Malawi Country Operational Plan

2017

Strategic Direction Summary

April 26, 2017

1.0 Goal Statement

While there has been significant progress in the fight against HIV, Malawi still has 980,000 people living with HIV (PLHIV), including 350,000 undiagnosed. The Malawi Population-Based HIV Impact Assessment (MPHIA) showed significant progress toward the globally endorsed targets of 90-90-90. The number of new adult infections each year continues to decline (28,000/year in 2016), coinciding with an increase in ART coverage. With the number of annual HIV-related deaths reduced to 27,000/year in 2016, Malawi continues making progress toward epidemic control.

However, MPHIA also highlights a disproportionately high HIV incidence among adolescent girls and young women (AGYW) with point estimates for HIV incidence 8 times higher among females aged 15-24 than males. Therefore, the **overarching goal of COP17 is to <u>interrupt HIV transmission</u> by reducing incidence among AGYW through testing and treatment of potential sexual partners (men 15-40) and primary prevention (e.g., expansion of DREAMS and AGYW targeted interventions), thereby interrupting the lifecycle of HIV transmission and accelerating progress to epidemic control.**

The 1st 90 remains the greatest challenge and requires a number of key strategy shifts:

- *Targeting testing and treatment strategies:* Increased focus on targeting men and youth with the most efficient testing modalities (e.g., index case testing) and treatment strategies (e.g., same-day ART initiation) to achieve saturation across all age and gender bands in scale-up districts by the end of FY18.
- *Increasing focus in five "acceleration" districts:* Per the MPHIA, the epidemic is most intense in population-dense regions of Southern Malawi, especially Blantyre; therefore, PEPFAR will focus on Blantyre and four other high burden, scale up districts (deemed "acceleration" districts) that include 70% of the national gap to saturation.
- *Focusing on efficiency:* Particularly in testing strategies (e.g., scale-up of high yield and low cost per positive identified index case testing, which has a low cost per positive identified) and treatment modalities (e.g., rapid scale-up of differentiated service delivery models), there must be shifts to increase yields and unclog facilities.
- *Scaling-up evidence-based primary prevention:* Targeted VMMC outreach with testing to reach young men, and expanding the DREAMS package to Blantyre and DREAMS-like/AGYW interventions across the scale up districts must be central to a robust prevention strategy.
- *Enhancing key population's prevention and treatment programming:* Focused primarily in sex worker hot spots (including continued advocacy with the Ministry of Health (MOH) on targeted PrEP) and prisons, these interventions are critical to interrupting transmission.

Four cross-cutting activities are "critical enablers" to the success of these shifts:

1. **Enhancing implementer management strategies to maximize impact** –PEPFAR Malawi will ensure close coordination with civil society and district leadership down to the site level to ensure transparency and increase collaboration. Implementer performance issues or recalibration of approach will be monitored closely and addressed on a quarterly basis minimally.
2. **Collecting and using age-sex disaggregated data** – With disaggregated data, PEPFAR and the MOH can rapidly respond to programmatic gaps using age-, sex-, and region-targeted programmatic interventions.
3. **Increasing direct service delivery (DSD)** - Employing already-trained but currently unemployed healthcare workers at key PEPFAR-supported sites; increasing the footprint of dedicated lay cadres to support testing, linage to treatment and retention; expanding clinic hours; increasing clinic days for ART provision; and, ensuring implementers rapidly roll out new strategies like index case testing and same-day ART initiation, continues PEPFARs commitment to DSD.
4. **Continued engagement with civil society organizations (CSOs) and other key stakeholders** - To ensure input into, advocacy for and monitoring of sustained, efficient, evidence-based investments to tackle the epidemic, this engagement is central. Building on monthly Stakeholder Engagement Meetings, PEPFAR will create a dedicated CSO dialogue for joint strategy development and community level feedback.

2.0 Epidemic, Response and Program Context

Malawi is a densely populated country the size of Pennsylvania with over 18 million people (current fertility is estimated at 4.4 children per woman). Youth younger than 15 account for nearly 50% of the population. Based on the MPHIA, HIV prevalence among adults ages 15 to 64 years is 10.6% with annual incidence of the same group at 0.37% (28,000 new cases of HIV annually). HIV prevalence among children is 1.6%. There are an estimated 979,896 people living with HIV (PLHIV) in Malawi, about 104,093 of whom are children younger than 15. HIV Prevalence among 15-49 year-olds declined from a peak of 16.7% in 1999 to 10.0% in 2016. Annual HIV incidence declined from a peak of 110,000/year in 1998 to 85,000/year in 2004, before dropping to an estimated 28,000/year in 2016. HIV prevalence remains disproportionately higher among females than males; for example HIV prevalence is three times higher among 25-29 year-old females than males (Figure 1), pointing to higher HIV incidence among females than males aged 15-24 (Table 1).

Figure 1: HIV Prevalence among PLHIV in Malawi by Age and Sex (MPHIA 2016)

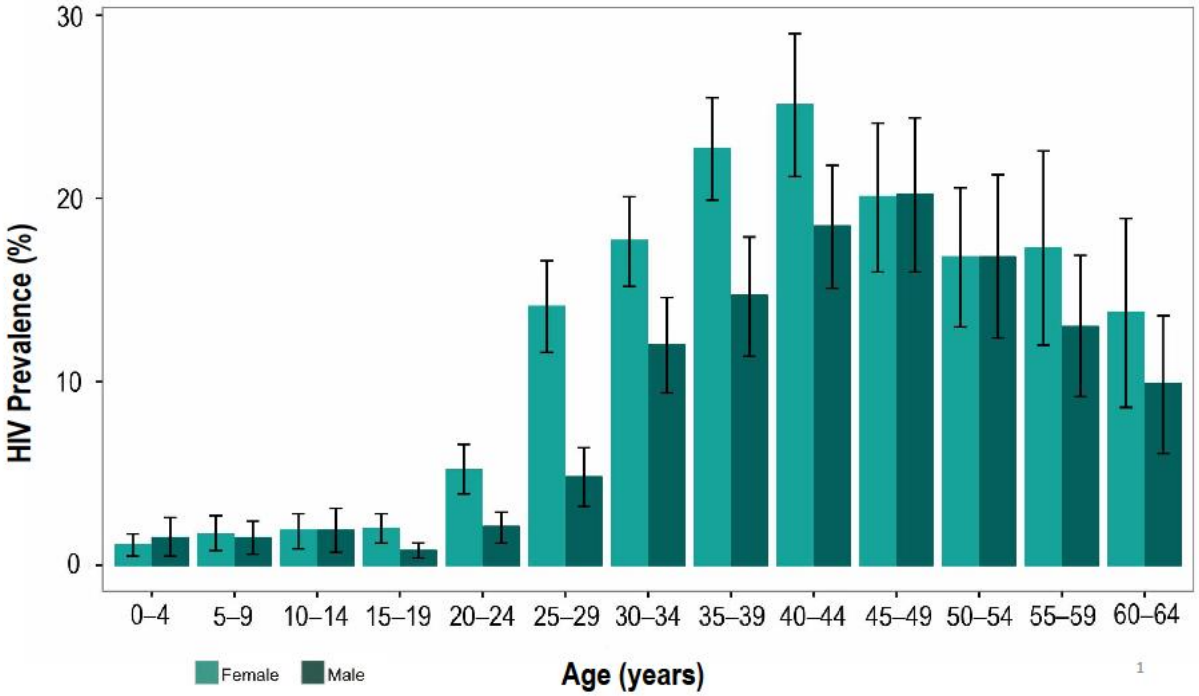


Table 1: Higher HIV Incidence among Females than Males aged 15-64 in Malawi (MPHIA 2016)

Age Group	Female HIV Incidence	Male HIV Incidence	Average
15–64 years % [95% CI]	0.48 [0.23, 0.72]	0.25 [0.05, 0.46]	0.37 [0.20, 0.53]
15–24 years % [95% CI]	0.32 [0.00, 0.64]	0.04 [0.00, 0.17]	0.18 [0.00, 0.36]

Malawi's progress to 90-90-90 is impressive but reaching the first 90 (testing), especially among males (Figure 2) and youth (Figure 3) represents the greatest challenge.

Figure 2: Progress to 90-90-90 among 15-64 Year Olds in Malawi (MPHIA 2016)

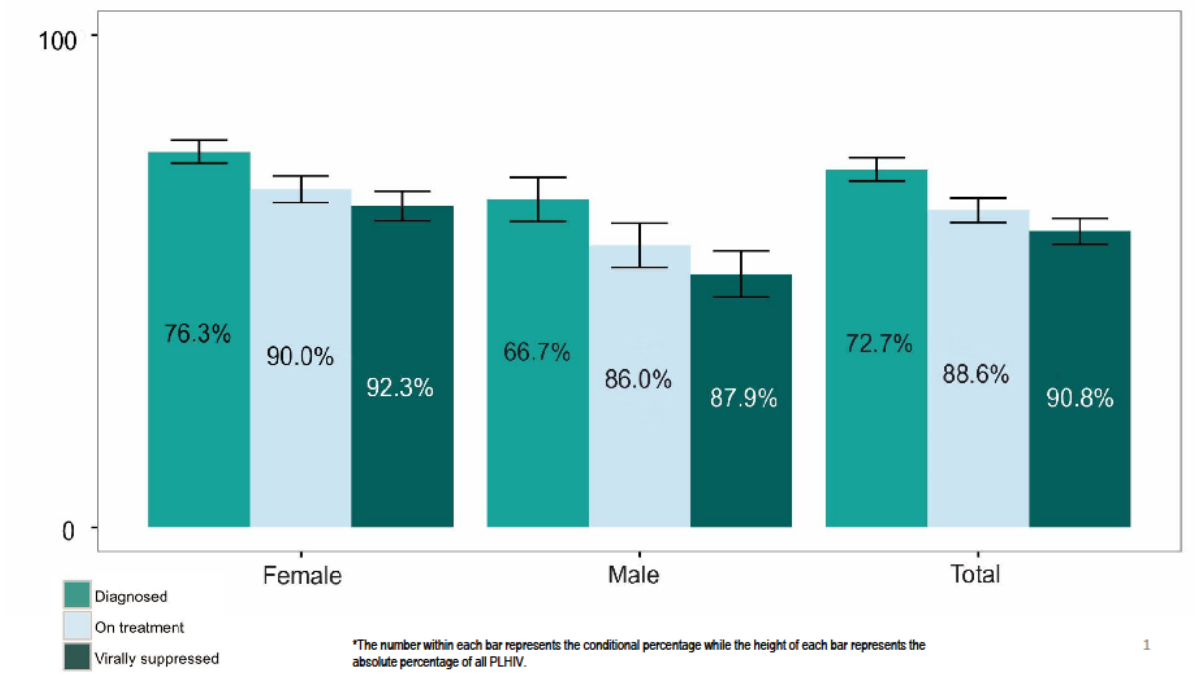
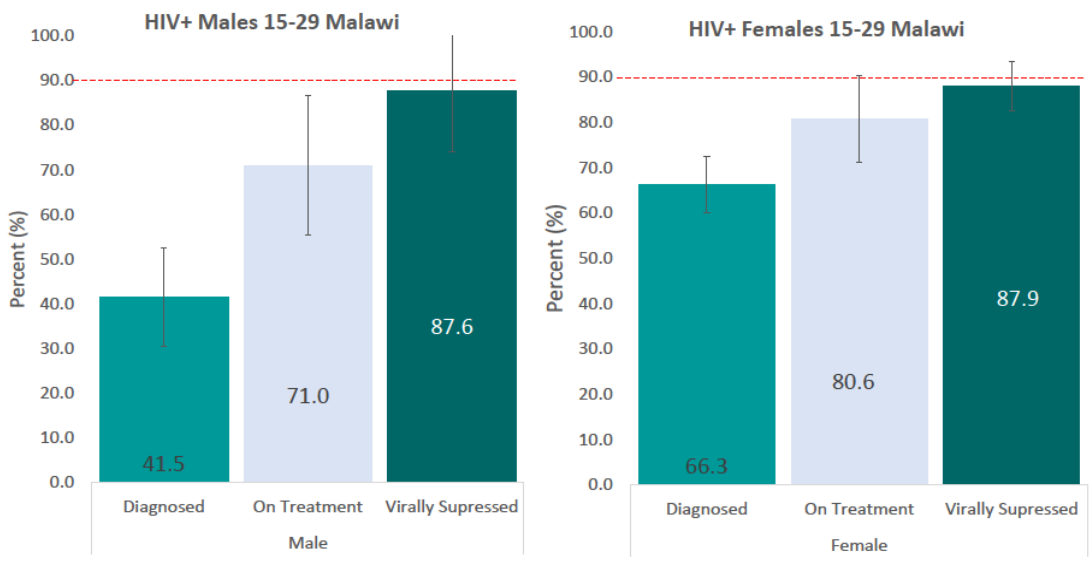


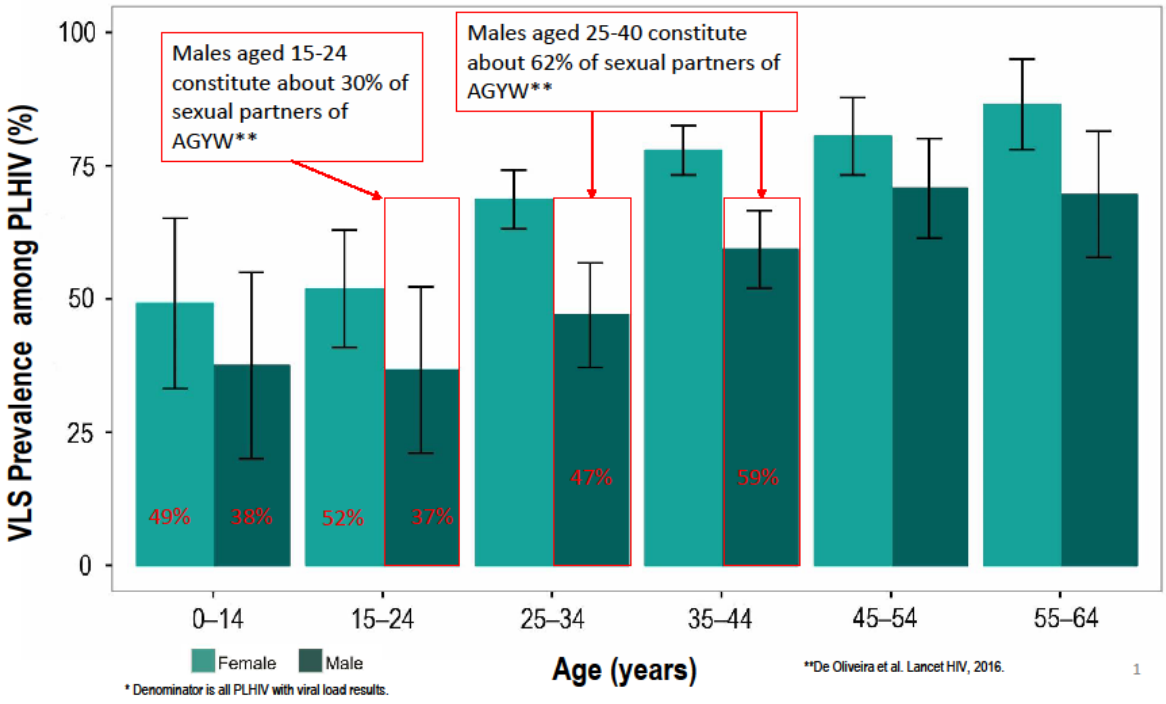
Figure 3: Progress to 90-90-90 among 15-29 year Olds by Sex in Malawi (MPHIA 2016)



Sub-optimal progress to the first 90 among men 15-40 and youth <30 is the key reason for low levels of viral suppression among men and youth (Figure 4). Phylogenetic studies from South Africa demonstrated that about 62% of male partners of AGYW are age 25-40 and about 30% are

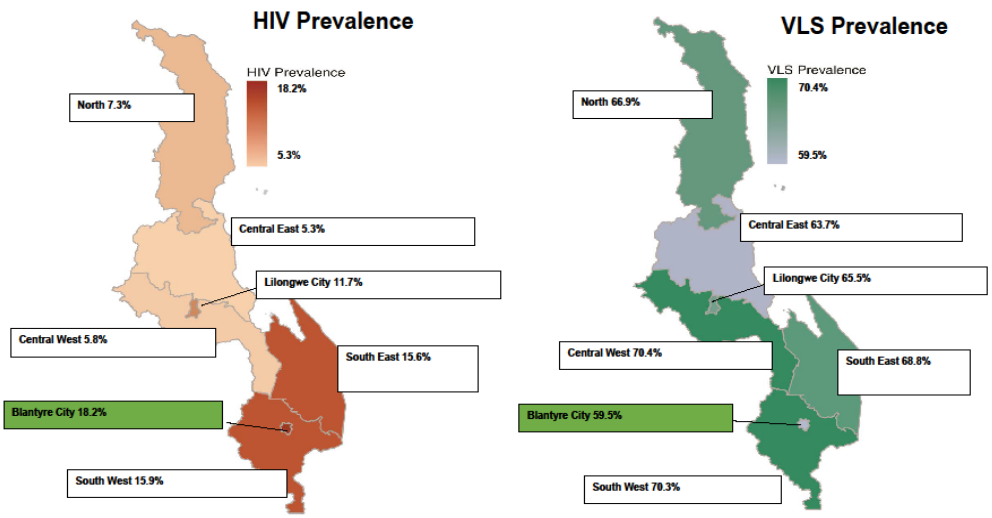
aged 15-24, with male partners of AGYW on average 8.7 years older (De Oliveira et al. Lancet HIV, 2016).

Figure 4: Viral Load Suppression by Age and Sex in Malawi (MPHIA 2016)



HIV remains most highly concentrated in the southern region, especially south-east Malawi (Figure 5). Blantyre has the highest adult HIV prevalence among 15-64 year-olds (18.2%) and also the lowest prevalence of viral load suppression (VLS) among PLHIV (59.5%), indicating the need for an accelerated response in this district.

Figure 5: Geographic Distribution of Adult HIV Prevalence and Viral Load Suppression (VLS) among PLHIV



PMTCT coverage remains high. MOH estimates about 95% of pregnant women are tested and know their status, 95% of whom are on ART (90% ART coverage). Recent data from a nationally representative EMTCT evaluation (NEMAPP – National Evaluation of the Malawi PMTCT Program) suggests 97.8% of ANC attendees are tested for HIV and 88.5% of HIV-positive pregnant women either already are on ART or starting ART during pregnancy. However, average national HIV transmission during pregnancy from HIV-positive mothers to infants is 4.2% by 3 months of life, suggesting the goal of virtual elimination of MTCT (national transmission <5% after 24 months average for breastfeeding) is unlikely to have been reached. Early Infant Diagnosis (EID) coverage at 2 months remains low but by 12 months is high (about 90%). VMMC coverage among adults 15-29 in PEPFAR supported districts remains low at about 14%.

Status of implementation of key policies in Malawi:

- **Test and START** – fully adopted and rolled out nationally (94% of all ART sites).
- **PrEP** – Readiness assessments have been funded by multiple stakeholders but MOH has yet to provide official guidance or approval for pilot programs. Through engagement in national level technical working groups and direct communications with MOH officials PEPFAR Malawi continues to advocate the adoption of the WHO guidelines in Malawi and for inclusion of commodities for PrEP in the Global Fund Prioritized Above Allocation Request (PAAR). Civil Society, the Global Fund and the Bill and Melinda Gates Foundation (BMGF) strongly support introduction of PrEP for key populations and similarly advocate with the MOH.
- **Differentiated Service Delivery** – Multi-month (3) scripting, piloted in COP 16, is already the norm for stable ART patients. PEPFAR is supporting roll out of Pharmacy Fast Track and six month scripting as 'pilots' with permission from MOH. Civil Society, the Global Fund and BMGF strongly support scaling these and other approaches that build efficiencies and decongest facilities, which are central to COP 17.

- **Self - Testing** – Pilot self-testing is underway with promising results to date. PEPFAR is eager to expand this option for select populations with endorsement from the MOH, with which PEPFAR will closely collaborate to develop self-testing standard operating procedures (SOPs) for effective and appropriate use of self-testing. PEPFAR is advocating for inclusion of self-testing kits in the PAAR.

Severe shortages of health care workers remain a cause of programmatic and systems gaps. Donors and civil society have expressed concern that the Ministry of Health has not recruited and hired new human resources for health (HRH), despite (1) major donor investment in pre-service training (including by PEPFAR, Global Fund, MSF, DFID and others) and (2) available resources to pay these health workers from the Global Fund and PEPFAR. Despite these challenges, the PEPFAR team and key officials have agreed (pending support by the Secretary of the Treasury) to use COP 16 supplemental resources to recruit and place by June2017 approximately 462 trained health care workers with a pending agreement from the GOM to absorb them in less than three years.

2.1 Summary statistics, disease burden and country profile

Table 2.1.1 Host Country Government Results

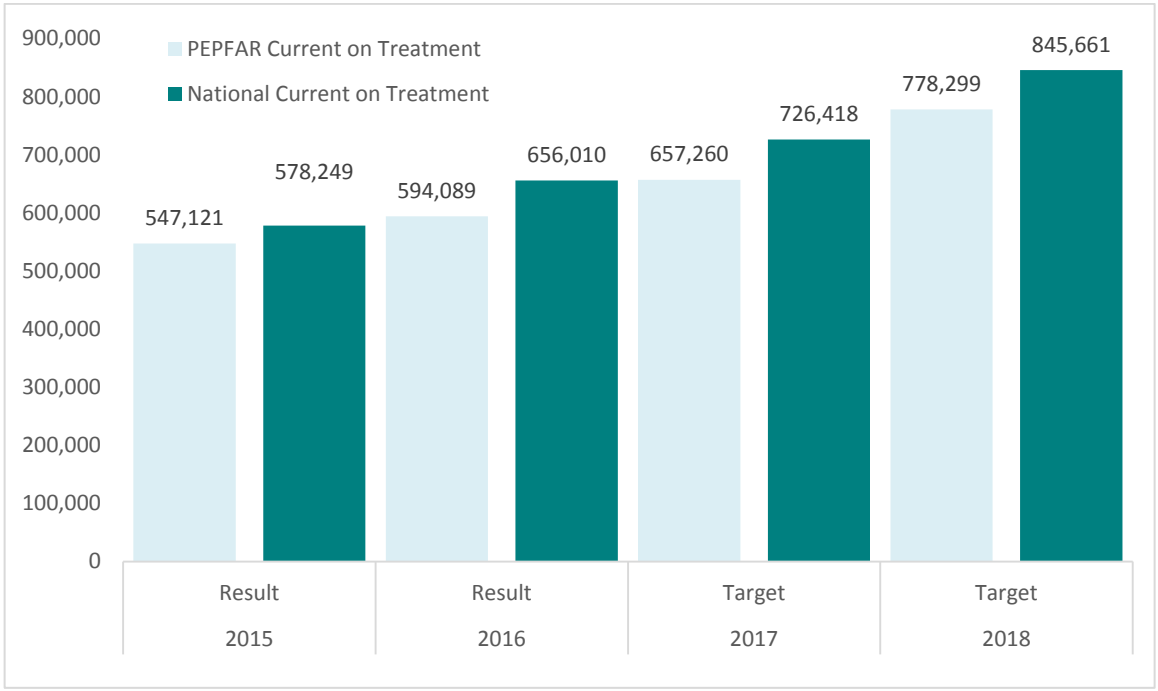
	Total		<15				15-24				25+				*Source, Year*
			Female		Male		Female		Male		Female		Male		
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Total Population	18,244,451	100	4,292,941		4,344,893		1,778,802		1,740,482		3,150,558		2,936,775		Central Statistics Office, Malawi, population projections for 2017
HIV Prevalence (%)		10.6		NA		Na		3.7		1.3		na		na	MPHIA, 2016
AIDS Deaths (per year)	29,363		2916		2763		1326		1358		9476		11523		Spectrum estimates, 2015
# PLHIV	979482		104093				73197				802193				SAE, 2016
Incidence Rate (Yr)		0.37		NA		Na		0.32		0.04		na		na	MPHIA, 2016
New Infections (Yr)	34232														Spectrum estimates, 2016
Annual births	651,700	4.1													UNICEF, 2013
% of Pregnant Women with at least one ANC visit	43,866	95	NA	NA			NA	NA			NA	NA			UNICEF, 2013
Pregnant women needing ARVs	59703	9.2													Spectrum estimates, 2015
Orphans (maternal, paternal, double)	Orphans and Vulnerable Children 1,438,564 of which 958,740 are orphans		NA		NA		NA		NA		NA		NA		DHS 2010 projection for 2015 OVC

Notified TB cases (Yr)	17104		1710				2052				13341				Global TB Report 2016/National TB Control Program Report 2015
% of TB cases that are HIV infected	9065	53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	National Tuberculosis TB Control Report (2015)
% of Males Circumcised	296,282	3.8			118512	40 %			130364	44%			41480	14%	DATIM and Program Data
Estimated Population Size of MSM*	46,000														Global Fund Concept Note 2014; PLACE Study available for 6 districts only (2016) with additional districts in progress
MSM HIV Prevalence		18.2													Lancet, Geographical disparities in HIV Prevalence among MSM, 2017
Estimated Population Size of FSW	24,000														GFCN, 2014
FSW HIV Prevalence		62.7													IBBS 2015 for prev Size estimate GFCN 1.5% total pop 15- 49*
Estimated Population Size of PWID	NA	NA													
PWID HIV Prevalence	NA	NA													
Priority Populations															
AGYW (15-24)	1,610,902											)			Projected from Census 2008
AGYW Prev. (15-24)	48,485	3.7													2016 MPHIA SAE; DHS 2016 (prevention in all women 15-49 was 10.8%)
Female Estate Workers	NA	NA											NA	NA	
Female Estate Workers Prev.		22.7											NA	NA	IBBS 2015
Male estate workers Prev		15.3											NA	NA	
Prisoners	9583	NA											NA	NA	GFCN, 2014
Prisoner Prev.		19.7 -41											NA	NA	Prison Study 2012
Fishermen	NA												NA	NA	
Fishermen Prev		11.51											NA	NA	IBBS 2015
Male primary teachers	39,057												NA	NA	EMIS 2015
Male teacher Prev.		13.3 2											NA	NA	IBBS 2015
Female primary teachers	27,675												NA	NA	EMIS 2015
Female primary teacher Prev		22.7 7											NA	NA	IBBS 2015 -

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

	Epidemiologic Data				HIV Treatment and Viral Suppression			HIV Testing and Linkage to ART Within the Last Year		
	Total Population Size Estimate (#)	**HIV Prev (%)**	**Estimated Total PLHIV (#)**	**PLHIV diagnosed (#)**	**On ART (#)**	**ART Coverage (%)**	**Viral Suppression (%)**	**Tested for HIV (#)**	**Diagnosed HIV Positive (#)**	**Initiated on ART (#)**
Total population	18,244,451	10.6	979,482	715022	662,788	68%	59%	3,172,405*	138,817*	*110,872**
Population less than 15 years	8,637,834	1.6	104,093	74880[1]	69742	67%	66%	NA	NA	*NA*
15-24 year olds	3,519,284	2.5	73197	38794	29484	40%	31%	NA	NA	*NA*
25+ year olds	6,087,333	NA	802,193	601,348	NA	NA	NA	NA	NA	*NA*
MSM	46,000	18.2	NA	NA	NA	NA	NA	NA	NA	NA
FSW	14,000	62.7	NA	NA	NA	NA	NA	NA	NA	NA
PWID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Priority Pop (specify)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Figure 2.1.3 National and PEPFAR Trend for Individuals currently on Treatment*



*Note that by achieving 845,661 current on ART by the end of FY18 nationally this will represent 86% coverage of all PLHIV in Malawi

2.2 Investment Profile

The HIV sector is heavily dependent on donor support, receiving 74% from Global Fund (GF) and PEPFAR and a further 12% from other donor resources. The GF supports the procurement and distribution of ARVs and other key commodities, supply chain management, minimal HRH pre- and in-service -training, and community interventions.

Table 2.2.1 Investment Profile by Program Area

Program Area	PEPFAR Absolute*	% PEPFAR	GF absolute	% GF	Govt absolute	% GRP	Others**	% Other	Total Expenditure
Clinical care, treatment and support	36,851,055.00	32.2%	69,783,000.63	61.0%	0	0.0%	7,712,541.02	6.7%	114,346,596.65
Community–based care	4,639,876.00	51.3%	0	0.0%	3,178,275.88	35.2%	1,223,456.96	13.5%	9,041,608.84
PMTCT	7,140,216.00	41.6%	10,000,145.00	58.3%	0	0.0%	9,855.45	0.1%	17,150,216.45
HTC	12,584,591.00	100.0%	0	0.0%	0	0.0%	0.02	0.0%	12,584,591.02
VMMC	9,067,057.00	90.5%	0	0.0%	0	0.0%	950,061.35	9.5%	10,017,118.35
Priority population prevention* **	3,736,249.00	13.2%	0	0.0%	13,368,872.53	47.3%	11,174,320.73	39.5%	28,279,442.26
Key population prevention	1,210,203.00	73.5%	0	0.0%	0	0.0%	436,609.13	26.5%	1,646,812.13
OVC	3,209,363.00	100.0%	0	0.0%	0	0.0%	0	0.0%	3,209,363.00
Laboratory* **	8,853,781.00	100.0%	0	0.0%	0	0.0%	0	0.0%	8,853,781.00
SI, Surveys and Surveillance	12,588,690.00	77.4%	0	0.0%	2,741,871.08	16.9%	930,816.02	5.7%	16,261,377.10
HSS**	16,724,805.00	47.4%	757,846.39	2.1%	11,723,578.96	33.2%	6,108,640.51	17.3%	35,314,870.86

GARPR Indicator 6.1 data used for GF and Host Govt Expenditures (2016 Malawi Country Report)

* PEPFAR Investment portfolio based on expenditure analysis for fiscal year 2016.

**Other includes the following Government of Germany, World Bank, DFID, the United Nations, Private sector e.t.c

**** Includes other essential programmes outside the suggested framework of core HIV and AIDS programmes (e.g AIDS-specific institutional development, policy dialogue, law reform and enforcement etc)

Table 2.2.2 Annual Procurement Profile for Key Commodities (COP 16)

Commodity Category	Total Expenditure	% PEPFAR	% GF	% Host Country	% Other
ARVs	141,530,526.75	0.2*	99.8	0	0
Rapid test kits	9,134,559.82	0	100	0	0
Other drugs	12,435,665.73	0	100	N/A	0
Lab reagents & Viral Load Commodities	13,133,614.06	0	100	0	0
Condoms	1,157,768.33	28**	72	0	0
VMMC kits	1,429,100.00	100***	0	0	****
HIV/TB	3,642,349.09	0	100	0	0
MAT	-				
Other commodities (lubricants)	54,353.60	100**	0	0	0
Total	**182,517,937.38**	**1**	**99**		**0**

*Purchase of LPv/r pellets - ACT funding ($283,061); ** USAID Commodity Fund (lubricants and condoms for social marketing); ***VMMC Central Initiative Fund; **** World Bank plans to procure VMMC kits in Q3/ Q4, 2017 ($1,133,000)

N/A- Government of Malawi allocated $23M as national drug budget for 2016/17 lump sum for essential medicines (excluding ARVs, RTKs, VMMC kits, and condoms), amount for OI drugs unavailable

Table 2.2.3 Non-PEPFAR Funded Investments and Integration and PEPFAR Central Initiatives					
Funding Source	**Total USG Non-PEPFAR Resources**	**Non-PEPFAR Resources Co-Funding PEPFAR IMs**	**#Co-Funded IMs**	**PEPFAR COP Co-Funding Contribution**	**Objectives**
USAID MCH	14,500,000.00	892,183.00	6	2,607,379.34	Youth friendly HIV testing; pre-service health worker training; supply chain management; condom programming; community care for PLHIV; SBCC
USAID TB	1,500,000.00	2,050,000.00	1	2,000,000.00	Above site and site level interventions to prevent TB transmission, active identification and treatment of TB cases
USAID MALARIA	22,000,000.00	13,443,000.00	4	1,947,050.34	Pre-service health worker training; supply chain management; community care for PLHIV; SBCC
USAID Family planning	12,700,000.00	3,468,000.00	6	8,564,361.77	Youth-friendly HIV testing, pre-service health worker training; supply chain management; condom programming; community care for PLHIV, SBCC
USAID Nutrition	5,000,000.00	950,000.00	3	842,829.00	Pre-service health worker training, community care for PLHIV, SBCC
NIH	7,389,534.00				Research studies primarily in HIV Prevention, Treatment & PMTCT
Peace Corps	642,164.00				Global Health Service Partnership Volunteers placed in Malawi
MCC	84,700,000				Energy Compact
Total	**148,431,698.00**	**20,803,183.00**		**15,961,620.45**	

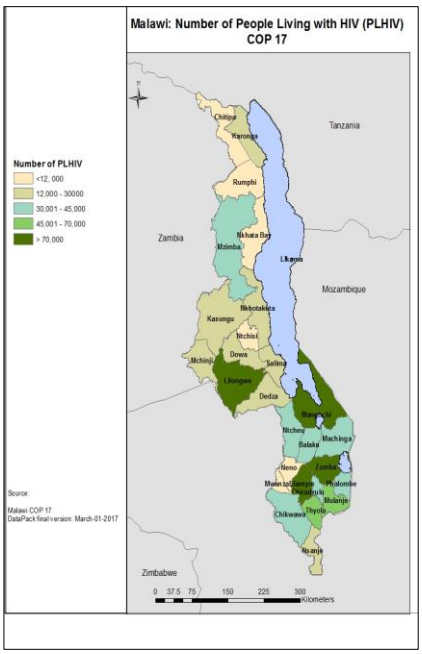
Table 2.2.4 Annual PEPFAR Non-COP Resources, Central Initiatives, PPP, HOP						
Funding Source	**Total PEPFAR Non-COP Resources**	**Total Non-PEPFAR Resources**	**Total Non-COP Co-funding PEPFAR IMs**	**# Co Funded IMs**	**PEPFAR COP Co-funding Contribution**	**Objectives**
DREAMS Innovation	18,636,052	4,047,719.50	0	4	7,017,740	Reduce risk of HIV transmission if AGYW
VMMC-Central Funds	13,285,000	1,904,325.50	13,285,000	1	3,233,656	Scale up of VMMC services
Education Expansion Initiative	90,000,000	0	0	TBC	$7,017,740	Reduce HIV incidence of AGYW in Malawi
Elizabeth Taylor AIDS Foundation PPP	2,000,000	2,000,000	-	1	8,000,000	Prevention, case finding and treatment of men
TOTAL	**51,686,944.00**	**7,452,045.00**	**42,286,944**		**$8,467,311**	

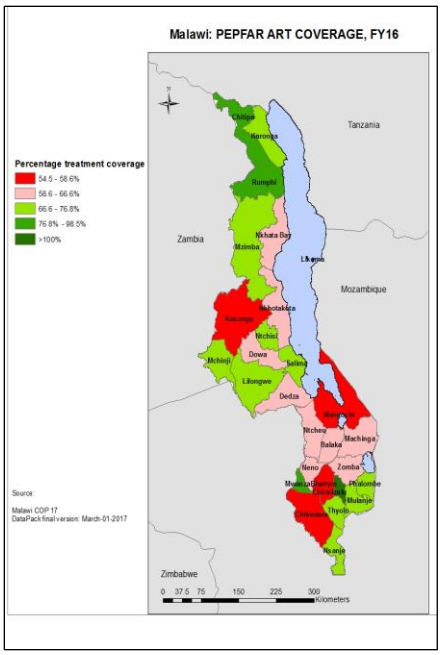
2.3 National Sustainability Profile

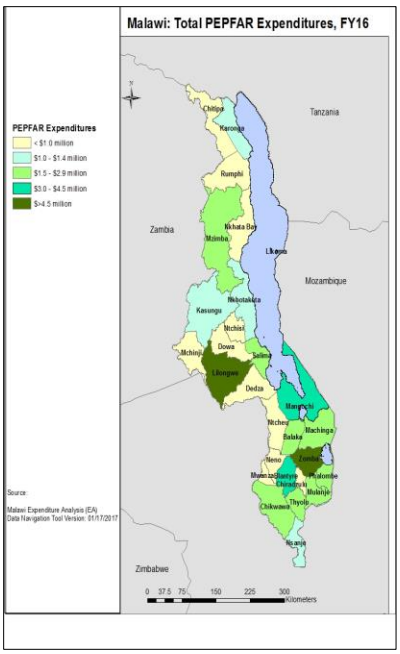
Malawi's HIV response is built around a public health approach that is low cost and largely facility based. While the SID development exercise was critically important in its engagement of key stakeholders during COP 16, there are few to no substantial changes to report for COP17.

2.4 Alignment of PEPFAR investments geographically to disease burden

The maps below illustrate the burden of HIV and ART coverage in PEPFAR supported sites, and the geographic distribution of PEPFAR expenditures. They largely reflect how PEPFAR strategically focuses investment in high burden, scale-up districts. The picture is not as consistent when it comes to gaps in ART treatment coverage. The MPHIA data suggests that treatment coverage for some districts has changed somewhat from prior estimates. In COP 17, PEPFAR is expanding investments in the five high-burden, scale-up districts with the greatest treatment gaps: Blantyre, Mangochi, Zomba, Machinga, and Chikwawa.







2.5 Stakeholder Engagement

Government of Malawi

The PEPFAR Malawi team meets frequently with the Department of HIV/AIDS (DHA) and the Directorates of Planning and Human Resources in the Ministry of Health (MOH). PEPFAR Malawi also works with other key units in the MOH, including the Health Technical Support Services Department (includes Diagnostics and Supply Chain Management), the National TB Program, and the Central Monitoring and Evaluation Department. The National AIDS Commission (NAC) is another critical counterpart, particularly for VMMC, DREAMS, and key populations programming. NAC convenes the national AGYW Task Force, which was critical to national and district roll out of DREAMS programming. USG staff members participate in GOM convened technical working groups (TWGs) and meet as needed to coordinate program implementation and monitoring efforts.

MOH officials participated in the 2017 Washington, DC Management Meeting (DCMM), results of which PEPFAR shared and discussed with CSOs, International Non-Governmental Organizations (INGOs), and GOM actors. Representatives from the MOH DHA and Planning Department as well as NAC have been invited to attend the COP17 Approval Meeting along with CSO representatives. PEPFAR continues to discuss with the MOH the Global Fund Funding Request (FR) to ensure harmonization of donor resources. Drawing on successful data review and stakeholder meetings, PEPFAR will continue to hold quarterly joint meetings with MOH to review programmatic performance, share successes, and discuss implementation challenges for shared solutions.

Global Fund and other External Donors

The PEPFAR Malawi team members actively participate in the monthly HIV/AIDS Donor Group (HADG), which USAID currently chairs, and Health Development Partners Group (HDG). These fora bring together donors (bilateral and multilateral) to discuss the progress of national health programming investments and identify solutions for issues of concern.

PEPFAR engagement with the Global Fund Country Team in Geneva as well as the entities on the ground governing and managing GF resources remains strong. USG staff supported the development of the TB/HIV and Malaria Funding Requests for Allocation Period 2017-2019 valued at $450 million. PEPFAR data – such as planned targets for FY18, lessons learned from the first two years of DREAMS implementation, and PSM strategic information – were shared with the HIV writing team, Global Fund Country Team, and Principal Recipients to support the Funding Request development. The CDC Health Services Branch Chief is the bilateral representative on the GF Country Coordinating Mechanism (CCM) and Chair of the Resource Mobilization Committee. PEPFAR Malawi leadership communicates regularly with the Global Fund Country Team on key programming decisions.

PEPFAR and UNAIDS were centrally involved in the creation of the Program Implementation Unit (PIU) that serves to ensure programmatic momentum (differing from the governance role of the Country Coordinating Mechanism). The current interim director is paid from the

grant though receives an additional salary increase from UNAIDS to cover his compensation package. Recruitment for a permanent director is underway.

Civil Society

Since POART Q4 2015, PEPFAR Malawi holds quarterly stakeholder meetings to engage civil society organizations (CSOs) in the review of PEPFAR progress and planning efforts in partnership with the MOH and UNAIDS. This includes collaboration to develop solutions to address challenges down to the site level.

During the COP 17 development process, PEPFAR held monthly stakeholder meetings starting in December 2016 to share information on guidance and development processes, programmatic data, and strategic direction. This included a Panorama Spotlight training session in January 2017 to build capacity to allow CSOs to utilize this tool as part of PEPFAR's transparency and accountability efforts. At that meeting, PEPFAR distributed a survey to all participants to better track CSO concerns and better plan future engagement.

The PEPFAR field and headquarters teams reviewed written CSO feedback received prior to DCMM and used this input to ensure CSO input addressed throughout the DCMM sessions. PEPFAR Malawi then responded to the identified priorities during a stakeholder meeting following DCMM (10 March 2017). This year PEPFAR Malawi will both receive written feedback on the draft SDS (shared prior to submission) and meet directly with Civil Society at MANASO to discuss feedback for incorporation. PEPFAR will use dialogue following SDS submission to prepare for the approval meeting (in which CSOs will be represented and fully engage).

Private Sector

There is a very limited private sector in Malawi so most engagement occurs with Foundations and non-governmental organizations (NGOs) at the global level. A few examples include:

- **UNITAID** is expanding POC EID platforms in 2017 and 2018 through CHAI and UNICEF with input from PEPFAR.
- **Children's Investment Fund Foundation** (CIFF), as part of the ACT initiative, is co-funding activities to increase pediatric access to care and treatment services.
- **Girl Effect** Foundation, a global DREAMS private-sector partner, is working closely with PEPFAR Malawi and the National DREAMS Task Force to develop a brand for girls and provide mass media communication support for implementation of AGYW interventions.
- PEPFAR-supported partners work closely with private sector and NGO providers to deliver integrated HIV/FP services through **social franchise**.
- PEPFAR and the **Elton John Foundation** are coordinating to ensure complementarity in programs reaching out to MSM in PEPFAR supported districts.
- Through a new partnership with the Elizabeth Taylor AIDS Foundation (ETAF), PEPFAR Malawi will intensify case finding and treatment efforts for men in Mulanje district. COP 16 efforts to reach men for testing and linkage to treatment are working with **private sector employers**, including **tea and tobacco estates**, to improve

access to and utilization of services. COP 17 communities testing and prevention service delivery will continue to seek opportunities for effective private sector collaboration.

3.0 Geographic and Population Prioritization

PEPFAR Malawi priority populations in COP 17 include men and adolescent girls and young women (AGYW). PEPFAR will target these populations closer to where they live, work and go to school to better reach high risk individuals who are not presenting at public facilities.

Based on Small Area Estimates using a combination of Spectrum estimates and MPHIA results, the number of PLHIV in Malawi decreased from 1.1 million in COP 16 to 979,896 in COP 17. The ten districts categorized as scale-up in COP 16 will continue as scale-up districts in COP 17; however, five districts, with the highest burden and the widest gap to saturation, will be accelerated towards saturation in COP 17 (now deemed 'acceleration districts') (see table 3.1[1]). Even though a few districts may have attained saturation based on the overall ART coverage rate, none attained saturation in all age and gender disaggregated bands.

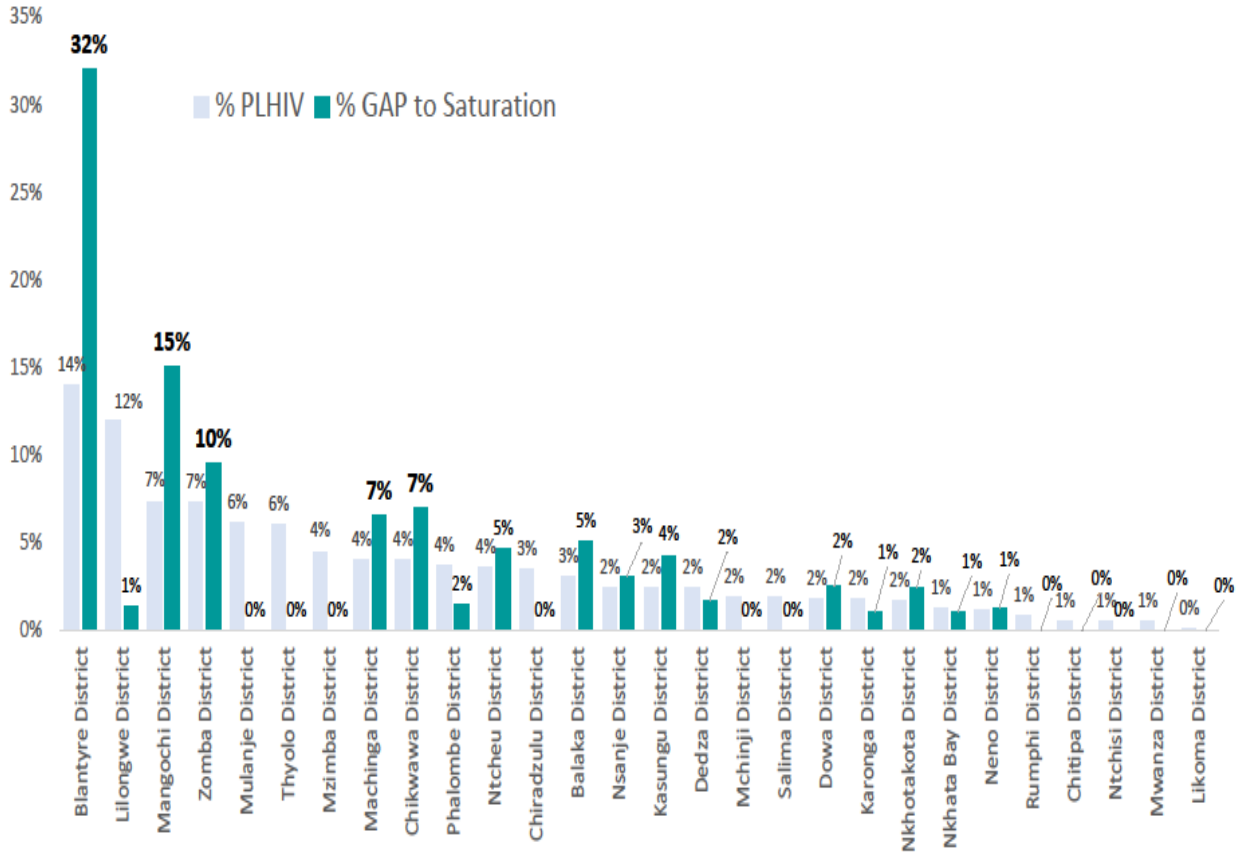
T able 3.1: Summary of Five Scale-up Districts targeted for Acceleration

District	Classification	Current Coverage of PLHIV as of end of Q1 FY17	Projected saturation of the district at current average net new enrollment rates BY END OF FY17	Strategy for FY18 VS CURRENT AVERAGE NET NEW
Blantyre	ScaleUp Sat	55%	60%	ACCELERATE
Lilongwe	ScaleUp Sat	74%	80%	SCALE-UP
Mangochi	ScaleUp Agg	56%	62%	ACCELERATE
Zomba	ScaleUp Sat (DREAMS)	64%	69%	ACCELERATE
Mulanje	ScaleUp Sat	74%	82%	SCALE-UP
Thyolo	ScaleUp Sat	82%	88%	SCALE-UP
Mzimba	ScaleUp Sat	79%	86%	SCALE-UP
Machinga	ScaleUp Agg (DREAMS)	61%	66%	ACCELERATE
Chikwawa	ScaleUp Sat	59%	65%	ACCELERATE
Phalombe	ScaleUp Sat	72%	77%	SCALE-UP
Total/Average		**67%**	**72%**	

[1] This does *not* result in a deceleration in any of the scale-up districts (e.g. Lilongwe) which maintain investment as scale-up.

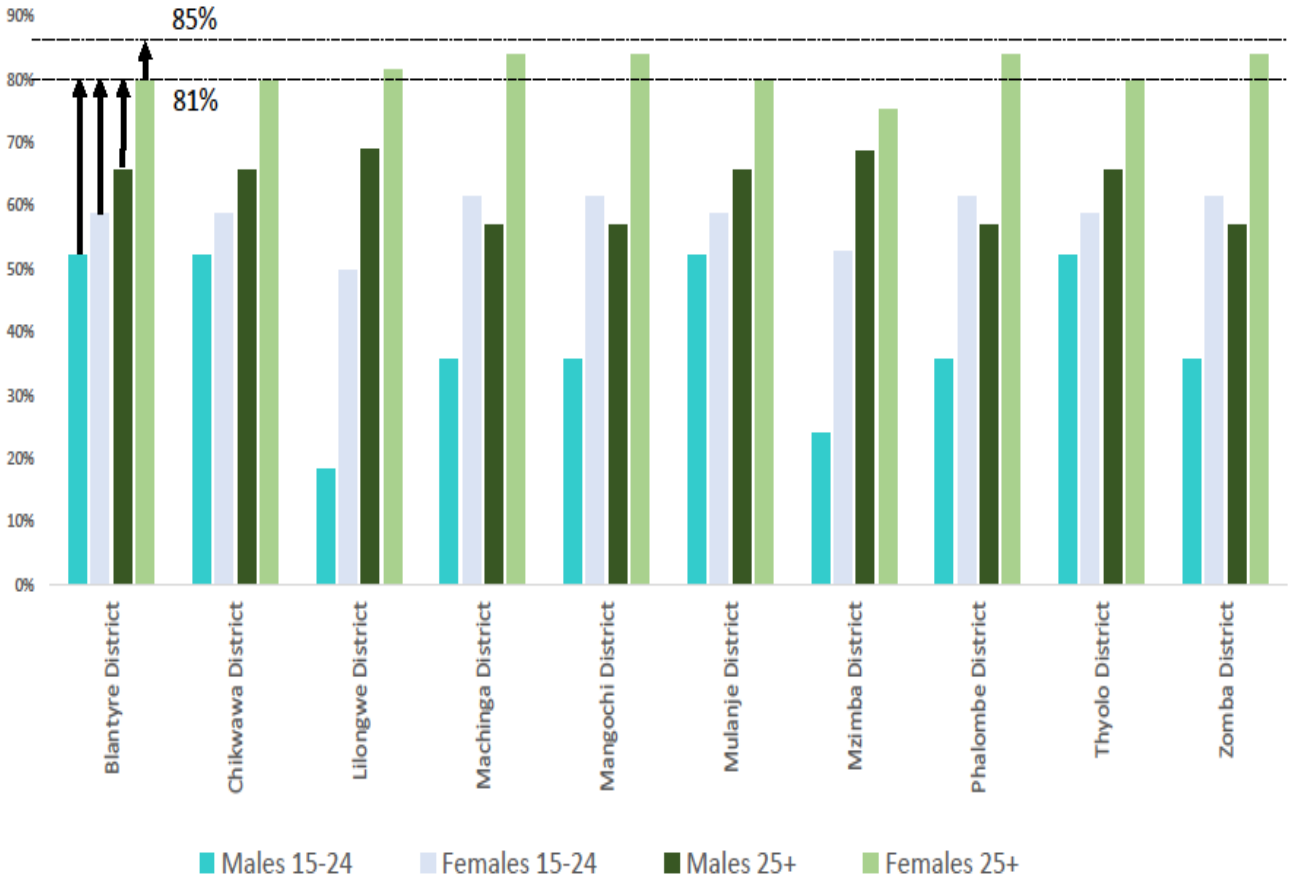
Figure 6 below illustrates graphically the disproportionate contribution to the national gap to saturation of the 5 districts targeted for acceleration in FY18. If we can achieve saturation across all age-stratified gender bands in the 5 targeted acceleration districts by the end of FY18, this will eliminate 70% of the national gap to saturation.

Figure 6: Proportional Distribution of PLHIV by District vs. Proportional Distribution of National Gap to Saturation (MPHIA SAE 2016)



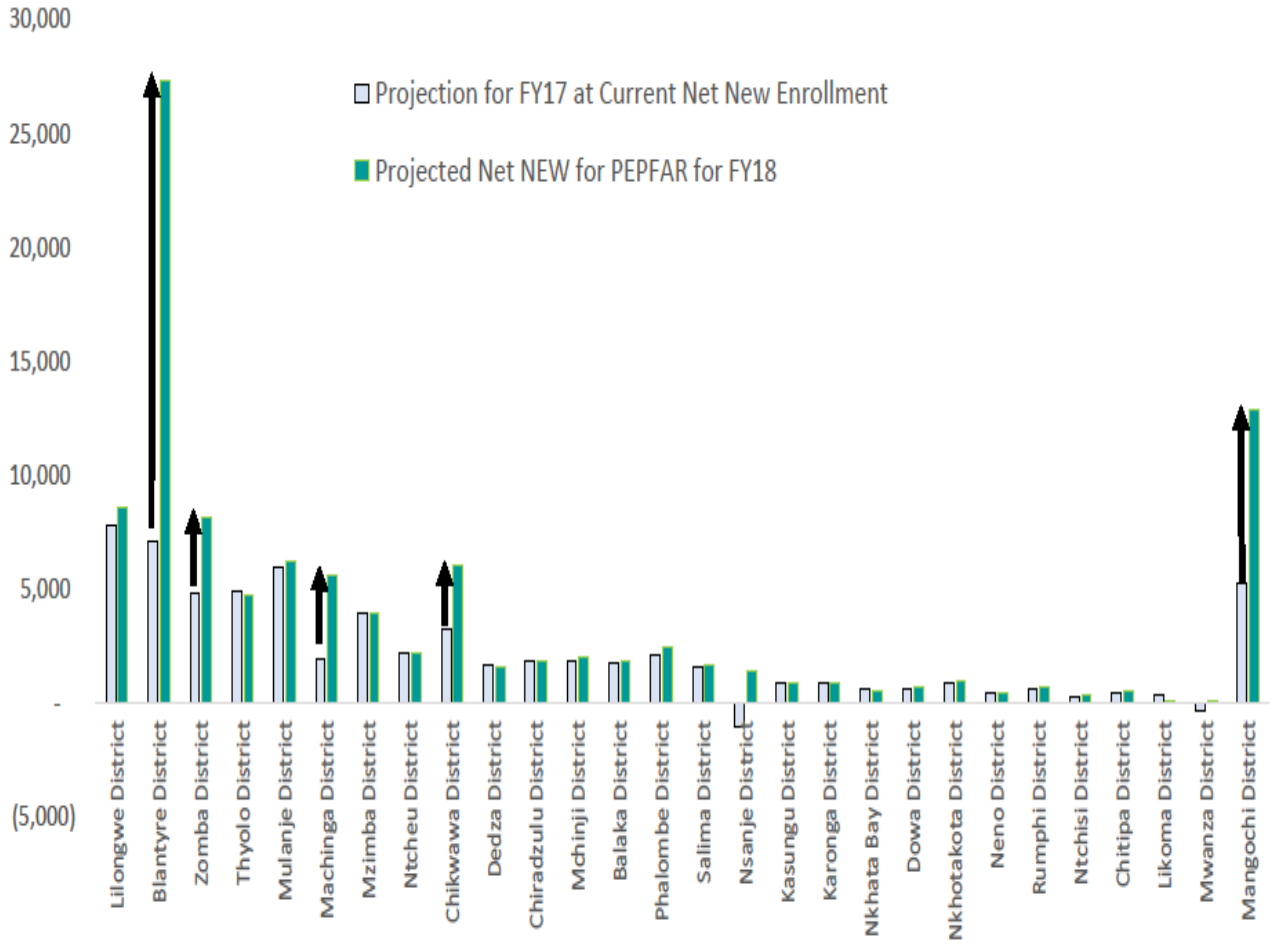
A core component of target setting for FY18, is to ensure saturation (>81% coverage) across all age-stratified gender-bands in the 10 scale-up districts by the end of FY18. The PEPFAR team is targeting >81% saturation for all youth <25 and all men 25 and older. These population groups are furthest from saturation and therefore a focus for COP 17. Because females 25 and older have already reached saturation (≥81% ART coverage) as of the end of FY16 across all 10 scale-up districts (MPHIA), the team is targeting ≥85% saturation in this population group in the 10 scale-up districts (see Figure 7). Programmatic strategies to better reach youth and men are described in the strategy sections for testing and treatment.

Figure 7: Target Saturation Levels by Age and Sex across the 10 Scale-up Districts by FY18*



To graphically indicate the intended geographic re-focusing, PEPFAR projected forward average net-new enrollment at current rates for all 28 districts (as indicated by the grey bars in Figure 8) and compared with targeted net new ART enrollment in FY18 across all 28 districts (indicated in the turquoise bars in Figure 8). Figure 8 indicates the much needed focus on Blantyre and the other 4 acceleration districts in FY18. Focus on these five acceleration districts is starting now (in FY17) and will continue in FY18.

Figure 8: Improved Geographic Pivot: Projected Acceleration in Five Acceleration Districts to Ensure Achievement of>81% Saturation Across all Age-Stratified Gender Bands in the 10 Scale-up Districts by end of FY18



*Note that the 5 acceleration districts are: Blantyre, Chikwawa, Mangochi, Machinga, and Zomba

No districts in Malawi have saturated voluntary male medical circumcision (VMMC) in 15-29 year olds. PEPFAR Malawi will continue to deliver VMMC services in seven scale-up districts – Zomba (one of two DREAMS districts), Blantyre, Lilongwe, Chikwawa, Thyolo, Mulanje and Phalombe. The other DREAMS district, Machinga, will receive TA to strengthen VMMC implementation as the World Bank currently funds service delivery in the district. While the GOM prioritizes the 10-34 year age group for circumcision in the National VMMC Strategic Plan. PEPFAR will focus demand creation for clients aged 15-29 years to reach 80% VMMC coverage over the next five years (see table 4.1.2). In COP 17, 70% of circumcisions conducted will be provided for men aged 15-29 years through targeted service delivery strategies. PEPFAR also provides VMMC services in military settings and TA to MOH to enhance data for decision-making, national VMMC communications, and quality assurance.

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

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

Entry Streams for ART Enrollment	Tested for HIV (APR FY18) HTS TST	Newly Identified Positive (APR FY18) HTS TST POS	Newly initiated on ART (APR FY 18) *TX_NEW*
Adults			
TB Patients	11,788	6,663	6,396
Pregnant Women	290,811	13,262	12,934
VMMC clients	37,983	403	363
Key populations	-	-	-
Priority Populations	-	-	-
Other Testing	1,430,568	119,708	124,559
Previously diagnosed and/or in care	-	-	-
Total Adults	1,765,033	140,036	144,192
Pediatrics (<15)			
HIV Exposed Infants	*27,607*	568	540
Other pediatric testing	*206,595*	11,058	*9,952*
Previously diagnosed and/or in care	-	-	-
Total Pediatrics	*234,202*	11,626	*10,492*
TOTAL	***1,999,235***	***151,662***	***154,684***

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

SNU	Target Populations	Population Size Estimate (SNUs)	Current Coverage (FY16)	*VMMC_CIRC* (in FY17)	Expected Coverage (in FY18)
Lilongwe	15-29 yrs. old	343,118	35%	35,000	45%
Blantyre	15-29 yrs. old	181,549	43%	8,800	62%
Zomba	15-29 yrs. old	107,767	56%	15,992	58%
Thyolo	15-29 yrs. old	90,013	54%	7,451	64%
Mulanje	15-29 yrs. old	74,851	64%	8,600	69%
Chikwawa	15-29 yrs. old	75,571	50%	7,451	68%
Phalombe	15-29 yrs. old	47,857	70%	7,400	84%
Military _SNU	15-29 yrs. old			3,533	
	Total/Average	**920,726**	**54%**	**94,227**	**64%**

Table 4.1.3 Target Populations for Prevention Interventions to Facilitate Epidemic Control

Districts	KP Population Size Estimate (scale-up **SNUs**)[2]	KP Coverage Goal (in FY18)	KP FY18 Target
Blantyre			
FSW	3151	100%	3157
MSM	688	162%	1114
Lilongwe			
FSW	3133	81%	2528
MSM	854	145%	1237
Mzuzu/Ekwendeni Mzimba North	1587	100%	1582
FSW	741	109%	806
MSM			
PIVOT2			
Mzimba South			
FSW	--	--	1840
MSM			806
Thyolo			
FSW	--	--	400
MSM			50
Mangochi			
FSW	1024	308%	3155
MSM	529	98%	518
Zomba			
FSW	1038	117%	1219
Machinga			858
FSW	867	99%	
Sustained District Targets (6)[3]	N/A	N/A	1166
FSW			1093
MSM			
Total KP Prev			
FSW	(10,800) in six districts	100% in six districts	**15,047**
MSM	(3023) in six districts		**6,482**

AGYW			
Districts	**AGYW (10-24) Total Population Size Estimates**[4]	**AGYW (10-24) Total Coverage FY18**	**Vulnerable AGYW (10-24) FY18 Targets**
Machinga			
10-14	47654	23%	10890
15-24	69,570	28%	19,410
Zomba			
10-14	47488	31%	14880
15-24	72,436	46%	33,470
Blantyre Urban/Rural			
10-14	82290/**56184** urban	2% urban	1347
15-24	139,317	8%	11,452
Mangochi			
10-14	76,696	1%	825
15-24	116,635	7%	7,704

[2] These figures represent validated PLACE findings for FSW in the six supported districts. Mangochi and Zomba numbers are low, however, seasonal expansion and contraction impacts on targets.

[3] Global Fund is supporting expansion of PLACE studies to 15 additional districts by UNC in FY17. These districts include Kasungu, Dedza, Dowa, Ntcheu, Mchinji, Salima, Karonga, Nkhata Bay, Chikwawa, Neno, Mwanza, Balaka, Thyolo and Nkotakota. In proposed expansion to sustained districts, size estimates are not available. KP coverage by Global Fund and Elton John Foundation Investments includes Nkhatabay, Mchinji, Thyolo , Ntcheu and Zomba (MSM).

[4] 2008 Malawi Population and Housing Census Report: Appendix 3- Projection by Districts According to Age Groups and Sex, 2018

Mulanje 10-14 15-24	 40683 64,855	 2% 12%	 815 7,611
Chikwawa 10-14 15-24	 36051 58,571	 2% 10%	 645 6,024
Phalombe 10-14 15-24	 29352 42,562	 3% 18%	 836 7,798
Total: **10-14** **15-24**	 360,214 **563,946**	 8% **17%**	 **30238** **93,469**
Other Priority Populations			
Priority Population	**Population Size Estimate (scale up SNU)**	**Coverage Goals (In FY18)**	**FY18 Target**
FSW Clients	KP hotspots Machinga, Zomba, Blantyre, Mangochi	60% clients in targeted hotspots	Machinga :1511, Zomba: 2161, Blantyre: 5696, Mangochi: 5625, Lilongwe: 1039 **Total : 16,032**
Males in high burden facility catchment areas (inc. OVC household members, male champions, leaders, high risk male groups)	Machinga, Zomba, Blantyre, Mangochi, Mulanje, Chikwawa, Phalombe	88 of 146 facility catchment areas	Blantyre: 11,452;Zomba: 15,603; Machinga: 14,574; Mangochi: 9355; Mulanje: 9242; Chikwawa: 7315; Phalombe: 9469 **Total: 77,010**
Females in high burden facility catchment areas (incl. OVC household members, mentor moms, teachers, leaders)	Machinga, Zomba, Blantyre, Mangochi, Mulanje, Chikwawa, Phalombe	88 of 146 facility catchment areas	Machinga: 3,676, Zomba: 2,952, Blantyre: 9,431, Mulanje: 9514, Mangochi: 9630, Phalombe: 9748, Chikwawa: 7,531 **Total: 52,482**
Fishing communities	Zomba & Machinga: 34,250 Mangochi: 41,698	9 beach village committees s in Zomba; 16 in Machinga; 113 in Mangochi	Zomba: 5,215; Machinga: 4,757; Mangochi: 13,171 **Total: 23,143**
Prisoners[5]	9583/13 prisons Lilongwe, Blantyre, Zomba, Mzimba, Thyolo, Ntcheu, Nkhatabay,Rumphi,and Dedza	16%	Blantyre: 120, Lilongwe: 170, Mzimba: 425, Thyolo: 350, Ntcheu: 50, Nkhatabay: 166, Rumphi: 200, Dedza: 50 **Total: 1531**
Military personnel and catchment areas	89,963 (MDF catchment areas incl soldiers and civilians)	11%	**Total: 9725**
Peace Corps[6]: Youth:aged:10 – 24	Blantyre, Lilongwe, Machinga, Mulanje, Chikwawa, Balaka, Chiradzulu, Dedza, Dowa, Kasungu, Mchinji, Karonga, Chitipa, Mangoch, Thyolo, Zomba, Nkhatabay, Rumphi, Mzimba, Ntcheu and Ntchisi.	30%	**Total: 5287** (3658 females and 1567 males)
Total:			**307,386**

[5] Prisoners are not specified in the datapack, but they are specified in DATIM

[6] Peace Corps Volunteers contribute to PP Prev targets for AGYW in Blantyre (300), Balaka (300), Chikwawa (250), Chiradzulu (100), Chitipa (250), Dedza (50), Dowa (50), Karonga (150), Kasungu (200), Lilongwe (175), Machinga (400), Mchinji (50), Mulanje (675), Mangochi(600), Thyolo(350), Zomba(200), Nkhatabay(275), Rumphi(200), Mzimba(425), Ntcheu(50), Ntchisi(175).

Table 4.1.3 Target Populations for Prevention Interventions to Facilitate Epidemic Control						
Districts	**FSW Population Size Estimate** (scale-up **SNUs**)[7]	**MSM Population Size Estimate** (scale-up **SNUs**)[8]	**FSW Coverage Goal (in FY18)**	**FSW FY18 Target**	**MSM Coverage Goal (in FY18)**	**MSM FY18 Target**
Blantyre	3151	688	100%	3157	162%	1114
Lilongwe	3133	854	101%	3184	145%	1671
Mzuzu/Ekwendeni Mzimba North	1587	741	100%	1582	109%	806
Mangochi	1024	529	308%	3155	98%	518
Zomba	1038	211	117%	1219		
Machinga	867	-	99%	858	-	-
Sustained District Targets				1384	-	890
Total KP Prev	(10,800) in six districts	(3023) in six districts		**14,797**		**4,999**

AGYW						
Districts	**AGYW (15-24) Total Population Size Estimates**[9]	**AGYW (15-24) Total Coverage FY18**	**Vulnerable AGYW 15-24 FY18 Target**[10]	**AG (10-14) Total Population Size Estimates**	**AG (10-14) Coverage Goal**	**Vulnerable AG (10-14) FY18 Targets**
Machinga	69,570	28%	19,410	47654	23%	10890
Zomba	72,436	46%	33,470	47488	31%	14880
Blantyre Urban/Rural	139,317	8%	11,452	82290/**56184** urban	2% urban	1347
Mangochi	116,635	7%	7,704	76,696	1%	825
Mulanje	64,855	12%	7,611	40683	2%	815
Chikwawa	58,571	10%	6,024	36051	2%	645
Phalombe	42,562	18%	7,798	29352	3%	836
Total:	**563,946**	**17%**	**93,469**	360,214	8%	**30,238**

Priority Population	**Population Size Estimate (scale up SNU)**	**Coverage Goals (In FY18)**	**FY18 Target**
FSW Clients	KP hotspots Machinga, Zomba, Blantyre, Mangochi	60% clients in targeted hotspots	Machinga :1511, Zomba: 2161, Blantyre: 5696, Mangochi: 5625 **Total : 14,993**
Males in high burden		88 of 146 facility	Blantyre: 11,452;Zomba: 15,603;

[7] Figures represent validated PLACE findings for FSW in the six supported districts. Mangochi and Zomba numbers are low, however, seasonal expansion and contraction impacts on targets. Global Fund is supporting expansion of PLACE studies to 15 additional districts by UNC in FY17. These districts include Kasungu, Dedza, Dowa, Ntcheu, Mchinji, Salima, Karonga, Nkhata Bay, Chikwawa, Neno, Mwanza, Balaka, Thyolo and Nkhotakota. In proposed expansion districts, size estimates are not available. Shaded areas include KP current coverage by Global Fund and Elton John Foundation Investments.

[8] MSM size estimates are less accurate. Site walks and PLACE findings only identified MSM hotspots based on sexual networks. These sites attract younger MSM versus older high risk MSM. New strategies are required to identify older MSM "hotspots" for improved size estimates and targeting. Targets reflect higher number than current size estimates based on planned additional reach.

[9] 2008 Malawi Population and Housing Census Report: Appendix 3- Projection by Districts According to Age Groups and Sex, 2018

[10] DREAMS targets (AGYW 10-24) was set for Zomba and Machinga with intention to reach >80% of most vulnerable identified in the district based on vulnerability criteria (OVC and 5% estimate of other vulnerable populations used as proxy for targets). Blantyre targets and coverage is only for 3 facility catchment areas of Chileka, Bangwe, and South Lunzu. Other districts reach OVC AGYW.

facility catchment areas (inc. OVC household members, male champions, leaders, high risk male groups)	Machinga, Zomba, Blantyre, Mangochi, Mulanje, Chikwawa, Phalombe	catchment areas	Machinga: 14,574; Mangochi: 9355; Mulanje: 9242; Chikwawa: 7315; Phalombe: 9469 **Total: 77,010**
Females in high burden facility catchment areas (incl. OVC household members, mentor moms, teachers, leaders)	Machinga, Zomba, Blantyre, Mangochi, Mulanje, Chikwawa, Phalombe	88 of 146 facility catchment areas	Machinga: 3,676, Zomba: 2,952, Blantyre: 9,431, Mulanje: 9514, Mangochi: 9630, Phalombe: 9748, Chikwawa: 7,531 **Total: 52,482**
Fishing communities	Zomba & Machinga: 34,250 Mangochi: 41,698	9 Beach Village Committees in Zomba; 16 in Machinga; 113 in Mangochi	Zomba: 5,215; Machinga: 4,757; Mangochi: 13,171 **Total: 23,143**
Prisoners[11]	9583/13 prisons Lilongwe, Blantyre, Zomba, Mzimba, Thyolo, Ntcheu, Nkhatabay, Rumphi ,and Dedza	16%	Blantyre: 120, Lilongwe: 170, Mzimba: 425, Thyolo: 350, Ntcheu: 50, Nkhatabay: 166, Rumphi: 200, Dedza: 50 **Total: 1531**
Military personnel and catchment areas	89,963 (MDF catchment areas incl soldiers and civilians)	11%	**Total: 9725**
Peace Corps: Youth:aged:10 - 24)	Blantyre, Lilongwe, Machinga, Mulanje, Chikwawa, Balaka, Chiradzulu, Dedza, Dowa, Kasungu, Mchinji, Karonga, Chitipa, Mangochi, Thyolo, Zomba, Nkhatabay, Rumphi, Mzimba, Ntcheu and Ntchisi.	30%	**Total: 5287** (3658 females and 1567 males)
Total:			**306,347**

Table 4.1.4 Targets for OVC and Linkage to HIV Services

SNU	Estimated # of Orphans and Vulnerable Children	Target # of active OVC (FY18Target) OVC_SERV	Target # of active beneficiaries receiving support from PEPFAR OVC programs whose HIV status is known in program files (FY18 Target) OVC*
Lilongwe	211,892	15,672	7,836
Blantyre	110,308	11,906	5,953
Zomba	73,029	37,789	18,895
Mangochi	99,537	39,155	19,578
Mulanje	50,797	14,431	7,216
Machinga	60,223	27,513	13,757
Chikwawa	50,222	10,325	5,163
Phalombe	35,802	8,859	4,430
TOTALS	691,811	165,650	82,825

[11] Prisoner targets are only reflected in DATIM.

4.2 Priority Population Prevention

DREAMS- AGYW

The MPHIA confirmed that AGYW (15-24) remain a critical priority population to reach due to high HIV incidence compared to male age-peers. Malawian adolescent girls experience early sexual debut, childbearing, marriage and school dropout, while reporting high GBV incidence. Barriers to health care services are well documented due to stigma, poor health care provider attitudes and low coverage of post-GBV care. HIV positive AGYW in treatment are also more likely to be lost to follow-up. In December 2016, Malawi's President called for national action to reduce AGYW HIV infection, early pregnancy and GBV and to improve educational outcomes. He also created an inter-ministerial AGYW task-force to produce a coordinated national AGYW strategy for multi-sectoral investments.

In FY16 and FY17, PEPFAR's DREAMS initiative spearheaded national efforts reaching high risk AGYW in Machinga and Zomba districts with a comprehensive evidence-based DREAMS package. Using the girl roster, by FY17Q1, over 19,000 AGYW were enrolled in out-of-school clubs and were receiving DREAMS HIV prevention interventions through the DREAMS toolkit, village savings and loans (VSL) groups, as well as linkage to HIV/SRH services provided through youth friendly mobile outreach. DREAMS funded school-based interventions, including enhanced life skills education, mentoring through mothers groups, and teacher training in primary and secondary schools, together with DREAMS implementers, helped bring 585 learners back to school. These interventions also resulted in traditional authorities annulling 82 child marriages. Targeted prevention activities reached FSW and underage girls in hotspots. DREAMS' FY17 expansion to 13 additional catchment areas in Zomba and Machinga will recruit an additional 12,000 girls into clubs. Nevertheless, we will meet DREAMS targets by the end of FY 17, high need among out-of-school AGYW outstripped capacity for wide geographic coverage, and effective GBV responses remained a challenge. Expanding reach to vulnerable 10-14 year olds, including those engaged in transactional sex, is a new priority for FY 17 and FY 18.

COP17 funding will:

- Increase geographic coverage in Zomba and Machinga (adding seven high burden catchment areas) to reach 81% saturation of high risk AGYW in the two districts and expand DREAMS programming to three high burden facility catchment areas in Blantyre.
- Implement DREAMS-like interventions in five additional scale-up districts leveraging OVC platforms.
- Improve coverage of the most vulnerable girls (10-24) through refined vulnerability criteria in more geographic locations. The girl roster assessment tool will be supplemented by OVC household assessments, mentor mother's group referrals, and facility referrals for AGYW identified in ANC, maternity and HIV clinics.
- Roll-out a new GBV prevention module through AGYW club activities and facility and community partners will collaborate to strengthen GBV response at all levels.

- Leverage DREAMS Innovation Challenge resources for educational support, employment/skill building opportunities and improved mobile-health and facility-based youth friendly health services (YFH services).
- Continue to support district coordination through the placement of Peace Corps (PC) volunteers for effective layering of interventions, strategic coverage of interventions and M&E.
- Place 10 PC education volunteers in targeted secondary schools for student friendly school approaches.
- Reach sexual partners of AGYW, initiated under Test and Start funds, to link high risk men to HIV and VMMC services

Multi-Sectoral Approach for AGYW: Central Education Expansion in Malawi
There is growing evidence that keeping AGYW in school can help reduce HIV incidence by delaying sexual debut, preventing child marriage, reducing risk of sexual abuse, and increasing independence from patriarchal power structures[1]. In Botswana, an observational cohort study showed that adding an average of one extra year of secondary schooling was associated with a 36% reduced lifetime HIV acquisition risk[2]. Increasing access to secondary schools through installment of additional secondary school classrooms (Pre-Fabricated structures) will increase the aggregate number of seats available to increase the capacity for girl student enrollment. In full alignment with the COP 17 strategy, a proposal for additional resources to ensure adequate classroom space for AGYW will be a game changer in Malawi and a critical element of the PEPFAR approach to interrupt transmission.

High HIV prevalence among AGYW (8%) and low levels of HTC among men in Blantyre District created an immediate need for DREAMS expansion. PEPFAR Malawi will implement the comprehensive DREAMS package in 3 urban/peri-urban high burden sites in Blantyre and a secondary school located within the Blantyre military barracks. DREAMS will build on existing KP and OVC platforms that reach OVC/FSW/AGYW in schools, households and communities to rollout DREAMS interventions to AGYW and their sexual partners. DREAMS will pursue aggressive HIV case identification among AGYW and male partners, through comprehensive community wellness programs that include mobile outreach testing, as well as screening for hypertension, diabetes and STIs. Providers will offer newly identified positive clients same day ART initiation with peer navigators to support treatment linkage.

Additional services for HIV negative AGYW will include risk screening, linkage to family planning, GBV response and prevention, economic empowerment, and school reintegration for dropouts. HIV positive AGYW will be linked to teen clubs for improved adherence and viral suppression. These girls will be mobilized to create demand among their high risk peers for HTC, family planning and other prevention services, and enrollment in club activities.

In order to improve layering of comprehensive services in COP 17, PEPFAR Malawi will develop and deploy an electronic unique identifier system to track interventions individual

AGYW are receiving within DREAMS. This system will build on lessons learned from other countries and Malawi's unique ID systems for OVC and KPs. Services to be tracked include access to mobile outreach integrated FP/HIV health services, condoms, post GBV services, VSLs and other economic support, school support services, HIV prevention, and enhanced GBV prevention. DREAMS will continue to monitor and evaluate program outcomes through DREAMS SNUs, Project SOAR's DREAMS implementation science[12] already underway, and a LAg Avidity recency study in Machinga, Zomba, Lilongwe and Blantyre. Pending TWG approval from the GOM, two PrEP demonstrations projects are planned to reach approximately 500 FSW and vulnerable young women through one facility in Lilongwe and one KP drop in center in Blantyre. Advocacy efforts are currently underway regarding PrEP feasibility assessments with FSW/ MSM, alongside CHAI investments with MOH.

PEPFAR Malawi will expand DREAMS-like AGYW activities across other scale up districts with COP, coordinating with other investments including Global Fund and Give Girls a Chance to Learn (formerly Let Girls Learn). Rapid increase of AGYW programming will occur in 5 more scale-up districts leveraging the integrated OVC and prevention platform (Lilongwe, Phalombe, Mangochi, Mulanje, Chikwawa). DREAMS-like interventions will target men and high risk AGYW to improve risk avoidance and GBV prevention. Strategic overlay of OVC and KP investments in Lilongwe and Mangochi will also ensure that under-aged girls engaged with sex and FSW children are provided with OVC and educational support. PCVs will continue working with out-of-school and in-school youth, ages 10 to 24 years, implementing after-school boys and girls clubs and community-level Girls Leading Our World (GLOW) holiday and weekend camps. PCVs will also use the DREAMS toolkit and enhanced Grass Roots Soccer referring at-risk AGYW for HTS. Strong partnership in design of Global Fund and Give Girls a Chance to Learn interventions will enhance comprehensive responses for AGYW including FSW in Mangochi, Lilongwe, Chikwawa, Phalombe, and Mulanje. Girl Effect will also continue to do mass-media communications under their girl brand through DREAMS clubs in Zomba, Machinga, Mzuzu, and Lilongwe to promote awareness of GBV, HIV, SRH, and empowerment.

While DREAMS overall targets in FY 16 were not achieved, Malawi's PP_PREV target was exceeded. Significant momentum was gained in FY 16 Q4 and FY 17 Q1 and at this pace the program is on track to meet FY 17 targets for coverage. Greater emphasis will be placed on ensuring layering of interventions so that girls are reached comprehensively with multiple services. The introduction of the referral and linkage register has helped in this regard but measuring exposure to multiple services is still a challenge. PEPFAR Malawi introduced quarterly meetings of all DREAMS partners at national level to review and address performance challenges and sharpen strategies. Aggressive monitoring at field level and technical support was provided to low performing partners and good progress was observed in Q1.

[12] Project SOAR's DREAMS implementation science efforts involve research to understand gaps, effectiveness and costs in the implementation of evidence-based best-practices within the DREAMS program. Specific DREAMS implementation science research efforts focus on linkage and retention programs for AGYW, reaching and linking to care male partners of AGYW and PrEP for AGYW.

Gender-Based Violence

PEPFAR analyses have highlighted GBV prevention, impact mitigation, and comprehensive post-GBV services as a continuing gap, disproportionately affecting vulnerable children, AGYW, women, and key populations[13]. While Malawi has made progress in addressing gender issues, as evidenced by the passage of recent national legislation[14] and the development of various national plans in recent years, the policy environment may not be sufficiently enabling, and the government does not yet have adequate capacity to operationalize GBV responses at district level. While a combination of DREAMS and COP funded resources provide an opportunity to expand targeted community social behavior change interventions to address GBV, raising awareness of the change in the legal age of marriage, and facilitating linkages to post-GBV care, there are significant challenges to delivering comprehensive clinical, legal and psycho-social support services in both static and mobile outreach sites.

While districts have victim support units (VSU) managed by the Malawi Police Service, VSUs are frequently restricted to urban locations, far from rural communities, and difficult to access in an emergency. One Stop Centers providing a complete package of post-GBV care are rare and even more difficult for the most vulnerable to access. Coordination with health facilities for timely post-rape support is lacking, and health providers have limited capacity to respond to GBV cases. Low uptake of GBV services in mobile outreach has also been a challenge, with mobile teams having insufficient trained staff and commodities to fully identify and address the needs of GBV survivors. Low-uptake is exacerbated by the fact that such teams, by virtue of their mobility, rarely offer consistent follow-up support.

The new national ART guidelines (2016) do not provide comprehensive SOPs for managing cases of gender based violence, but do include administration of post exposure prophylaxis (PEP). Notably the guidelines permit lay cadres, such as police, to provide the first dose of PEP. This new policy provision, which requires PEP training for these lay cadres, has not been well understood or implemented. Past PEPFAR support expanded the number of trained social welfare/child protection officers in targeted districts that provide linkage for OVC to VSU and legal services. However, these officers' efforts likely resulted in few GBV legal actions against perpetrators of violence.

COP 17 will provide more focused GBV responses at the health facility level, together with increased screening and linkage at both the household level for OVCs and the community level for AGYW and other vulnerable populations. PEPFAR's community and DREAMS platform will address harmful gender norms and reduce stigma through community mobilization of gatekeepers and capacity development of district officials. CBOs, volunteers, and GBV Facilitators and Community Action Groups (CAGs) will work with communities to increase awareness around GBV and services offered to victims using an evidence-based curriculum. PEPFAR-supported providers in priority districts will be trained to incorporate

[13] VACS 2015, PEPFAR Gender Analysis 2016

14 The Divorce and Family Relations Act (2015) raised the minimum age of marriage to 18; moreover, the National Plan of Action to Combat GBV in Malawi (2014-2020), the National Plan of Action for Vulnerable Children (2015-2019), the draft National Violence Against Children Plan of Action and the draft National Gender and HIV Implementation Plan (year) each integrate priorities from the country's NSP and draft National Gender Policy (2014).

GBV sensitization and clinical protocols in facilities to improve the quality of post-rape care. Under DREAMS, implementing partners will develop targeted approaches to expand comprehensive GBV programming to reach OVC and AGYW in clubs and in schools. Moreover, community and facility partners will develop SOPs elaborating post-GBV care pathways between community, facility and school settings and VSUs, One Stop Centers, and social welfare/child protection officers. Community resource persons, social welfare/ child protection officers and outreach clinicians will also implement screening tools to better identify those survivors of GBV in need of services. Although GBV is reported annually in DATIM, all DREAMS partners report GBV results quarterly using external data collection resources. This data will be used to monitor performance toward target achievement, create improvement plans and determine geographic hotspots for GBV where interventions should be intensified.

PEPFAR will build on KP GBV rapid response strategies to reach a wider population of vulnerable populations. KP GBV prevention and mitigation efforts also include documentation of human rights abuses and closer collaboration with the Malawi Human Rights Commission. Documentation of GBV/abuse and stigma reported by KP through PEPFAR supported activities will inform operational policies for HIV at national and district levels. Such documentation will also inform best practices at the district and community levels. Collaboration and partnership with the new GBV initiative ($7M), supported by the State Department's Office of Global Women's Issues (S/GWI) and Girl Effect will also be key in scaling up awareness, demand creation, advocacy and programming for GBV.

Key Populations (KP)

The Malawi National Strategic Plan and the Global Fund highlight the need to reach FSW, MSM and Transgender populations (TG) with targeted approaches and safe, non-stigmatizing services, due to the high HIV and GBV burden in these populations and the numerous barriers these groups face in accessing and utilizing services. NAC recently established a national KP TWG to facilitate strategic planning and coordination of national KP investments under GF, PEPFAR, Elton John Foundation, and MSF. With PEPFAR support, NAC established national and district FSW coordination structures to build capacity for beneficiary leadership. New KP standard operating procedures were incorporated into national STI management, HTS, condom and clinical HIV guidelines. PEPFAR FY16 resources also supported operational guidance for service delivery and the development of M&E tools including a unique ID and DHIS e-Cascade to track KP linkage and retention. PEFPAR provides ongoing technical assistance to NAC and Global Fund recipients for KP programming. CHAI facilitates a national dialogue for PrEP, and UNC is conducting a PrEP feasibility assessment for FSW.

In FY16, PEPFAR Malawi rolled out KP services in high burden districts: Lilongwe, Blantyre, Mzuzu, Mangochi, Zomba and Machinga. The recently released UNC PLACE study identified hotspots and developed size estimates. PLACE size estimates were validated by peer educators in March 2017 through physical site walks, resulting in refined FSW size estimates and locations of additional geographic hotspots for FSW. High seasonal mobility of KPs in specific districts in Zomba and Mangochi was noted. PLACE also identified size estimates and hotspots for MSM, but these estimates are likely low due to the fact that older MSM were not

well counted. While new strategies are being piloted to reach older high risk MSM, high sero-conversion rates (1.7%) among current MSM reached require continued prevention activities to mitigate transmission.

Differentiated service delivery models for KPs include 17 (13 for FSWs and 4 for MSM) drop-in centers, mobile/outreach in hotspots two to three times per week, two one-stop private clinics, and linkage to supported public health facilities by peer educators/navigators. Site and district based clinical cascades are analyzed monthly to determine service access. While the number of KP receiving services is high, HTS provided was lower than expected in FY16. Introduction of screening tools in FY17Q1 confirmed a high number of known HIV positive FSW who require a separate clinical cascade to ensure treatment linkage and retention. Of eligible KPs tested, high positivity rates (40%) among FSW and successful ART linkage (74%) suggest both high need and acceptability of services. In DREAMS districts, younger girls engaged in transactional sex and children of FSW were identified for linkage to education and OVC services. PEPFAR Malawi is also targeting male clients of FSW with peer outreach and services.

Training of health care providers, police, bar owners and district Drop-in Center (DIC) committees fosters an enabling environment to address stigma in clinical settings, improves GBV response strategies, and facilitates access to commodities and ART/ PEP access in DIC. The KP service package provided includes routine peer educator/ navigator support, condoms and lubricant, family planning, STI screening and treatment, TB and cervical cancer screening, quarterly checkups (for SRH/STI services and transport), GBV rapid response, and adherence support. Self-testing is also being piloted in KP sites in collaboration with UNITAID and Gates funding.

COP 17 will optimize strategies to facilitate immediate treatment initiation, address leakages in the clinical cascade, and expand hotspot coverage in scale up districts. Within current implementation districts, activities include rollout of ART to DIC to enhance PEP and treatment access in safe spaces, case management of HIV positive clients, and same day ART initiation through clinical partnership. Strengthened facility responses will include collaboration with peer navigators around clinical cascade management, adoption of the unique ID system in some public facilities to track mobile FSW, and expanded training of health providers for KP responsive services. Strategies to reach older high risk MSM will continue to be assessed. Service coverage in hotspots will include clinical partnerships to identify and reach male clients with evening services and targeted peer educators and linkage strategies. Adolescent girls engaged in transactional sex within hotspots will also be provided with clinical services and linked to OVC and educational support. Piloted VSL for FSW will also be implemented.

An additional mechanism will expand KP activities to six additional districts—Thyolo, Mzimba South, Ntcheu, Chiradzulu, Mchinji and Nkhatabay. The Global Fund and the Elton John Foundation support KP programs in Nkhatabay, Mchinji, Thyolo and Ntcheu, however, there are gaps in linkage to ART, retention and access to viral load testing. PEPFAR will strengthen coordination between KP implementing partners and PEPFAR's facility based partners in four of these six districts to achieve treatment and viral suppression goals ("the

second and third 90"). Start-up activities underway in FY17 include additional district mapping leveraged under GF expansion of PLACE for size estimates. In Mzimba South and Chiradzulu, PEPFAR will recruit and train peer educators/peer navigators; and develop the capacity of health facilities to provide KP-friendly services. District FSW coordination structures will be key in KP mobilization strategies. Service delivery will include: clinical skills training for health service providers, social and sexual network strategies (SNS); HIV self-testing (supervised and unsupervised); flexible clinic hours (including weekends and evenings). For MSM, services will also include Know Your Provider Sessions (KYPS), allowing them to develop a rapport with providers before they visit clinics.

Operations research and capacity development activities will include continued implementation of the KP GBV and stigma study, self-testing, community option model for ART, and continued technical capacity development of sub-partners. The PEPFAR will continue to provide technical assistance to ActionAid and GF sub-recipients to adopt tested KP service delivery models and tools for activities in supported districts. A national technical advisor placed at NAC will continue to facilitate rollout of effective service delivery models and coordination of GF supported CSO capacity development. Leveraged PEPFAR KP investments from the Department of State, GF, and Elton John Foundation funded programs will strengthen documentation of rights violations, advocacy and linkage to protection and legal services for both LGBTI (principally MSM) and FSW.

Review of partner performance during FY 16, demonstrated strong achievement of coverage of KP prevention interventions but also pointed to the need to re-calibrate testing targets given the high numbers of already known positives identified. Linkage rates well below national averages point to greater emphasis on provision of treatment at specialized DIC sites and peer navigators to support service access at public facilities. Quarterly review of progress of partner performance will assess these strategies to improve linkage. As the local sub-partners gain implementation experience in KP service delivery, cost efficiencies will also be gained through elimination of organizational capacity development support from an international partner in COP 17. Monthly meetings are held with KP and treatment partners to review district cascade analysis and ensure coordinated responses. Refinements in targeting and bottlenecks will be addressed through partner specific action plans.

Reaching Men

MPHIA results showed low viral load suppression and HIV testing among males aged 15-40. Low viral suppression is mainly due to unknown HIV status, as well as low treatment linkage or adherence to ART. Findings are congruent with MOH DHA data which shows a large gap in HIV testing uptake between males and females. Males are less likely to go for HTC and initiate treatment when they are healthy due to poor knowledge and low risk perception, masculinity norms, stigma, perceived barriers to service access (i.e. distance and time), quality of health care (i.e. perceived female spaces, privacy/confidentiality, bicycle security), and lack of

effective community linkages or targeted service delivery models. Moreover, once on treatment, VLS rates for men are considerably lower than for women[15].

In FY17, PEPFAR initiated research to inform targeting strategies for AGYW male partners and preferred service delivery models. PEPFAR surveyed rural and urban men in Machinga, Zomba, and Blantyre, including FSW clients. Survey findings confirmed the need for extended clinic hours, self-testing, integrated mobile outreach services, and SBCC initiatives for Test and Start.

In COP17, proposed strategies to increase male reach will build on the strategies and lessons learnt in FY17. Male oriented service delivery strategies for testing and ART initiation will include expanded PITC (through male oriented entry points like STI, inpatient wards); flexible service delivery hours (weekend, extended hours, dedicated male days); targeted site-based infrastructure changes to improve privacy and security of bicycles; mobilization and outreach testing in KP and geographic hot spots; integrated TB/HIV outreach case finding, and addressing norms of masculinity to encourage early service up-take. The Public Private Partnership (PPP) agreed between OGAC and Elizabeth Taylor AIDS Foundation will enable PEPFAR Malawi to leverage existing community platforms to improve strategies to reach men for prevention, testing, and linkage to treatment. Expanded partnership with private sector as well as VMMC sites will further increase reach of targeted male populations.

Targeted male mobilization efforts will focus on Test and Treat, use of male PLHIV champions/role models, and community male peer navigators. Male partners of HIV positive females will be reached through a combination of expanded community mobilization, mobile and index case testing and linkage activities, as well as an increased number of male expert clients in supported facilities. Retention and adherence will be increased through targeted individual and group peer support, proposed alternative service delivery models, and active defaulter tracing. PEPFAR Malawi will monitor strategies for HTC yield, linkage rates, and retention over time (See Fig 4.3). COP 17 will use an integrated platform in DREAMS districts and Mangochi, targeting fishing communities (leveraging existing USAID climate change outreach platforms) to reach new positives and previously diagnosed positive men for ART linkage. This activity will reach men through Village Beach Communities, provide integrated outreach health services on select days, ART linkage, and peer-led small group interventions to increase service uptake. Mobile outreach testing in DREAMS SNUs will specifically target AGYW partners with strategies such as integrated wellness clinics and male only clinic teams providing services in known hot spot areas including work places and informal settlements.

Additional research and analysis in DREAMS districts also shows a need for continued and increased focus on reaching AGYW male partners for community wide gender normative change. In FY17, 375 girls clubs in DREAMS districts surveyed about male partner characteristics identified teachers, vendors, fishermen and businessmen who provide money,

[15] While VLS rates for adults ages 15-64 overall are 67.6%, rates for men in this age cohort (58.6%) are significantly lower than those for women (72.9%), according to Malawi's MPHIA.

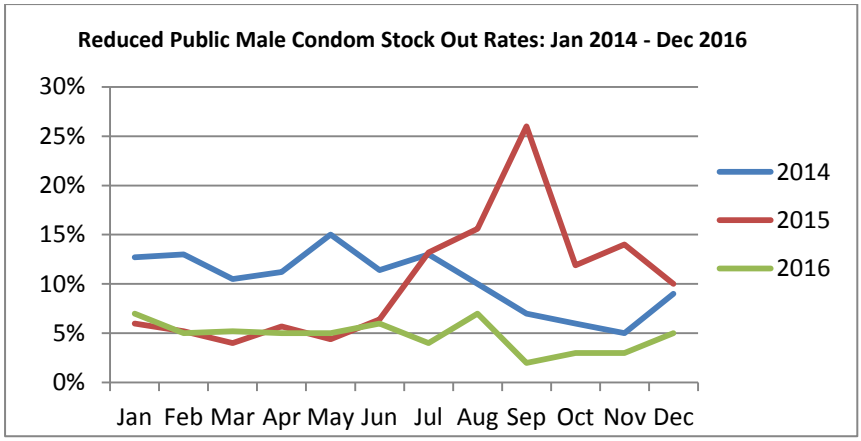
material goods, popularity, school achievement, and status seeking as factors that contribute to high risk sexual relationships. PEPFAR will continue investing in leaders and male gatekeepers and role models to strengthen positive gender norms, GBV and behavioral change interventions, including service uptake and condom use.

Males and females in prison settings remain underserved despite high prevalence of HIV and TB co-infections. In FY16, PEPFAR prioritized active case finding and ART initiation in four high volume prisons in Lilongwe, Blantyre, Zomba and Mzimba. In COP 17, active case finding and ART initiation will be offered in several medium and small prisons in Thyolo, Mzimba, Rumphi, Nkhatabay, Dedza and Ntcheu. This will bring the total number of prisons offering such services to 17. Prisoners receive a minimum prison health package for HIV and TB prevention, testing and treatment. This package includes HIV/TB screening for every prisoner at entry and subsequently every 3 months for those who test negative. In addition, prisons conduct mass screening biannually and for all prisoners upon exit. Prisoners testing positive are started on ART immediately. In high volume prisons, ART initiation occurs on-site; at smaller and medium sized prisons, inmates initiate treatment at the nearest ART center. STI screening is also provided as appropriate. Upon release, prisoners on ART and TB treatment are transferred to a health facility of their choice. Linkage registers are used to track down prisoners that are referred to other ART centers. A prison specific curriculum will also be introduced in eight prison settings for HIV and TB prevention.

Condom Programing

Reinvigorating condom programming as a core HIV prevention intervention is a national priority. Within the NSP, strategies include emphasis on a total market approach for comprehensive condom programming and effective and efficient supply. Targets to reach 280 million condoms per annum were set to increase condom consumption using traditional and non-traditional platforms.

Nationally, the MOH procures, warehouses and distributes condoms to service delivery partners. Nevertheless, condom availability, access, and stigma associated with both male and female condoms remain challenges among priority populations. Hence, in COP 16, PEPFAR facilitated the establishment of a dedicated supply of public condoms and lubricants to KP and community partners to reduce stock outs for these priority populations. Recent reports from LMIS are showing strengthened supply chain management (SCM) of condoms as evidenced in the marked reduction in stock outs of public sector condoms. The socially marketed CHISHANGO and CARE brands show record sales - CHISHANGO achieved 22,000,000 in 2016. Public sector male condom distribution also increased to 47,184,712 and lubricants to 500,000; however female condom consumption remains low at 884,092 in 2016. PEPFAR will continue working with GOM to strengthen SCM for procured public sector condoms and condom compatible lubricants.



In COP 17, PEPFAR will continue to champion a total condom market approach, mapping of condom distribution points and agents; technical assistance to operationalize national condom policy and strategy documents, and sharing of best practices for condom planning, programming, and monitoring, through public, private and socially marketing sectors.

Additional public sector condoms and lubricant will be procured as requested (Commodity Fund), warehoused and distributed to PEPFAR priority district community distribution channels. PEPFAR's community platform will distribute 12 million condoms in priority districts through community based condom distributors. Condom social marketing activities of CHISHANGO will expand coverage in urban areas and hotspots to reach 22 million condom sales again in 2017. CARE and the new Whisper female condom brands will be marketed in urban settings, through salons, and by FSW peer educators. Intensive demand generation activities at national and community levels will seek to increase demand for male and female condoms and lubricant among key and priority groups.

There have been no recent, major policy or guideline changes in these areas of prevention. However, key strategy changes are summarized as follows:

- High priority to improve EIDT results through assigning IPs specific targets to increase coverage of MIP/QI initiative (based on intervention coverage survey)
- 5 Acceleration District Prevention Plans: 160% increase in PP_Prev targets:
  - ✓ High reach of high-risk AGYW enrolled in out of school clubs & school-based activities
  - ✓ High risk male sexual partners (clients of FSW, men at workplace – tea estates, fishing communities, teachers)
  - ✓ Linkage to VMMC for HIV- men (PEPFAR or World Bank funded)

Performance remediation and action: One implementer with poor performance in PP_PREV was removed in COP 17; targets re-distributed to better performing implementers. Another implementer's complex, intensive, integrated OVC/community HIV prevention program had slow roll-out in FY 16 and thus is now submitting monthly data for review to ensure improved performance.

4.3 Voluntary Male Medical Circumcision (VMMC)

The GOM has an ambitious VMMC scale-up strategy for 2015-2020 implemented with financial resources from PEPFAR, the World Bank (WB) and the GF. For the last four years, PEPFAR Malawi has provided technical leadership to GOM and its funding contributes to the lion's share of national results, cumulatively at 296,282 circumcisions[16]. PEPFAR Malawi has relied heavily on central initiative funding to maintain direct service delivery in 8 districts for the past four years. In FY 17, $10M Central Initiative funds were received for continued scale up in these 8 districts to reach a target of 101,000 circumcisions. WB resources, implemented in 20 districts, using MOH routine service delivery and small campaigns, have contributed only a small number of VMMCs to date due to difficulties the MOH faced in rolling out WB supported plans. The National AIDS Commission is working to address weaknesses in monitoring and data collection and out-sourcing some service delivery to improve implementation of WB resources.

In COP 17, PEPFAR implementers will support GOM's VMMC strategy with a target of 145,337 circumcisions - 70% of which will be for men 15-29 years old. In the funding letter, PEPFAR Malawi will receive $13,285,000 from central funds for VMMC direct service delivery. In addition, PEPFAR Malawi is putting $3,173,824 in COP 17 to supplement central funds to achieve the set target. COP 17 VMMC funds will maintain program investments in the priority PEPFAR districts and TA support to GOM in implementation of the VMMC program funded by the WB and GF.

The major challenge in Malawi's VMMC program is low demand for services during the first three quarters of the year as demonstrated by low numbers reported by partners in Q1 to Q3 and reliance on seasonal (Q4) campaigns to reach the majority of targeted results. Critical review of partner performance in FY 16, guided COP 17 strategy development to emphasize consistent demand creation for 15-29 year olds and service delivery throughout the year, moving away from the seasonal campaign approach. In order to make this strategic shift, implementers will hire additional teams to improve availability of VMMC at additional static sites and intensify mobile service delivery throughout the year. PEPFAR plans to hire 120 health workers (registered nurses and clinical officers) through implementers to support this service delivery effort, drawing from the pool of PEPFAR supported pre-service graduates who are not yet employed. This strategy will increase the number of dedicated VMMC service provision teams from 15 to 35 across the 8 districts where PEPFAR is supporting VMMC services.

In FY16 PEPFAR stepped in (at the MOH's request) to support VMMC service delivery in Machinga and Mangochi until WB-supported VMMC began. Following the January 2017 in-person POART review dialogue with the MOH that followed, PEPFAR will shift level of effort and investments into the other PEFPAR priority VMMC districts. A new implementing partner will also take over service delivery in Chikwawa, Thyolo, and Zomba to improve performance in these key districts.

[16] PEPFAR Malawi Annual Program Report 2016

In FY 17 PEPFAR Malawi will provide technical assistance to MOH to revise the VMMC national communication strategy, and IPs will develop their specific demand creation and communication strategies. The demand creation messages will focus on other VMMC motivating factors like hygiene and sexual appeal and the use of invitation cards to target high profile working men. Additional community mobilisers will be recruited including use of satisfied clients and influential persons to bring in peer; chiefs and village headmen will be recruited and engaged as mobilizers. Site level capacity assessment will also be conducted in FY 17 and IPs will develop site specific capacity improvement plans. Starting in FY 17 all PEPFAR service delivery partners will integrate VMMC messages into other HIV services such as STI clinics, HTS, OVC, and DREAMS. Health care workers will be oriented to facilitate linkage of HIV negative males to VMMC services. PEPFAR will support the review of IEC materials and job aides for the community mobilisers and use print, audio and socio media to reach priority age group. VMMC will be integrated in school based activities targeting secondary and tertiary education institutions.

COP 17 key activities will include:

- Implementation of the VMMC minimum package of clinical and prevention services at every VMMC delivery point based on global guidance.
- Ongoing provider training on adverse events identification and management, safety and surgery, or devices.
- Clinical mentorship and supportive supervision; continuous quality improvement (CQI) activities and external quality assurance (EQA).
- Commodities consumption forecasting and supply chain management.
- Strengthening program monitoring to better understand what's working well for each age bracket and in collaboration with the MOH set up a national call center or hot line that will help to address the questions on VMMC and report any AE or missed appointments.
- Adjusting service delivery approaches to appeal to older men by extending hours and using separate waiting areas for older men to ensure privacy.

Two WHO prequalified VMMC devices (PrePex and Shang Ring) have successfully undergone acceptability and feasibility pilot studies in Malawi. MOH leadership endorsed PrePex and there are ongoing discussions to undertake active surveillance for PrePex devices in FY 18 according to the WHO guidance on tetanus vaccine. Shang Ring feasibility pilot results will be presented to MOH leadership in FY 17 and active surveillance will follow.

4.4 Prevention of Mother to Child Transmission (PMTCT)

The PMTCT program in Malawi is a model to many countries for implementation of Test and Treat for pregnant and breastfeeding women. The national HIV program report for Q3 2016, indicates 89% ART coverage for HIV positive pregnant and breastfeeding women, while in PEPFAR supported sites, ART coverage in April 16 was at 91%. Preliminary results (NEMAPP) indicates slightly higher ANC coverage and slightly lower ART coverage, compared to national program data with early MTCT at 4.2% among 4-12 week old infants. The study is ongoing and

will provide additional information about the outcomes and impact of Malawi's PMTCT program.

COP 17 will build on successes of COP 16 to maintain high levels of HIV case identification among pregnant women, maintaining high ART coverage among HIV positive pregnant and breastfeeding women while continuing to implement innovative strategies for improving retention and follow up for mother and infant pairs.

APR 16 results indicate low levels of HIV testing for HIV exposed infants within two months of birth - 34% - while testing at 12 months was at 84% with a high linkage rate of 99% for the identified HIV positive infants. The main focus for COP 17 will be to improve early infant diagnosis at 2 months to achieve 80% coverage. The strategies will include:

- Site level interventions:
    - Reinforce service quality standards through refresher trainings and mentorship
    - Implement standard operating procedures
    - Implement and scale up quality improvement activities and refine the most effective change package
    - Scale up Mother infant Pair clinics
    - Recruit, deploy and train expert clients for adherence, retention and peer support
    - Integrate EID in immunization clinics – data shows that more than 90% of infants receive first immunization at six weeks
    - PEPFAR IPs will collect EID data according to MER indicator

- Above site interventions:
    - Continue supporting and improving the sample transportation system and diagnostic platforms including reducing TATs
    - Provide technical support for EID POC roll out funded by UNITAID
    - Continue supporting laboratory information management systems.
    - Continue supporting supply chain management

In addition, PEPFAR partners will work with MOH to scale up repeat testing for pregnant women during 3rd trimester or labor and delivery as per HTS guidelines. For all HIV positive women, enhanced partner notification will be implemented to improve index testing to increase access to HIV testing among males. PEPFAR will also advocate more frequent viral load monitoring for pregnant and breastfeeding women (PBFW). Current guidelines for clinical management of HIV do not provide guidance on viral load monitoring for PBFW.

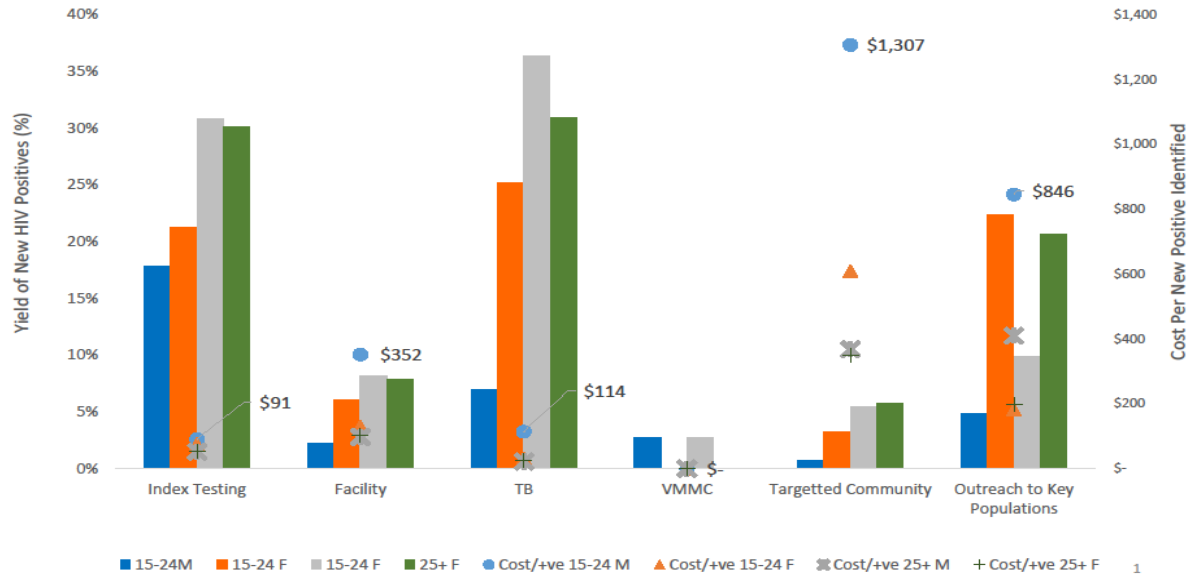
DREAMS funded activities encourage AGYW to reduce HIV vulnerabilities and unintended pregnancy as well as increase access to key HIV services including FP, HTS, STI, and post-GBV care and treatment. AGYW activities will be scaled up to all priority districts to improve HIV testing among AGYW through increased adolescent friendly services and developing models for adolescent friendly PMTCT services through recruiting AGYW peer supports, establishing mentor mothers support groups and sensitizing health care workers on adolescent friendly services.

No new PMTCT policy changes have been made and partner performance is consistent high except for one partner who will no longer support HIV service delivery.

4.5 HIV Testing Services

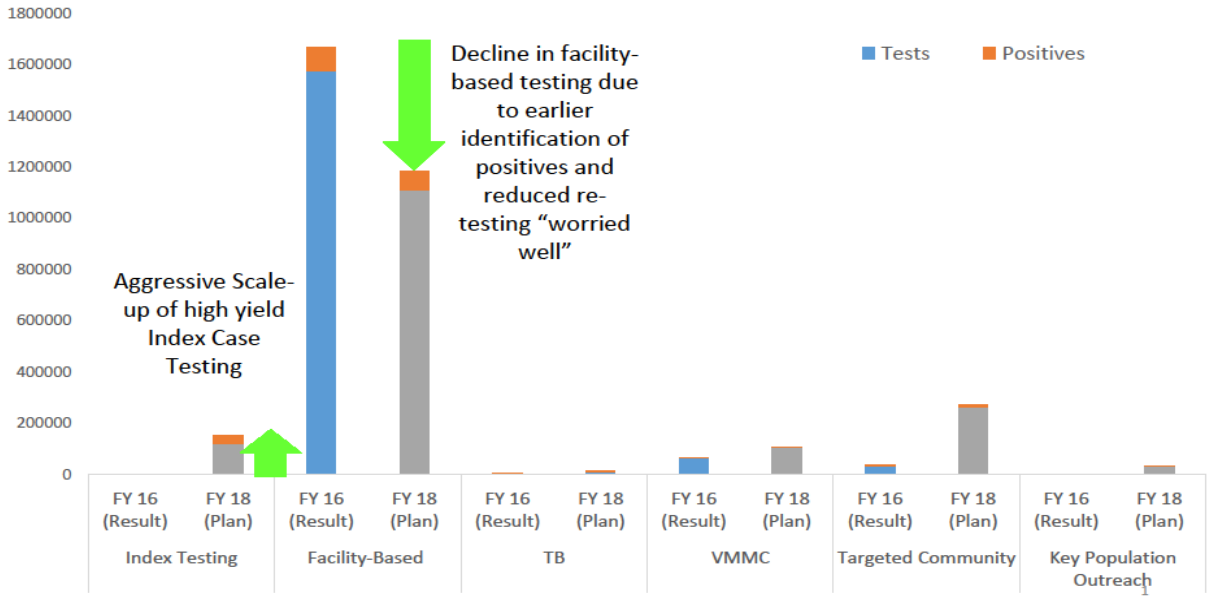
Reaching the first 90 is foundational to national treatment success. While Malawi is on track to reach the second and third 90s, identification of the remaining unknown positives will be its greatest task. Declining yield from almost all HIV testing entry points in FY16 compared with previous years, the declining prevalence of undiagnosed positives in the general population, limits to funding availability, and limited human resources, all mean that PEPFAR Malawi needs to more efficiently use available resources to find remaining positives to ensure 90-90-90 is reached before 2020. To inform the HIV testing strategy in FY18, the PEPFAR team developed a deterministic model to help inform the needed volume of tests, by age-stratified gender group, and by entry point to ensure that saturation targets in the 10 scale-up districts are reached. In other words, working back from the net new gap to saturation by age, gender, and district, we used real program data, and where necessary published data, to inform yield assumptions by age, gender and district, to estimate volume of tests required. We also used unit expenditure data in the PBAC to understand how increasing volume of tests for any entry point affected cost of testing in Malawi (Figure 10).

Figure 10: Analysis of Yield and Cost per Positive Identified by Entry Point, Age, and Sex



Following review of assumption regarding the proportional distribution of tests by age, sex, entry point, and district, we explored multiple scenarios for the FY18 testing portfolio. Ultimately, rapid scale-up of index case testing and reduced testing of the worried well (especially females 25 and older in Facilities, co-located VCT centers, or standalone VCT centers) was considered the best strategic approach to reach saturation targets in FY18 in all 10 scale-up districts (Figure 11).

Figure 11: Comparison of testing volume and number of positives identified between FY16 and FY18, using the new more efficient, age-, sex-, entry point- targeted testing strategy



Notably, the same deterministic model that was used to refine the testing strategy was used to inform age, sex-, and entry point-stratified targets, by district, in DATIM. This will allow us to monitor partner implementation of the revised testing strategy in FY18.

Refinements in FY17 are already underway with improved facility and community screening, and immediate strategic shifts based on enhanced monitoring. PEPFAR Malawi HTS strategy in COP17 will increase case identification through aggressive index testing and enhanced linkage to achieve >81% treatment coverage in scale up districts by end of FY18. Additional approaches to improve case identification include: saturating provider initiated HTS (PITC) in high yield settings, targeted community based testing (hotspots, workplace, schools, outreach), targeted demand creation, multi-sectoral support and linkages to treatment and prevention services to reach the 90/90/90 targets. Self-testing will be piloted among key populations and expert client self-test distributors will be deployed. Performance of partners and yield will be monitored quarterly and in some cases monthly during implementation for immediate program adjustments.

Aggressive index HTS strategies targeting sexual partners of HIV infected clients and these sexual partner's children will be implemented at facility and community levels in all scale up districts. All HIV testing entry points, ANC, STI clinics, and ART clinics will be targeted for index testing and standard partner notification tools will be developed. Different partner notification approaches such as contract referral, provider referral, dual referral and assisted HIV partner notification services will be implemented to reach the sexual partners of infected individuals at both community and facility levels. Know Your Child Status (KYCS) campaigns will be conducted to test children of unknown status born from HIV infected individuals.

Implementers will also expand partnership with high volume ART private clinics and hospitals in all scale up districts to expand index testing.

Targeted community based HTS (CBHTS) using mobile or outreach services will be conducted in hot spots, work places, schools, orphanages, youth clubs offering YFHS, and prisons to reach key and other priority populations such as men, AGYW, estate workers, truck drivers, fisher-folks, and prisoners. Implementing partners will also strengthen collaboration with district social welfare offices to reach orphans and vulnerable children (OVC). Screening tools, rolled out in FY17, are effective in identifying highest risk populations for testing as well as known positives in need of linkage and retention support. FY17 Q1 showed high positivity rates of 8-13% in community testing performance and confirmed that many FSW reached knew their HIV status (47%). These tools will be standardized at the national level for use across all partners. HIV testing, linkage and case management services will also continue in supported KP drop in centers.

MPHIA as well as APR data indicate that linkage to treatment for HIV positives needs improvement. Successful strategies for improving linkage to be scaled up in COP 17 include same day ART initiation, physical escort to ART clinic, use of a standardized linkage register in USG supported facilities, documentation of ART number in HTC register, and referral slips. Bidirectional referral between facilities and communities will be strengthened through the increased recruitment of expert clients, peer navigators and linkage nurses. HDAs will be conducting data review on monthly basis to determine successful referral and clients who have not registered in ART clinic will be followed up through phone calls or home visit.

Based on MPHIA 2016 data, reaching AGYW is a core priority for COP17. Strategies to reach more men include improving facility privacy through adjustments to infrastructure, extending clinic hours (weekends, lunch hours and evenings), testing at work places and implementing community wellness programs where HIV testing is integrated in other health services like screening for hypertension, diabetes and STIs. Strategies to improve linkage to treatment for men include same day ART initiation, extended hours, recruitment of male expert clients/ peer educators will be expanded in the scale up districts and collaboration with private facilities for improving linkage for males who prefer services at private facilities. AGYW, as part of the DREAMS package, will continue to be reached through integrated HIV and Family Planning community based health services with intensified focus on linkage of positives to treatment and negatives to continued prevention efforts. Strategies for reaching pediatrics will be case finding in OPD, immunization campaign, outreach under five clinics, and dedicated days for family HTS (know your child's status [KYCS] campaign).

To mitigate HRH challenges for HTS, PEPFAR Malawi implementing partners will continue recruiting and deploying dedicated lay HIV Testing and Services (HTS) providers and HIV Diagnostic Assistant (HDA), an initiative that started in COP15, to support enhanced case identification. A total of 1069 HDAs have been deployed, and COP17 will deploy additional HDAs after district specific analysis to determine HRH gaps in scale up districts. The DSD audit which includes the number of HDAs will be repeated in preparation for COP17 implementation.

The COP 17 target for HTS is **2,843,417**. This target has been set based on the data pack estimates for TX CURR target (790,243) and gap of PLHIV (27%) not reached with HTS. This target comprises of tests from PMTCT services, adult HTS and pediatric HTS excluding EID. Malawi MOH has assured PEPFAR that the rapid test kits (RTK) available in the country are sufficient to meet the set targets and PEPFAR will support facilities to strengthen the supply chain management (SCM) of RTK by ensuring adherence to use of daily activity registers and national SOPs to avoid stock outs.

PEPFAR Malawi will contribute to strengthening quality of HTS through ongoing mentorship, monthly supervision, observing minimum-maximum stock of RTKs and ensuring availability of HTS standard operating procedures (SOPs). PEPFAR will continue to support coordination of quality controls and proficiency tests to ensure quality of testing.

PEPFAR's HIV testing strategy will undergo the largest strategy revision and the national policy regarding self-testing is under discussion. Partner performance has been a challenge as partners are not achieving the PEPFAR targets for yield (though testing levels are at a record high). PEPFAR has consolidated its portfolio for HIV service delivery, increased funding to high performing partners and reduced funding to under-performing partners. Further, detailed age and gender disaggregated data will be collected more frequently, including monthly for new partners and those implementing new strategies.

4.6 Facility and Community Based Care and Support

In July 2016, Malawi started implementing the Test and Treat strategy for ART services provision. Currently, 94% of all ART sites in Malawi and 100% of PEPFAR supported sites are implementing Test and Treat services. The large majority of pre-ART clients transitioned to ART by FY17 Q1. Test and Treat removes the "eligibility bottleneck" and contributes to increased and early treatment initiation, and ultimately higher treatment coverage and reduced new HIV infections across the country, and particularly in saturation/priority SNUs.

APR16 and MPHIA showed the need to increase new case identification (the first 90) to attain saturation across priority SNUs and populations groups. The COP17 HTS priorities are presented in the HTS section. In FY16 with PEPFAR support, linkage to treatment improved, though gaps remain, especially among men and in urban settings. Overall, retention rates also improved, with variation among districts. Viral load monitoring showed significant improvement in FY16. Coverage among children and men remains a major issue. While MPHIA shows high level of community viral suppression overall, children, men and adolescents lag behind.

COP17 strategies are informed by analyses of the APR16 results and the findings of the Malawi PHIA data. These strategies aim to achieve ART saturation across age/sex bands, improve viral load monitoring coverage and achieve sustained viral suppression. Interventions will focus in scale up SNUs, especially the 5 Accelerated Districts, prioritized based on disease burden: Blantyre, Mangochi, Zomba, Machinga, and Chikwawa.

In priority sites, PEPFAR grantees will continue to implement a standardized package of DSD interventions to address service delivery bottlenecks and improve treatment outcomes (Table

4.6.1). A number of intensified approaches have been added in COP17. Linkage and retention systems will be supported, including the use of expert clients for ART enrollment, adherence counselling, and defaulter tracing. PEPFAR will work with Ministry of Health and civil society during FY18 to evaluate the role of lay cadres and create a plan to improve harmonization across programs as to pay, training, and activities and to ensure lay cadres are sufficiently resourced (supervision, IEC materials, communication means, M&E tools, transport allowance if they go to the community.) We will also link expert clients and other lay cadre directly to networks of PLHIV, support groups and CAGS and evaluate the strength of these groups during COP17.

A strong synergy between facility- and community-based activities is critical to achieve the 90-90-90 goals. In scale up districts, partners will implement bi-directional community-facility referral systems. Community-based implementers will partner with CBOs to deliver HIV/AIDS services: support groups, index case testing, linkage to economic strengthening activities such as village savings and loans. Community mobilization activities will target norms and behaviors that prevent HIV service uptake and treatment adherence and retention. In 7 of the 10 scale up districts PEPFAR will support at least one community engagement facilitator per site charged with coordinating with community based structures (including CSOs and support groups) to achieve increased targeted testing, treatment and viral suppression. Community health partners will also pilot TB screening using community volunteers in selected high burden communities.

Various differentiated service delivery models are being implemented in Malawi. Examples include drug refill visits every three months (with practitioner clinic visits every 6 months) for patients who are adherent and stable on ART, integrated TB/HIV clinics, ANC/ART clinics, teen clubs, and Community ART Groups. ART service delivery has been task-shifted with nurses playing a key role in ART initiation and follow up. Similarly, lay cadres such as Expert Clients are playing a leading role in treatment literacy, adherence counseling, and active defaulter tracing. PEPFAR implementing partners are currently (in FY17) piloting new models of differentiated service delivery (fast track ARV refill and Nurse-led Community ART (NCART) distribution). On the basis of these pilots PEPFAR will scale up these models later in FY17 and during COP17, especially in acceleration districts.

Retention rates of ART cohorts are monitored quarterly. The intervention package to improve retention includes low cost HRH support through the engagement of expert clients and volunteers, appointment reminders (registers, SMS technology, EMRS prompts, physical tracing), establishment and strengthening of support groups such as teen clubs. Expert clients and other lay cadre such as Community Resource Personnel and Community Engagement Facilitators will address barriers to retention such as stigma and discrimination, facilitate disclosure and partner testing, and enhance treatment literacy, linkage with economic strengthening and psychosocial support programs.

The following categories of patients will receive additional support for effective disease control:

- New Positives not yet linked to ART

- Patients with high viral load
- Patients who missed an appointment
- Defaulters
- HIV Exposed Infants with positive DNA PCR

Table 4.6.1 Package of services by district classification

	Package of Services for Districts	Acceleration	Saturation	Sustained	Centrally Supported
Second 90	ARVs: GF procurements for FY 18 are adequate	Monitor	Monitor		
	Site level clinical mentoring, QI and supportive supervision	X	X	Targeted remediation	
	National level quarterly supportive supervision	X	X	X	X
	Recruit and deploy ART providers	X			
	Infrastructure enhancements (N=new buildings; E= Expand physical space; R= minimal maintenance, renovations)	N,E, R (priority)	E,R	R	
	Equipment and furniture to meet MOH basic minimum standards	X	X	X	
	Differentiated ART service delivery models	X			
	Active Defaulter Tracking (HRH) – EC, CHWs	X	X	HSAs	
	HIV and TB TA to the national programs	X	X	X	
	TB diagnostics	X	X		
Third 90	Viral Load (lab systems) including sample transportation	X	X	X	X
	Site level clinical mentoring, QI and supportive supervision	X	X		
	National level quarterly supportive supervision	X	X	X	X

In COP17, PEPFAR Malawi's key strategies for the 2nd and 3rd 90s, especially in acceleration districts, will include:

- **Support Same Day ART Initiation:**
  - Increase the number of ART clinic days
  - Address HRH and infrastructure barriers that limit same day ART initiation
  - Integrate ART into OPD services
- **Scale up differentiated ART delivery** (e.g. fast track ARV refill, teen clubs, NCART)
- **Strengthen HIV services in Private Clinics:** designed to address access barriers, especially for urban men, upper socio-economic quintiles
  - Deploy HDAs to select private clinics, and support ART services through mentorship and in-service training
- **Strengthening Case Management for Newly Diagnosed Positives**
  - Offer a Treatment Supporter/ Peer Navigator to all newly diagnosed positives
  - Tailor approach for men, adolescents and young adults, families, key populations
  - Evolve the role of Expert Clients into Peer Navigators (case management)
  - Intervention informed by best practices in PMTCT and key pops programs
- **Increasing viral load monitoring coverage and suppression**

- Advocate for annual VL testing among children and pregnant and breastfeeding women
- Provide HRH and logistics support for active field tracing – (expert clients and community care supporters, community resource persons etc.; bicycles, motorbikes, phones)
- Conduct clinical audits on "high viral load results"
- Increase VL testing coverage across SNUs and patient groups
- Intensify counselling and peer support for specific patient groups e.g. parents of CLHIV, adolescents and young adults (AYAs), men
- Develop social networking platforms for peer support e.g. using WhatsApp
- Continued support of sample transportation system, and site level clinical mentorship for timely sample collection
- Prepare and distribute "viral load awareness" material and job aids to reinforce patient messaging on routine and targeted VL testing

Quality improvement activities will be given emphasis to address existing gaps and ensure that patients receive quality services.

Peace Corps Health volunteers placed in scale-up SNUs will collaborate with USG IPs for implementation of DREAMS and other behavior change prevention activities. Additionally, Global Health Service Partnership and Peace Corps health volunteers to be placed in PEPFAR priority districts to provide prevention education and activities and capacity building is currently underway.

In order to strengthen Partner Performance Management, PEPFAR Malawi has established processes that ensure closer and frequent monitoring of program implementation and results. These include: monthly meetings with IPs, site-level analyses of quarterly MER data, and implementation of remediation plans (including monthly data collection and analysis for select HTS and Treatment indicators), and changes to the M&E system so that key data such as age/sex disaggregation will be routinely available.

PEPFAR implementing agencies have made key partner related decisions based on performance including discontinuation of PEPFAR support for underperforming or inefficient partners as well as shifting responsibilities to a well performing partner.

4.7 TB/HIV

TB remains a leading cause of morbidity and mortality among HIV positive patients. In FY 16, 16,065 new and relapsed TB patients were diagnosed and initiated on treatment at PEPFAR supported sites. Of these, 72% (11,620) were diagnosed from 10 scale-up districts. Almost all (95.7%) of the TB patients diagnosed knew their HIV status. Fifty-six percent of TB patients notified from the scale-up districts in FY2016 were HIV positive. Nearly all (96.6%) of HIV positive TB patients were either already on or initiated on ART soon after a TB diagnosis was made. Since 2008, TB notification rates have been declining. Although this may be attributed to the scale-up of ART, the 2014 national TB prevalence survey showed that only half of expected TB cases are being diagnosed. The highest burden of disease is in urban areas with

prevalence rates as high as 1,000 per 100,000 population compared to 286 in rural areas. More innovative ways of TB case finding are required, particularly in urban districts. The National Strategic Plan for TB recommends active case finding in targeted settings.

The new WHO systematic TB screening and contact investigation guidelines were used to formulate the guidelines for systematic TB screening. The screening and diagnostic algorithms have been revised for PLHIV and GeneXpert. At community level, active case finding approaches in high transmission risk location include house-to-house TB screening and mobile units with x-rays and GeneXpert. Chest x-ray screening will be conducted for urban residents, prisoners, mine workers and health care workers followed by GeneXpert for those that screen positive. In line with WHO recommendations, Xpert will be used as initial test for presumptive TB cases among PLHIV wherever Xpert is available. The national TB guidelines are also being revised to reflect 2013 and 2015 WHO recommendations on reporting incident TB cases, (which excludes previously treated TB cases), and the case definition of relapse (for TB patients who successfully completed treatment). The national TB Preventive Therapy (TPT) policy is aligned with WHO recommendations, which require a minimum of 36 months of isoniazid for all HIV positive adults and adolescents in whom TB disease has been excluded in resource constrained settings with high TB incidence and transmission. The National Task force on TPT recommended life-long TPT for all ART patients in the highest TB burden districts, all of which are PEPFAR scale-up districts, namely: Lilongwe, Blantyre, Mangochi, Chikwawa and Machinga. These districts account for about 38% of the total population, 55% of TB case notification, and 40% of patients currently on ART. The MOH through Global Fund grant will procure commodities for TB preventive therapy for the 5 districts. The MOH plans to procure fixed dose combination formulations of isoniazid, pyridoxine and cotrimoxazole which reduces the pill burden and should improve adherence rates. In FY 17 and 18 PEPFAR will provide technical support to the National TB program to revise treatment guidelines and manage the transition to a new more effective and better tolerated pediatric anti-TB drug formulation and Short Treatment Regimen (STR) for Drug Resistant-TB administered for only 9-12 months instead of 18-24 months, which will result in better treatment outcomes.

COP17 activities in scale-up districts will include the following:

At above site level:

- Deploy TA to MOH to address capacity gaps for Program Implementation Including the following: M&E, Supply Chain, Active Case Finding, Drug Resistant TB-Survey, TB-Infection Prevention & Control and contact tracing.
- Provide in-service training, mentorship and supportive supervision for TB diagnosis and case management;
- Strengthen demand creation, service utilization and sample transportation for GeneXpert platforms
- Procure and maintain TB diagnostic equipment and supplies (LED microscopes, biosafety equipment, GeneXpert equipment & test cartridges, and other consumables) to enhance case finding and management.
- Engage Community Service Organizations and media to increase public awareness of TB and reduce stigma and discrimination of TB/HIV.

- Support implementation of the new IPT policy at participating sites in PEPFAR scale-up districts

At site level:

- Conduct systematic TB screening for children, adolescents and adult patients living with HIV including women attending PMTCT clinics
- Triage presumptive TB patients in high volume OPD, ANC, ART clinics and prisons
- Establish new TB diagnostic (including pilot Urine LAM) and treatment initiation sites at high volume PEPFAR supported sites
- Increase the coverage of HIV testing for confirmed and presumptive TB patients
- Increase rates of early ART and TB treatment initiation for co-infected patients, including fast-tracking HIV positive TB patients for ART.
- Expand the prisons TB/HIV screening program and link patients to HIV and TB treatment services in collaboration with non-PEPFAR partners
- Renovate sites to improve patient flow between TB diagnosis and enrolment into care for PLHIV
- Support sites to develop and implement facility specific TB infection control plans.

TB Cascade: Scale up Districts							
Variable	**TB Notifications**	→	**TB Patients with Known HIV status**	→	**HIV+ TB Patients among TB Notified**	→	**HIV+ TB Patients on ART**
COP17 Target	13,370	→	13,103	→	7,285	→	6,994
APR 16 Result	11,620	→	11,120	→	6,183	→	5,973

The bulk of TB commodities are procured by MOH through the Global Fund grants. PEPFAR will continue to provide technical assistance to program implementation, diagnostics and supply chain management at the national level. PEPFAR will convene regular meetings with grantees to monitor site level performance against targets. Remediation plans will be developed to address performance gaps.

4.8 Adult Treatment

A total of 662,788 patients were on treatment at the end of September 2016, representing an adult ART coverage of 68% (610,067 / 898,000)[17]. The Malawi Ministry of Health launched Test and Treat (T and T) in July 2016. This new policy was rolled out aggressively, despite challenges encountered with the delay in finalizing the guidelines and suspension of PEPFAR-funded trainings due to MOH staff refusal to attend without full per diems. As of December 2016, 94% of the 732 MOH ART sites were implementing T and T. PEPFAR achieved 100% implementation coverage in supported sites during the same timeframe. A higher proportional increase in the number of patients initiating ART was realized in Q4 in comparison to Q3, and this increment was greater in PEPFAR supported sites in comparison

[17] MOH, Malawi Integrated HIV Program Report (July-September 2016)

to the national program. PEPFAR sites achieved a 48% increase in ART initiations while there was a 31% increase nationally.

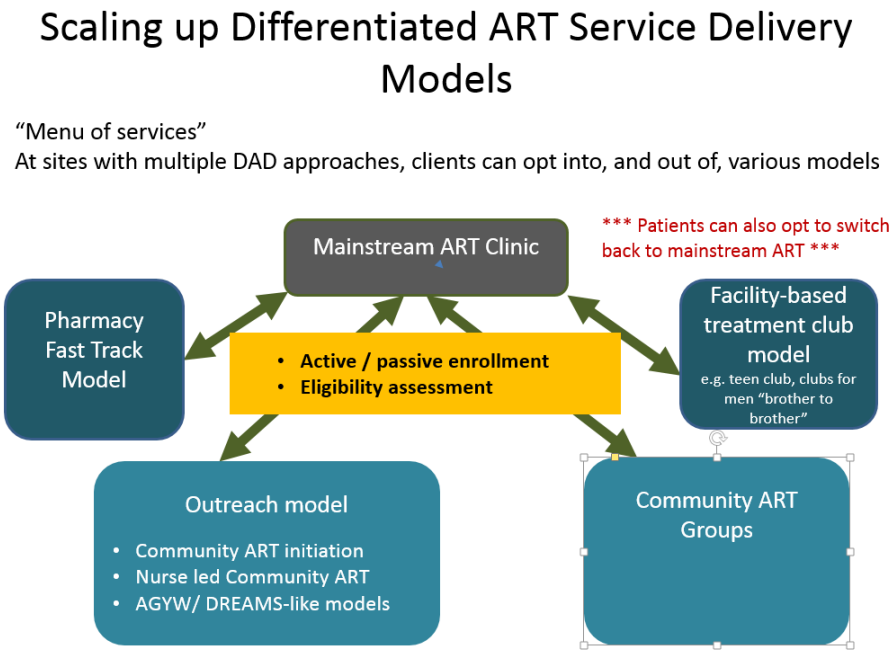
PEPFAR site level strategies to support T and T roll-out included early recall of the pre-ART cohort to initiate ART and active linkage of newly diagnosed positives. The majority of ART provider refresher trainings in 2016 were PEPFAR funded. As of Q1 FY17, 52% of high volume sites scheduled ART clinics 5 days a week and this will be scaled up further to improve access and early/same-day ART initiation. Although the national T and T communication strategy to increase public awareness of the importance of early ART initiation and adherence through T and T is still being finalized, PEPFAR implementers provided sites with simplified communication messages which were disseminated in various clinic settings. In FY 17 a higher proportion of sites in scale-up districts will have service delivery optimized through a reconfiguration of services to improve patient flow and access to early or same day ART initiation. Existing infrastructure will be refurbished to improve and create additional ART clinic space, especially in acceleration districts, to increase the frequency of ART clinic days at high volume ART sites. COP 16 investments in pre-fabricated clinic space will be monitored for optimization of service delivery.

Differentiated ART Delivery (DAD) models were piloted in FY16 and will be scaled up further in FY17 and FY18. These patient-centered models are designed to increase access and decrease waiting times through facility- and community-based approaches. In selected sites, clinic hours will be extended. PEPFAR resources are used to ensure adequacy of health systems to effectively support these models. Preliminary FY17 data from two demonstration sites showed mixed results, with sites located in close proximity to transportation hubs showing a greater uptake in after-hour services than sites which are located far from public transport.

At four demonstration sites a pharmacy fast-track electronic medical records systems module has been developed to expedite ART refills for stable patients. The EMRS module's dual function for clinical decision support and data collection will complement other interventions to ensure compliance with fast-track refill standard operating procedures and routine reviews of ART patients' eligibility for DAD. The module can be activated at any EMRS sites that meet readiness criteria for this service delivery model. PEPFAR grantees have repurposed dispensing points where ART and other essential medications can be collected. Nurse-led Community ART model is being implemented with progressive enrollment of stable patients living in urban locations into an outreach ART refill service delivery model. This approach uses existing support groups as an entry point and is modelled on the Community ART Group model. PEPFAR implementers continue to provide clinical mentoring and on-the-job training. At sites with multiple DADs, stable patients will make an informed choice about the model they would like to join and provision will be made for them to rejoin mainstream ART services if they opt out of DADs.

FY16 data indicates that although the retention rates overall are high, 6 out of 14 priority districts had retention rates lower than the national average of 76%. No district achieved the WHO target for retention rates of 85%. In the absence of active defaulter tracing systems there could be a misclassification of silent transfers, which is believed to have contributed to lower retention rates (the national program estimates silent transfers account for 10% of LTF).

The national program uses once-daily fixed dose combination antiretroviral regimens to optimize adherence. In addition, life-saving interventions, such as cotrimoxazole preventive therapy, are routinely available as part of the care package. The MOH will procure isoniazid for TB preventive therapy in 5 districts as described in section 4.7. In FY16, viral load testing increased by 162% compared to FY15 in PEPFAR supported sites. Intervention mapping data showed that as of October 2016, routine collection of VL samples was available in 98% of scale up sites. PEPFAR will continue to support the viral load scale up in FY18.



In COP 17, PEPFAR will expand site level direct service delivery support to accelerate treatment coverage (both adult and pediatric) through recruitment and deployment of surge human resources to sites in acceleration districts. This critical strategy will draw upon the pool of PEPFAR supported pre-service training graduates who have not been absorbed into service through the Ministry of Health and remain unemployed. A total of 360 additional ART providers and essential support staff will be recruited and deployed by PEPFAR implementers to newly supported sites not covered by the COP16 supplemental funding for salary support in Blantyre and Zomba, and in the other acceleration districts: Machinga, Mangochi, and Chikwawa. Target cadres include: registered nurse midwives, nurse midwife technicians, medical assistants, clinical technicians, pharmacy assistants, and laboratory technicians. PEPFAR will work with the Ministry of Health central and district level leadership to assess needs and determine the optimal staffing deployment plan to address staffing needs at PEPFAR supported sites within these districts.

In COP 17, key site level approaches are to:

- Expand salary support for ART clinicians and nurses, recruitment, training and deployment of peer counsellors, regular clinical mentorship, and in-service training of new ART providers.

- Strengthen active linkage systems.
- Increase access to ART services for same day initiation as described above.
- Implement integrated ART and OPD services at high volume sites in scale up districts
- Integrate ART initiation into community testing services in 5 acceleration districts.
- Implement patient centered approaches in all high volume scale up districts e.g., DREAMS initiative activities aimed at increasing ART initiation in HIV positive AGYW and men, family friendly clinics, treatment clubs, teen clubs and other age and gender appropriate peer groups (e.g., brother-to-brother support groups for men on ART).
- Develop and standardize tools to map areas of higher HIV transmission or lower access within the catchment area to guide the identification of strategic points where community level services should be offered.
- Strengthen active defaulter tracing.
- Continue clinical mentoring to improve the viral load cascade, including appropriate and timely regimen switches.
- Minor health facility renovations to improve patient flow and improve service delivery space.

4.9 Pediatric ART in Scale up Locations

The number of children receiving ART increased from 47,791 in September 2015 to 53,507 by September 2016. However in FY16, the percentage of children receiving ARTs actually declined from 63% to 51% as the 2016 MPHIA survey increased the estimated number of CLHIV in Malawi increased from 84,000 (UNAIDS SPECTRUM 2015) to 104,094 (Small area estimation method incorporating findings). Similar to adult treatment, testing is the primary bottleneck to scaling up pediatric ART coverage. In FY16, 84% of HIV exposed infants (HEI) had their HIV status ascertained by 12 months but only 34% by 2 months. Although significant improvements are seen in various areas across the EID cascade, e.g. 95% registration of HEI in maternity, sample collection at 6 weeks and return of results by 8 weeks remain a key challenge.

In FY 16, Malawi's HIV Treatment guidelines were revised to recommend universal ART eligibility for all PLHIV and also a more effective Protease inhibitor (LPV/r) based first-line ART regimen for children less than 3 years of age. This was an important new policy change. National implementation of Test and Treat began in FY 16 Q3. In Q4, new ART initiations among children increased by 43% following implementation of T and T. Additionally MPHIA survey confirmed poor virological suppression rates among children, at 22% for children under-five years. The implementation of the new LPV/r based first line ART regimen for under-3 children is expected to help address this problem. Through the ACT initiative, LPV/r pellets are available since January 2017 and the phased implementation approach is currently underway. This regimen is expected to be available widely at the beginning of FY18.

COP17 will build on the ACT initiative achievements which resulted in an increase in the number of children accessing HIV testing, linkage and ART initiation. In COP17, PEPFAR Malawi aims to initiate 14,551 children on treatment. By the end of FY18, a total of 70,759 children are expected to be alive and on treatment in PEPFAR supported sites. Based on target

projections >80% treatment coverage will be achieved in ten PEPFAR scale up districts by end FY19. Four of the eight scale-up saturation districts are expected to reach saturation by end FY 18.

In COP17, the main focus will be more efficient, targeted HIV testing to improve positivity rates as the testing volume capacity is already significantly expanded. Additionally we also plan for higher linkage and retention performance (with focus on early retention in first 12 months). Key strategies for COP 17 are summarized in Table 4.9.1 below.

Table 4.9.1: Key Strategies for Children in COP17

Program area	Key strategies	
First '90'	High yield entry point PITC optimization	- Ongoing use of quality data to improve HIV testing coverage and efficiency at key entry points
	Testing children of index case clients	- At community and facility levels using tools piloted by IPs with documentation of family tree to understand reach/coverage
	OPD risk screening	- Standardizing tools and SOPS to improve positivity rates in a high volume setting by targeting testing to those with increased risk of HIV infection. This will be informed by findings from a formal evaluation of a screening tool.
	Strengthening Early Infant Diagnosis (EID)	- Clinical mentoring and scale up QI approaches to improve compliance with national guidelines especially focusing on sample collection at 6 weeks - EID cascade monitoring through electronic medical records, especially tracking turn-around time (TAT) and results relay. - Integration of EID with other MNCH activities particularly immunization to improve sample collection at 2 months. - Technical assistance to CHAI/UNITAID supported roll out Point of care testing to complement the molecular lab system.
Second '90'	Strengthening linkage to ART	- MOH with PEPFAR support will roll out standardized referral (linkage) registers which will provide real age and sex disaggregated data. Implementation of linkage registers and utilization of Expert clients for physical escort and peer support significantly improve linkage.
	Improving quality of care	- Clinical mentorship approach and implementation of tailored CQI activities will ensure patients are healthy and maintained on treatment
	Efficient use of expert clients	- Apart from supporting linkage to ART as well as retention in care through psychosocial support and defaulter tracking, they will be peer navigators both at facility and community levels
	Increasing ART clinic days	- In collaboration with MOH, PEPFAR IPs will ensure daily ART initiation to optimize linkage and increased ART clinic days.
	Differentiated ART Delivery	- In FY18, PEPFAR Malawi will advocate for inclusion of children in the multi-months prescriptions (as

		'stable' patients) and community ART delivery
Third '90'	Improving viral load coverage	- Determination of VL collection milestone is being task shifted to expert clients and ART clerks who tag patient files due for VL sample collection. - Use of appropriate age and sex disaggregation in reporting Pediatric VL coverage to establish true coverage. It is estimated to be lower than the national VL coverage of 43% in FY16 - ACT incentive funds will be used for printing of 'test and start' and VL testing communication materials for demand creation
	Improving viral load suppression	- Standardized VL registers, designed and piloted by PEPFAR partners, have now been adopted and rolled out nationally for tracking of samples collected and results received including follow up of high VL results. The VL suppression rates are lower in children than adults (MPHIA 2016, MOH 2016), especially in those aged 0-4 years and adolescents. - LPV/r based first line ART regimen for younger children is expected to help improve viral suppression rates for the younger age
Orphan and vulnerable children	Strengthening bidirectional referral system	- Strengthening referral system between facility and community to enable OVCs access to appropriate HTS and CLHIV are referred to OVC programs for services to support treatment and retention in care.

Expanding differentiated service delivery models for adolescents living with HIV (ALHIV) in scale-up districts

Community case finding and linkage approaches: Data from the DREAMS initiative in two districts show that case finding for adolescents requires targeted community outreach and appropriate risk screening. This will inform roll out of similar approaches including case finding and linkage strategies and tools to the rest of the scale up districts starting in FY17.

Standardize and scale up "Teen Club" approach. FY18 will continue to increase the number of ALHIV receiving services in adolescent friendly ART services through teen clubs by increasing number of scale up facilities implementing teen clubs as well as increasing the number of adolescents enrolled in the teen clubs at the facilities. Currently, most teen clubs are conducted on a monthly basis and few staff members have received additional youth friendly service training. PEPFAR will support in-service training for additional facility staff to conduct and supervise the youth friendly clinic days. They will provide a standard package including adherence and psychosocial support as well as delivery of clinical services such as viral load sample collection, adherence monitoring and switching to second line treatment as needed and distribution of ARVs for ALHIV who are virally suppressed.

Expanding the utilization of adolescent peer treatment supporters and widely promoting the 'Teen Support Line' which has been set up by a PEPFAR grantee will also be done in FY18.

Adult and pediatric treatment have had the most policy changes with Test and Treat for all and improved pediatric treatment regimens for children. Differentiated models of care will benefit mostly stable adults.

Partner performance for adult and pediatric treatment largely mirrors results for HIV testing and the poor performance seen in HIV testing was also seen in treatment. As previously noted, there was a consolidation in the portfolio with fewer partners working on adult and pediatric treatment and better performing partners received additional or continuing funds.

4.10 Orphans and Vulnerable Children

Malawi has 1.4 million children affected by HIV/AIDS, 9% of the total population and 17% of all children[18]. Of these, 770,000 (13%) have been orphaned due to AIDS-related deaths[19]. Orphanhood rises rapidly with age, from 3% among children under age 5, to 10% among children age 5-9, and 24% among children age 15-17. One in five (20%) Malawian children do not live with a biological parent[20]. These numbers reflect a social crisis and a significant risk to epidemic control.

Through direct service delivery, PEPFAR Malawi will provide comprehensive HIV impact-mitigation, prevention and treatment services to OVC and their households, with the aim to graduate them out of vulnerability. This comprehensive service delivery explicitly targets adolescent girls and young women (AGYW) as they experience heightened vulnerability and are a core focus of COP 17 programming. In COP 17 PEPFAR Malawi expects to reach a total of 165,650 OVC with comprehensive services.

Activities will span four domains (health, safety, stability and schooling) coordinated through robust case management efforts. Implementing mechanisms operating in communities will base case management on comprehensive assessments of household and individual vulnerability. These mechanisms will provide core activities as needed, including community based testing, linking to treatment and adherence support (health domain); group based interventions promoting positive parenting and gender norm change, as well as linking individuals to child protection and GBV services if required (safety domain); establishing and continuously strengthening VSL groups, while providing the material support necessary for the most vulnerable to participate in economic strengthening activities (stability domain); providing school block grants and material support to ensure that OVC stay in school (schooling domain).

Implementing mechanisms operating in schools will focus on keeping children in school through community mobilization, material support, school block grants and facilitating readmission of dropouts; life skills training with integrated health messaging to children both in and out of school; and linking children to health services. These mechanisms will also work to ensure that schools are supportive environments for CLHIV.

[18] 2008 National Population Census projection for 2015
[19] UNAIDS, 2012
[20] Malawi Demographic and Health Survey, 2015

Direct service delivery OVC activities will continue to be aligned with care and treatment scale-up sites, coordinate closely with DREAMS activities, and identify ways to actively support integration with other relevant central initiatives, such as ACT. DREAMS and the OVC portfolio share and jointly manage partners implementing in Zomba and Machinga districts. Expansion of these partners' activities in Blantyre will benefit from the close collaboration between DREAMS and OVC programs. The community based integrated OVC and HIV prevention mechanism utilizes a comprehensive, electronic based system that significantly improves the completion of referrals to services. The sensitivity of the system to tracing CLHIV will be improved with the incorporation of the OVC_HIVSTAT indicator into the partner's data universe, and allow for data driven support to ACT objectives.

Partner performance improved steadily in FY16, as a result of an escalation in partner management, and responsiveness to monitoring of data. POART reviews, SIMS visits and partner management strategies have also informed adjustments of implementation in both the education and community based platforms to support the most vulnerable enrolled beneficiaries with household economic strengthening activities, and to relieve more parents of the financial demands associated with keeping children in school. Further resources will also be invested to ensure that the social workforce, upon whom the efficacy of the OVC mechanisms depends, is retained and increasingly productive.

Through its OVC technical assistance mechanisms, PEPFAR Malawi will provide support to improve the policy environment; strengthen GOM systems and structures – including case management systems - for effective policy implementation and service delivery; and enhance social workforce development efforts. At national level, the Ministry of Gender, Children, Disabilities and Welfare has focused on streamlining the policy environment relevant to OVC. In addition to the policy developments indicated in the section on GBV (Section 4.2 Priority Population Prevention), the Ministry has approved the National Social Welfare Policy, which will frame the coordination of various social welfare services. The Ministry is also in the process of developing a National Children's Policy, with the intention of coordinating the existing policies and services for children, and guiding future child wellbeing initiatives. USAID contributes to policy formulation by participating in the national technical working group on OVC, as well as through the technical assistance provided by its implementing partners.

At the community level, OVC mechanisms will persist with the effective strategy of establishing and mentoring quality improvement teams. Quality Improvement teams consist of local officials and leaders who are trained to identify, prioritize and mobilize resources to address OVC related local needs. These local structures have a demonstrable record of successfully contributing to OVC related outcomes and 90-90-90 objectives. In FY17 they will be linked to and coordinate with the OVC direct service delivery mechanisms, augmenting impact mitigation and overall contribution of the OVC portfolio to epidemic control.

4.11 Addressing COP17 Technical Considerations

a) Increased focus on prevention and care services for under-30 year olds

Using MPHIA data, specific needs and targeted interventions have been identified for increasing prevention, ART provision and viral load coverage, with a focus on under 30 year olds, particularly young men, adolescents and children in the scale-up districts.

DREAMS implementation currently targets vulnerable AGYW in priority districts, with the aim of achieving 81% saturation in Machinga and Zomba; limited Blantyre expansion based on high prevalence and low reach across the cascade; and leveraging COP, Global Fund, ETAF, and Give Girls a Chance Learn [formerly, Let Girls Learn] activities in other scale up districts. Refined vulnerability criteria for enrolment, facility data reviews, and enhanced facility and school recruitment strategies will ensure that the right girls receive the comprehensive DREAMS package in prioritized geographic areas. The DREAMS unique ID system will be used to track services AGYW receive, while quarterly coordination meetings with district partners will help identify and address gaps in reach/coverage.

Comprehensive services for FSW, MSM and TG are being delivered in the highest burden scale up districts. Plans to expand reach in FY17 are informed by validated findings of the PLACE study. Strategic overlay of DREAMS, OVC and KP programming will strengthen responses for under aged AG engaged in transactional sex, and reach FSW children. District expansion will address deficits in GF/EJF programs with regards to linking HIV+ KP to treatment services in four districts, and strengthen comprehensive responses in two additional hotspot districts. PrEP feasibility assessments and demonstration sites will be introduced with MOH approval.

Exploring potential strategies to reach profiled male partners of AGYW by administering the ASERT tool, consulting beneficiaries, and facilitating FSW client group discussions, provided insight into preferred male service delivery models. Specific strategies including weekend hours, integrated outreach services, and dedicated male peer educator/navigators, will be used to focus on fishing communities, FSW clients in hotspots, and geographic hotspots around high burden facilities. Enhanced integration with VMMC targeting males 15-29 will ensure that high risk males receive comprehensive services tailored to their HIV status.

b. Increased testing yield and improving testing modalities

In order to maximize efficiency, a district gap analysis using cost, yield, and volume data has been used in FY18 planning. Shifts in testing modalities have already improved yields in FY17Q1. Intensifying strategies such as aggressive index testing in high yield points (ANC & ART clinics), saturating PITC in high yield settings, and using screening tools in facility and community settings are anticipated to further augment yields. Targeted outreach models for KP, AGYW, and men unlikely to be reached in facility settings, provide non-stigmatizing services and improved access. Community-based cadres are recruited and trained to deliver community based testing, peer education and navigator services targeting KP, AGYW, and men for expansion. Rollout of aggressive index testing strategies through facilities and community based cadres will increase partner notification and case management. Self-testing operations research currently reaching KP, AGYW, and men, will be scaled up to reach select populations per WHO guidelines on HIV self-testing. Strategies for linking newly identified HIV positive to care and treatment will be rolled out, HIV negative males identified through these approaches will be linked to prevention services such as VMMC.

Programmatic HTS data reviews including yield and coverage data will be conducted quarterly to assess achievement towards annual targets, understand trends, identify high yield modalities, and to proactively identify underperforming sites. To ensure the quality of HTS, ongoing mentorship and regular supportive supervision will be conducted. In addition, National QA standards (proficiency testing, external quality assurance of RTK, and retesting HIV-positives for verification prior to ART initiation); use standardized logbook to report age/sex disaggregated data; certification of HIV testing providers and sites; and inventory management of RTK will be adhered to.

c. Improved retention and viral suppression:

PEPFAR retention and adherence strategies will broadly address clinical, behavioral, social and structural barriers which can vary with time and need to be tailored to individual patient needs. In FY16 PEPFAR implementing partners developed operational guidance and tools, such as appointment books and defaulter tracing registers to strengthen retention systems. Site level data is collected and analyzed routinely at retention intervention pilot sites to monitor performance and intervention effectiveness. Quality improvement approaches are being piloted to optimize the viral load cascade and defaulter tracing. FY 16 site level investments included both monetary and non-monetary support to HRH, logistics and equipment such as mobile phones and bicycles. PEPFAR funded HDAs also collect samples for VL testing and are a critical investment to support the viral load scale up plan. Additional site-level cadres complementing the MOH staff include expert clients, mentor mothers and psychosocial support groups for adherence counselling, defaulter tracing and bidirectional referrals between facility and community level. Teen clubs and mother-infant pair groups have also been scaled up.

Through clinical mentoring and support to sample transportation systems the number of patients receiving routine viral load testing increased in FY16. MPHIA data was used to refine the 3rd 90 strategy in COP 17 for specific population groups and geographic areas e.g. men, adolescents, children retained on ART and in urban settings. Differentiated ART delivery (DAD) models will be provided for both stable and non-stable patients on ART, guided by VL results and ongoing clinical assessments for eligibility. PEPFAR grantees have developed operational guidance and tools for DAD and these will be standardized in FY17. Clinical mentors will increase their competencies in supporting the implementation and monitoring of a DAD scale-up plan from a health systems and clinical perspective. These interventions are expected to reduce clinic waiting times, transport costs and improve retention overall and VL suppression rates for patients, especially those with advanced HIV disease. Existing demonstration projects will inform the feasibility of replication in scale up districts in FY17 and FY18.

Community level viral load suppression rates are lowest in Blantyre. This provides additional data for program focus. For key populations unique identifiers piloted in FY 17 will be scaled up and is expected to improve VL cascade monitoring. Differentiated service delivery models will be informed by VL test results and client-focused approaches are expected to improve retention rates with better treatment outcomes. PEPFAR implementing partners developed operational guidance for active defaulter tracing in FY16 and these will be standardized in

FY17. Site level investments included additional human resources for physical tracing by Expert Clients and procurement of mobile phones to help expert clients with case management including sending text reminders to patients. In FY18 these interventions will be scaled up further. PEPFAR partners will support sites to improve the quality of data, reducing any misclassification of silent transfers as loss to follow-up.

d. Support a sustainable, quality service delivery model:

The PEPFAR supported sample transportation system attained national coverage at the end of FY15. These will continue to be supported in FY18. For both retention and viral load monitoring systems, site level support will continue in FY17 with the financing of a low HRH model, replication of successful service delivery models at community and facility level, standardization of operational guidelines and tools and the scale-up of EMRS (which provides both clinical decision support and data collection functions for adherence, retention and viral load monitoring). PEPFAR partners will provide supportive supervision and mentoring to improve the quality of service delivery and data including reducing misclassifications of silent transfers and deaths as loss to follow-up and analysis of finer age gender disaggregation. This will guide ongoing quality improvement processes at site level. M and E tools will be revised in FY17 to track viral load suppression rates in specific age and gender groups, including pregnant and breast feeding women and the quality of clinical management, including appropriate ARV regimen switches. For key populations, unique identifiers piloted in FY 17 will be scaled up and is expected to improve VL cascade monitoring. A review of lay cadre roles and responsibilities for adherence and retention at facility and community level will be conducted to streamline functions to improve efficiency and guide effective deployment to sites in scale up districts.

Above site investments in FY 17 included placement of Technical Advisors at the Department of HIV/AIDS and National AIDS Commission to strengthen capacity of GOM to use evidence-based management for drug and commodity procurement and to manage the HIV response in general. In FY 18, PEPFAR will continue to provide Technical Assistance to the National HIV/AIDS program through placement of Supply Chain TAs at HTSS, HRH, planning and information systems, as well as TAs at MOH HR Directorate, Key population TA at NAC and M&E TAs at DHA and CMED to strengthen data collection and analysis at national level. In FY17 PEPFAR will also provide communications technical assistance to the Health Education Unit (HEU) to strengthen implementation of the Test and Start Strategy. PEPFAR is also providing infrastructure and salary support to new ART, HTC and pharmacy assistants in FY17 (with supplemental funds). In COP17, PEPFAR will continue to support salaries of these cadres to ensure availability of HCWs at service delivery points in three priority districts. The new HCWs are expected to transition into GOM civil service beginning end of FY19 through FY20. These investments ensure continued capacity development of GOM counterparts and in return contribute to the sustainability of current PEPFAR investments in the national HIV/AIDS program. With COP 16 funding, PEPFAR will analyze HRH efficiencies at facility and community level to inform and develop improved site level HRH optimization strategies for implementation in COP 17.

Peace Corps Malawi will recruit licensed American nurses and medical doctors through the Global Health Service Partnership program to support Malawi's "centers of excellence" in Lilongwe and Blantyre. The centers of excellence will model best practices in HIV/AIDS care and also roll out differentiated models of care for clients while training staff and students. These medical professionals will support the establishment of effective and efficient systems, train staff, and provide clinical supervision to students at nursing schools and the College of Medicine.

4.12 Commodities

The majority of key HIV/AIDS commodities (over 90%) are procured through the Global Fund grant. PEPFAR will provide additional resources in COP17 for VMMC commodities ($1,769,651) and VL reagents ($700,000). While not part of COP17, for implementation during FY18, $6,000,000 from prior year ACT initiative resources is committed towards procurement of pediatric ARVs. USAID's Commodity Fund will be used to cover the country's lubricant needs and any gaps in condom supplies. The current forecasts therefore indicate that there are sufficient resources for ARVs and RTKs until the end of FY2018, including buffer stock.

4.13 Collaboration, Integration and Monitoring

The PEPFAR Malawi team has management structures that facilitate collaboration and decision making. The PEPFAR Management Team, with high level representation from the PEPFAR Coordination Office and USG agencies, is the main decision making body and meets frequently with the DCM and Ambassador. There are five technical working groups (TWGs) which serve as an important forum for coordination across PEPFAR implementing agencies for setting priorities, developing strategies, and managing performance.

PEPFAR Malawi works closely with the MOH (Department of HIV and AIDS) through participation in the various national technical working groups and through direct engagement with key MOH staff. In FY16, this collaboration, which spans across the clinical cascade, has resulted in key successes such as the development of a national linkages SOP and monitoring tools, standardized registers for VL monitoring, regular conduct of the national quarterly supportive supervision, revisions and implementations of Treatment and HTS guidelines, etc.
In COP17, PEPFAR and its IPs will continue coordinating with the Ministry of Health for the successful completion of ongoing Differentiated Service Delivery model pilots and using findings to inform scale up in PEPFAR scale up SNUs. Similarly, PEPFAR Malawi will continue working with the MOH Planning Division as well as HIV/AIDS Departments and Ministry of Finance for smooth implementation of infrastructure and HRH initiatives in Lilongwe, Blantyre and Zomba using COP16 supplemental funding. The PEPFAR Team is actively engaged in the Global Fund Concept Note write up to ensure Global Fund and PEPFAR priorities are well aligned. PEPFAR will engage with district level management staff to ensure that performance concerns are addressed collaboratively.

In FY16, PEPFAR Malawi actively engaged MOH and Civil Society Organizations (CSOs) in USG meetings reviewing progress towards COP targets. As part of the COP17 development, PEPFAR Malawi has held several consultations with key stakeholders including the Ministry of

Health and Civil Society Organizations. These consultations were instrumental in setting COP priorities and will remain a critical input as the program moves to FY17 implementation.

Partner Performance Management (PPM) is central to PEPFAR Malawi's goal of reaching saturation and achieving epidemic control. The interagency PEPFAR team has developed a framework for PPM which includes monthly performance reviews with IPs, routine site-level analyses of MER data, and implementation of remediation plans for underperforming SNUs and sites.

The PEPFAR team has identified information critical for measuring progress but not currently collected through the national M&E system, and developed a short, medium and long term plans to address these gaps. Starting in Q2, PEPFAR Malawi will start reporting actual age/sex disaggregated data from five priority districts. Implementing partners are required to collect data that demonstrates the type of impact a particular intervention/set of interventions are having, and use that information to make timely programmatic decisions.
PEPFAR TWGs will organize interagency partner meetings to create a forum for sharing of best practices for wider application in priority SNUs.

Shortage of skilled human resources for health is a key challenge affecting all aspects of the clinical cascade. Since COP15, PEPFAR Malawi, in collaboration with the Ministry of Health, has supported the recruitment, training and deployment of HIV Diagnostic Assistants (HDAs) – a dedicated cadre for HTS and collection of EID and VL samples. As part of this effort more than 1,000 HDAs have been deployed to date in PEPFAR priority sites. The need for more HDAs is not yet fully met – mainly due to the lack of infrastructure. Similarly, PEPFAR Malawi supports healthcare workers for ART services. These health care workers include Clinical Officers and Nurses as well as lay cadres such as Expert Clients and Community Health Workers.

Another key health systems bottleneck is lack of adequate infrastructure to meet the needs for HTS as well other HIV Treatment services. In FY16, PEPFAR Malawi and its partners supported infrastructure improvement through renovations and using prefab approaches such as pharmacy-in-a-box. Both the HRH and infrastructure investments will use resources from the COP16 supplemental budget. Technical assistance will be provided at national level for HRH management and information systems.

In COP17, viral load monitoring and EID will be the main focus areas for lab related activities. This will include sample transportation systems, building the capacity of labs for VL/EID test and implementing electronic reporting systems to further shorten the turnaround time and enable timely clinical decision making. PEPFAR-supported lay cadres will continue to play central role for adherence and retention through a case management approach.

Various differentiated service delivery models are being implemented in Malawi. Examples of such models include clinic and drug refill visits every three months for patients who are adherent and stable on ART, integrated TB/HIV clinics, ANC/ART clinics, teen clubs, and Community ART groups. ART service delivery has been task-shifted with nurses playing a key

role in ART initiation and follow up. Similarly, lay cadres such as Expert Clients are playing a leading role in treatment literacy, adherence counseling, and active defaulter tracing. PEPFAR implementing partners are currently (FY17) piloting new models of differentiated service delivery (fast track ARV refill and Nurse-led Community ART distribution). On the basis of these pilots PEPFAR will scale up these models later in FY17 and during COP17, especially in acceleration districts.

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

5.1 Targets for attained and sustained locations and populations[21]

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*	**187,345**	**212,316**
HTS (only sustained ART sites in FY 17)	*HTC_TST/HTS_POS*	**833,211/39,282**	**1,341,301/53,115**
Current on ART	*TX_CURR*	**202,101**	**264,071**
OVC	*OVC_SERV*	**7,056**	**8,859**

5.2 Priority population: Prevention

KP activities will be implemented in the sustained districts of Chiradzulu, Nkhatabay and Mchinji. Although Chiradzulu has high treatment coverage, HTS yields of 7% are similar to other scale up districts. Nkhatabay is a tourist destination with high MSM HIV prevalence of 21-25% (CEDEP, 2014). Mchinji borders Zambia, with many truck drivers (HIV prevalence of 21%) that attract sex workers (estimated 134 FSWs) to ply their trade at the border and along the Malawi – Zambia corridor (OSISA/UNFPA/Pakachere).

In the sustained districts of Dedza, Chiradzulu, Mchinji, Nkhatabay, Ntchisi, and Rumphi, priority population prevention activities will be targeted at prisoners, sex workers, thru-worker clients, truck drivers, estate workers, police officers, fisher folk and vendors. These groups are at risk groups, as described by BBSS 2013/14.

5.3 Voluntary Medical Male Circumcision (VMMC)

[21] Table 5.1.1 is not applicable as some districts are expected to meet the criteria for being classified as "attained," however, this will not be achieved in FY18.

Chiradzulu is the only sustained district receiving PEPFAR VMMC support in COP17. Chiradzulu is not included in the 20 World Bank-supported VMMC districts. Chiradzulu has 43,979 males aged 15-29 years and VMMC coverage is 63%. This district is closer to achieving saturation of the 15-29 age group. The target for male circumcision in COP17 is 1,450. With this target, coverage will rise to 66%. There are also pockets of uncircumcised migrant workers that must be targeted and reached by PEPFAR to help the district achieve VMMC saturation in 15-29 year old men.

In COP17 PEPFAR IPs will not support VMMC service delivery in Balaka, a sustained district. This decision was made following January 2017's in-person POART review and subsequent dialogue with MOH.

5.4 Prevention of mother to child transmission (PMTCT)

In sustained districts PEPFAR will provide in-service training on the revised ART/PMTCT guidelines to providers who have not received the required training. PEPFAR will continue to support quarterly national supportive supervision and mentorship in sites identified not to meet standards during the national quarterly supportive supervision and as documented in the reports completed and circulated by MOH. PEPFAR will also continue supporting sample transportation for EID and viral load in 658 out of 712 health facilities offering ART. Support for supply chain management will also continue.

As with scale-up districts there were no new policy changes for PMTCT and no specific partner performance issues to note.

5.5 HIV Testing Services (HTS)

The Malawi Quarterly Integrated HIV program (July – September 2016) report attributed the high performance of HTS to the HDAs currently hired by PEPFAR implementing partner organizations and seconded to select public sector facilities, primarily to boost routine provider-initiated HIV testing for patients. The PEPFAR Malawi HTS strategy to build upon the HDAs success story by retaining existing HDAs in attained and sustained districts to ensure provider initiated testing and counseling (PITC) is saturated at health facilities in all high yield settings. Quarterly HTS supportive supervision and mentorship services will be supported by implementing partners to ensure adherence to QA for HTS.

Index testing will be promoted at facility level through the current standard of care or *"Passive referral,"* where a trained provider encourages HIV-positive clients to disclose their status to their sexual partners by themselves and also suggests testing for HIV for the partner(s), given the potential exposure to HIV infection.

As with scale-up districts, there were no new policy changes for HIV testing. While self-testing is under discussion, pilots will be focused in scale-up districts. There were no partner performance concerns for sustained districts. In COP 17 PEPFAR IPs will no longer support mobile community testing in sustained districts in order to focus efforts and investments in scale-up districts.

5.6 Facility and Community Based Treatment, Care and Support

In sustained districts, PEPFAR care and treatment activities will focus on supporting the national quarterly supportive supervision, in-service training on the national PMTCT and Treatment guidelines, ensuring smooth operation of the sample transport system (VL/EID), and providing short-term mentorship to resolve program gaps identified during supervision.

PEPFAR IPs will ensure availability of national Treatment Standard Operating Procedures (SOPs) and tools in PEPFAR supported sites within sustained districts. Health Surveillance Assistants (MOH staff) will be responsible for implementing active defaulter tracing systems to ensure high level of retention on ART.

5.7 TB/HIV

TB/HIV testing and treatment guidelines have been updated for Malawi to meet international standards. COP17 implementation in sustained districts will focus on the following high impact interventions:

At site level:

- Systematic TB screening for children, adolescents and adult patients living with HIV, prioritizing district and high volume mission hospitals, including in women attending PMTCT clinics and in selected communities;
- Implement a triaged approach for presumptive TB patients in high volume OPD, ANC, ART clinics, and prisons;
- Ensure all TB patients and presumptive TB patients are offered HIV testing;
- Ensure early ART and TB treatment initiation for co-infected patients, including fast-tracking HIV positive TB patients for initiation of ART.

TB Cascade: Sustained Districts							
Variable	**TB Notifications**	→	**TB Patients with Known HIV status**	→	**HIV+ TB Patients among TB Notified**	→	**HIV+ TB Patients on ART**
COP17 Target	5,200	→	5,096	→	2,461	→	2,348
APR 16 Result	4,445	→	4,236	→	2,046	→	1,952

PEPFAR will convene regular meetings with grantees to monitor site level performance against targets. Remediation plans will be developed to address performance gaps.

5.8 Adult Treatment

For sustained SNUs, PEPFAR will continue to support the national program to conduct in-service training in coordination with the DHOs. Site level interventions include continued funding of the sample transportation (ST) for EID and VL monitoring and funding and logistical support for the national program's quarterly supervision visits. The data which are

validated and collected at each site during supervision will ensure compliance with minimum quality standards and identification of sites in need of urgent clinical mentoring for targeted support.

The primary policy change for Adult Treatment is Test and Treat which has had an impact on adult treatment in the sustained districts as well. See scale-up districts for partner management.

5.9 Pediatric ART in attained/sustained locations

Chiradzulu, Mwanza and Likoma are the only districts expected to have attained saturation for children by the end of FY17 due to gaps across the lower age bands and among men. In COP17 PEPFAR will support sustained districts through key interventions summarized in the table 5.9.1 below:

Table 5.9.1: Key Interventions for Children in Sustained Districts for COP17

Program Area	Key interventions
First '90'	- Maintain PITC in all high yield service delivery points (Pediatric wards, Nutrition Rehabilitation Units, etc.) utilizing the existing HTS Providers (HSAs and/or HDAs). There will be no further expansion. - Index case testing at facility and community level - Maintain the existing linkage systems; referral tools and bi-directional facility-community referrals - Targeted District level HTS (including EID) mentoring and quality improvement initiatives - Ongoing use of quality data to improve HIV testing coverage and efficiency at key entry points
Second '90'	- Targeted remedial district level clinical mentoring services - Support the roll out LPV/r pellets for newly diagnosed HIV positive children less than 3 years in all the facilities - Pediatric ART services using the existing MOH staff - Defaulter tracing using HSAs (MOH system) - Monitor the stock levels of pediatric ARVs to avert facility level stock outs - At community and facility levels using tools piloted by IPs with documentation of family tree to understand reach/coverage
Third '90'	- Continue provision of viral load sample transportation services - Maintain standardized VL sample log and high VL registers - Support VL samples collection by existing HSAs for pediatrics and adolescents - Support implementation of frequent (annual) viral load monitoring once the policy is adopted by the MOH - Targeted clinical mentoring services to support clinical decision making in case of high VL
Adolescent Treatment	- Support for already established Teen Clubs for differentiated adolescent care until fully transitioned to MOH - Provide necessary Technical Assistance to MOH as they scale up Teen Club model in sustained Districts using Global Fund resources - Teen support hotline services

The improved treatment regimen for children which is the main policy change for COP16 and COP17 will be implemented in priority facilities in scale-up districts.

5.10 OVC

There are no PEPFAR-supported OVC activities in sustained districts**.**

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

Prioritized activities for Attained SNUs:

Some districts are expected to meet the criteria for being classified as "attained," however, this will not be achieved in FY18.

Prioritized activities for Sustained SNUs:

The 18 sustained districts will benefit from the following care and treatment and laboratory services as well as the surveillance and program monitoring described in this section.

Care and Treatment Services for PLHIV

In sustained districts, PEFAR will continue to provide technical assistance at the national level to procure ARVs, ensure that there is a functional sample transportation system and conduct routine supportive supervision across the cascade, including physical stock counts of essential HIV commodities and the quarterly collection of program data. As indicated by the program data, PEPFAR grantees may conduct targeted clinical mentoring to remediate any challenges observed during the national supportive supervision visits. Specific areas of focus for PEFAR include ensuring early ART and TB treatment initiation and increasing the coverage of HIV testing for all HIV exposed infants and presumptive and confirmed TB patients. Apart from ensuring that HIV and TB clinics have the basic medical equipment, minor renovations will be conducted at sites where service delivery may be compromised. Additional critical investments in HRH and infrastructure will not be made. Clinical services will be supported using existing MOH staff. For pediatric HIV, PEPFAR grantees will maintain PITC in all high yield service delivery points utilizing the existing HTS Providers (HSAs and/or HDAs) and support the roll out LPV/r pellets for newly diagnosed HIV positive children less than 3 years in all the facilities (described in section 5.9). HSAs will be supported to conduct active defaulter tracing through on-the-job training and provision of operational guidance. For adolescents with HIV, support will continue for a teen support hotline service. PEFAR grantees will continue support to already-established Teen Clubs, until they transition to MOH. Table 4.6.1 summarizes the range of site level interventions for all categories of districts.

Essential laboratory services for PLHIV

PEPFAR Malawi will support the national, tiered laboratory program to support the delivery of quality laboratory testing for PLHIV through all three 90s. For the first 90, PEPFAR will continue to support HIV quality control of HIV testing through the dry tube test QC panel as well as support monitoring and evaluation. Early infant diagnosis will also be strengthened using QI initiatives and improving the EID cascade as described in section 4.9. PEPFAR will work with partners to ensure that Point of Care testing maintains the efficiencies gained with central high-throughput testing. For the second 90, PEPFAR Malawi will increase use of state-of-the-art technology including Gene Xpert for HIV/TB and external QA for Gene Xpert and

TB microscopy. In four select clinical centers of excellence, PEPFAR will support instrument placement and reagents for hematology and biochemistry to ensure comprehensive support and pharmacovigilance for patients with advanced HIV disease and complex opportunistic infections. For the third 90, PEPFAR will maintain the national sample transportation system to support sample collection for early infant diagnosis, viral load and sputum for Gene Xpert. PEPFAR Malawi will also work with stakeholders to improve identification and collection of samples, testing of the samples, and use of the results for early infant diagnosis. Emphasis will be placed on a coordinated monitoring and evaluation system that allows data collection and focused programming.

Expansion of Electronic Medical Records Systems

Activities have been planned to support improvement in reporting to allow for reporting age- and gender-disaggregated data. MPHIA and other data sources have shown that HIV testing and treatment services have not reached young women under 30 years-old and men over40 years-old to the same extent as other age-stratified gender groups within Malawi. To appropriately respond to the epidemic, PEPFAR and MOH need to monitor which age-stratified gender groups are effectively being reached with services and where program refinements are needed to improve access for currently under-served populations (i.e., young women under 30 years and men over 40). While the current national HIV reporting system is robust and aggregates data for over 700 HIV service delivery sites nationwide on a quarterly basis, there is limited age- and sex-disaggregated data available for key indicators of interest to PEPFAR. Use of electronic medical records system (EMRS) can facilitate reporting of the age and gender disaggregation, but currently EMRS is only in 72 PEPFAR supported sites. It is therefore imperative to support rapid development and expansion of EMRS in Malawi's HIV clinics if we are to meet PEPFAR reporting requirements. Rapid scale-up of 150 more Electronic Medical Record System (EMRS) will bring the total implemented facilities to 198 by the end of FY19. This will also include support for connectivity and equipment to support scale-ups, the Human Resource Information System and TransMaRT, as well as for system hand-overs with migrating systems from other partners (MSF). Automated PEPFAR reporting for patient-level sex/age aggregations will also be developed.

Antenatal Clinic HIV Sentinel surveillance

HIV sentinel surveillance provides the main source of data for monitoring the magnitude and trends of HIV epidemic in Malawi. HIV prevalence estimates obtained from the HIV sentinel surveillance surveys enable the country to monitor the relative burden and evolution of HIV in a population. Since 2007, the Ministry of Health has also been monitoring the quality of PMTCT rapid testing using the sentinel surveillance ELISA data. In 2016, a component of monitoring PMTCT data was also introduced. It was decided to conduct another survey in 2018 with the component of data quality assessment before moving away from ANC sentinel surveillance to adopting use of PMTCT program data. The Ministry of Health through the Epidemiology Unit coordinates this survey, which is implemented in partnership with other stakeholders including CDC, NAC, WHO, and UNAIDS.

Birth Registration system

Since December 2016, CDC Malawi started supporting the National AIDS Commission to implement birth defects surveillance in four hospitals (Lilongwe, Blantyre, Mangochi and Ntcheu). The purpose of this surveillance system is to estimate prevalence of birth defects and conduct a nested case-control study to examine the association of maternal use of antiretroviral treatment (ART) and birth defects.

Death Registration

The development and implementation of electronic civil registration and vital statistics (CRVS) systems for birth and death registration in selected districts in Malawi are integral components of tracking birth and death outcomes as they relate to the HIV/AIDS status of Malawians. COP17 activities will focus on further developing and implementing an Electronic Death Registration System (EDRS) module to strengthen the national system for HIV mortality statistics and cause of death reporting. Activities for the Electronic Birth Registration System (EBRS) will include maintenance and support of the existing infrastructure, as well as system refreshers. Other donors have been identified by the National Registration Bureau (responsible for civil registration) to support ongoing implementation and development. Other CRVS activities for COP 17 include training of government and medical personnel for ICD-10/cause-of-death and medical certification; civic education and M&E tracking for birth and death reports; governance and task force operations; supportive supervision and monitoring; equipment and supplies; and partner management with NRB and MOH.

Field Epidemiology Training Program

CDC Malawi provides technical and logistic support for the Field Epidemiology Training Program (FETP)-Frontline in Malawi. The objective of Malawi FETP- Frontline is to improve HIV data quality at facility level. . Malawi FETP- Frontline is a three month in-service training for public health professionals who provide surveillance and monitoring services to the Ministry of Health (MOH) while achieving competency in data collection, management, and analysis. FETP trainees "learn by doing," with 75-80% percent of their time spent in the field conducting data quality audits, assisting in disease surveillance, outbreak investigation and analyzing a surveillance problem and 20-25 % time devoted to classroom training. Trainees in the Malawi's FETP-Frontline program are recruited from Malawi's Ministry of Health .Two cohorts of FETP-Frontline trainees have already graduated. These trainees have used the skills from the training to address a wide range of public health issues including HIV data quality audits, analysis and reporting.

5.12 Commodities

The majority of key HIV/AIDS commodities in Malawi (over 90%) are procured through the Global Fund grant. PEPFAR will provide additional resources in COP17 for VMMC commodities ($1,769,651), VL reagents ($700,000) and $6,000,000 from ACT is committed for procurement of ARVs. The USAID Commodity Fund will be used to cover the country's lubricant needs and any gaps in condom supplies. The current forecasts indicate there are sufficient resources for ARVs and RTKs until the end of FY2018, including buffer stock.

5.13 Collaboration, Integration and Monitoring

Collaboration and implementation across agencies and with external stakeholders, including the Global Fund and MOH, is important for the sustained districts as the scale-up districts. . While PEPFAR's investment is predominantly focused on scale-up districts, sustained districts still benefit in terms of coordination and TA at national and local levels (including clinical mentoring), HRH, and critical laboratory services such as viral load, EID and sample transportation.

The PEPFAR TWGs mentioned in section 4.13 deliberate on strategies applicable to the sustained districts as well. Frequently, lessons learned from the scale-up districts, DREAMS and VMMC programs inform implementation in the sustained districts – either within PEPFAR's programs or to other programs such as the Global Fund DREAMS-like activities and the World Bank funded VMMC programs. Prevention, testing and treatment of key populations is another important program area implemented in strategic locations within the sustained districts. The selection of priority locations is done in national fora. Coordination and sharing of lessons learned happens through formal participation in the national working groups, during ad hoc meetings, and informal discussions with stakeholders and the MOH.

Consultations with CSOs occur quarterly. These consultations have helped better align CSO and PEPFAR priorities. CSOs recently commended PEPFAR for integrating many of the CSO priorities into COP17. The consultations continue to be important for PEPFAR to learn about issues observed in communities and at the grass-roots level that may affect strategy and/or performance in COP17.

Partner Performance Management (PPM) is a central strategy to PEPFAR Malawi's goal of reaching saturation and achieving epidemic control. To that end, the interagency PEPFAR team has developed a framework for PPM which includes monthly performance reviews with IPs, routine site-level analyses of MER data, and implementation of remediation plans for underperforming SNUs and sites. PPM will be more intense and comprehensive in scale-up SNUs. In sustained SNUs partner meetings will align with the MER quarterly reporting schedules and there will not be additional data collection beyond what is required in the MER guidance.

The PEPFAR team identified information critical for measuring progress that is not currently collected through the national M&E system and developed a short, medium and long term plan to address these gaps. M&E improvements in sustained SNUs will be part of long term solutions (MOH M&E overhauls).

Shortage of skilled human resources for health is a key challenge to the effort of reaching the 90-90-90 goals. The HRH shortage affects all aspects of the clinical cascade. Since COP15, PEPFAR Malawi, in collaboration with the Ministry of Health, has supported the recruitment, training and deployment of HIV Diagnostic Assistants (HDAs) – a dedicated cadre for HTS and collection of EID and VL samples. As part of this effort more than 1,000 HDAs have been deployed to date in PEPFAR priority sites. The need for more HDAs is not yet fully met. In COP17, PEPFAR Malawi's effort to strengthen availability of HRH prioritizes scale up SNUs. As a result, no additional HDAs will be deployed in sustained SNUs. Similarly, PEPFAR will not support secondment of clinical providers in sustained SNUs.

Another key health systems bottleneck is lack of adequate infrastructure to meet the needs for HTS as well other HIV treatment services. In COP17, PEPFAR will support infrastructure improvement in sustained SNUs through minor renovations primarily in high volume ART sites. Sustained districts will benefit from national level technical assistance provided for HRH management and information systems.

In COP17, support for viral load monitoring and EID will be the focus for lab activities. In sustained districts, support will be to build the capacity of labs for VL/EID test. MOH's Health Surveillance Assistants will be responsible for treatment literacy, adherence counseling, and active defaulter tracing.

Various differentiated service delivery models are being implemented in Malawi. In sustained SNUs, COP17 will focus on ensuring ongoing MOH-led DSD models are functioning well rather than introducing new models.

6.0 Program Support Necessary to Achieve Sustained Epidemic Control

Health system challenges in Malawi continue, with government investments quickly overcome by the pressure of population growth. Gains made in addressing the HIV epidemic in Malawi are threatened by key weaknesses in the overall health system. Malawi has one of the most severe health workforce crises in Africa with the lowest physician-to-population ratio at 2:100,000 population and second lowest nurse to population ratio 28:100,000 ; vacancy rates for nurses, lab staff, clinical officers and pharmacists range from 51% to 88% [22,23]. The country instituted a hiring freeze for the civil service in 2015 because the national budget could no longer accommodate a constantly increasing wage bill. However, the MOH, a GOM priority sector, continues to get a recruitment budget at greatly reduced levels while other sectors have implemented a complete hiring freeze. The inability of MOH to recruit required levels of HCWs is degrading HCW /patient ratios and subsequently quality of service delivery. Lifting the hiring freeze is unlikely to happen in the short term due to prevailing unfavorable macro-economic conditions. Of the 719 functioning Health Facilities (HF) across the country, 81% are in rural areas. These are unevenly distributed, forcing many people to walk more than 10 km to access services.

Lack of access to health services is compounded by urban/rural disparities in staffing. Overall weak HRH management systems and poor enforcement of existing pre-service training, deployment and retention policies further compounds the poor HRH skills mix and unavailability across the country. There has been little infrastructure investment in HFs since the 1980s. The population has doubled since then while the HIV epidemic has significantly

[22] EHRP evaluation report, 2010
[23] HRH strategic plan, 20102-2016

increased service demand. Forty percent of public HFs have no regular electricity supply, only half have running water, and two thirds do not have toilet facilities. As of FY 16 three quarters of all facilities had inadequate pharmacy storage space for current needs[24]. With a move toward multi-month prescribing options, increased pharmacy storage space is critical. While the national supply chain is functional, there have been challenges reported at facility/site level around commodity management. Although there is adequate stock of commodities nationally, facilities have reported stock-outs of EID and RTKs generally resulting from lack of, and poor, inventory commodity management skills. In FY 16, 11% of facilities reported a stock-out of Determine test kits. The stock-out of these commodities directly affects the achievement of the 90-90-90 targets.

Laboratory systems are weak and cannot efficiently support the third "90" targets without considerable additional investments in sample transportation systems, information systems, commodity forecasting, equipment procurement, and improved laboratory staffing levels.

6.1 Critical Systems Investments for Achieving Key Programmatic Gaps

In COP 16 PEPFAR Malawi identified the following three key programmatic gaps in the care cascade and set three-year benchmarks critical for addressing the barriers and achieving PEPFAR epidemic control goals.

a) **Programmatic Gap #1: Low identification of HIV positives at facility and community levels and linkage rates (testing to care/treatment).**

Improving HIV testing strategies to identify specific groups of PLHIV is critical to increasing positivity yield. Initiation of Test and Start services is expected to reduce some linkage barriers for PLHIV; however, employing strategies that proactively identify PLHIV at the facility and community level is necessary to increase the number of PLHIV eligible for treatment.

Systemic barriers affect achievement of overall testing goals:

- Lack of private space for testing which limits acceptability of PITC and HCT and accessibility for men; 68% of sites had inadequate space for testing;
- Inadequate HRH to specifically focus on providing PITC at facility and community level;
- Continued stock outs of HIV test kits at facility level in spite of sufficient national stock;
- Lack of demand and health seeking behaviors for testing and services; and,
- Lack of standardized guidelines, operating procedures, and monitoring tools for HTS linkage interventions.

Evaluation of progress toward closing system barriers for 1st 90

[24] A rapid assessment of Health Commodity Storage Capacity of Public Health Facilities in Malawi, USAID/Deliver Project, 2014

In COP 16, the barrier 'Lack of standardized guidelines, operating procedure and monitoring tools for HTS linkage interventions' has been eliminated. SOPs and monitoring tools for HTS linkage have been developed and are in operation in FY 17.

By the end of COP 16, PEPFAR will have effectively addressed the two COP 16 benchmarks addressing 'Lack of private space for PITC and HCT' and 'Inadequate HRH' through the provision of additional HTS rooms and placement of 232 new HTS providers with salary support in 105 targeted sites in the three fast track districts of Lilongwe, Blantyre, and Zomba. The size and number of rooms to be provided will be tailored to facility needs.

Interventions addressing the fourth barrier, 'Lack of health seeking behavior and demand for testing services', are predominantly taking place at site level as such this activity has been removed and will no longer be tracked as an above site activity moving forward.

In COP 17, a new barrier, 'No clear policy for HIV self-testing and assisted partner notification service (APNS)', has been added to table 6. This barrier affects the progress of self-testing policy implementation.

Activities to address the barrier of 'Stock outs of HIV test kits' are ongoing and will utilize above site implementing partners to coordinate in service trainings for service providers.

HRH from pre-service education activities continue to fill gaps to address HRH shortages. PEPFAR has supported 2,422 students since 2010. 1,081 have since graduated and 303 have been deployed to PEPFAR sites while 103 have been deployed to non- PEPFAR sites. An estimated 617 are still waiting for deployment including 313 in COP 16. In COP 16 462 healthcare workers are being recruited principally from the 617 waiting for deployment. Salary support for this cohort of 462 healthcare workers will begin in COP 17.

Despite increased outputs of HRH from pre-service education, the recruitment delays at national level make it difficult for the MOH to hire significant numbers of HCWs into the health system. In COP 17 PEPFAR Malawi will not provide scholarship support to new cohorts of students but will focus on maintaining support for current cohorts who are anticipated to graduate between 2017 and 2019. PEPFAR Malawi will also ensure the COP 16 salary support activity is able to absorb those graduates that cannot be absorbed directly by MOH. PEPFAR will continue to monitor and lobby for improved absorption rates of graduates at the national level and will provide technical assistance to the MOH Human Resources Directorate to leverage Global Fund HRH recruitment efforts. These efforts will ensure the current pipeline of scholarship beneficiaries will be efficiently absorbed after graduation.

b) Programmatic Gap #2: High defaulter rate and Low retention rate in treatment services

Retention in the national treatment program is 78% at 12 months, and 72% at 24 months. High rates of loss to follow-up will hinder capacity to accelerate new and current individuals on treatment and reach viral suppression targets.

Systemic barriers affecting retention rates:

- Inadequate space for providing optimal care and treatment services (consultation rooms, waiting areas, pharmacy space, and space for physical integration of services); 58% of facilities had grossly inadequate space for ART delivery and 77% facilities had inadequate commodity storage space;
- Inadequate HRH to provide ART services on any given working day. Most facilities operate special ART clinic days or provide ART services for only half the day as a way of rationing staff time for service provision which affects service quality in cases of high patient volumes;
- Poor quality of ART services, affecting individual efficacy for treatment retention (long wait times, long distances to facilities, lack of alternative models of care to reach communities or decongest facilities, inadequate psychosocial counselling, limited recognition of treatment failure (1%) of patients on second-line treatment);
- Weak community support and linkage systems at the community level; and,
- Lack of a robust national pharmaco-vigilance system.

Evaluation of progress toward closing systems barriers for the 2nd 90

In FY 17, PEPFAR will provide additional ART rooms, an additional 31 pharmacy units and pay salaries for 199 new ART providers in the same 105 targeted sites in the three fast track districts of Lilongwe, Blantyre, and Zomba to address issues of inadequate space and HRH for ART services.

These activities will effectively address the barriers of limited infrastructure and HRH affecting ART services in the targeted 105 sites in Lilongwe, Blantyre, and Zomba. It is, however, important to note that despite achievement of these infrastructure and HRH benchmarks, Malawi still has a critical shortage of HRH and dire need for additional space across many more facilities in the scale-up saturation and aggressive sites. Continued efforts to improve availability of space and HRH in the short and long term are essential to the success and sustainability of the HIV/AIDS program.

The two barriers 'Poor quality of ART services affecting ART retention…' and 'Weak community support and linkage systems at community level' are being addressed predominantly at the site level and have been removed from Table 6. Addressing the last barrier of 'Lack of a pharmacovigilance system' is still in progress.

c) Programmatic Gap #3: Low coverage of Viral Load (27%) and EID testing (30% at 2 months, 48% at 12 months)

Viral Load testing coverage is 27% of all ART patients; coverage of EID is 30 % at 2 months and 48% at 12 months. Scale-up of VL is necessary to improve quality of care, recognition of treatment failure, and improve retention of patients in treatment. Low coverage of EID suggests that a high proportion of HIV-exposed infants are not receiving the life-saving treatment they need.

Systems barriers affecting VL and EID testing:

- Shortage of lab test kits;
- Inadequate skilled HCWs at facility level to conduct quality VL sample collection and in the lab to efficiently run VL tests;
- Poor adherence to VL SOPs and documentation of VL and EID results contributing to limited data availability for improved patient tracking and care;
- Limited coverage of sample transport network; and,
- Limited demand for VL testing.

Evaluation of progress toward closing system barriers for the 3rd 90

At the end of the COP 15 implementation period, September 2016, PEPFAR Malawi achieved the target of national coverage for sample transportation effectively eliminating the barrier 'Limited coverage of sample transport network'. PEPFAR now provides sample transportation services to 658 sites in 28 districts at least once a week and more frequently in high burden sites. In the first quarter of COP 16, PEPFAR supported transportation of 59,782 viral load and 9,154 early infant diagnosis dry blood spot samples. PEPFAR Malawi has taken great care to coordinate with the District Health Management Teams of the various districts to achieve efficiencies in route selection and coordination with ART clinic days and ownership of the program for sustainability. PEPFAR Malawi will continue to support sample transportation maintenance in COP 17 to assist scale up of the viral load program, early infant diagnosis and the use of Gene Xpert for Tuberculosis. This activity is now under 'other HSS activities' section of Table 6.

PEPFAR also eliminated the barrier 'Inadequate skilled HCWs at lab for VL sample collection'. Malawi has 10 molecular laboratories with 13 platforms providing enough capacity to scale up viral load testing identified in COP 15 and COP 16. However, only a few laboratory technologists were trained in molecular testing. In COP 16, PEPFAR Malawi ensured that all available laboratory technologists at a molecular testing laboratory were trained in use of the molecular testing platforms to allow more flexibility in scheduling shifts for molecular testing, eliminating this barrier. However PEPFAR Malawi will continue to support issues of 'Inadequate skilled HCWs at facility level to conduct sample collection' and 'Poor adherence to VL SOPs' at the site level.

In summary, with COP 16 resources, PEPFAR Malawi has made significant progress to address the identified barriers for the three 90s which has informed above site investment for COP 17 as outlined in sections 6.1.1, 6.1.2 and 6.1.3 of Table 6 which is attached as **Appendix C.**

6.2 Critical systems investments for achieving priority policies

In COP 16 PEPFAR Malawi identified critical systems barriers that were impeding the implementation of 'Test and Start' and 'New and Efficient Service Delivery Models,' the priority policies for achieving 90:90:90 goals. With ongoing COP 16 investments, significant progress has been made to address the barriers affecting implementation of these two key policy areas.

Systems barriers affecting achievement of priority policies (Test and Start):

- Limited GOM capacity for evidence based management of drug and commodity procurement and supply chain;
- Inadequate HCWs to meet the increased patient volume as treatment coverage rises;
- Limited GOM capacity to manage the national HIV/AIDs response;
- Inadequate coverage and quality of HIV-related health information systems for decision support and management of patient volume and commodities; and,
- Communications support for HIV testing service uptake for Test and Start.

Systems barriers affecting achievement of priority policies (New and Efficient Service Delivery models):

- Lack of national guidelines and SOPs for new and efficient service delivery models;
- Limited commodity management and storage capacity at national, district, and facility levels; and,
- Limited MOH capacity to supervise and monitor community based care and treatment models.

Evaluation of progress toward closing systems barriers for key policy issues:
With the one-time supplemental funding for salary support PEPFAR Malawi will address the HRH needs in the 105 fast track targeted facilities in COP 16. In COP 17 PEPFAR will also continue to place additional HDAs and expert clients as needed at site level to ensure saturation of PITC in scale up saturation and aggressive sites. The barrier 'Inadequate HCWs to meet increased patient volume' has been taken out of Table 6 because the subsequent HCW activities in COP 17 will be at site level.

All other barriers under this section are ongoing and still critical to ensure implementation of these key policies as they focus on capacity development of the GOM to manage the HIV response. Despite being ongoing, PEPFAR made significant progress with supply chain support, including the completion of annual national quantification, forecasting, and supply planning for HIV and related commodities.

PEPFAR also supported the first round of supply chain integrated supportive supervision and mentorship to PEPFAR sites in February 2017. With PEPFAR support, as of January 2017, Malawi achieved 91% average monthly reporting of LMIS data by health facilities providing valuable data for tracking and monitoring site level HIV/ AIDS and related commodity stock status. Supply Chain M&E TA and two zonal officers have been deployed to Ministry of Health's HTSS-P department and zones respectively. The officers will support increased visibility and effective management of HIV commodities at site level and at national level. Despite these successes, in COP 17 PEPFAR Malawi will continue to develop strategies to continue improvement of supply chain management.

There are ongoing discussions with the MOH Diagnostics Division to roll out laboratory supply chain (commodity management) training and SOPs.

The deployment of Pharmacy Assistants in COP 16 has resulted in marked improvements in the management of HIV/ AIDS commodities at site level; nevertheless challenges remain at sites that do not have personnel trained in supply chain management. With supplemental HRH resources PEPFAR will also place an additional 31 Pharmacy Assistants in the fast track sites that will receive prefabricated pharmacy units.

COP 17 there will focus on strengthening the skills for all staff involved in HIV/ AIDS commodity management including RTKs. There are ongoing discussions with MOH Pharmacy Medicines and Poisons Board towards conducting an assessment/ landscape analysis to develop a national pharmacovigilance system.
However, PEPFAR has added a new barrier under Test and Start which is 'Communications support for HIV service uptake'. Activities addressing this barrier will ensure that demand is created for test and start particularly targeting men and also that accurate messaging is achieved to avoid misconceptions regarding the and start services.

Tables 6.2.1 and 6.2.2 are attached in **Appendix C** and outline the progress made toward achieving COP16 and COP17 benchmarks for these key policy barriers.

i) Strategic information

During COP 16, Malawi was one of the first three countries to complete the Population level HIV Impact Assessment (PHIA). The MPHIA findings fact sheet was launched on World AIDS Day in 2016. This data has been invaluable to give better understanding of geographic and demographic distribution of the HIV epidemic in Malawi. PEPFAR Malawi used MPHIA data to guide planning for COP 17. In COP 17 PEPFAR Malawi will continue to support critical surveillance and operations research that aim to strengthen collection of HIV/AIDS related data in PMTCT, VMMC and prevention.

6.3 Proposed systems investments outside of programmatic gaps and priority policies

In addition to identifying programmatic gaps and key policies, in COP 16 PEPFAR Malawi proposed other systems investments that are critical to supporting the HIV/AIDS program in Malawi. These systems investments continue to be critical for supporting the HIV/AIDS program in Malawi. Table 6.3 in **Appendix C** outlines these investments and demonstrates how these investments are essential in reaching the 90/90/90 targets as well as achieving a sustainable national HIV program.

One key success during COP 16 was finalization of MPHIA. Malawi was one of the first three countries that completed the Population level HIV Impact Assessment (PHIA). The MPHIA findings fact sheet was launched on World AIDS Day in 2016. This data has been invaluable to give better understanding of geographic and demographic distribution of the HIV epidemic in Malawi. PEPFAR Malawi used MPHIA data to guide planning for COP 17. In COP 17 PEPFAR Malawi will continue to support critical surveillance and operations research that aim to strengthen collection of HIV/AIDS related data in PMTCT, VMMC and prevention.

7.0 Staffing Plan

As projected in COP 16, the PEPFAR staffing footprint is better aligned to support the critical priorities of a more focused PEPFAR portfolio. All implementing agencies are better equipped to provide technical assistance and activity/project management support in the key technical areas supported by PEPFAR, as well as to conduct the robust monitoring and data analysis required to responsively adapt the program to epidemic response priorities. By Q1 FY 17, a number of key staffing vacancies were filled. The Federal hiring freeze has delayed recruitment processes underway for others. Within the bounds of guidance provided by the Office of Personnel Management, existing contractor vacancies will be filled.

Technical staff members are now more proficient at SIMS and can better utilize these visits to address quality issues raised by SIMS and bolster implementer management approaches. Increased staffing in the area of strategic information has enabled the team to utilize data for implementer management and regular review of strategy implementation. Most technical staff manages both interagency technical working group responsibilities as well as Agency-specific duties for management of USG resources through activity management/project officer responsibilities. Technical staff gained capacity to use DATIM and panorama tools for better activity monitoring and action related to implementer performance. The recent arrival of a Senior Strategic Information Adviser within the PEPFAR Coordination Office (PCO) will strengthen leadership and effective use of existing strategic information resources. This position also serves as the PCO Deputy when the Coordinator is out of country.

In order to respond to programmatic needs, the PCO will re-purpose a position approved in COP 15 (PEPFAR Communications Specialist) as a Stakeholder Engagement Specialist to ensure the PEPFAR program can meet the requirements for consistent and meaningful engagement of civil society, national and district level government counterparts. A formerly approved Deputy PEPFAR Coordinator position (LES) will also be repurposed as a Senior HIV Advisor to enhance the PCO office to effectively lead TWG efforts to adapt strategy and monitor partner performance.

USG salaries for locally engaged staff have not kept pace with wage increases in the local labor market, a factor that has contributed to attrition. The Mission is working to review position descriptions to assure they are appropriately graded to ensure effective human resources are maintained.

New proposed positions:
The PEPFAR Malawi Coordination Office (PCO) has been notably understaffed in the last few years. A new PCO position, AGYW Coordinator, will ensure effective programming of significant resources to address the unique needs of AGYW and the critical coordination effort required to ensure that an effective multi-sector response includes appropriate engagement of health, education, gender, social service/protection, and development stakeholders. This position will be

responsible for engaging with government and other donor agencies to improve comprehensive programming for AGYW is aligned with the geographic priorities for epidemic control.

USAID also proposes two new positions this year (a US Personal Services Contractor and a Foreign Service National) to manage the engineering contracts (including assessment and oversight of installment) within the $90 million education expansion initiative programming. These positions will work in close coordination with the PCO and the proposed AGYW Coordinator to ensure timely implementation and oversight of this innovative activity. Peace Corps will add a Program Assistant to support its increased engagement in DREAMS and AGYW programming beyond DREAMS districts. The CDC will not add any new positions at this time but with new leadership in place will review two current vacant positions for possible re-purposing.

Long-term vacancies:
While many vacancies were filled in this fiscal year, agencies are working to ensure timely solicitation of vacant positions. As noted above, there was a halt in recruitment efforts due to the Federal hiring freeze but within allowable guidelines vacancies in existing position are now being reconsidered. One prior US/TCN PSC position (Epidemiologist) at USAID will be re-purposed as a locally engaged Strategic Information Manager, now that a U.S. hire is engaged in the PCO. As mentioned above CDC will evaluate the technical focus of two vacant positions to make sure they support current PEPFAR goals. Filling existing vacancies remains critical to ensure effective implementation of the PEPFAR Malawi strategy.

Major Changes to Cost of Doing Business
Overall the cost of USG management and operations increased for COP 17. For USAID, this increase is primarily related to recently filled new positions and reduced vacancy rate in positions for USAID and PCO positions funded through USAID mechanisms (PEPFAR Coordinator, PCO Deputy/SI Advisor, Global Fund Liaison, and the AGYW Coordinator). CDC's CODB has also increased and for the same reason new USDH and LES Staff positions are being budgeted for the entire year in COP 17 compared to partial coverage in the previous COP.

APPENDIX A

SNU Prioritization

Table A.1 ART Coverage by Prioritization

SNU	COP 15 Priorization	APR16 Achievement	COP16 Priorization	Expected Achievement by APR17	COP 17 Prioritization	COP17 Target (APR18)
Machinga District	ScaleUp Sat	61%	ScaleUp Agg	66%	ScaleUp Agg	83%
Mangochi District	ScaleUp Sat	55%	ScaleUp Agg	62%	ScaleUp Agg	83%
Blantyre District	ScaleUp Sat	55%	ScaleUp Sat	60%	ScaleUp Sat	83%
Chikwawa District	ScaleUp Sat	56%	ScaleUp Sat	65%	ScaleUp Sat	83%
Lilongwe District	ScaleUp Sat	73%	ScaleUp Sat	80%	ScaleUp Sat	88%
Mulanje District	ScaleUp Sat	72%	ScaleUp Sat	82%	ScaleUp Sat	93%
Mzimba District	ScaleUp Sat	77%	ScaleUp Sat	86%	ScaleUp Sat	96%
Phalombe District	ScaleUp Sat	71%	ScaleUp Sat	77%	ScaleUp Sat	84%
Thyolo District	ScaleUp Sat	76%	ScaleUp Sat	88%	ScaleUp Sat	97%
Zomba District	ScaleUp Sat	62%	ScaleUp Sat	69%	ScaleUp Sat	83%
Balaka District	ScaleUp Sat	60%	Sustained	66%	Sustained	72%
Chitipa District	Sustained	89%	Sustained	>100%	Sustained	>100%
Dedza District	ScaleUp Sat	65%	Sustained	74%	Sustained	84%
Dowa District	Sustained	63%	Sustained	68%	Sustained	74%
Karonga District	Sustained	69%	Sustained	75%	Sustained	82%
Kasungu District	Sustained	59%	Sustained	65%	Sustained	71%
Likoma District	Sustained	>100%	Sustained	>100%	Sustained	>100%
Mchinji District	ScaleUp Sat	73%	Sustained	83%	Sustained	94%
Mwanza District	Sustained	98%	Sustained	90%	Sustained	92%
Neno District	Sustained	67%	Sustained	71%	Sustained	76%
Nkhata Bay District	Sustained	65%	Sustained	73%	Sustained	82%
Nkhotakota District	Sustained	62%	Sustained	68%	Sustained	74%
Nsanje District	Sustained	74%	Sustained	69%	Sustained	76%
Ntcheu District	ScaleUp Sat	60%	Sustained	69%	Sustained	78%
Ntchisi District	Sustained	76%	Sustained	82%	Sustained	89%
Rumphi District	Sustained	88%	Sustained	97%	Sustained	>100%
Salima District	Sustained	73%	Sustained	82%	Sustained	91%
Chiradzulu District	Sustained	>100%	Sustained Com	>100%	Sustained Com	>100%

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	-	-	-	-	-	
Scale-Up Saturation	563,896	418,012	33,105	493,726	113,639	88%
Scale-Up Aggressive	110,960	70,481	18,287	92,074	30,553	83%
Sustained	305,040	237,925	6,107	259,862	40,972	85%
Central Support	-	-	-	-	-	
Total	**979,896**	**726,418**	**57,499**	**845,662**	**185,164**	**86%**

APPENDIX B

B.1 Planned Spending in 2017

Table B.1.1 Total Funding Level

Applied Pipeline	New Funding	Total Spend
$38,589,575	$74,786,369	$126,660,944

PEPFAR Budget Code	Budget Code Description	Amount
CIRC	Male Circumcision	$0
HBHC	Adult Care and Support	$1,172,115
HKID	Orphans and Vulnerable Children	$5,101,097
HLAB	Lab	$793,463
HTXS	Adult Treatment	$34,176,634
HTXD	ARV Drugs	$0
HVCT	Counseling and Testing	$3,591,875
HVMS	Management & Operations	$5,414,985
HVOP	Other Sexual Prevention	$1,700,288
HVSI	Strategic Information	$2,675,810
HVTB	TB/HIV Care	$2,917,306
IDUP	Injecting and Non-Injecting Drug Use	$0
MTCT	Mother to Child Transmission	$1,090,878
OHSS	Health Systems Strengthening	$1,537,047
PDCS	Pediatric Care and Support	$2,470,041
PDTX	Pediatric Treatment	$9,051,174
HMBL	Blood Safety	$950,000
HMIN	Injection Safety	$0
HVAB	Abstinence/Be Faithful	$2,139,657
TOTAL		**$74,782,369**

APPENDIX C

See attached Excel file.

Table 6.1.1 Key Programmatic Gap #1: Low identification of positives at facility and community levels and linkage rates (testing to care/treatment)									
Key Systems Barrier	**Outcomes expected after 3 years of investment**	**Year One (COP/ ROP16) Annual Benchmark**	**Year Two (COP/ ROP17) Annual Benchmark**	**Relevant Indicator or Measurement Tool**	**Proposed COP/ROP 2017 Activities**	**Budget Code(s)**	**Activity Budget Amount**	**Implementing Mechanism**	**Relevant SID Element and Score (if applicable)**
1. Infrastructure limitations restrict facility capacity to offer confidential HTS	**Outcome modified to be specific to intervention sites** 105 facilities in fast track districts have additional space for all projected HIV testing services	**Benchmark expected to be achieved by end of FY 17** ~~105 facilities in fast track districts have adequate space for all projected HIV testing services .~~	105 facilities maintain space for HTS	Cumulative number of facilities having additional space for HTS (IP Reports)	1.1 Monitoring of sites	HTXS, OHSS	$0	Service delivery mechanisms	Service Delivery: 5.65
2. Inadequate HRH to implement targeted testing, systematic TB and STI screening in PLHIV and support for linkage at facility and community level	36 health facilities in fast track districts have skilled lab assistants to supervise quality of testing	76 lab assistants graduated	37 lab technicians graduated	Cumulative # of lab assistants and technicians graduated (IP Reports)	2.1 Pre-service training of lab technicians	OHSS	$250,000	URC	HRH: 6.83
	Recruit, deploy and provide salary support to 232 lab assistants (LAs)	232 LAs recruited	Ongoing salary support for 232 LAs provided	# of LAs provided with salary support disaggregated by site (IP Reports)	2.2 Ongoing salary support for 232 LAs	OHSS (supplemental funding)	$0	HRH2030, HRH TBD *Supplemental pipeline funds	HRH: 6.83

3. Limited capacity for test kit stock management at facility level	100% of prioritized sites in scale up saturated and aggressive districts have staff trained in SCM	500 HCWs trained in SCM in scale up and aggressive sites	326 HCWs trained in SCM in scale up and aggressive sites	# of staff received in-service training in SMC (IP Reports)	3.1 In-service supply chain training for pharmacy personnel and other cadres to quantify, forecast, manage, and account for stock at facility level	PDCS, HBHC, HTS, OHSS	$630,000	GHSC	Supply Chain: 4.16
	100% of prioritized sites in scale up saturated and aggressive districts receive regular supervision in SCM	259 priority facilities in fast track districts that received supervision	259 priority facilities in fast track districts that received supervision	# of facilities that received at least one SCM supervision (IP Reports)	3.2 SCM supervision and mentorship for health facilities to ensure effective test kits stock management				
Barrier Eliminated ~~4. Lack of standard operating procedures and guidelines for patient tracking and linkage to care~~	**Outcome Achieved** ~~100% of scale-up sites have effective linkage systems between testing and treatment services (at facility and community level)~~	n/a	n/a	n/a	n/a	n/a	n/a	EQUIP, MSH, EGPAF, COM, Pivot, Lighthouse	n/a
Activity no longer appropriate above site - Strategy shifted to site level ~~5. Lack of health seeking behavior and demand for testing services~~	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

6. No clear policy for HIV self-testing and assisted partner notification service (APNS)	Policy for HIV self-testing in place; Guidelines/SOPs developed for APNS	n/a	50% of the target for KP and AGYW self-testing	% of target for KP and AGYW tested through self-testing and know their HIV status (IP Reports)	6.1 Expand pilot to KP in FY17. Monitor pilot of self-test in high risk populations including men, AGYW, and KP. Share findings for policy considerations.				
	Policy for HIV self-testing in place; Guidelines/SOPs developed for APNS	n/a	One guideline, one SOP and one package of tools developed for APNS; One pilot to test the newly developed tools undertaken	Guidelines and SOPs developed; # of pilots conducted	6.2 Develop APNS, Tools and SOPs and pilot	HVCT	$400,000	SIFPO 2, LINKAGES, Gateway, EQUIP ($400,000)	Quality Management: 6.05
TOTAL							**$1,280,000**		

Table 6.1.2 Key Programmatic Gap #2: Higher defaulter rate and low retention rate in treatment services (78% at 12 months, 72% at 24 months)									
Key Systems Barrier	**Outcomes expected after 3 years of investment**	**Year One (COP/ ROP16) Annual Benchmark**	**Year Two (COP/ ROP17) Annual Benchmark**	**Relevant Indicator or Measurement Tool**	**Proposed COP/ROP 2017 Activities**	**Budget Code(s)**	**Activity Budget Amount**	**Implementing Mechanism**	**Relevant SID Element and Score (if applicable)**
1. Infrastructure limitations restrict facility capacity to offer ART	**Outcome modifed to be specific to intervention sites** 105 facilities in fast track districts have additional space for all projected ART services	**Benchmark expected to be achived by end of FY 17** ~~105 facilities in fast track districts have adequate space for all projected ART services .~~	105 facilities maintain space for ART	Cumulative number of facilities having additional space for ART (IP Reports)	1.1 Monitoring of sites	HTXS, OHSS	$0	Service delivery partners	Service Delivery: 5.65
2. Inadequate HRH to provide ART services	Additional frontline HIV providers trained	**Benchmark Achieved** ~~237 students graduated from pre-service training~~	98 students graduated from pre-service training	# of HCWs graduated (IP Reports)	2.1 Bursaries for pre-service education for continuing cohorts	OHSS	$1,568,000	World Learning ($980,000) CHAM ($588,000)	HRH: 6.83
	National HIV and TB programs have additional staff deployed to manage programs and address capacity gaps	**Benchmark Achieved** ~~17 staff seconded to the HIV and TB program~~	17 staff seconded to the HIV and TB program	# of staff deployed to the HIV and TB program	2.2 Deploy technical staff to the MOH to support the HIV and TB program	HVCT, HTXS, HVSI, OHSS	$2,550,000	I-TECH ($2,200,000) EQUIP ($330,000)	HRH: 6.83
	Recruit, deploy and provide salary support to 199 ART providers	199 ART providers recruited	Ongoing salary support for 199 ART providers provided	# of ART providers provided with salary support disaggregated by site (IP Reports)	2.3 Ongoing salary support for 199 ART providers	OHSS (supplemental funding)	$0	HRH2030, HRH TBD *Supplemental pipeline funds	HRH: 6.83

3. No national pharmacovigilance system in place	A functional national pharmacovigilance system in place for reporting and monitoring ADRs	At least 2 random sampled test on drug batches on the market conducted	At least 4 random sampled test on drug batches on the market conducted	# of post marketing exercises done (IP Reports)	3.1 Support for post marketing surveillance of drugs	HXTS	$50,000	GHSC	Quality Management: 6.05
	A functional national pharmacovigilance system in place for reporting and monitoring ADRs	Develop training materials for ADR detection, reporting, and monitoring	25% of ART providers trained on ADR detection and reporting	% of ART providers trained on ADR detection and reporting	3.2 Conduct trainings for ART providers on ADR detection and reporting	HXTS	See above	GHSC	Quality Management: 6.05
TOTAL							**$4,168,000**		

Table 6.1.3 Key Programmatic Gap #3: Low coverage of viral load (27%) and EID testing (30% at 2 months 48% at 12 months)									
Key Systems Barrier	**Outcomes expected after 3 years of investment**	**Year One (COP/ ROP16) Annual Benchmark**	**Year Two (COP/ ROP17) Annual Benchmark**	**Relevant Indicator or Measurement Tool**	**Proposed COP/ROP 2017 Activities**	**Budget Code(s)**	**Activity Budget Amount**	**Implementing Mechanism**	**Relevant SID Element and Score (if applicable)**
Part Barrier Eliminated; Part Moved to Site Level ~~1. Inadequate skilled HCWs at facility level to conduct quality VL sample collection and at lab to efficiently run VL tests~~	**Outcomes Achieved** ~~80% of facilities in prioritized sites in saturation and aggressive districts and 100% of labs have adequately skilled HRH for quality EID and VL services; Turnaround time for results reporting decreased by 50%~~	n/a	n/a	n/a	n/a	n/a	n/a	MSH, EGPAF, URC, EQUIP	n/a
2. Weak supply chain management at facility and district levels leading to stock outs of DBS bundles	Reduced stock outs of DBS at facility level to less than 5%	Development of curriculum for lab commodity management	Lab commodity management curriculum incorporated in training institutions	Availability of curriculum on lab commodity management (IP Reports; Training School Curriculum)	2.1 Monitor implementation of curriculum	HLAB	$100,000	GHSC	Supply Chain: 4.16
	Reduced stock outs of DBS at facility level to less than 5%	250 pharmacy, lab, HDAs, HSAs trained	177 pharmacy, lab, HDAs, HSAs trained	Cumulative # of pharmacy, lab, HDAs, HSAs trained (IP Reports)	2.2 Ongoing in-service training of pharmacy, lab, HDAs, and HSAs in stock management				
	Reduced stock outs of DBS at facility level to less than 5%	50 pharmacy assistants (TA to training institutions) trained	50 pharmacy assistants (TA to training institutions) trained	# of pharmacy assistants trained	2.3 Ongoing TA support to MCHS	OHSS	$50,000	GHSC	Supply Chain: 4.16

Barrier being addressed at site level: ~~3. Poor adherence to VL SOPs and documentation of VL and EID results contributing to limited data availability for improved patient tracking and care~~	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Barrier Eliminated ~~4. Limited coverage of sample transport network~~	**Outcomes Achieved** ~~Sample transport network coverage is scaled-up to 100% of districts; Turnaround time for dispatch of VL and EID results reduced to maximum of 3 weeks~~	n/a	n/a	n/a	n/a	n/a	n/a	URC, EQUIP, COM	n/a
TOTAL							**$150,000**		

Table 6.2.1: Test and START									
Key Systems Barrier	**Outcomes expected after 3 years of investment**	**Year One (COP/ ROP16) Annual Benchmark**	**Year Two (COP/ ROP17) Annual Benchmark**	**Relevant Indicator or Measurement Tool**	**Proposed COP/ROP 2017 Activities**	**Budget Code(s)**	**Activity Budget Amount**	**Implementing Mechanism**	**Relevant SID Element and Score (if applicable)**
1. Limited GoM capacity for evidence-based management of drug and commodity procurement and supply chain	90% of scale up saturated and aggressive site submit monthly LMIS report (including HIV/AIDS related commodities)	90% of priority sites submit monthly LMIS report	95% of priority sites submit monthly LMIS report	Percentage of priority sites submitting monthly LMIS reports (IP Reports)	1.1 eLMIS rolled out and strengthened	OHSS	$150,000	GHSC	Supply Chain: 4.16
	100% of scale up saturated and aggressive sites (258) have at least one pharmacy personnel trained in inventory management, drug requisition and reporting	150 pharmacy personnel trained in inventory management, drug requisition and reporting	150 pharmacy personnel trained in inventory management, drug requisition and reporting	% of scale up saturated and aggressive sites that have at least one pharmacy personel trained in inventory management, drug requisition and reporting	1.2 Refresher orientation of personnel in inventory management, drug requisition and reporting; TA to MOH audit department				
	Supply chain management TAs recruited and seconded to HIV/AIDS department, HTSS-P, and zonal offices	Monthly supply chain database is developed and monthly supply chain management support provided to all priority sites	50% of all sites receive quarterly supervision visits	Percentage of facilities receiving supply chain database and support	1.3 Ongoing support to maintain supply chain TAs	HTXS	$150,000	GHSC	Supply Chain: 4.16
Barrier being addressed at site level: ~~2. Inadequate HCWs to meet the increased patient volume as treatment coverage rises~~	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

3. Limited GoM capacity for evidence-based management of national HIV program	Management of HRH to respond to HIV/AIDS program strengthened and improved	TA for HRH strategic planning, recruitment planning, and HRH informatics placed	1 TA seconded to MOG HR Directorate	# of TA seconded to MOH	3.1 Ongoing support to provide TA to MOH for strategic HRH management	OHSS	$140,000	HRH2030	HRH: 6.83
	National AIDS Commission (NAC) capacity to coordinate strategic KP and AGYW activities	**Outcome Achieved** ~~1 Technical Advisor for KP placed at NAC~~	TA maintained	# of technical advisors maintained	3.2 Ongoing support to maintain TA at NAC	OP, HTXS	$303,465	LINKAGES	Quality Management: 6.05
	National AIDS Commission (NAC) capacity to coordinate strategic KP and AGYW activities	**Outcome Achieved** ~~National SOPs, tools and monitoring systems developed and shared~~	Monthly management meetings in 6 districts and quarterly national review meetings; 50 CBO members trained on KP-related programming	Achievement of 80% or better of GF KP targets	3.3 Ongoing support to district and national coordination meetings; provide training and site mentorship to GF recipients	HVOP, HVCT	$200,000	LINKAGES	Quality Management: 6.05
	MOH capacity to coordinate national condom strategy for total market approach	District based M&E systems developed; forecasting and quantification completed	Condom marketplace analysis report completed; Technical advisor placed at MOH to support national condom programming	Condom stockouts remain below 5%	3.4 Technical support for coordinated national condom and lubricant procurement and district-based distribution and M&E	HVOP	$300,000	HP+	Quality Management: 6.05

4. Inadequate coverage and quality of HIV-related health information systems for decision support and management of patient volume and commodities	1. 90% of PEPFAR supported students tracked through graduation and deployment 2. 90% of MOH cost centers providing updated staffing reports via electronic system at least quarterly 3. 80% of scale up and aggressive sites have functional EMRS	50% utilization of HIS systems	70% utilization of HIS systems	1. # of students and graduates tracked using iHRIS and TrainSmart 2. # of sites with up to date HRH data on iHRIS 3. # of facilities with functional EMRS (IP Reports)	4.1 Technical assistance (informatics) and training to MOH staff to improve use and functionality of HIS (HRIS, TrainSmart)	OHSS	$750,000	HR2030 ($750,000) ITECH	Epidemiological and Health Data: 2.96
5. Communications support for HIV service uptake - Test and Start	Demand creation communications materials available in 10 scale-up districts	3 types of SBCC materials developed and disseminated in 10 scale-up districts (These include radio programs, radio spots, and program materials)	3 new focused SBCC materials developed and disseminated in 10 scale-up districts to targeted, priority populations (men, AGYW)	# of new SBCC materials disseminated	5.1 Provide technical and material assistance to Health Education Unit (HEU) at MoH to develop and disseminate new SBCC materials to targeted, priority populations	HTXS, PDTX	$250,000	FHI360 (SBCC - HC4L)	Service Delivery: 5.65
TOTAL							**$2,243,465**		

Table 6.2.2: New and efficient service delivery models									
Key Systems Barrier	**Outcomes expected after 3 years of investment**	**Year One (COP/ ROP16) Annual Benchmark**	**Year Two (COP/ ROP17) Annual Benchmark**	**Relevant Indicator or Measurement Tool**	**Proposed COP/ROP 2017 Activities**	**Budget Code(s)**	**Activity Budget Amount**	**Implementing Mechanism**	**Relevant SID Element and Score (if applicable)**
Barrier Eliminated ~~1. Lack of national guidelines and SOPs for new and efficient service delivery models~~	**Outcome Achieved** ~~National guidelines and SOPs developed for service delivery and approved by MOH~~	n/a	n/a	n/a	n/a	n/a	n/a	MSH, EGPAF, EQUIP, COM	n/a
2. Limited commodity management and storage capacity at national, district and facility levels	20 prefab pharmacy units installed at priority sites	15 prefabs installed	Additional 5 prefabs installed	# of prefabs installed (IP Reports)	2.1 Ongoing installation of pharmacy prefabs	OHSS (old funds)	$400,000	GHSC ($400,000 pipeline)	Supply Chain: 4.16; Quality Management: 6.05
	Recruit, deploy and provide salary support to 31 pharmacy assistants (PAs)	31 PAs recruited	Ongoing salary support for 31 PAs provided	# of PAs provided with salary support disaggregated by site (IP Reports)	2.2 Ongoing salary support for 31 PAs	OHSS (supplemental funding)	$0	HRH2030, HRH TBD *Supplemental pipeline funds	HRH: 6.83
Barrier being addressed at site level ~~3. Limited MOH capacity to supervise and monitor community-based care and treatment models~~	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
TOTAL							**$400,000**		

Table 6.3 Other Proposed Systems Investments									
Activity	**For each activity, indicate which of the following the activity addresses: 1) First 90; 2) Second 90; 3) Third 90; or 4) Sustained Epi Control. (Teams may select more than one.)**	**Outcomes expected after 3 years of investment**	**Year One (COP/ROP16) Annual Benchmark**	**Year Two (COP/ROP17) Annual Benchmark**	**Relevant Indicator or Measurement Tool**	**Budget Code(s)**	**Activity Budget Amount**	**Associated Implementing Mechanism ID**	**Relevant SID Element and Score (if applicable)**
Finance									
N/A									
Governance									
N/A									
HRH - Systems/Institutional Investments									
Upgrade the social welfare training program from certificate to degree level	First 90, Second 90	A social welfare degree program available for government staff and non-government staff	**Outcome Achieved** ~~Degree program fully operational~~	Degree program maintained through institutional support - curricula development, materials, practicum	# of students enrolled in degree program (IP Reports, MOGCCD Documents)	HKID	$145,000	UNICEF	Quality Management: 6.05
Provide scholarships for 77 GoM social welfare staff to upgrade to degree level	First 90, Second 90	All supported students graduated at degree level and providing services in Ministry of Gender, Children, Disability and Social Welfare	38 social welfare staff graduated	39 social welfare staff graduated	# of students graduated (IP Reports)				

Improve case management capacity of the social welfare workforce	All three 90s	6 supported districts provide functional case management services; 15,000 vulnerable children reintegrated into community; 15,000 children receive referral for protection services	5,000 children reintegrated; 5,000 children receive protection services (police, social welfare)	5,000 children reintegrated; 5,000 children receive protection services (police, social welfare)	# of district social welfare work force trained; # of case review boards convened; # of OVC served	HKID	$505,000	UNICEF	Quality Management: 6.05
Pre-service and in-service trainings for nurses, clinicians and lab technicians regarding blood transfusion services	Improved level of knowledge in safe practices around blood transfusion	Safe blood transfusion materials prepared and modules added to pre-service curricula	Continue to disseminate training material regarding safe blood to health care worker cadres in training and in-service	Number of undergraduate and in-service staff trained in safe blood transfusion	Continue to disseminate training material regarding safe blood to health care worker cadres in training and in-service	HMBL	$41,650	MBTS	Quality Management: 6.05

Burseries for medical students, teacher payments, family medicine, HIV Mgmt Course	Second 90, Third 90	24 Medical residents (Mmed obstetrics, Internal Medicine and Family Medicine) enrolled; 30 upgrading Degree level lab techs and pharmacists enrolled; 20 In-service clinicians enrolled for post-graduate diploma in HIV management; 18 faculty members provided with salary support and retained	All undegraduate curricula at COM reviewed to ensure up to date HIV/AIDS content (12 programs); 2 new programs developed (Postgraduate Diploma in HIV management for in-service providers and Basic Certificate in Medical and Health Science Education to improve faculty teaching skills); MMed resident program enrolls 24 postgraduate doctors	Diploma in HIV management enrolls 20 in-service providers; 30 upgrading lab techs and pharmacists enrolled in Bsc upgrading program; 100 undergraduate Medical students rotate through family medicine ART management 4 week attachments at district level practicum site.	# of students selected and registered; # of curricula reviewed to include HIV/AIDS content; # of students trained using revised curricula; # of new programs developed; # of faculty members trained and certified for Medical and health science education skills; # of high volume sites provided with bonded graduates	HVSI	$649,418	COM	HRH: 6.83
TOTAL							**$1,341,068**		

Inst & Org Development									
Technical and organizational capacity development (OCD) of HIV service local NGOs	First 90, Second 90	9 local NGOs implementing received technical and OCD support	9 local NGOs began receiving technical OCD support	Ongoing technical and OCD support provided to 9 local NGOs	# of local NGOs receiving OCD support (IP Reports)	HSS, HBHC	$667,503	STEPS ($350,000) LINKAGES ($317,503)	Quality Management: 6.05
National coordination of VMMC activities	First 90	4 national TWG meetings annually, supervisions completed and policies revised	Results shared quarterly to VMMC TWG	Results shared quarterly to VMMC TWG	Program Reports	VMMC	$150,000	JHPIEGO (CDC)	Quality Management: 6.05
Develop national policies and guidelines regarding blood transfusion and handling of blood products	Sustained epidemic control	National policies and guidelines on blood transfusion in place and monitoring framework created in all districts in Malawi	Finalize national policies and guidelines on blood transfusion	Consolidate and distribute national policies and guidelines and create monitoring framework	# of districts using national policies and guidelines	HMBL	$20,825	MBTS	Quality Management: 6.05
Blood donor mobilization advocacy	Sustained epidemic control	Increased blood donor awareness and increase in people donating at least three pints of blood annually	Prepare electronic and print awareness material and organise outreach events to advocate for and create awareness for the need for blood donation	Disseminate electronic and print awareness material and organise outreach events to advocate for and create awareness for the need for blood donation	# of outreach awareness activities performed	HMBL	$400,510	MBTS	Quality Management: 6.05
TOTAL							**$1,238,838**		

Supply Chain									
Support national quantification, forecasting and supply planning for HIV/AIDS and related commodities	All three 90s	No stock out of core commodities at national and district level	Stockouts reduced to less than 50% at priority sites	Stockouts reduced to less than 10% at priority sites	# of stock out incidents reported (IP Reports)	OHSS, PDTX	$50,000	GHSC ($50,000), HP+, LINKAGES	Supply Chain: 4.16
Support integrated supervison and mentorship visits to PEPFAR sites	All three 90s	100% of sites in scale up districts receive atleast one quarterly visits	50% of priority sites receive at least one quartely visit	100% of priority sites receive at least one quarterly visit	Number of priority sites visited per year (IP Reports)	OHSS, PDTX	$70,000	GHSC	Supply Chain: 4.16
Support community based condom, lube and STI drug distribution	First 90	100% of community sites in scale up districts receive monthly commodities based on forecasting with MoH	# of sites distributing condoms/lube/STI drugs. Forecasted commodiites are provided to MoH on quarterly basis.	Less than 5% stockout of STI drugs within YFHS and KP outreach sites.	Number of condoms/lubes, STI drugs warehouses, packaged, and distributed (IP Reports)	HVOP	$950,000	SIFPO2	Supply Chain: 4.16
Maintenance of supply chain systems for equipment used for blood collection	Sustained Epidemic Control	A fuctional supply chain system is paid for and operating using best practices	**Outcome Achieved** ~~Maintain supply chain system by paying annual subscription fee~~	Maintain supply chain system by paying annual subscription fee	Operational supply chain system	HMBL	$41,650	MBTS	Supply Chain: 4.16
TOTAL							**$1,111,650**		

Laboratory									
Sample transportation	First 90, Second 90 EID, Third 90 VL	Sample transport network coverage in 27 districts	100% coverage of sample transport system	100% coverage of sample transport system	# of districts with ST (IP Reports)	HLAB, HTXS, HVSI, HVTB, PDCS	$1,610,000	URC	Quality management: 6.05
Laboratory capacity	All three 90s	Completed supervision, accreditation and monitoring systems	100% of labs supervised, improvements made fro accreditation and LIMS systems enhanced	100% of labs supervised, improvements made fro accreditation and LIMS systems enhanced	# of labs supported	HLAB	$150,000	URC	Quality management 6.05
Laboratory capacity	All three 90s	Additional human resources for lab	2 laboratory technicians hired and working at PIH lab	2 laboratory technicians hired and working at PIH lab	# of staff hired	HLAB	$105,000	EQUIP	Quality management: 6.05
Renovation of mobile blood collection centres	Sustained Epidemic Control	100% of mobile blood collection units (2) are well equipped and in use for outreach activities	Equip and rehabilitate transfusion vans with relevant equipment for outreach blood donation campaigns	Equip and rehabilitate transfusion vans with relevant equipment for outreach blood donation campaigns	% of total mobile collection units in use	HMBL	$105,795	MBTS	Quality management: 6.05
TOTAL							**$1,970,795**		

Strategic Information									
Operational Research	All three 90s	Expansison of evidence based interventions	n/a	Complete 3 studies and disseminate results	# of studies completed and disseminated	HVCT, HTXS	$1,015,000	EQUIP	Epidemiological and Health Data: 2.96
Evaluation of the national PMTCT program (NEMAPP)	All three 90s	Final report on MTCT rates	Protocol developed and approved	Complete survey	Survey Reports	HVSI	$900,000	MSH	Epidemiological and Health Data: 2.96
Support Field Epidemiology Training Program and support PHIM to improve HIV data quality	All three 90s	Improved data use for program planning at facility level	45 people trained in field epidemiology(FETP)	Train 60 people in FETP	# of people trained in FETP	HVSI	$250,000	Surveillance award	Epidemiological and Health Data: 2.96
Monitor MPHIA sample storage and repository	All three 90s	MPHIA samples stored in viable conditions	**Outcome Achieved** ~~MPHIA implemented~~	Quarterly monitoring MPHIA and respository visits	# visits to sample storage repository	HVSI	$15,000	Surveillance award	Epidemiological and Health Data: 2.96
ANC/PMTCT - Data collection and program monitoring	First and Second 90	Survey Report produced	n/a	Data collected	Survey Reports	HTXS, HVSI, PDTX	$250,000	Surveillance award	Epidemiological and Health Data: 2.96
Conduct birth defects surveillance	Second 90	Final report on impact of ART on birth defects and recommendation for programing	**Outcome Achieved** ~~Protocol developed and approved~~	Collect data for birth defects surveillance	Monthly progress reports from data collection	HVSI	$250,000	NAC	Epidemiological and Health Data: 2.96
Strenghten Malawi vital registration system through civil registration	All three 90s	Birth registration system operational in 18 districta and death registartion system operational in 10 districts	Electronic birth registration installed in 18 districts. Installation of death registration sysyetm in 4 districts	Maintenance of birth registration system. Scale up of installation of death registration system in 6 new districts	# of sites with functional death and birth registration systems	HVSI	$350,000	NRB	Epidemiological and Health Data: 2.96

Support PEPFAR funded VMMC mobile/static teams and MOH VMMC static sites supported by World Bank in various districts to implement CQI techiniques during implemetation	First 90	Provide support to national, zonal and district staff to implement quarterly site assessments	All PEPFAR district assessements completed for baseline and follow ups; All non PEPFAR districts assessments completed for baseline	All PEPFAR districts using the quality improvement techniques to improve the quality and safety of VMMC for PEPFAR supported sites and teams	Facilitation of quarterly site assessments by national, zonal and district staff (IP Reports)	VMMC	$600,000	ASSIST	Quality management: 6.05
		Support the MOH in using the agreed data flow from the teams to districts and national level			Use of the agreed VMMC data flow system from QI team to district and national level (IP Reports)				Quality management: 6.05
Develop a unique ID tracking database to monitor layered intereventions for DREAMS	All three 90s	Reliable data on the reach and effect of DREAMS layering	n/a	System in place to track layering of interventions AGYW receive	# of girls receiving multisectoral services	HVOP, HKID, HVSI	$361,325	4Children	Quality management: 6.05
Seroprevalence and Behavioral Epidemiological Risk Survey (SABERS) among military	First 90	Final Report on HIV and syphilis prevalence	n/a	Protocol developed and approved; Study completed; Results disseminated	SABERS Study Report	HVSI	$350,000	TBD	Epidemiological and Health Data: 2.96
TOTAL							**$4,341,325**		

Systems Development									
Impact Evaluation	All three 90s	MER 1.5 OVC outcome indicators collected and available; Understand the impact of an integrated community platform for HIV risk reduction and mitigation	Baseline data collected and available	2,070 participants sampled (including OVC, AGYW and other vulnerable populations)	# of participants sampled	HKID, HVSI, PDTX,	1,100,000	Project SOAR	Quality management: 6.05
GIS VMMC Dashboard	First 90	Visualize VMMC data from multiple sources on a geospatial or mapping platform; Develop a broader understanding of the socio-economic and geographical context in which the program operates; Advise on specific targeting and demand creation efforts	Adapt the available online architecture and contextualize the GIS applications for Malawi; Agree with the MOH on the data to be visualized and a tailoring of the online interface	Operationalize GIS VMMC Online Dashboard	A working and functional GIS VMMC Online Dashboard (IP Reports)	VMMC	$50,000	Project SOAR	Quality management: 6.05
Site Capacity/Site Utilization Analysis	First 90	Understand capacity of each supported site; Monitor performance of sites; Estimate site utilization rate and performance index	Develop excel version for the collection of data from VMMC priority countries	Capacity building for USG field staff to understand VMMC service performance, monitor capacity gaps, service efficency and quarterly performance levels	User friendly online version with the ability to update data and produce output tables and graphs to visualize program performance (IP Reports)	VMMC	$50,000	Project SOAR	Quality management: 6.05

Decision Making Program Planning Tool (DMPPT)	First 90	Develop understanding of: 1. MC coverage by SNU and age groups; 2. Unmet needs and set appropriate targets; 3. Uptake of services by SNU and age groups to project impact of completed VMMC and future targets	Orient VMMC stakeholders (MoH, implementing partners) to DMPPT in March 2017 via webinars	Operationalize DMPPT with updated and modeled data	Functional DMPPT Online tool for USG, MOH and VMMC partners and other stakeholders with acess rights (IP Reports)	VMMC	$100,000	Project SOAR	Quality management: 6.05
Blood safety information systems software license	Sustained Epidemic Control	A vein to vein blood safety information management system is in place and functional	License for blood safety information systems software is paid	License for blood safety information systems software is paid	Information system is functional and in use	HMBL	$41,650	MBTS	Quality management: 6.05
TOTAL							**$1,341,650**		

TB Infection Control									
Establish District TB infection Control teams	Second 90, Third 90	28 district TB infection control teams trained; 28 district TB infection control plans developed; full package of TBIC procedures in place	**Benchmark Achieved** ~~10 District TBIC teams trained; TBIC plans developed~~	18 district TB infection control teams trained; 18 district TB infection control plans developed; Full package of TBIC procedures in place in 28 districts	# of districts with TB infection control teams trained; # of distrcits with TB infection control plans developed; # of distrcits with full package of TBIC procedures in place (IP Reports)	HVTB	$265,000	Challenge TB	Quality management: 6.05
Establish new TB registration/treatment initiation sites	Third 90	Establish 60 new treatment registration sites at facilities with ART clinics	**Benchmark Achieved** ~~Establish 27 new TB registration sites~~	Establish 33 new TB registration sites	# of new TB registration sites established (IP Reports)	HVTB	$230,000	Challenge TB	Service Delivery: 5.65
Establish new TB diagnostic sites at facilities with ART clinics	Third 90	Establish 10 TB diagnostic sites, Procure 81,000 Xpert test cartridges, Maintenace contract for Xpert machines, GX Alert contract in place	Establish 10 TB diagnostic sites, ~~Procure 21,000 Xpert test cartridges for 20 USG sponsored Xpert platforms, GX Alert assessment and contract negotiation~~	Operationalize 10 TB diagnostic sites, Procure 60,000 Xpert test cartridges for 20 USG sponsored Xpert platforms, GX Alert contract in place	# of TB diagnostic sites operational; # of Xpert test cartridges procured; GX Alert system operational (IP Reports)	HVTB	$720,000	Challenge TB	Service Delivery: 5.65
Regular TB screening and HIV testing in Prisons	All three 90s	Bi-annual screening for TB and HIV testing in 6 major prisons	**Benchmark Achieved** ~~Establish protocol for TB and HIV screening every 6 months in 6 major prisons~~	Ongoing biannual TB/HIV screening conducted at 6 major prisons	# of major prisons implementing TB screening and HIV testing every 6 months (IP Reports)	HVTB	$135,000	Challenge TB	Service Delivery: 5.65
TOTAL							**$1,350,000**		

TOTAL							**$20,936,791**		