios to broadcast key HIV prevention and adherence related messages. Nutrition support through CSB+ delivery will be expanded from current provinces to additional districts/sites based on HIV-burden and risk of malnutrition. Post-GBV care services will be introduced in all Scale-Up districts.

Activities that support adherence and retention will be implemented at the facility and community levels. Interventions also involve m-health platforms for patient messages, identifying PLHIV to act as champions and advocates, and various models of PLHIV peer-support (i.e., GAACs, Mothers-to-Mothers groups, adolescent and pediatric support groups, and *Pais e Cuidadores* (Parents and Caregivers). Implementation strategies with community health workers, *Agentes Polivalentes Elementares de Saúde* (APES), traditional healers, traditional birth attendants, and community leaders will be deepened. Enhanced support to ensure implementation of national guidelines on counseling and psychosocial support will be used to further address retention challenges.

In all scale-up districts that PEPFAR supports there will be a clear package of adherence support and treatment literacy. PEPFAR will support a minimum number of activistas per PLHIV. This cadre will be responsible for capacitating and monitoring the GAACS at community level, for connecting PLHIV to the GAACS and adherence clubs, and for providing treatment literacy education and individual and group counselling. Wherever possible, PEPFAR will partner with networks of PLHIV and CBOs to provide training and support for the activistas. By the start of COP17 PEPFAR will have ensured that this cadre is harmonized across programs as to pay, training, and activities and that it is sufficiently resourced (e.g., supervision, IEC materials, phone with credit, M&E tools, transport allowance if they go to the community).

4.7 TB/HIV

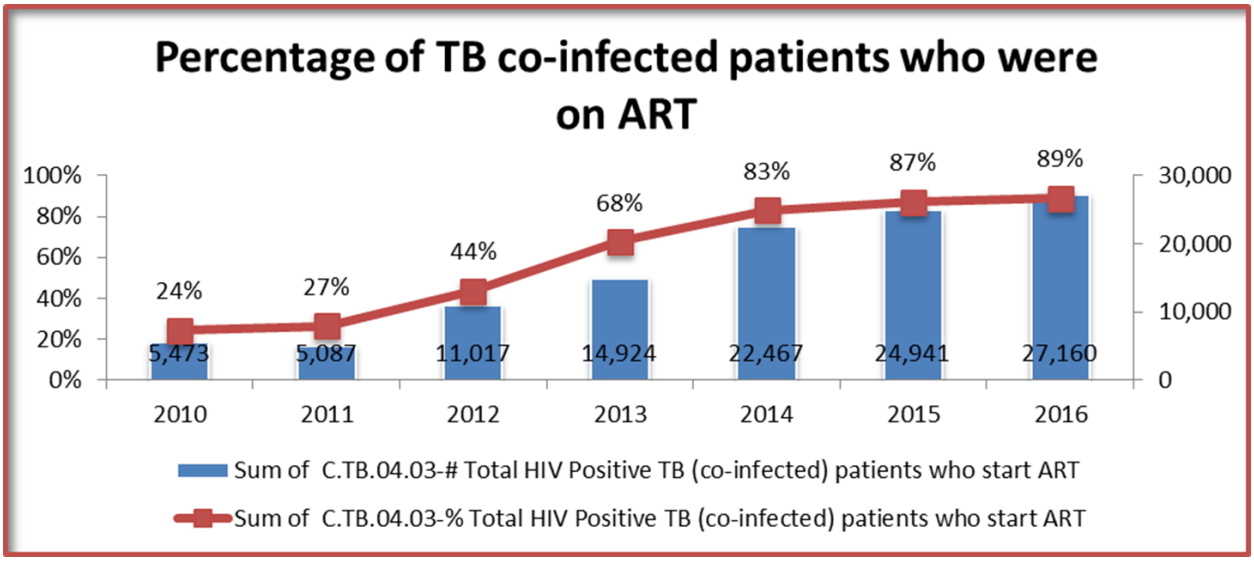
Mozambique has the 4th highest TB incidence rate and 5th highest TB/HIV rate in the world. The twin epidemics of TB and HIV have consistently resulted in high co-infection rates (51%) and high mortality in TB/HIV co-infected patients (120/100,000 versus 74/100,000 for HIV negative TB

patients).[24] The percentage of TB co-infected patients who were on ART increased from 24% in 2010 to 89% in 2016 (Figure 4.7.1).

Significant progress has been made integrating TB/HIV services into TB clinics, using the one-stop-shop model. As a result, HTS of TB patients is at 98% nationally, with 97% provision of cotrimoxazole to TB/HIV co-infected patients and 89% ART coverage in TB/HIV co-infected patients. However, case detection, TB diagnosis among PLHIV, IPT scale-up, and implementation of infection control are all areas that require significant improvement in COP17.

Currently there are 59 GeneXpert™ machines operating in-country with deployment to new districts planned for the current fiscal year. This recommendation and other strategies, including continued expansion of microscopy, including LED microscopy, should improve TB case detection, which remains a major challenge in the TB/HIV cascade.

Figure 4.7.1: TB/HIV Treatment Trend, 2010-2016



Case detection will be enhanced through expansion of TB screening and case finding in PMTCT, antenatal clinics, HTS settings, ART settings, and for inpatients, including pediatric patients. In Scale-Up districts, TB screening will target other high risk groups for linkage to treatment including people with diabetes, malnourished, heavy smokers, and previous TB patients. Other efforts for improved case detection involve scaling-up contact tracing in the household, workplace and congregate setting (e.g., miners, prisons). Cough officers will continue to provide routine screening to detect TB and improve infection control for patients interacting with the health system. HIV testing will also be offered to TB contacts and presumptive TB patients.

[24] WHO, 2015

Support will continue to be provided to strengthen and expand health worker TB surveillance. In addition, in all Scale-Up sites, IPT, infection control measures (administrative, environmental, personal protection), and cotrimoxazole will be provided.

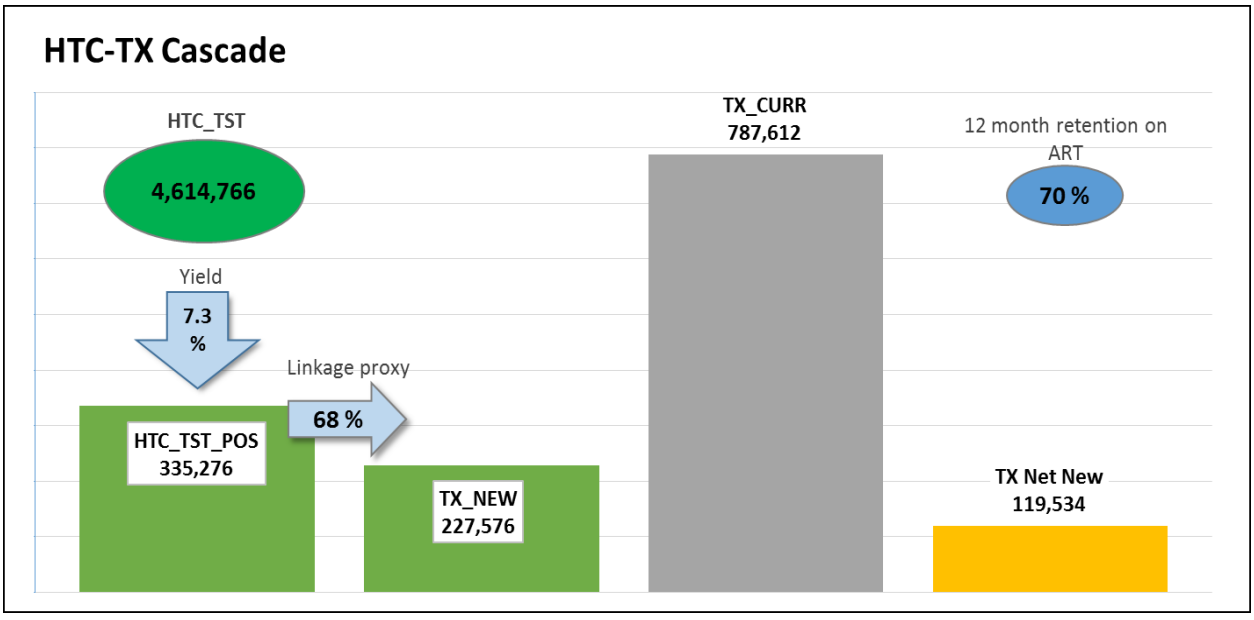
Increased ART coverage to 100% for co-infected military members will be reached through mobile treatment units and reduced lost-to-follow up through delivery of GeneXpert™ MTB/RIF diagnostic capabilities at military medical sites. TB prevalence amongst military PLHIV will be determined through an upcoming seroprevalence study.

4.8 Adult Treatment

The goal of the adult treatment portfolio is to increase early initiation of ART, provide high quality services, ensure robust retention strategies and achieve epidemic control. Additionally, a number of modifications to the service delivery model were proposed in COP16 to decrease clinic congestion, provider workload, and improve delivery of patient-friendly services. These include 3-month drug distribution in select facilities, implementing 6-month clinic visits for stable patients in accordance with national guidelines, rolling out routine VL monitoring in conjunction with T&S, and a demonstration project trialing ART distribution through non-ART clinics to decrease the travel burden on patients who live far from ART facilities. These will continue to be expanded in COP17 as T&S is rolled-out nationally.

Figure 4.8.1 shows the FY16 clinical cascade for all patients, and Figure 4.6.1 shows the annual trend in the clinical cascade. Prevailing challenges include low ART coverage nationally, with even lower coverage among men, low 12-month ART retention rates, and slow roll-out of routine VL monitoring.

Figure 4.8.1: FY16 Clinical Cascade (all patients)



In order to improve enrollment of men on treatment, outreach activities and adjustments to the service delivery approach that were developed on a limited scale in COP16 will be expanded in COP17. These include providing comprehensive workplace safety interventions to promote TB and HIV testing and treatment, with specific targeted approaches for miners; supporting work shifts after hours at select large volume health facilities; and employing male-to-male peer educators for facility and community-based support. In addition, activities to further improve awareness and decrease stigma will include promotion of male champions, collaboration with traditional healers and community leaders, and organization of community dialogues with men.

Key activities for improving retention were described in Section 4.6. These activities will be closely monitored using the enhanced monthly monitoring approach described above. In COP16, target facilities for enhanced monitoring included 63 of the largest-volume sites in Phase 1 Test & Start districts (most of the provincial capitals and DREAMS districts). During COP17, additional sites will be selected to include districts that have begun implementing T&S in subsequent phases.

VL implementation has been a notable challenge in Mozambique with inefficient specimen transport, inefficient laboratory testing process, long turn-around times, and inadequate effort expended to ensure all VL tests results are returned to the patient and used to improve patient management and viral suppression. In Q1 FY17, PEPFAR mentors were embedded in two key viral load laboratories. They identified weaknesses in training and daily maintenance of the instrument, remediated the gaps, and created standard operating procedures that were disseminated in Q2 FY17. Trainings to improve viral load specimen collection were developed and deployed. All viral load labs received ABBOTT super user training, which emphasized enhanced maintenance for instruments, environmental monitoring for contamination, and good laboratory practices. QI tools for monitoring the VL cascade have been developed in FY17, with initial positive results in provinces where they were conducted. Best practices are being collected across clinical partners to address challenges noted in VL implementation. The expectation is that all partners will begin implementing these during FY17 with further expansion in COP17. In addition, additional support will be provided to partners for decentralized second-line drug committees to ensure appropriate management of ARV treatment failure cases. PEPFAR will also support minor infrastructure improvements to accommodate high throughput of VL machines, improved lab supply chain management, and a focus on improving overall lab efficiency (with the goal of minimizing lost samples, ensuring quality results, improving lab turnaround times). Options for improving sample transport in Mozambique will be reviewed with the goal of establishing a cost-effective and reliable sample transport system.

4.9 Pediatric Treatment

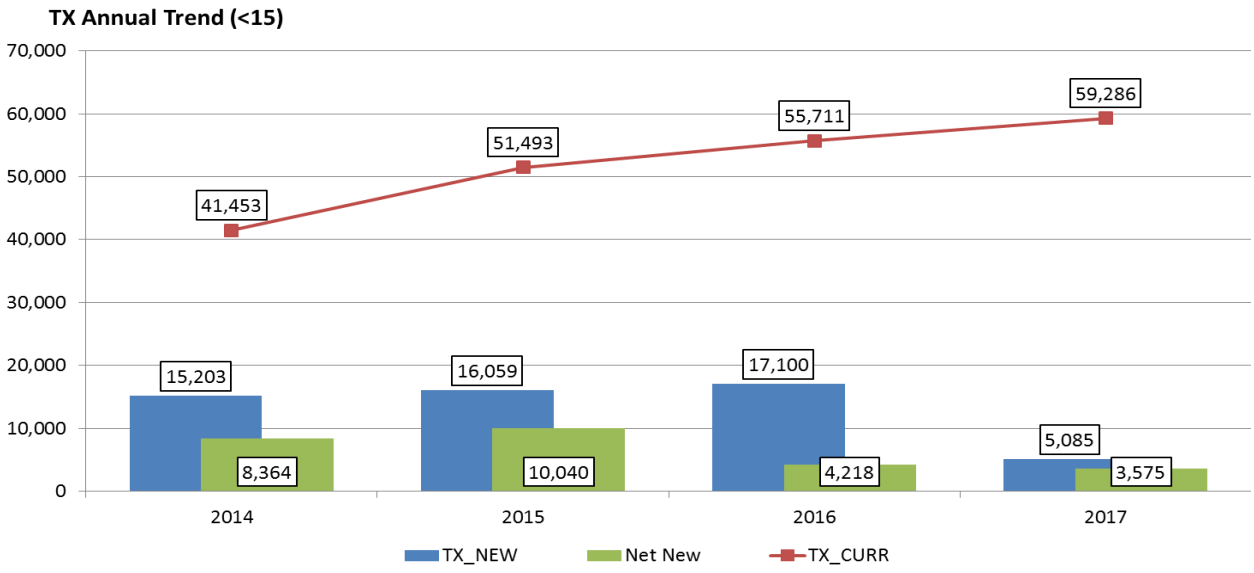
Mozambique's pediatric ART eligibility criteria include universal coverage for all children <5, coverage for children 5-14 with CD4<500 or meeting WHO stage III/IV criteria, and presumptive diagnosis and treatment of exposed infants. Additionally, the MOH is rolling out pediatric T&S in concert with implementation for the adult population. Multi month prescriptions and 3-month

consultation spacing were recently approved for stable children over 5 years of age. A new heat-stable formulation for lopinavir/ritonavir is expected to arrive in country by the end of 2017.

Significant challenges to pediatric care and treatment include very slow growth in pediatric coverage (Figure 4.9.1), poor retention (69% for children <15 and 69% for adolescents 15-19)[25], and slow roll-out of routine VL monitoring with high rates of pediatric virologic failure (65% among children <5 and 53% among children 5-14 who received routine VL testing)[26]. SIMS data show that pediatric ART monitoring, adolescent support services, and referral to community care and support services need improvement.

PEPFAR will continue to provide support to community health workers, roll out the pediatric communication strategy to improve treatment access and retention, and expand mothers to mothers support groups to provide retention and adherence support. The pediatric training center at Maputo Central Hospital will continue to provide mentorship, training, and specialty care, and additional centers will be established in Nampula and Beira and a large outpatient facility in Maputo City. PEPFAR will closely work with IPs to reinforce the capacity for the provincial referral hospitals. Youth-friendly health services will be strengthened both through specialized clinics (*Serviços Amigáveis Para Adolescentes e Jovens* - SAAJs) and through routine sectors. Youth clubs, with peer facilitation will be rolled out in FY18 to further support testing, linkage and adherence for adolescents living with HIV.

Figure 4.9.1: Annual Trend in Pediatric Clinical Cascade, 2013-2016



[25] APR16 12 month ART retention rates
[26] 2016 viral suppression rates recorded in the national laboratory information system

4.10 OVC

COP17 aligns the OVC portfolio with Scale-Up districts to reach young people directly affected by and/or living with HIV in highest burden districts. OVC programming will expand in 11 districts that were re-categorized from Sustained to Scale-Up.

The OVC portfolio adopts a comprehensive case management approach, including strong linkages between ART sites and community partners to identify OVCs of adult PLHIV. Programming includes family-centered socio-economic care and support; education subsidies for OVCs at significant risk of dropping out due to financial stress; expanded access to GRM's social protection programs; targeted social asset building activities; and intensive home-visits by skilled case workers who can develop a tailored risk reduction plan for the family, and parenting/caregiver interventions aimed at improving caregivers ability to support OVCs' attainment of education, health, and social well-being. Early childhood platforms will address developmental delays experienced by children infected, exposed to, and affected by HIV.

Close coordination will continue with DREAMS as it expands to a sixth district in COP17. One OVC partner has been selected to implement DREAMS activities that are related to the OVC program (socio-economic strengthening, parenting/caregiver interventions, social asset building), and this partner's beneficiary database has already been formatted to distinguish between DREAMS and non-DREAMS beneficiaries; the former are identified as OVCs who are HIV-negative, but identified as possessing elevated risk of HIV acquisition (pregnant and lactating, dropped out of school, engagement in transactional sex, etc.). DREAMS partners are currently implementing the Girl Roster tool, which will complement other community-based OVC identification mechanisms, including the community child protection committees and CBOs.

In COP17, additional focus will be placed on ensuring that all high-risk OVCs are aware of their HIV status. OVC partners will be required to demonstrate strong links with clinical partners who perform HTS, and both types of partners will be monitored for establishment of a system to allow for bi-directional referrals. Under the guidance of the MOH and USG, OVC partners will pilot and implement an OVC risk screening tool to ensure appropriate, targeted testing of OVC project beneficiaries.

One additional OVC partner was introduced to share the burden of implementation in FY16, and both IPs currently provide monthly narrative reports and data submissions so that PEPFAR can monitor progress. PEPFAR-Mozambique initiated monthly visits to OVC partners in the last half of COP15 to assist with program planning, and consistent on-site technical assistance will continue through COP17. In COP15, OVC IPs over-performed in the 10-14 age band while underperforming with the younger age groups and those aged 15 – 17. During COP16 and COP17, PEPFAR-Mozambique will work with IPs to ensure recruitment of all the appropriate age bands, and will monitor program data to identify IPs and/or geographic areas where recruitment across the age bands is inadequate.

4.11 Addressing COP17 Technical Considerations

a. Increased focus on prevention and care services for under age 30 yrs.

The programmatic strategies for prevention and care services for under 30 year olds are discussed in Section 4, sub-sections 4.2.2, 4.2.3, 4.3, 4.6. Strategies will be informed by the studies carried out in COP15 and COP16 on AGYW and their male sex partners to better understand preferences and obstacles to health service utilization.

PrEP for serodiscordant couples will be implemented on a limited scale in COP17 and will be jointly assessed by PEPFAR and MOH for acceptability, adherence to the regimen, and possibility of expansion with those most at risk for HIV acquisition.

PEPFAR-Mozambique will strive to make clinical services more accessible, including extended HIV testing hours delivery of services at work in high-risk industries (mines, military, etc.), mobile delivery of VMMC and HTS, and supporting the GRM's Adolescent Reproductive Health Units (locally known as SAAJs).

To optimize health outcomes, the supply of high quality health services must be met with sufficient demand by beneficiaries. Community-based behavioral prevention interventions will be targeted at high-risk AGYW through DREAMS, and men under 30 who are not being reached by the health system through DREAMS-like activities in Scale-Up districts. These interventions will use evidence-based curricula approved by OGAC for DREAMS, and recruitment will focus on high-risk sub-groups: AGYW who are pregnant or lactating, who have dropped out of school and/or who engage in transactional sex; and men under 30 who have not accessed a clinical service in over a year. These interventions will: (1) reduce attitudinal and knowledge barriers, while aiming to motivate uptake of clinical services, (2) reduce GBV and gender norms that are harmful to AGYW, and (3) link beneficiaries directly with relevant clinical services through accompanied referrals, direct follow-up by community outreach workers for beneficiaries to decline to be accompanied, and/or provision of HTS, VMMC, and other relevant services in the community setting as permitted by the MOH.

b. Increased testing yield and improving testing modalities.

The programmatic strategy for HTS is discussed in detail in Section 4.5. Several programmatic shifts are expected to result in improved yield. Self-testing will be introduced in selected pharmacies in Zambezia to assess acceptability and feasibility of scale-up in high-burden districts. PICT optimization will selectively scale-up testing in sub-settings with high yield such as inpatient and emergency rooms (especially in central hospitals) resulting in an overall increase in yield. Partners will be encouraged to remediate the low numbers of sex partners tested per index case, aiming for at least a 1:1 ratio. As sex partners are the highest yield contact type this should improve yield of community testing efforts. Partners will also promote testing for children of HIV positive women in ANC. Other recommendations from the technical considerations to be

employed in COP17 include: increased mobile testing for diagnosis of young adult men, testing of presumptive TB cases and using as index cases for community testing, RT continuous quality improvement, confirmatory testing (re-testing), improved RTK stock management, same day ART initiation in some settings. As part of improved RTK management, a clear algorithm for timely management of stock-outs will be implemented. Furthermore, Mozambique has adopted SIGLUS, an electronic site-level logistics management information system that allows for real-time visibility of stock levels. SIGLUS is still in very early stages of implementation and a full roll-out will take time; in the interim, PEPFAR and MOH are implementing a rapid response tracking system called NOS, which collects stock levels from the site level on a weekly basis over the phone. NOS data are analyzed so that action can be taken at the district, provincial, and national levels to resolve stock problems. NOS is currently being implemented in four districts in Zambezia and will be evaluated after three months of implementation in May 2017 to guide possible expansion.

c. Improved retention and viral load suppression.

Overall 12-month retention improved slightly in APR16, with 70% retention in all patients (Figure 4.11.c.1) with variation by location and sub-population. During COP16, PEPFAR Mozambique introduced monthly monitoring and quality improvement cycles for retention and adherence in 63 high volume sites serving approximately 35% of PLHIV on ART. Implementation of this strategy, which includes site-level improvement plans and frequent visits by USG staff, is underway and will be expanded to additional sites and regions based on lessons learned in COP17.

The number of VL tests increased from a total of 56,960 in FY16 to 38,1,32 in Q1 2017. Laboratory data suggest an overall viral suppression rate of 63% (Table 4.11.c.2). Improvement of the viral load cascade is being addressed as a cross-cutting clinical / laboratory quality improvement process, as illustrated in Figure 4.11.c.3. This model is based on the initial results of the Laboratory African Region Collaborative (LARC) program and focuses on improving lab/clinician collaboration within the VL cascade. Activities include weekly meetings of a VL TWG, management of reagent stocks, technical /management training and mentorship to improve molecular lab expertise, specimen collection and traceability, and process mapping for the identification of bottlenecks within the clinical/laboratory VL cascade.

Figure 4.11.c.1: Annual Trends in 12 Month Retention by Province

TX_RET (12 mo.)	2012	2013	2014	2015	2016
Niassa	75 %	62 %	71 %	60 %	78 %
Cabo Delgado	43 %	65 %	61 %	57 %	66 %
Nampula	53 %	69 %	58 %	62 %	73 %
Zambezia	58 %	62 %	56 %	58 %	67 %
Tete	84 %	65 %	68 %	83 %	77 %
Manica	54 %	84 %	70 %	57 %	57 %
Sofala	65 %	69 %	78 %	74 %	69 %
Inhambane	76 %	75 %	67 %	66 %	79 %
Gaza	87 %	74 %	71 %	71 %	74 %
Maputo	70 %	75 %	75 %	71 %	73 %
Cidade De Maputo	53 %	75 %	70 %	70 %	68 %
Grand Total	**70 %**	**71 %**	**67 %**	**66 %**	**70 %**

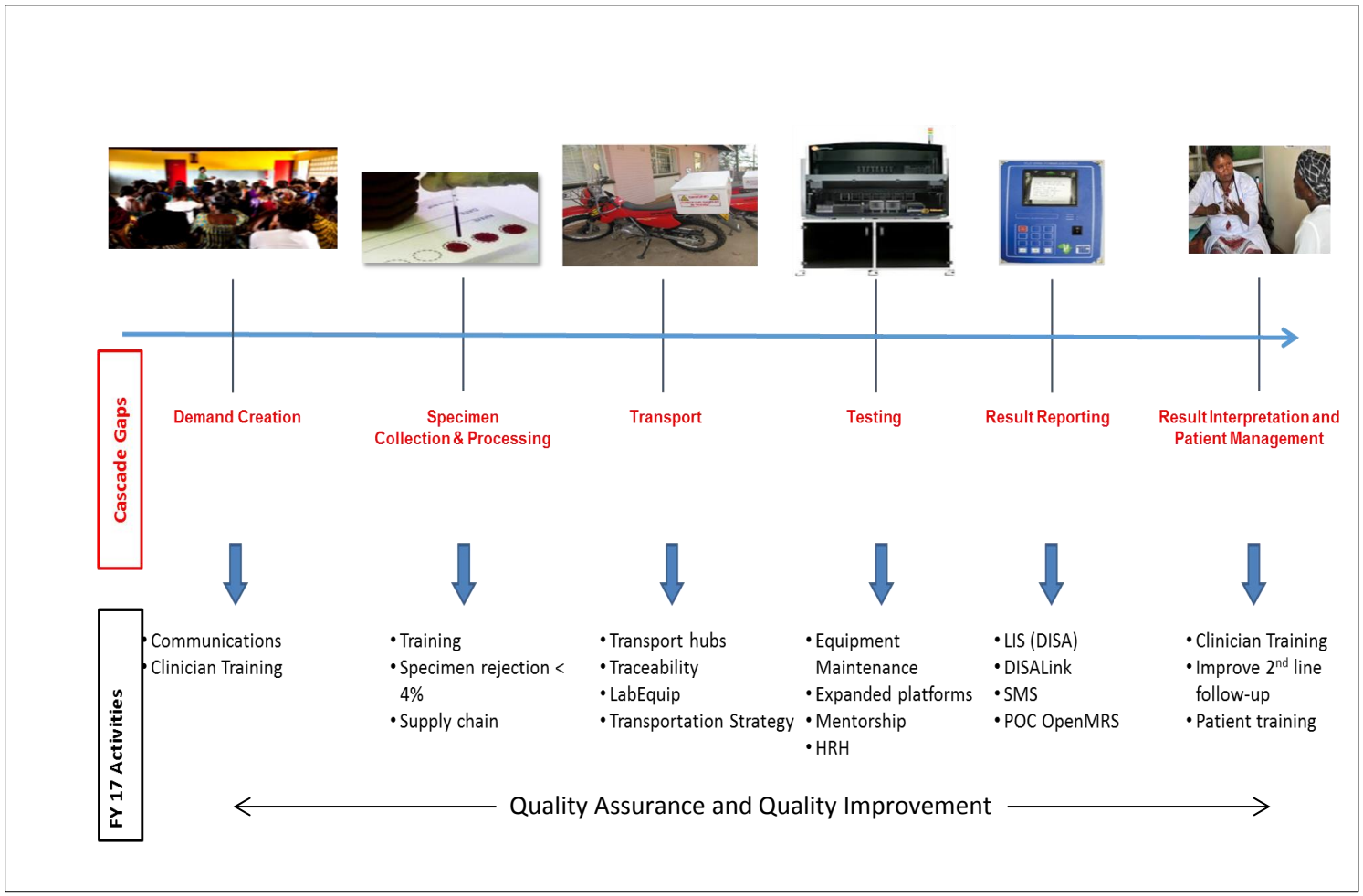
Figure 4.11.c.2: FY16 Viral Suppression Rates by Age

Age Group (yrs)	Suspected Tx Failure		Routine Test		Not Specified*	
	# Tests (%)	# Suppressed ** (%)	# Tests (%)	# Suppressed ** (%)	# Tests (%)	# Suppressed ** (%)
< 5	25 (3%)	6 (24%)	311 (3%)	110 (35%)	1576 (6%)	605 (38%)
6-14	54 (6%)	14 (26%)	558 (6%)	261 (47%)	1,222 (5%)	540 (44%)
15-49	620 (70%)	283 (46%)	8,870 (77%)	5,433 (69%)	19,435 (79%)	12,821 (66%)
50+	183 (21%)	112 (61%)	1,442 (14%)	1,082 (75%)	2,446 (10%)	1,781 (73%,)
Total	882 (100%)	415 (47%)	11,181 (100%)	6,886 (62%)	24,679 (100%)	15,747 (63%)

**Reason for test not specified. **Suppressed: <1000 cps/mL*

Source: Laboratory Information System Database

Figure 4.11.c.3: COP17 Plan for Improvement of the VL Cascade



d. Support a sustainable, quality service delivery model.

Efforts have been made to consolidate and harmonize interventions to ensure application of data-driven decision-making and best practices, while and supporting government-led expansion of key interventions. In support of Ministerial guidelines and their scale, interventions to decongest clinics include the use of 3-month drug distribution, 6-month clinic visits, and GAAC participation for stable patients. Expanding community and lay cadre are key to case identification, HTC and retention achievements in COP17. Coordinated efforts will ensure training, remuneration, and cadre scopes of work are harmonized across partners and in agreement with the MOH.

Stigma and discrimination remain major challenges, impeding successful epidemic control efforts. Coordination with CSOs and local-NGOs aim to introduce effective educational campaigns, patient advocates programs, and patient education packages that promote patient rights and combat stigma. Organizations that have demonstrated success will be provided greater resources to expand activities and train others to implement similar programs in COP17.

4.12 Commodities

PEPFAR-Mozambique does not anticipate any commodity shortages through FY2018 given previous and anticipated PEPFAR and GFATM investments. However, the anticipated investments for ARVs are not expected to cover the full target achievement while maintaining an uninterrupted supply of commodities going into the following fiscal year. PEPFAR will continue to monitor the commodity pipeline and funding to identify risks in advance of the procurement lead times.

4.13 Collaboration, Integration and Monitoring

a. Strengthened cross technical collaborations and implementation across agencies and with external stakeholders, including the GFATM and MOH.

During the COP15 and COP16 implementation periods, PEPFAR-Mozambique worked closely with external stakeholders to harmonize our technical approach and increase the impact of program implementation. PEPFAR-Mozambique collaborated with GFATM on health information systems expansion, optimization of KP programming at the provincial level, strategic planning for the national laboratory system, and supply chain strengthening. In addition, PEPFAR-Mozambique provided extensive data to GFATM to support ART service quality analyses and a program performance audit. PEPFAR-Mozambique also is collaborating with GFATM to complete expansion of the national medical warehouse through a USG partner. This involves channeling GFATM HSS funds through a USG mechanism to expand warehouse capacity by 3,000 pallet positions. PEPFAR -Mozambique also collaborates closely with MSF on strategic planning for VL scale-up.

b. Strengthening IP management and monitoring and the implementation of innovative strategies across the cascade, in a timely manner, to improve impact within shorter time periods.

A rigorous system to monitor and manage partner performance has been introduced. This involves in-house data reviews within and across program areas, as well as, in-depth multi-partner review meetings to share targets and emergent best practices. SIMS data are increasingly used in review with partners to identify site level remediation steps in order to avoid delays in service delivery and supplements to standard SIMS questions will be introduced to enhance program management capacity. In addition to SIMS visits, targeted TA by USG staff aims to introduce improvement plans for timely response and in agreement with the partner, district and/or provincial government authorities. Joint supervisory visits with partners, ministry staff, and USG staff will be prioritized to assure high volume facilities are implementing activities as intended and reported data are of expected quality.

New to COP17, some HRH, HIS, and infrastructure activities previously allocated across multiple funding mechanisms are now managed by a single partner. This change aims to reduce duplication while improving standard approaches to assure systems are effectively targeting health systems gaps in a timely way. System priorities will be identified and activities routinely monitored by cross-cutting working groups to ensure effective resource allocation. USG TA will support the analysis of Ministry data for improved site-level information on the HIV cascade system, HRH and physical infrastructure needs. A consolidated and prioritized list of system investments will maximize program achievements within a fixed funding envelope.

Another point of enhanced coordination is better integration of logistics and transportation. In the near and medium term, continued support for supply chain, stock management, and transport of laboratory samples, is required. In COP17, PEPFAR will improve the efficiency and yield on these investments by improving data on stock availability and optimizing delivery routes to allow more frequent and dependable transportation of both commodities and laboratory samples.

c. Improved integration of key health system interventions, including HRH and laboratory (VL) activities, across the cascade.

New to this COP, PEPFAR Mozambique will consolidate planning and funding of some systems activities which had previously been spread among many implementing partners. This will reduce fragmentation, improve accountability, and allow for system investments to be better targeted to documented gaps. These changes are reflected in revisions to the lump sum budget, where some HRH, HIS, and infrastructure activities that were previously allocated across multiple awards are now in a single partner. System priorities will be established and activity implementation will be monitored by cross-cutting working groups that use a matrix approach to ensure that all program priorities are considered in allocating system resources.

As part of this revised approach to systems, PEPFAR will be partnering with the MOH to evaluate data collected during their Test and Start readiness assessments. This data, combined with other Ministry datasets, provides site-level information on HRH and physical infrastructure needs. A consolidated and prioritized list of system investments will allow PEPFAR-Mozambique to maximize its program achievements within a fixed funding envelope.

Another point of enhanced coordination is better integration of logistics and transportation. In the near and medium term, Mozambique will require continued PEPFAR support for supply chain, stock management, and transport of laboratory samples. In COP 17, PEPFAR will improve the efficiency and yield on these investments by improving data on stock availability and optimizing delivery routes to allow more frequent and dependable transportation of both commodities and laboratory samples.

d. Improving efficiencies of service delivery through improved models of care delivery across community and facility sites.

Introducing patient-friendly services, normalizing patient clinical flows and provider workloads, are COP17 priorities. As T&S guidelines are scaled, there will be an emphasis on expanding availability of 3-month drug prescriptions and 6-month clinic visits for stable patients. Key strategies such as the family approach to providing services and GAACs, both of which have been shown to improve retention, will be further scaled-up. Utilization of non-ART sites as potential ART distribution points to ease patient travel times will further be expanded. Good stock management and continuous drug availability are central to expanding interventions that alter the current service delivery approach. Lay cadre to provide key services such as counseling, adherence support and, LTFU tracing will continue to be scaled. One partner developed a toolkit to assess health facility management and the efficiency of HIV service delivery and an accompanying solutions toolkit with protocols and job aids. Preliminary results on wait times and consultation times are promising, and the intervention will be prioritized for rapid scale-up if successful.

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

5.1 Targets for Attained and Sustained Locations and Populations

Resulting targets aim to guide program interventions more rapidly towards epidemic control. Moderate growth is anticipated in Sustained and Attained districts, where investments are less substantial. Employing a package of services focused on maintaining the quality of clinical services provided in health facilities, without significant demand creation or community outreach, we anticipated that Sustained districts would continue to increase the number on treatment by about 10% annually, and attained districts would continue to increase at 5% annually.

Table 5.1.1: Expected Beneficiary Volume Receiving Minimum Package of Services in Attained Support Districts*

Attained Support Volume by Group		Expected result APR 17**	Expected result APR 18
HIV testing (all populations)	HTS	98,293	37,561
HIV positives (all populations)	HTS_POS	4,670	2,291
Treatment new	TX_NEW	2,735	1,553
Current on ART	TX_CURR	11,890	13,043
OVC	OVC_SERV	N/A	N/A
Key populations	KP_PREV	N/A	N/A

* Table reflects data for 3 districts identified as Attained in COP17: Cahora Bassa, Chiuta, Gorongosa

** Represents COP16 targets for all indicators with the exception of TX_CURR, which has been adjusted to reflect expected achievement

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

Sustained Support Volume by Group		Expected result APR 17	Expected result APR 18
HIV testing in PMTCT sites	PMTCT_STAT	271,695	271,695
HTS (only sustained ART sites in FY 17)	HTC_TST/HTS_POS	602,265/28,643	426,478/20,022
Current on ART	TX_CURR	65,270	103,155
OVC	OVC_SERV	11,505	5,579

* Table reflects data for 60 districts identified as Sustained in COP17

Program Area Summaries 5.2-5.10

The standard questions for technical areas in program areas 5.2-5.10 are covered in program areas 4.2-4.10 (above). Likewise, program areas 5.12 and 5.13 are covered in program areas 4.12 and 4.13. Table 5.11.1 below describes differences in the packages for scale-up versus sustained and attained districts.

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

Table 5.11.1 outlines the service packages for locations and populations in Attained and Sustained districts as well as those in Scale-Up districts (Section 4). All Attained districts in COP17 were previously Sustained districts so the service packages are the same. Health facilities in Sustained districts with >500 ART patients, 55 HIV-positive pregnant women, or 55 newly identified HIV-positive patients will receive the Sustained package of support. Facilities with less than these thresholds will receive the central-support package detailed in the table below.

Table 5.11.1: Service Packages for Locations and Populations in Scale-Up,

Sustained, and Attained Districts*

District Category	Saturation and Aggressive Scale-up	Sustained & Attained
Visit Frequency (Health Facilities)	≥6/year (≥8 for facilities transitioning to T&S)	≥4/year
Site Supervision approach	QI , clinical mentoring and supportive supervision, enhanced monitoring visits in T&S setting	QI, clinical mentoring and supportive supervision
Priority Population Prevention	Training and M&E support for KP friendly clinics, support for National Guidelines for C&T of MSM and CSWs, HTS and prevention work with MSM, FSWS, prisoners, PWID demonstration project, clinical and community services targeting those at-risk aged 15 – 29	Training and M&E support for KP friendly clinics in select hotspots, KP HTS and prevention work in hot spots, testing and prevention work with FSW clients in 2 districts, with prisoners in 2 districts, with KPs in 8 districts
VMMC	Demand creation, mobile clinics as well as fixed sites, transition to 10-14 year olds in districts approaching saturation in 15-29 year olds, QA/QI, strengthened systems for adverse events reporting	Continued support for VMMC at existing fixed sites in two attained districts (Gorongosa and Caahora Bassa) and one sustained district (Mabalane)
PMTCT	Same as Adult Treatment (see below), plus peer educators and M2M groups for retention support, EID cohort monitoring, retention data triangulation, support for Option B+, partner testing, EID PCR/POC, IPT malaria, & syphilis testing	Same as Adult Treatment (see below), plus support for Option B+, EID PCR, and implementation of national guidelines (including M2M)
HTS	PICT expansion and optimization (including expanded focus on case-finding for children, youth and males), VCT expansion, index-case based testing, targeted community-based testing for identification of male positives, as needed support for implementation of MOH HTC guidelines, KP facility-based testing, opt-out testing for civilians enlisting in the armed forces and routine testing for active military and recruits, , active (escorted) referral to care	As-needed support for implementation of MOH HTC guidelines, KP facility-based testing in select hotspots
Facility Based Care & Support	Implementation and optimization of test and start through differentiated service delivery models (6 months' clinical consultation, 3 months' ARV distribution, family approach expansion ,GAAC revitalization , adolescents' adherence clubs) strengthening of psychosocial support and PHDP, NACS and expansion of access to CSB+, STI diagnosis, cervical CA screening, OI diagnosis and treatment, FP/HIV, GBV, male engagement and workplace approach. Enhanced retention package (m-health platforms for patient messages and defaulter tracing, pilot basic food package approach and various models of PLHIV peer-support i.e., GAACs, Mothers-to-Mothers groups, adolescent and pediatric support groups, and *Pais e Cuidadores* ,Parents and Caregivers), routine VL monitoring in conjunction with T&S, and expansion of ART distribution through non-ART clinics ,strengthening of ART provincial committees for 2nd lines	As-needed support for implementation of MOH C&T guidelines

District Category	Saturation and Aggressive Scale-up	Sustained & Attained
Community Based Care & Support	Linkage and retention strategies (GAACs, peer groups, etc.) with community health workers, *Agentes Polivalentes Elementares de Saúde* (APES), traditional healers, traditional birth attendants, and community leaders. Community-based Village Savings & Loans, index-case testing/contact tracing for HIV and TB patients in the community; expansion of male engagement to promote uptake of HIV testing and ART initiation; community dialogues facilitated by PLHIV and local community radios to broadcast key HIV prevention and adherence related messages. PLHIV to act as champions and advocates	Positive Health and Dignity Promotion (PHDP) package *(APSS-PP: Apoi Psicossocial e Prevencao Positiva)*/ community radios/PLHIV champions/APES where already working in sustained/attained sites
TB/HIV	Implementation of 3Is (intensified case finding, infection control, and IPT), early ART for TB/HIV patients through one-stop shops, integrated outreach services (HIV testing & TB screening), expanded contact tracing, systematic TB screening/HIV testing in high risk groups (miners, prisoners)	Clinical mentorship for implementation of 3Is and early ART for TB/HIV patients
Adult Treatment	Support (including trainings, job aids & tools) for implementation of National ART guidelines, NACS, CTX, IPT TB, GBV, VL monitoring (including early identification of TF suspects & prompt transition to second line when needed), PHDP package, OI management, cervical cancer screening, M-health communication to patients, GAAC support and expansion, roll-out of family visit strategy, roll-out of adherence clubs, preventive home visits for patients at high risk for LTFU, community tracing of LTFU patients	Support for implementation of new guidelines, OI management, retention & adherence support (including GAACs), Positive Health and Dignity Promotion (PHDP) package *(APSS-PP: Apoi Psicossocial e Prevencao Positiva)*
Pediatric Treatment	Same as Adult Treatment (see above), plus peer educators and M2M groups for retention support, plus support for implementation of LPR/v pellets, monthly teen clubs in all priority districts, & provincial pediatric teams	Same as Adult Treatment (see above), plus peer educators and M2M groups for retention support, plus support for implementation of LPR/v pellets
OVC	Full OVC package with linkages to health facility.	Implementation in 7 sustained districts, work with GRM to devise phased graduation and transition plans to ensure continued support through local resources after COP17
Essential Laboratory Services	National HIV- testing quality assurance, support lab infrastructure for VL/EID/TB dx and address bottlenecks, continued baseline CD4 and biannual CD4 support where VL not available, continued support for Cr and Hgb based on treatment regimen, support for decentralized EQA	National HIV- testing quality assurance, support lab infrastructure for VL/EID/TB dx and address bottlenecks, continued baseline CD4 and biannual CD4 support where VL not available, continued support for Cr and Hgb based on treatment regimen, support for decentralized EQA
Education/ Demand Creation	Treatment literacy (adult and pediatric ART, PHDP, TB/HIV), demand creation/education for VL and T&S (where applicable), stigma reduction interventions, community/facility mobilization	N/A

District Category	Saturation and Aggressive Scale-up	Sustained & Attained
SI	Support for routine M&E activities (data clerks, registers, training, and supervision), electronic patient tracking system support for all ART facilities with > 500 patients, continued expansion of capacity for age-gender disaggregations	Support for routine M&E activities, continued expansion of capacity for age-gender disaggregations

*Central support sites receive 2 visits per year and a site support approach based on QI lite. All sites (including those receiving central support) receive national-level commodity support, national quality assurance for HIV testing (including refresher trainings), supply chain support, specimen transport, results reporting, procurement of national registers and clinical forms, and access to national warm line.

6.0 Program Support Necessary to Achieve Sustained Epidemic Control

6.1 Critical Systems Investments for Achieving Key Programmatic Gaps

The Systems Budget and Optimization Review (SBOR) allowed PEPFAR-Mozambique to conduct a thorough review of its health systems investment portfolio. Through this process, PEPFAR-Mozambique identified three critical systems gaps to achieving 90-90-90 and sustained epidemic control: supply chain, HRH, and strategic information (SI). During COP17 planning, two new system barriers, laboratory systems and infrastructure, were identified. Annual indicators to track activity performance against expected outcomes were also developed and/or updated.

Mozambique's supply chain system's current human and physical capacity is being severely tested by the rollout of T&S. Approximately 90% of national warehousing capacity is currently utilized, and the GRM relies heavily on PEPFAR to support warehousing space. Additionally, USG provides vital TA to forecasting, quantification, and procurement processes required for efficient operation of the supply chain. In 2017, supply chain support will focus on guaranteeing sufficient warehousing space at all levels, collaborating with the MOH to accelerate implementation of the Pharmaceutical Logistics Reform Plan, and strengthening national capacity to conduct forecasting, quantification, supply planning, and distribution of ARV's, RTK's, and other commodities.

The Mozambican health sector has insufficient human resources to provide adequate health care. The country has the lowest HRH ratio/population in the southern African region (7.8 doctors, 26.8 nurses, 6.4 laboratorians, 6.8 pharmacists, 100.2 HCW per 100,000 people).[27] International standards recommend 230 medical professionals per 100,000 people.[28] Accelerated rollout of T&S is challenged by the lack of, and poor distribution of, qualified staff. In COP17, key HRH activities include completing rollout of the human resource information systems to district level, and providing direct HRH support to high volume sites (clinicians, laboratory and pharmacy technicians).

In spite of significant improvements in data availability, information challenges make it difficult to track performance across the clinical cascade. In COP17, SI and HIS activities will focus on completing nation-wide rollout of EPTS (sites >500 ART patients), improving availability of data across the cascade and rolling out a Point of Care EPTS for high volume sites, and conducting routine surveillance activities.

Health infrastructure is a major system barrier impacting Mozambique's ability to achieve epidemic control. Health facilities are overcrowded and space-constrained, which impacts the program's ability to achieve targets and provide quality services. Access to health care,

[27] MOH/MISAU, 2016
[28] WHO, 2006

particularly in peri-urban and rural areas, is limited. Nationally, over 40% of health facilities do not have electricity or water. COP17 proposes targeted infrastructure investments in selected geographies to increase access to HIV care and treatment services (storage, consultation rooms, specimen hubs, etc.).

Laboratory activities are primarily focused on improving access to timely viral load and EID results. Specimen referral improved since FY16 with the strengthening of specimen-specific transport, and introduction of logbooks to document specimen chain of custody throughout the cascade. Implementing partners in Zambezia were early adopters of lab-specific specimen transport with great success reducing turnaround time (TAT). In the past, most specimens were transported upon request, without pre-planned transportation schedules. COP17 will continue to scale these QI processes to reduce VL TAT nationally.

Other important investments are dedicated to improving the quality of HIV and TB testing by expanding the implementation of the HIV rapid test quality initiative, which aims to assure accurate HIV test results and will focus on TS facilities. All efforts to improve laboratory systems are accompanied by implementation of laboratory information systems at reference laboratories (DISA) and major hospitals (BLISS open LIS), and by specimen repository and tracking systems at district-level specimen hubs (DISA link). Electronic records systems reduce data entry and workload, and increase accountability. These records also provide meaningful data for patient and program monitoring, including MER indicator reporting for PLHIV.

6.2 Critical Systems Investments for Achieving Priority Policies

In COP17, investments supporting T&S and implementation of new service delivery models focus on three areas, (1) rapid scale up of quality diagnostic capacity, particularly EID, VL, and TB case detection, (2) implementation of rapid test quality improvement initiative, and (3) infrastructure support based on a readiness assessment.

6.3 Proposed system investments outside of programmatic gaps and priority policies.

The program plans to invest in strengthening national capacity to provide program oversight, sector coordination, data review, QA/QI, and supervision through direct funding to the MOH and DPS. A harmonized, interagency, capacity building strategy will be developed, focused on strengthening provincial ability to oversee implementation of PEPFAR activities in high burden districts.

7.0 Staffing Plan

In COP17, the PEPFAR interagency team's staffing profile aims to support epidemic control within a limited M&O budget envelope. Agencies adjusted their "cost of doing business" to reflect expected increases in ICASS costs and increased travel to support more frequent partner engagement and implementation of COP17 activities. The team carefully reviewed staff budget code allocations to ensure that this data accurately captures time spent supporting various program areas.

All new and repurposed positions are geared towards ensuring support for the achievement of 90-90-90 and strengthened partner performance management and technical oversight. For additional details on staffing, please refer to the COP17 staffing database.

CDC proposes three FSN new positions: (1) Public Health Specialist: to help coordinate and implement COP17 activities in priority locations, (2) Program Assistant: to help coordinate reporting requirements and (3) Administrative Assistant: to assist with administrative and operational workload within CDC. In addition to these three new positions, CDC is proposing creation of 2 FSN Branch Chief positions for eventual transition of USDH Branch Chief positions to FSN Branch Chief positions. Creation of these senior positions within CDC will require a considerable amount of time due to agency specific administrative requirements. Consequently, even though these positions are part of CDC's long-term plan to re-purpose existing positions, they are captured in COP17 as additional staffing request to allow for the lead time needed. CDC staffing reflects no long-term vacancy.

USAID proposes repurposing six positions: (1) from Commodities and Logistics Specialist to Senior HIV Technical Advisor to support Viral Load scale up; (2) from IT Assistant to HR Assistant to better support PEPFAR staff needs: (3) from Provincial Coordinator to ZAP Coordinator to focus on Zambezia; (4&5) from Provincial Coordinator and from Community Risk Reduction Specialist to (2) HIV Project Management Specialists to focus on PEPFAR partner oversight and partner performance; (6) from Clinical Community Support Specialist to Clinical Support Specialist to focus on treatment. USAID staffing reflects 5 vacancies of which three are LES and two are USPSCs. Three of the vacant positions are fully funded by PEPFAR; two of the vacant positions are partially funded by PEPFAR. Two vacant positions are being repurposed for COP 17. USAID proposes no new positions.

DOD has no vacancies and no new positions.

State Department proposes repurposing the Communications Specialist to an Executive Assistant to better meet the needs of a larger team and greater interagency coordination required of the PEPFAR Coordination Office. State Department has no vacancies and no new positions.

Peace Corps supports ten local staff (no direct hires) with PEPFAR funds. These funds, plus additional funding from PC appropriations, will support 90 health volunteers in COP17.

Volunteers will be placed with IPs, health facilities or communities in scale-up districts and will support activities that strengthen community-facility linkages.

APPENDIX A: Prioritization

Table A.1: SNU/ District Prioritization and Expected Trends in Treatment Coverage

Province	SNU/ District[29]	COP15 Prioritization	APR16 Coverage	COP16 Prioritization	Expected Coverage By APR17	COP17 Prioritization	COP17 Target: (APR18)	PLHIV 2017
Cabo Delgado	Ancuabe	ScaleUp Agg	34%	ScaleUp Agg	42%	ScaleUp Agg	66%	9,774
Cabo Delgado	Balama	Sustained	25%	Sustained	29%	Sustained	33%	3,507
Cabo Delgado	Chiure	ScaleUp Agg	35%	ScaleUp Agg	43%	ScaleUp Agg	67%	14,760
Cabo Delgado	Cidade De Pemba	ScaleUp Agg	36%	ScaleUp Agg	43%	ScaleUp Agg	47%	24,292
Cabo Delgado	Ibo	Sustained	16%	Sustained	17%	Sustained	15%	977
Cabo Delgado	Macomia	ScaleUp Agg	28%	ScaleUp Agg	33%	ScaleUp Agg	50%	8,029
Cabo Delgado	Mecufi	Sustained	31%	Sustained	39%	Sustained	45%	2,606
Cabo Delgado	Meluco	Sustained	40%	Sustained	47%	Sustained	57%	1,416
Cabo Delgado	Mocimboa Da Praia	ScaleUp Agg	32%	ScaleUp Agg	39%	ScaleUp Agg	65%	9,085
Cabo Delgado	Montepuez	ScaleUp Agg	34%	ScaleUp Agg	40%	ScaleUp Agg	56%	12,813
Cabo Delgado	Mueda	ScaleUp Agg	29%	ScaleUp Agg	36%	ScaleUp Agg	57%	23,348
Cabo Delgado	Muidumbe	ScaleUp Agg	26%	ScaleUp Agg	33%	ScaleUp Agg	54%	14,436
Cabo Delgado	Namuno	Sustained	20%	Sustained	23%	Sustained	25%	7,102
Cabo Delgado	Nangade	Sustained	30%	Sustained	37%	Sustained	42%	4,062
Cabo Delgado	Palma	Sustained	20%	Sustained	25%	Sustained	30%	5,039
Cabo Delgado	Pemba	Sustained	17%	Sustained	21%	Sustained	24%	5,767
Cabo Delgado	Quissanga	Sustained	19%	Sustained	24%	Sustained	29%	2,171
Gaza	Bilene	ScaleUp Agg	42%	ScaleUp Agg	52%	ScaleUp Agg	66%	36,328
Gaza	Chibuto	ScaleUp Agg	46%	ScaleUp Sat	53%	ScaleUp Agg	63%	31,914
Gaza	Chicualacual a	ScaleUp Agg	32%	ScaleUp Agg	36%	ScaleUp Agg	50%	8,383
Gaza	Chigubo	Sustained	36%	Sustained	42%	Sustained	35%	3,649
Gaza	Chokwe	ScaleUp Agg	70%	ScaleUp Sat	84%	ScaleUp Sat	94%	37,245
Gaza	Cidade De Xai-Xai	ScaleUp Agg	57%	ScaleUp Sat	67%	ScaleUp Sat	76%	28,830
Gaza	Guija	ScaleUp Agg	36%	ScaleUp Agg	42%	ScaleUp Agg	62%	20,394
Gaza	Mabalane	ScaleUp Agg	38%	ScaleUp Agg	44%	Sustained	41%	6,007
Gaza	Mandlakaze	ScaleUp Agg	49%	ScaleUp Sat	55%	ScaleUp Agg	76%	20,295
Gaza	Massangena	Sustained	37%	Sustained	43%	Sustained	41%	2,844
Gaza	Massingir	Sustained	52%	Sustained	56%	Sustained	50%	3,771

[29]Table A.1 lists 142 SNUs: 141 districts plus Cidade de Maputo, which consists of 7 districts (clustered for these analyses). Mozambique now has 159 districts, since several of these have split due to population growth.

Gaza	Xai-Xai	ScaleUp Agg	43%	ScaleUp Sat	55%	ScaleUp Agg	68%	35,678
Inhambane	Cidade De Inhambane	Sustained	39%	Sustained	42%	ScaleUp Agg	55%	8,327
Inhambane	Funhalouro	Sustained	0%	Sustained	20%	Sustained	18%	3,563
Inhambane	Govuro	Sustained	25%	Sustained	31%	ScaleUp Agg	53%	10,466
Inhambane	Homoine	Sustained	33%	Sustained	37%	ScaleUp Agg	56%	8,832
Inhambane	Inharrime	ScaleUp Agg	35%	ScaleUp Sat	41%	ScaleUp Agg	51%	8,249
Inhambane	Inhassoro	Sustained	25%	Sustained	27%	ScaleUp Agg	40%	16,930
Inhambane	Jangamo	Sustained	46%	Attained	53%	Sustained	54%	4,636
Inhambane	Mabote	Sustained	38%	Attained	43%	Sustained	46%	6,736
Inhambane	Massinga	ScaleUp Agg	39%	ScaleUp Sat	45%	ScaleUp Agg	68%	18,208
Inhambane	Maxixe	ScaleUp Agg	43%	ScaleUp Sat	53%	ScaleUp Agg	59%	14,345
Inhambane	Morrumbene	Sustained	21%	Sustained	24%	ScaleUp Agg	45%	12,172
Inhambane	Panda	Sustained	34%	Sustained	37%	Sustained	41%	4,439
Inhambane	Vilankulo	ScaleUp Agg	32%	ScaleUp Sat	38%	ScaleUp Agg	64%	21,693
Inhambane	Zavala	ScaleUp Agg	28%	ScaleUp Sat	30%	ScaleUp Agg	49%	13,504
Manica	Barue	ScaleUp Agg	44%	ScaleUp Agg	53%	ScaleUp Agg	67%	15,604
Manica	Cidade De Chimoio	ScaleUp Agg	49%	ScaleUp Sat	56%	ScaleUp Sat	67%	37,126
Manica	Gondola	ScaleUp Agg	36%	ScaleUp Agg	43%	ScaleUp Agg	64%	27,819
Manica	Guro	Sustained	58%	Sustained	71%	Sustained	75%	5,192
Manica	Machaze	ScaleUp Agg	26%	ScaleUp Agg	26%	ScaleUp Agg	43%	14,734
Manica	Macossa	Sustained	23%	Sustained	26%	Sustained	27%	1,857
Manica	Manica	ScaleUp Agg	65%	ScaleUp Sat	76%	ScaleUp Sat	90%	19,998
Manica	Mossurize	ScaleUp Agg	48%	ScaleUp Sat	53%	ScaleUp Sat	66%	9,283
Manica	Sussundenga	ScaleUp Agg	54%	ScaleUp Sat	64%	ScaleUp Sat	79%	8,200
Manica	Tambara	Sustained	18%	Sustained	22%	Sustained	23%	4,963
Maputo Cidade	Maputo City Cluster	ScaleUp Agg	93%	ScaleUp Sat	102%	ScaleUp Sat	105%	143,075
Maputo Província	Boane	ScaleUp Agg	49%	ScaleUp Agg	58%	ScaleUp Agg	77%	21,888
Maputo Província	Cidade Da Matola	ScaleUp Agg	36%	ScaleUp Sat	46%	ScaleUp Agg	49%	104,105
Maputo Província	Magude	ScaleUp Agg	64%	ScaleUp Sat	75%	ScaleUp Sat	115%	7,105
Maputo Província	Manhisa	ScaleUp Agg	54%	ScaleUp Sat	55%	ScaleUp Agg	51%	38,469
Maputo Província	Marracuene	ScaleUp Agg	54%	ScaleUp Agg	57%	ScaleUp Agg	69%	18,408
Maputo Província	Matutuine	ScaleUp Agg	67%	ScaleUp Sat	83%	ScaleUp Sat	143%	4,360
Maputo Província	Moamba	ScaleUp Agg	71%	ScaleUp Sat	83%	ScaleUp Sat	122%	7,596
Maputo Província	Namaacha	ScaleUp Agg	55%	ScaleUp Agg	65%	ScaleUp Sat	99%	5,635
Nampula	Angoche	ScaleUp Agg	28%	ScaleUp Agg	36%	ScaleUp Agg	56%	9,165
Nampula	Cidade De Nampula	ScaleUp Agg	64%	ScaleUp Sat	81%	ScaleUp Sat	85%	34,546

Nampula	Erati	Sustained	63%	Sustained	78%	Sustained	80%	8,564
Nampula	Ilha De Mozambique	Sustained	26%	Sustained	32%	Sustained	34%	4,622
Nampula	Lalaua	Sustained	57%	Sustained	71%	Sustained	70%	1,109
Nampula	Malema	ScaleUp Agg	52%	ScaleUp Sat	61%	ScaleUp Agg	75%	4,049
Nampula	Meconta	Sustained	57%	Sustained	70%	Sustained	72%	5,985
Nampula	Mecuburi	ScaleUp Agg	34%	ScaleUp Agg	38%	Sustained	41%	5,463
Nampula	Memba	Sustained	39%	Sustained	46%	Sustained	49%	4,097
Nampula	Mogincual	Sustained	21%	Sustained	23%	Sustained	24%	2,722
Nampula	Mogovolas	Sustained	37%	Sustained	42%	Sustained	39%	6,608
Nampula	Moma	ScaleUp Agg	39%	ScaleUp Agg	50%	ScaleUp Agg	67%	13,316
Nampula	Monapo	ScaleUp Agg	62%	ScaleUp Sat	76%	Sustained	81%	4,517
Nampula	Mossuril	Sustained	22%	Sustained	28%	Sustained	29%	3,735
Nampula	Muecate	ScaleUp Agg	42%	ScaleUp Agg	56%	Sustained	60%	3,712
Nampula	Murrupula	Sustained	39%	Sustained	39%	Sustained	38%	3,833
Nampula	Nacala	ScaleUp Agg	40%	ScaleUp Agg	46%	ScaleUp Agg	67%	12,391
Nampula	Nacala-A-Velha	Sustained	55%	Sustained	66%	Sustained	66%	2,854
Nampula	Nacaroa	Sustained	54%	Sustained	55%	Sustained	58%	2,205
Nampula	Nampula	ScaleUp Agg	36%	ScaleUp Agg	45%	Sustained	46%	6,092
Nampula	Ribaue	Sustained	43%	Sustained	51%	Sustained	49%	4,069
Niassa	Cidade De Lichinga	ScaleUp Agg	45%	ScaleUp Sat	52%	ScaleUp Agg	74%	12,695
Niassa	Cuamba	ScaleUp Agg	31%	ScaleUp Sat	34%	ScaleUp Agg	50%	11,588
Niassa	Lago	Sustained	49%	Sustained	56%	Sustained	57%	3,448
Niassa	Lichinga	Sustained	15%	Sustained	33%	Sustained	43%	1,507
Niassa	Majune	Sustained	22%	Sustained	25%	Sustained	28%	897
Niassa	Mandimba	Sustained	26%	Sustained	31%	ScaleUp Agg	47%	5,809
Niassa	Marrupa	Sustained	27%	Sustained	32%	Sustained	34%	1,962
Niassa	Maua	Sustained	28%	Sustained	32%	Sustained	42%	2,047
Niassa	Mavago	Sustained	8%	Sustained	10%	Sustained	10%	2,029
Niassa	Mecanhelas	Sustained	30%	Sustained	31%	ScaleUp Agg	42%	6,017
Niassa	Mecula	Sustained	18%	Sustained	20%	Sustained	22%	803
Niassa	Metarica	Sustained	13%	Sustained	13%	Sustained	15%	2,968
Niassa	Muembe	Sustained	17%	Sustained	21%	Sustained	25%	1,437
Niassa	Ngauma	Sustained	20%	Sustained	23%	Sustained	27%	2,453
Niassa	Nipepe	Sustained	27%	Sustained	34%	Sustained	44%	1,792
Niassa	Sanga	Sustained	28%	Sustained	35%	Sustained	46%	1,455
Sofala	Buzi	ScaleUp Agg	49%	ScaleUp Agg	62%	ScaleUp Agg	72%	13,148
Sofala	Caia	Sustained	40%	Attained	43%	ScaleUp Agg	57%	8,141
Sofala	Chemba	Sustained	48%	Sustained	59%	Sustained	57%	2,904
Sofala	Cheringoma	Sustained	37%	Sustained	38%	Sustained	30%	3,728
Sofala	Chibabava	ScaleUp Agg	48%	ScaleUp Sat	52%	ScaleUp Agg	61%	11,281

Sofala	Cidade Da Beira	ScaleUp Agg	56%	ScaleUp Sat	69%	ScaleUp Sat	81%	85,782
Sofala	Dondo	ScaleUp Agg	38%	ScaleUp Sat	49%	ScaleUp Agg	63%	26,840
Sofala	Gorongosa	Sustained	89%	Attained	100%	Attained	104%	3,552
Sofala	Machanga	Sustained	59%	Sustained	65%	Sustained	63%	6,477
Sofala	Maringue	Sustained	29%	Sustained	32%	Sustained	33%	2,172
Sofala	Marromeu	ScaleUp Agg	40%	ScaleUp Sat	43%	ScaleUp Agg	53%	12,159
Sofala	Muanza	Sustained	55%	Sustained	67%	Sustained	58%	1,848
Sofala	Nhamatanda	ScaleUp Agg	53%	ScaleUp Sat	67%	ScaleUp Agg	64%	17,966
Tete	Angonia	Sustained	81%	Sustained	102%	Sustained	116%	4,653
Tete	Cahora Bassa	Sustained	121%	Sustained	147%	Attained	154%	5,226
Tete	Changara	ScaleUp Agg	58%	ScaleUp Sat	71%	ScaleUp Sat	87%	9,835
Tete	Chifunde	Sustained	78%	Sustained	101%	Sustained	104%	1,069
Tete	Chiuta	Sustained	126%	Attained	146%	Attained	158%	944
Tete	Cidade De Tete	ScaleUp Agg	81%	ScaleUp Sat	93%	ScaleUp Sat	103%	16,920
Tete	Macanga	Sustained	84%	Sustained	105%	Sustained	102%	1,068
Tete	Magoe	Sustained	83%	Sustained	107%	Sustained	118%	3,921
Tete	Maravia	Sustained	42%	Sustained	52%	Sustained	53%	1,473
Tete	Moatize	ScaleUp Agg	61%	ScaleUp Sat	74%	ScaleUp Sat	79%	11,442
Tete	Mutarara	ScaleUp Agg	51%	ScaleUp Agg	62%	ScaleUp Sat	79%	6,879
Tete	Tsangano	Sustained	45%	Sustained	68%	Sustained	76%	3,200
Tete	Zumbu	Sustained	44%	Sustained	58%	Sustained	64%	2,015
Zambézia	Alto Molocue	ScaleUp Agg	20%	ScaleUp Agg	25%	ScaleUp Agg	41%	17,468
Zambézia	Chinde	ScaleUp Agg	20%	ScaleUp Agg	25%	ScaleUp Agg	43%	10,369
Zambézia	Cidade De Quelimane	ScaleUp Sat	36%	ScaleUp Agg	43%	ScaleUp Agg	52%	56,597
Zambézia	Gile	ScaleUp Agg	25%	ScaleUp Agg	33%	ScaleUp Agg	57%	11,955
Zambézia	Gurue	Sustained	37%	Sustained	43%	ScaleUp Agg	60%	13,698
Zambézia	Ile	Sustained	32%	Sustained	40%	ScaleUp Agg	54%	10,991
Zambézia	Inhassunge	ScaleUp Agg	25%	ScaleUp Agg	31%	ScaleUp Agg	51%	16,840
Zambézia	Lugela	Sustained	33%	Sustained	40%	ScaleUp Agg	52%	11,232
Zambézia	Maganja Da Costa	ScaleUp Agg	28%	ScaleUp Agg	36%	ScaleUp Agg	55%	37,251
Zambézia	Milange	ScaleUp Agg	46%	ScaleUp Sat	56%	ScaleUp Agg	67%	23,346
Zambézia	Mocuba	ScaleUp Agg	38%	ScaleUp Sat	46%	ScaleUp Agg	63%	29,639
Zambézia	Mopeia	ScaleUp Agg	22%	ScaleUp Agg	27%	ScaleUp Agg	46%	10,972
Zambézia	Morrumbala	ScaleUp Agg	17%	ScaleUp Agg	20%	ScaleUp Agg	40%	30,403
Zambézia	Namacurra	ScaleUp Agg	20%	ScaleUp Agg	26%	ScaleUp Agg	44%	47,906
Zambézia	Namarroi	Sustained	28%	Sustained	34%	ScaleUp Agg	54%	5,954
Zambézia	Nicoadala	ScaleUp Agg	24%	ScaleUp Agg	30%	ScaleUp Agg	52%	49,970
Zambézia	Pebane	ScaleUp Agg	21%	ScaleUp Agg	26%	ScaleUp Agg	45%	41,683
Grand Total			44%		52%		64%	

Table A.2: ART Targets by Prioritization for Epidemic Control

Prioritization Area	Total PLHIV	Expected current on ART* (APR FY 17)	Additional patients required for 80% ART coverage	Target current on ART (APR FY18) *TX_CURR*	Newly initiated (APR FY 18) *TX_NEW*	ART Coverage (APR 18)*
Attained	9,722	12,967		13,043	1,553	138%
Scale-Up Saturation	473,855	401,917	5,511	423,588	77,894	93%
Scale-Up Aggressive	1,234,125	528,982	262,653	708,506	275,826	59%
Sustained	207,817	100,241	64,283	103,155	15,228	51%
Central Support	N/A	N/A	N/A	N/A	N/A	N/A
Total	**1,925,519**	**1,044,107**	**332,447**	**1,248,292**	**370,501**	**67%**

*Denotes projected national numbers

APPENDIX B: Budget Profile and Resource Projections

B.1 Planned Spending in 2017

Table B.1.1 Total Funding Level

Applied Pipeline	New Funding	Central Funding (HIS, VMMC, ZAP)	Total Spend
$32,201,438	$330,405,296	$36,342,508	$398,949,242

B.2 Resource Projections

The country program relied on Expenditure analysis (EA) data and partner work plans to inform COP17 budget. Continuing to following last year's methodology, the country program isolated the expenditure data of direct service delivery partners reported in EA16 and based Unit Budget in COP17 on that progression. Additionally, the country program followed last year's process of conducting a fixed and variable analysis for each UE in order to streamline budgeting process and de-duplication of funding to implementing partners.

The PBAC illustrates the target-based budget, activity-based budget at the site-level and above-site level, and the cost per target in detail. See figure below for Unit Expenditures.

Target-based Indicator	Final COP 17 UB
Counseling and Testing	
Community Index Case Testing	$ 6.42
Provider Intiated Testing	$ 1.37
Voluntary Counseling and Testing	$ 3.32
Community-focused Testing	$ 10.00
Prevention	
Priority Population (AWYG)	$ 21.13
Female Sex Workers (FSW)	$ 45.72
Men who have Sex with Men (MSM)	$ 45.72
Prisoners	$ 38.54
Key PoPs HTC	$ 19.55
VMMC	$ 80.00
Orphans and Vulnerable Children	
OVC	$ 29.95
PMTCT	
Pregnant Women on ARVs	$ 72.48
Early Infant Diagnosis	$ 44.94
Pregnant Women Testing	$ 4.36
Adult and Pediatric Treatment	
ART	$ 59.00

Table B.1.2: Resource Allocation by PEPFAR Budget Code

PEPFAR Budget Code	Budget Code Description	Applied Pipeline	New Funds	Total Planning Allocation
CIRC	Male Circumcision	$4,174,402	$26,810,848	$42,394,891
HBHC	Adult Care and Support	$2,771,978	$27,656,844	$30,630,464
HKID	Orphans and Vulnerable Children	$2,913,796	$18,349,741	$21,322,416
HLAB	Lab	$335,479	$4,181,085	$4,586,288
HTXS	Adult Treatment	$8,293,158	$114,832,162	$130,771,663
HTXD	ARV Drugs	$781,824	$23,357,336	$24,178,100
HVCT	Counseling and Testing	$3,586,769	$22,006,008	$25,661,567
HVMS	Management & Operations	$3,098,691	$20,183,034	$21,797,062
HVOP	Other Sexual Prevention	$669,725	$12,891,470	$13,664,958
HVSI	Strategic Information	$494,042	$7,547,120	$18,337,847
HVTB	TB/HIV Care	$864,834	$6,917,867	$7,833,598
IDUP	Injecting and Non-Injecting Drug Use	$0	$-	$0
MTCT	Mother to Child Transmission	$1,261,699	$15,162,521	$16,537,428
OHSS	Health Systems Strengthening	$1,045,488	$9,702,470	$18,013,171
PDCS	Pediatric Care and Support	$628,820	$7,654,560	$8,311,929
PDTX	Pediatric Treatment	$900,330	$12,899,980	$14,267,584
HMBL	Blood Safety	$380,403	$66,026	$448,755
HMIN	Injection Safety	$0	$-	$0
HVAB	Abstinence/Be Faithful	$0	$186,224	$191,520
TOTAL		**$32,201,438**	$330,405,296	$398,949,242

APPENDIX C: Tables and Systems Investments for Section 6.0

Please find Excel files for Section 6.0 (Tables 6.1.1, 6.1.2, 6.1.3, 6.2.1, 6.2.2, and 6.3) in PEPFAR-Mozambique's final COP submissions.

APPENDIX D: Zambezia Action Plan (ZAP)

Introduction

Based on preliminary prevalence estimates and the recognition of the severity of the epidemic in Zambezia, a plan specific to the increased disease burden and the unmet needs of the province is proposed for COP17.

The Zambezia Action Plan (ZAP), has been developed with, and will be implemented by the MOH, the DPS in Zambezia (DPS-Z), and a one-USG, as a coordinated team effort. The plan has set the goal to increase ART treatment coverage for PLHIV in Zambezia from 35% in APR16 to 71% by the end of FY19.

The ZAP, which is described in detail below, focuses on four areas, (1) case identification in targeted populations, (2) community outreach and prevention, (3) improving availability and quality of services, and, (4) health systems support.

Implementation of this plan will require investment in infrastructure and systems support, HR support, lab renovation, additional investment in community health workers to support retention, and a USG presence in Zambezia to support and build capacity in the DPS-Z. The one-USG commitment will utilize USAID, CDC, Peace Corps PEPFAR and USG non-PEPFAR health and non-health resources currently available in Zambezia.

The expanded packages of support are comprehensive, integrated and inclusive of all USG available PEPFAR and non-PEPFAR assets and are planned to align with MOH policies and guidelines.

To assess performance and improve coordination with implementing partners, ZAP includes a comprehensive monitoring plan with joint MOH, DPS-Z and USG oversight that is described in detail below.

Context and Epidemiology

Located in central Mozambique, Zambezia Province is the country's second largest Province with an estimated population of 4,922,651 which represents 18.6% of Mozambique's total population.[2] The province includes a land area of 103.127 km^2 and is divided into 22 districts, six municipalities, 63 administrative posts, and 234 villages. In 2016, there were 250 health facilities in the Province that served an average population of 20,011, a slight decrease from an estimated 22,321 in 2006 (DPS-Z, 2016).

The DPS-Z is headquartered in Quelimane, the provincial capital, and serves to ensure that national and provincial policies and plans are aligned and implemented consistently at the provincial and district levels and within the health facilities. The DPS-Z falls under the jurisdiction of the MOH for programmatic activities and the Provincial Government for administration.

Zambezia has experienced regular cycles of floods, droughts, tropical cyclones, civil unrest and registers over a million cases of malaria annually. As a result, Zambezia has been in an extended state of emergency due to loss of infrastructure, food insecurity, disease outbreaks and extreme poverty which has negatively impacted the delivery of primary health care services and public health.

HIV prevalence in Zambezia is estimated at 15% among adults 15-49 years of age and is higher among women (17%) than men (13%) (Preliminary results, 2015 National Survey). The main drivers of the HIV epidemic include poverty, high illiteracy rates, low practice of male circumcision, some cultural practices such as polygamy and widow purification through unprotected sex, lack of access to information leading to a low perception of risk, and women's weak decision-making power in negotiating sex. Zambezia's proximity to other high HIV prevalence countries like Malawi and Zimbabwe may also increase its vulnerability.

Since the inception of the ART program in 2004, Zambezia has made significant progress in scaling up HIV related services at the district level. The *HIV Provincial Response Plan (2013-2017)* has led to rapid expansion of ART sites and currently, 217 of 250 or (87%) Provincial health facilities offer ART services and the number of active patients on ART rose from 119,277 in 2015 to 144,037 by the end of 2016 (DPS-Z report 2016).

Despite increased patient enrollment, many patients are lost along the clinical cascade. In 2016, overall retention at 12 months was at 67% (66% for children and 59% for pregnant women). Long distances to health facilities, on average 11.8 km, along with poor roads and transportation systems have adversely impacted patient access to ART and retention in care.

ZAP Activities/Interventions

1. Case identification in targeted populations

The case identification strategy in Zambezia will optimize HTS and PICT in all districts by adding and extending work hours for lay counselors and expanding CSW and MSM outreach. The HIV Rapid Test Quality improvement initiative will be fully implemented in Zambezia. Testing activities will expand to four new districts and provide HTS support in four additional prisons. In addition, VCT will expand to reach military recruits through the use of mobile clinics that will promote and implement opt out HIV testing during health inspections of persons seeking enlistment in the armed forces. PEPFAR will collaborate with the MOH to establish a demonstration project offering PrEP for serodiscordant couples, self-testing, and mobile clinics to reach female sex workers and MSM.

Furthermore, to improve identification of men, male-outreach activities will be scaled up in communities, workplaces, prisons, and health facilities. The team will collaborate with community leaders, including traditional healers, to increase awareness and promote HIV testing, ART adherence, and retention in care. Demand creation methodologies for high-risk adult men

will be developed, focus tested with men, and implemented to increase uptake of HTS, VMMC, and ART initiation.

To increase case identification and reach the pediatric targets in Zambezia, ZAP will support the DPS-Z effort to disseminate the MOH strategy to increase health literacy for HIV infected pregnant and lactating women, and promote behavior change communication and EID demand creation activities. At the health facility level, the ZAP team will support intensified implementation of routine opt-out testing, testing among AGYW and adolescent males through support to SAAJ services. Partners will be encouraged to systematize index case testing of children of HIV positive pregnant women. In addition, scale up of EID POC and improvement of conventional EID PCR in MCH ANC clinics will be supported.

2. Community Outreach and Prevention Activities

To enhance prevention efforts in Zambezia, the ZAP will establish VMMC programs in two additional districts and convert two other districts from partial to full support. PEPFAR will also support a PrEP demonstration project among serodiscordant partners and expand DREAMS with enhanced programming for AGYW to Nicoadala district. In non-DREAMS districts, "DREAMS-like" activities will be implemented intensively to: (1) reduce attitudinal and knowledge barriers to uptake of key health services (HTS, VMMC, etc.), (2) reduce GBV and norms that are harmful to AGWY, and (3) link beneficiaries directly to clinical services. Additional details can be found in Section 4.11.a. OVC programming will complement these efforts, expanding in 3 districts in Zambezia.

In Mozambique, and particularly Zambézia, the practice of traditional medicine, informed by cultural and spiritual beliefs, is very common. It is common to visit a traditional healer before (or instead of) going to a clinic and often drop out of clinical follow-up to seek the attention of traditional healers. The ZAP team will work in coordination with the MOH's Institute of Traditional Medicine (*Instituto de Medicina Tradicional*) and the Mozambican Association of traditional healers (AMETRAMO) to increase traditional healers' knowledge and awareness of HIV and to strengthen the role of traditional healers in ensuring HIV case identification, linkage, enrollment and retention in care/ART of HIV infected persons. Leveraging past work with traditional healers and community leaders, PEPFAR will also expand community-based behavioral interventions aimed at addressing harmful gender norms to include community screening components and active referrals to health facilities for GBV survivors.

3. Improving Availability and Quality of Services

To improve ART coverage and treatment retention, the ZAP will be multi-level and integrated and will include: expansion of access to services, utilization of a variety of service delivery models, and focus on quality of services to improve, access, treatment initiation, adherence and retention in care.

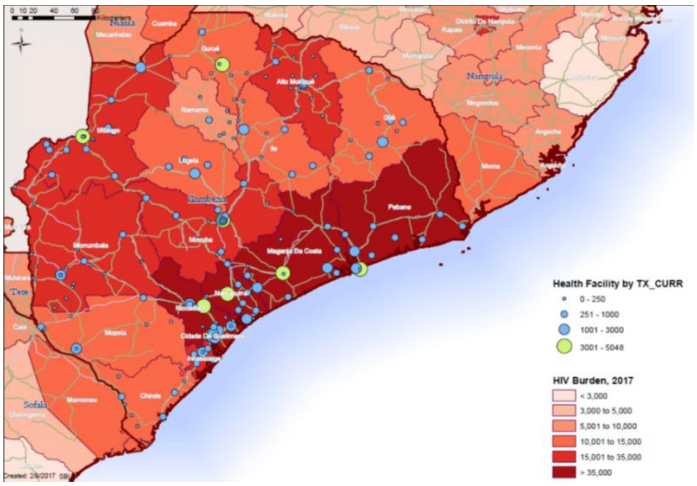
MOH expressed a commitment to review its T&S rollout plan, which currently includes roll out to four districts in Zambezia in 2017 and the remainder in 2018, and possibly accelerate their roll out plan. Preliminary modeling data provided by OGAC suggest that immediate adoption of T&S (compared to phased adoption) would cost more in the short term but be associated with fewer new infections and lower costs in the long term. Based on available resources and other considerations, the MOH and the DSP-Z, will determine whether to proceed with T&S acceleration in Zambezia.

As MOH plans for the roll-out of T&S to remaining districts during FY18, the ZAP team will be ready to support implementation as quickly as possible to enroll newly eligible pre-ART patients on ART and thus to more rapidly interrupt ongoing transmission.

Access and Availability of ART Services

To improve ART service availability, the ZAP team will support new ART sites and expand ART to 10 non-ART health facilities, in alignment with the MOH expansion plan. Extended hours for ART service delivery will be supported in key sites. If approved, PEPFAR will use one-time central funds to also support up to ten additional stand-alone pre-fab sites to provide both ART and ANC. Given the largely rural and poor population, decreasing the distance to the nearest health facility, which is currently over 50km in some locations, will be critical to improving ART uptake (see map below for existing ART sites).

Figure D.1: TX_CURR and District Level PHLIV Burden by Health Facility, Zambezia Province, 2015



In addition, the ZAP team will work to better utilize existing mobile health clinics (MHCs) and add an additional clinic in the Mopeia, Chinde and Morrumbala districts. In collaboration with the MOH and DPS-Z, the team will develop guidelines to support maximizing the use of the MHCs including for demand creation, community HIV and TB testing, capacity building at new HIV sites, and outreach to prisoners and key populations.

Human Resources

The health sector in Zambezia struggles with limited funding, infrastructure, and a critical shortage of human resources to provide adequate health care. With only 3.4 physicians per 100,000 residents, Zambezia has one of the lowest physician densities in the country. There are 166 physicians in Zambezia and 26% are based in Quelimane.

To achieve epidemic control, the ZAP will provide time-limited, direct support for hiring of key cadres including nurses, clinical officers, pharmacy technicians and laboratory technicians. This additional staff will allow the program to provide extended clinical hours at T&S facilities. The ZAP will conduct a rapid HR needs assessment to inform strategic deployment of surge HR capacity and collaborate with provincial authorities to improve distribution of HR (using HRIS data).

Improving Quality of Services

Given the low retention of patients on treatment, quality of care is an important focus in Zambezia. The current national QI strategy which includes a patient satisfaction scorecard, an annual loss-to-follow-up evaluation will be implemented. Other efforts to improve retention will include expansion of ancillary health staff to provide patient support including lay counselors, peer educators, and *Activistas*.

Retention of pregnant and lactating women in ART is even more challenging than other groups of PLHIV. The ZAP team will implement mothers-to-mothers groups (M2M) in all districts and Zambezia will receive intensified DSD support from M2M. This model includes intensified use of an individualized, longitudinal case management strategy utilizing peer educators to prevent lost-to-follow-up, M2M support groups at community level, and tracking of defaulting mother-baby pairs.

Peer educators and mothers-to-mothers groups will also help address other challenges such as low rates of institutional delivery, timely access and initiation into follow up services for HIV exposed infants, and linkages to care and treatment services for HIV positive children. In addition, specific strategies for pediatric patients will include implementation of 3-month prescriptions for older, stable children/adolescents, quarterly visits for stable older children and adolescents, and adolescents support groups and adherence clubs for teens.

Military Engagement

ART services will be introduced in the three provincial military sites, and mobile clinics will periodically visit sites without sufficient infrastructure to provide services. Military lay counselors will visit each site and provide demand creation activities, testing, linkage, and monitoring of ART adherence and retention.

A free telephone line for patients (*Linha Alo Saude*) will support adherence, monitor retention, and respond to patients' daily questions or concerns. The line will also help monitor the referral system between military sites.

Gender-based Violence

ZAP includes a strategic focus on prevention of and clinical response to GBV. Clinical partners in Zambezia are currently evaluating two GBV service delivery models for GBV screening in HIV clinical settings and for the uptake/adherence to PEP among victims of sexual assault. The results of these two program evaluations will inform the strategic approach for expanding the GBV program in Zambezia.

4. Health Systems Support

Laboratory

Zambezia has only one laboratory in the Provincial Capital of Quelimane that provides VL testing. This lab also serves as the referral lab for all VL testing from Tete Province and it is expected to reach maximum capacity as T&S is expanded.

To meet the increased demand for VL testing, the ZAP is requesting a high throughput VL testing platform along with a specimen accessioning system and a pre-fabricated temperature controlled reagent storage unit. In spite of the challenges, this lab hosts some of the most qualified laboratorians in the country who are trained and experienced in molecular testing and who with additional equipment and support will be able to meet the demand of VL testing.

To improve turn-around-time of VL tests, the ZAP will support implementation of a sample referral system from health facilities to the provincial laboratory, establishing a DISA link within health facilities to return results, EID sample prioritization, and early warning system to prevent stock-outs or delays in specimen transport. Zambezia will also implement VL plasma testing in Quelimane and in the nearby cities of Nicoadala and Nacarurra, which are within 50 minutes' drive of the Quelimane VL lab and have daily specimen collection and transport. The testing volume needs of these three cities justifies the need for a high capacity, automated instrument. Further, use of plasma will eliminate the labor demands created by DBS extraction procedures.

In addition, a DISA link will be established in all facilities with >2,000 patients to return results directly and immediately after the tests are validated. Due to the difficult terrain Zambezia, the ZAP will target expansion of EID POC to the more remote clinics with greatest unmet need.

To further strengthen lab services in Zambezia, the ZAP includes *Recency Testing Lag Avidity* in Nicoadala and Quelimane districts as per the DREAMS protocol and expanded incidence testing in Chinde and Pebane districts. These incidence results will help to monitor progress toward epidemic control in Zambezia.

Health Information Systems

In COP 17, Mozambique plans to invest the additional $10 million in HIS funding to prioritize,(1) a real-time, *Point of Care (POC) Management System*, (2) enhance the existing electronic Patient Tracking System (ePTS) with tools for patient registration and linkage, (3) improve paper-based systems by identifying areas of automation, and (4) advance HIV surveillance methodologies through HIS investments.

The ZAP will invest in the interoperability and placement of health information systems in high volume health facilities to improve patient registration and tracking, laboratory test requisitioning, return of test results, pharmacy systems to monitor ART and OI medications, track patient return for medication pickup, and optimize logistics to ensure resupply of all essential commodities.

The ZAP team will place SIGLUS, a commodities logistics system in all T&S sites in Zambezia, OpenLIS, a laboratory information system in all facilities with > 5,000 patients, DISA links in all facilities with >2,000 patients, and I-DART, a pharmacy dispensing and tracking system in 30 of the highest volumes sites.

Logistics Strengthening

Zambezia has a complex geography and a poorly developed and uncoordinated transportation system that has resulted in delays in the return of test results for EID and VL negatively impacting patient care as well as in occasional stock-outs of essential HIV commodities (Rapid Test Kits). Based on a 2015 assessment of Zambezia transportation needs, ZAP will optimize specimen transport between health facilities and laboratories by using *LabEquip software,* establishing specimen transport hubs to improve transport time to the testing lab and optimize resupply of RTK and EID/VL specimen collection kit. USG is also proposing to implement an integrated transportation solution to address all HIV commodities needs (laboratory, test kits, ARVs). This will involve direct provision of logistics support (transportation services) by a dedicated logistics partner who will also be tasked with strengthening the logistics planning capacities of provincial and district health authorities.

Integrated Coordination & Monitoring Plan

The ZAP team which includes MOH, DPS-Z, and PEPFAR-Mozambique will oversee implementing partners through a coordinated management framework.

Key components of the management framework will include:

- Integrated coordination of partners to maximize their use of existing resources. A baseline assessment of all partners (PEPFAR IPs, CBOs and others) will be organized via a workshop to facilitate mapping of activities, budget and staffing and to avoid duplication while maximizing the efforts.

- The international and national NGOs forum at DPS will be revitalized, and a monitoring committee will be created to maximize efficiency of the coordination platform.
- A Provincial planning workshop under MOH leadership will be convened and will include participation of one-USG and all stakeholders to develop a work plan and an evaluation framework to support high quality and effective implementation.
- Establish a task force for Zambezia with USG staff for closer partner monitoring through regular interagency capacity building TA with monitoring from central office PALs.
- Building capacity at the DPS-Z for program planning, management and implementation through clear goal oriented TA. Staff from different technical areas will be allocated to support the DPS-Z and to ensure effective support to local government staff for planning, management, and implementation of ZAP.
- Conducting intensive monthly and quarterly performance monitoring both from a technical perspective and from an evaluation framework.
- Establish a HIV supportive supervision plan with implementation of a quality improvement strategy and an enhanced retention monitoring framework.

Performance monitoring will be optimized to using results from ongoing approaches:

1. SIMS
2. Quarterly MER indicators
3. Enhanced retention indicators action plan
4. Provincial MOH supportive supervision visits report
5. National QI strategy data
6. EID PCR cohort monitoring and QI

Table D.1: PLHIV by District in Zambezia

Prioritization District	Test & Start Phase	Estimated Total PLHIV, at the end of FY17	Estimated Total PLHIV, at the end of FY18	Estimated <15 PLHIV, at the end of FY17	Estimated <15 PLHIV, at the end of FY18
Alto Molocue	4	17,468	17,913	2,185	2,162
Chinde	4	10,369	10,335	1,242	1,198
Cidade De Quelimane	1	56,597	56,595	5,291	5,084
Gile	4	11,955	11,918	1,555	1,504
Gurue	4	13,698	13,877	1,642	1,607
Ile	4	10,991	10,924	1,433	1,381
Inhassunge	4	16,840	16,731	1,888	1,817
Lugela	4	11,232	11,158	1,440	1,388
Maganja Da Costa	4	37,251	37,049	4,621	4,454
Milange	4	23,346	23,548	2,907	2,840
Mocuba	2	29,639	29,812	3,598	3,496
Mopeia	4	10,972	11,145	1,416	1,395
Morrumbala	4	30,403	30,652	3,909	3,818
Namacurra	2	47,906	50,725	5,559	5,672
Namarroi	4	5,954	5,948	779	755
Nicoadala	2	49,970	49,628	5,749	5,535
Pebane	4	41,683	41,731	5,128	4,973
Total		**426,275**	**429,690**	**50,340**	**49,080**

Table D.2: Targets & Expected in Zambezia

Zambezia Support Volume by Group		Expected Result APR 18
HIV testing (excluding EID)	HTS	1,680,986
HIV positives (excluding EID)	HTS_POS	123,105
HIV testing in PMTCT sites (newly tested)	PMTCT_STAT	238,233
Treatment new	TX_NEW	100,682
Treatment new (pediatrics)	TX_NEW (<15)	12,819
Current on ART	TX_CURR	218,898
Current on ART (pediatrics)	TX_CURR (<15)	23,077
OVC	OVC_SERV	109,377
Key populations	KP_PREV	9,193

Table D.3: Summary of Key Challenges and ZAP Activities

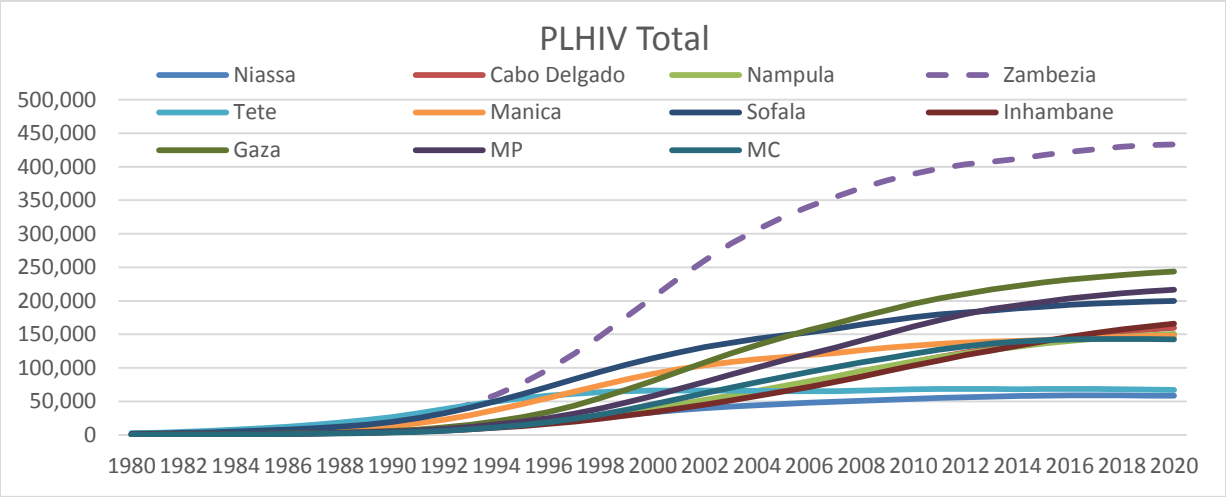
	Key Challenges	Proposed Activities
Case identification, linkage, and prevention	• Majority of PLHIV in the province not yet identified • Low ART coverage in males and children	• Targeted expansion of facility-based testing • Extended work hours for partner/family testing • Occupational outreach • Mobile brigades (including pediatrics) • Self-testing pilot • PREP for serodiscordant couples • Enhanced PICT coverage for pediatric emergency and urgent care
Service Delivery	• Low human resources • Poor staff retention/ morale • Low patient retention	• Expand multi-month scripting • Enhanced HR support • Mobile clinics for expanded ART services
Infrastructure	• Congested clinics • Large distances between sites • Environmental challenges (e.g. annual flooding)	• New clinic sites (12) • Targeted prefabs and renovations based on T&S facility assessments
Supply chain logistics	• Recent RTK stock-outs • Inefficient early warning system	• Enhanced early warning system; • Contracted single logistics partner
Laboratory logistics	• Laboratory system and sample transport challenges	• Prioritized implementation of DISA Link to improve TAT, results reporting, specimen transport and traceability • Enhanced mentoring • Target VL lab for highest throughput

APPENDIX E: Preliminary Revised PLHIV Estimates

The MOH provided preliminary data from the 2015 HIV prevalence survey, *Inquérito de Indicadores de Immunização, Malãria e HIV/SIDA em Moçambique (IMASIDA*), along with 2015 district level ANC prevalence data and population projections from the 2007 census to generate district level estimates of PLHIV using Spectrum 5.4. These district level estimates of PLHIV were used to set COP17 targets.

The number of PLHIV in Mozambique in 2017 is now estimated at 1,925,519, an increase of 282,454 compared to the previous estimate of 1,643,065 based on the 2009 prevalence survey. The number of children with HIV (CLHIV) is estimated at 153,770. The estimated number of CLHIV peaked in 2013, but the total number of PLHIV continues to rise through 2020 (see Figure E.1).

Figure E.1: PLHIV Annual Trends by Province, 1980-2020



Based on these estimates, ART coverage at the end of FY16 was 45% (46% in adults and 41% in children under 15). Sites reporting required PEPFAR age-disaggregations continue to expand, but at this point PEPFAR data are insufficient to estimate national coverage for PLHIV age 15-24 versus age 25+.

Preliminary prevalence data suggests a shift in the geographic burden of disease. While the burden has always been high in Zambezia, based on these new estimates 22% of PLHIV and 33% of CLHIV in Mozambique reside in Zambezia Province, which also has both the highest number and the lowest coverage for PLHIV and for CLHIV (Figures E.2 and E.3). It is estimated that Zambezia has 30% of the total unmet need and 45% of the unmet need among children.

In response to this new information, the MOH and PEPFAR-Mozambique have proposed the ZAP, which is described in detail in Appendix D.

Figure E.2: Number of PLHIV and ART Coverage by Province in 2016

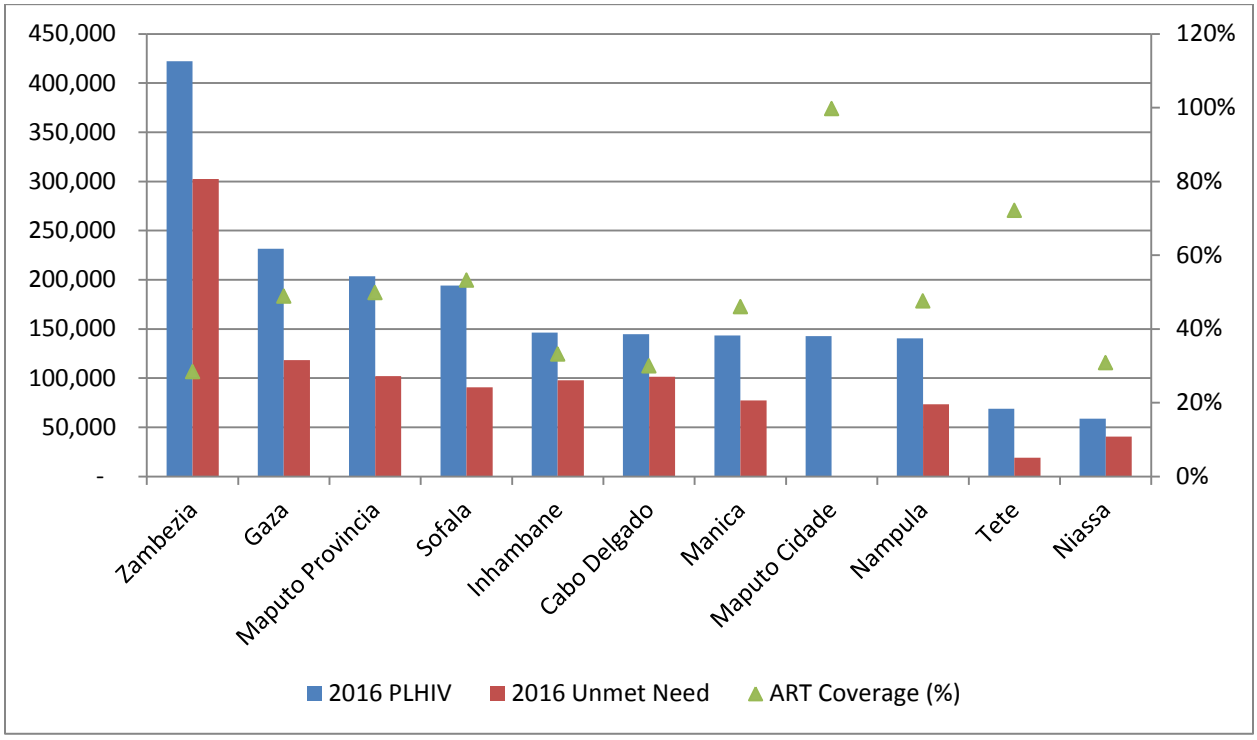
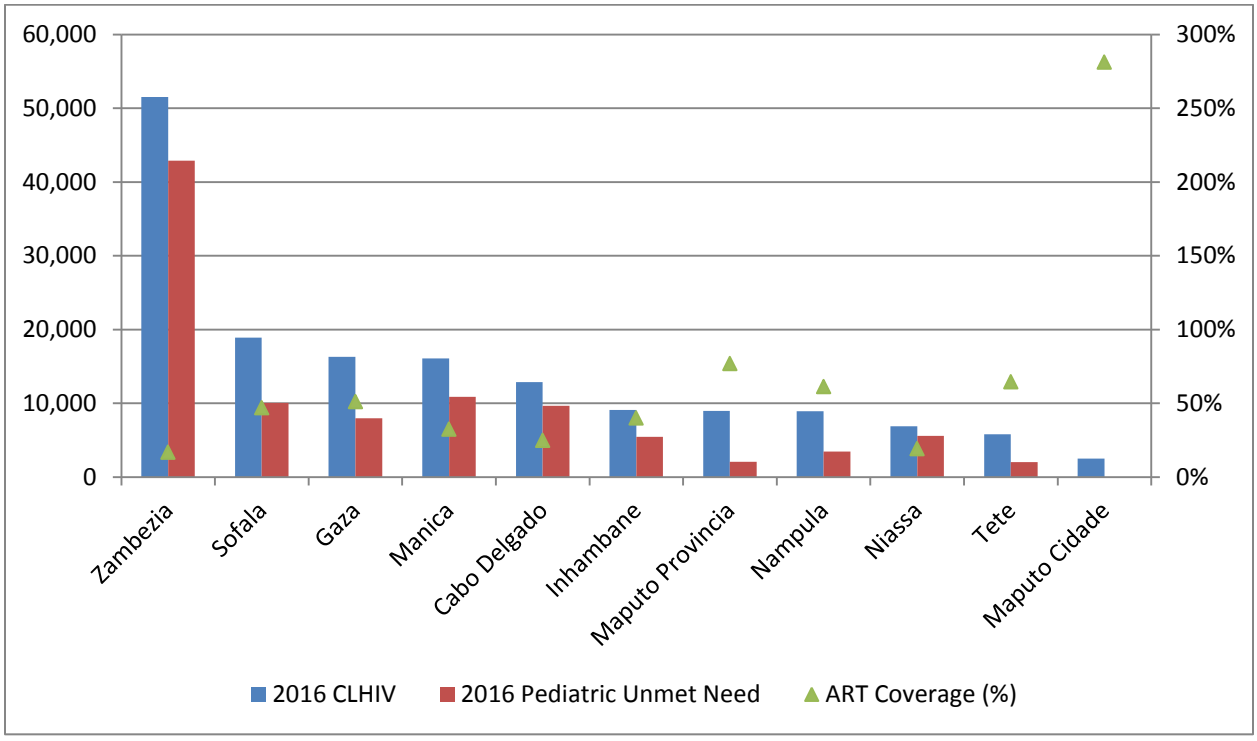


Figure E.3: Number of CLHIV and Pediatric ART Coverage by Province in 2016



APPENDIX F: Acronym List

AGYW	Adolescent Girls and Young Women
AIDS	Acquired Immuno-Deficiency Syndrome
ANC	Antenatal Care
APES	Agentes Polivalentes Elementares de Saúde / Community Health Workers
ART	Anti-Retroviral Therapy
ARV	Anti-Retroviral
C&T	Care & Treatment
CASG	Community ART Support Groups / Grupos de Apoio a Adesão Comunitária - GAAC
CD_4	Cluster of Differentiation 4
CDC	Centers for Disease Control
CHAI	Clinton Health Access Initiative
CMAM	Central de Medicamentos e Artigos Médicos / Central Medical Stores
CNCS	Conselho Nacional de Combate ao HIV e SIDA / National AIDS Council
COP	Country Operational Plan
CSO	Civil Society Organization
CTX	Cotrimoxazole
CY	Calendar Year
DAC	Development Assistance Committee
DOD	Department of Defense
DPS	Direcção Provincial de Saúde / Provincial Directorates of Health
DREAMS	Determined, Resilient, Empowered, AIDS-Free, Mentored, and Safe
EID	Early Infant Diagnosis
FP	Family Planning
FPM	Fund Portfolio Manager
FSW	Female Sex Worker
FY	Fiscal Year
G2G	Government-to-Government
GAAC	Grupos de Apoio a Adesão Comunitária / Community ART Support Groups
GBV	Gender-Based Violence
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GRM	Government of the Republic of Mozambique
HCW	Health Care Workers
HIV	Human Immunodeficiency Virus
HRH	Human Resources for Health
HRIS	Human Resources Information System
HTS	HIV Testing Services
IBBS	Integrated Behavioral and Biological Survey
INS	Instituto Nacional de Saúde / National Institute of Health
INSIDA	Inquérito Nacional de Prevalencia, Riscos Comportamentais e Informação sobre o HIV e SIDS / AIDS Indicator Survey
IP	Implementing Partners
IPT	Isoniazid Preventive Therapy
KP	Key Populations
LTFU	Lost to Follow Up

M&E	Monitoring & Evaluation
M2M	Maes para Maes
MC	Male Circumcision
MCH	Maternal and Child Health
MINEF	Ministério da Economia e Finanças/Ministry of Finance
MISAU	Ministério da Saúde / Ministry of Health
MOH	Ministry of Health
MSM	Men who have sex with men
N/A	Not applicable
NASA	National AIDS Spending Assessment
NGO	Non-Governmental Organizations
ODAMOZ	Official Development Assistance to Mozambique Database
OECD	Organization for the Economic Cooperation and Development
OGAC	Office of the U.S. Global AIDS Coordinator
OVC	Orphans and Vulnerable Children
PC	Peace Corps
PEPFAR	President's Emergency Plan For AIDS Relief
PICT	Provider Initiated Counseling and Testing
PPP	Public-Private Partnership
PLASOC	Plataforma da Sociedade Civil / Civil Society Platform for Health
PLHIV	People Living with HIV
PMTCT	Prevention of Mother to Children Transmission
PROSAUDE	Mozambique's Common Health Sector Common Fund
PWID	People Who Inject Drugs
QI	Quality Improvement
SDS	Strategic Direction Summary
SDSGCAS	Servicos Distritais de Saude, Genero, Crianca e Accao Social / District Services of Health, Gender, Children and Social Action
SIMS	Site Improvement through Monitoring Systems
SNU	Sub-National Unit
STI	Sexually Transmitted Infection
TA	Technical Assistance
T&S	Test and Start
TWG	Technical Working Group
UNAIDS	Joint United Nations Programme on HIV and AIDS
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
UNK	Unknown
USAID	U.S. Agency for International Development
USG	United States Government
VL	Viral Load
VCT	Voluntary Counseling and Testing
VMMC	Voluntary Medical Male Circumcision
ZAP	Zambezia Action Plan