

Botswana

Country Operational Plan 2018

Strategic Direction Summary

March 15, 2018



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1.0 Goal Statement

In the past 15 years since the inception of PEPFAR, Botswana has made significant progress on the path to reaching HIV epidemic control. Important policy shifts like the introduction of Treat All, and scaling up effective strategies such as safe male circumcision and programs for orphans and vulnerable children and key populations, have made tremendous impact. Nonetheless, Botswana has a projected 378,184 people living with HIV (PLHIV) and 13,797 new infections last year. The country remains challenged with identifying undiagnosed men, women and children and linking them to treatment and care. There are opportunities to improve data collection and use to effectively focus programs and implement critical policies to ensure no one is left behind. During COP18, in partnership with the Government of Botswana (GoB) and other stakeholders, PEPFAR/B will continue to refine project management strategies to improve treatment coverage, and scale the most effective case finding strategies including self-testing and index testing. It is time to listen to and learn from hard-to-reach populations about their health-seeking habits, and to refine targeted communication to improve linkage to care. COP18 is also an opportunity to dissect the various age and sex bands, implementing strategies that focus on and appeal to priority groups on the road to reaching the UNAIDS 90-90-90 goals.

Ensuring Botswana benefits from each dollar invested means having good data as a guiding light. A preliminary data quality assessment (DQA) of six facilities completed before the Regional Planning Meeting (RPM) identified inconsistencies between facility-level active patient files and treatment numbers reported at the national level. To address this, PEPFAR/B will collaborate with and support the GOB to complete further DQAs, finalize PEPFAR-GOB-data alignment, and deploy the upcoming BAIS-TB. Combined, these data sources will provide a more accurate picture of the current epidemic in Botswana. To account for inconsistencies identified in preliminary DQAs, PEPFAR/B has assumed a 20 percent reduction in current treatment coverage for COP 2018 case-identification and treatment targets. PEPFAR/B will continue to revise as more data becomes available and through COP 2019 planning.

The overarching goal of COP18 is to re-focus our strategies on delivering innovative, client-centered programs to the right people to accelerate progress towards epidemic control. PEPFAR/B has over the last three years successfully pivoted its programs to concentrate on the places with the highest HIV burden and greatest need for support. In FY19, at the urging of stakeholders, the team will continue the surge strategies and focus on priority populations, including adolescent girls and young women (AGYW), children, adult men, key populations and, for the first time, non-citizens. Within those groups, specific age bands will be targeted with strategies and messages to bring groups lagging behind to saturation.

One of the important priorities in COP18 will be to better understand the populations we are trying to reach. According to program data provided by a community-based implementing partner, nearly 40% of patients who fail to link to treatment cited “personal choice” as the reason. This is a trend that deserves to be studied and questioned and we will complete focus groups in FY18 to explore

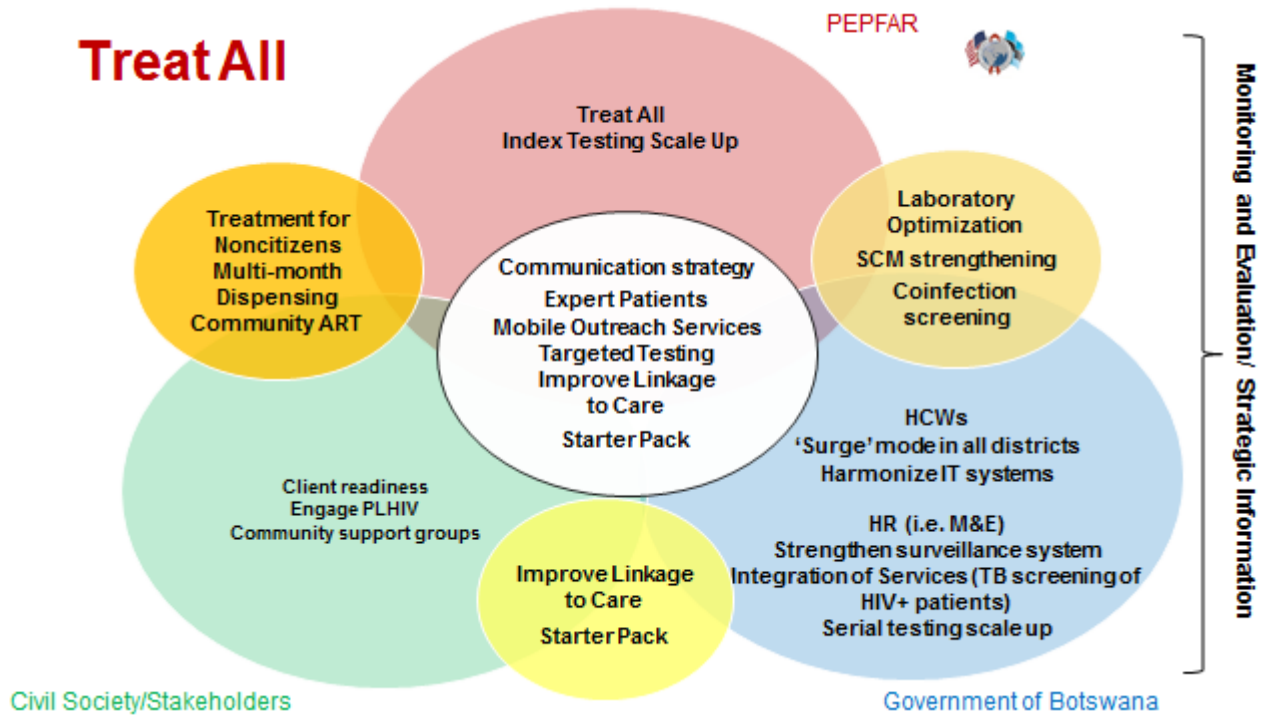
this further. More emphasis will be placed on targeted messaging and demand creation of Treat All. PLHIV doing well on treatment will be leading the charge as *Treat All Champions*, and helping improve treatment literacy as expert clients.

Addressing the major challenges of identification, linkage and treatment initiation, PEPFAR/B will focus efforts in four scale-up SNUs, two sustained SNUs with micro-epidemic programming, six KP-specific sites, and one TB/HIV specific site with some of the following strategies:

- Implementation of a mix of high-yield, proven strategies geared towards improving access to HTS services for hard-to-reach sub-populations. This includes scaling up with fidelity self-testing and facility and community index testing, and further optimizing provider initiated testing and counselling (PITC).
- Fast tracking treatment initiation through extended afternoon and weekend services and extending services to secondary and tertiary education clinics through Ministry of Health engagement with Ministry of Education in the context of DREAMS.
- Integration of ART through facility-associated “mobile stops,” outpatient departments and community service delivery centers.
- Having two partners support community-based care and support programs, in different geographic areas, enabling the program to explore best practices across partners.
- Use of expert clients to facilitate linkage and treatment initiations and improve treatment literacy.
- Introduction of ART starter packs.
- Providing support for viral load and EID “champions” to strengthen viral load and EID results return, results documentation, and turn-around-time in scale-up districts.
- Designing and implementing a demand creation strategy in close coordination with the Ministry of Health and Wellness to ensure Botswana’s Treat All policy is fully implemented.
- Continued health diplomacy efforts around the treatment of non-citizens, TB Preventative Therapy policy and guidelines, and multi-month dispensing to affect policy change.

Finally, COP18 planning has been an exercise in cooperation and coordination with stakeholders. The retreats and consultations in Gaborone and Otse, and the participation of GoB, civil society, Global Fund and multi-laterals at the RPM in Johannesburg, has resulted in a submission truly representative of Botswana. Key strategies have been selected from the overlapping priorities in the Venn diagrams illustrating – from each partner’s perspective – what’s best for Botswana. Themes arising from all stakeholder groups included the need for better monitoring and evaluation, creating youth-friendly and other population-centered services, focus on treating non-citizens and continued coordination and collaboration with one another.

Figure 1.1 Venn Diagram of PEPFAR/B, Stakeholders and GoB priorities for the Treat All program



2.0 Epidemic, Response, and Program Context

2.1 Summary statistics, disease burden and country profile

Botswana is a sparsely populated landlocked country with a population of 2.2 million. HIV infection in Botswana, one of the hardest hit countries on the continent, is largely concentrated in the urban and peri-urban areas of the country with the highest disease burdens in Greater Gaborone and Greater Francistown. The burden in absolute numbers is highest among older populations (age 25+), and strikingly so among women. Botswana's 2016 GNI per capita, according to World Bank, was \$6,750. While classified as an upper middle-income country, its 2009 Gini index was 60.5, reflecting one of the starkest income disparities globally.

The Botswana Behavioral and Biological Surveillance Survey (BBSS 2017) data are being analyzed and the report will be available before the end of FY18. The next population-based HIV prevalence survey, the Botswana AIDS Impact Survey (BAIS V), is being combined with Botswana's first TB prevalence survey and is expected to be initiated in July 2018.

Program data and UNAIDS Spectrum estimates suggest a higher burden of HIV compared to the previous year, although modifications to the model may account for the apparent differences. The PLHIV estimate is now 378,184, which is an increase by approximately 8.4% from the prior year's Spectrum estimate of 348,928 (Table 2.1.1.). The estimated incidence rate increased to 0.62 from 0.58 last year, and estimated new infections increased from 10,840 to 13,797. UNAIDS' estimates of Botswana's HIV prevalence have increased from 15.7% to 17%. Males age 15-24 and both females and males older than 25 appear to have a larger estimated prevalence in the 2017 estimates compared to the 2016 estimates. The number of pregnant women estimated to need ARV has increased from 10,840 to 11,629 as the estimated population size, number of annual births, and HIV prevalence rates have increased. Other areas of note comparing 2016 and 2017 include:

- Increase in AIDS-related deaths from 3,180 to 4,062 (highest in 15-25 year olds and 25+ females);
- Increase in estimated orphans from 117,893 to 123,843;
- Decrease in notified TB cases from 5,883 to 5,260 and decrease in number of estimated TB-HIV co-infected individuals from 3,265 to 2,946;
- Increase in number of circumcised males from 263,484 to 294,720;
- First estimate of AGYW population is 230,284.

Figure 2.1 Botswana Population Pyramid after 20% adjustment

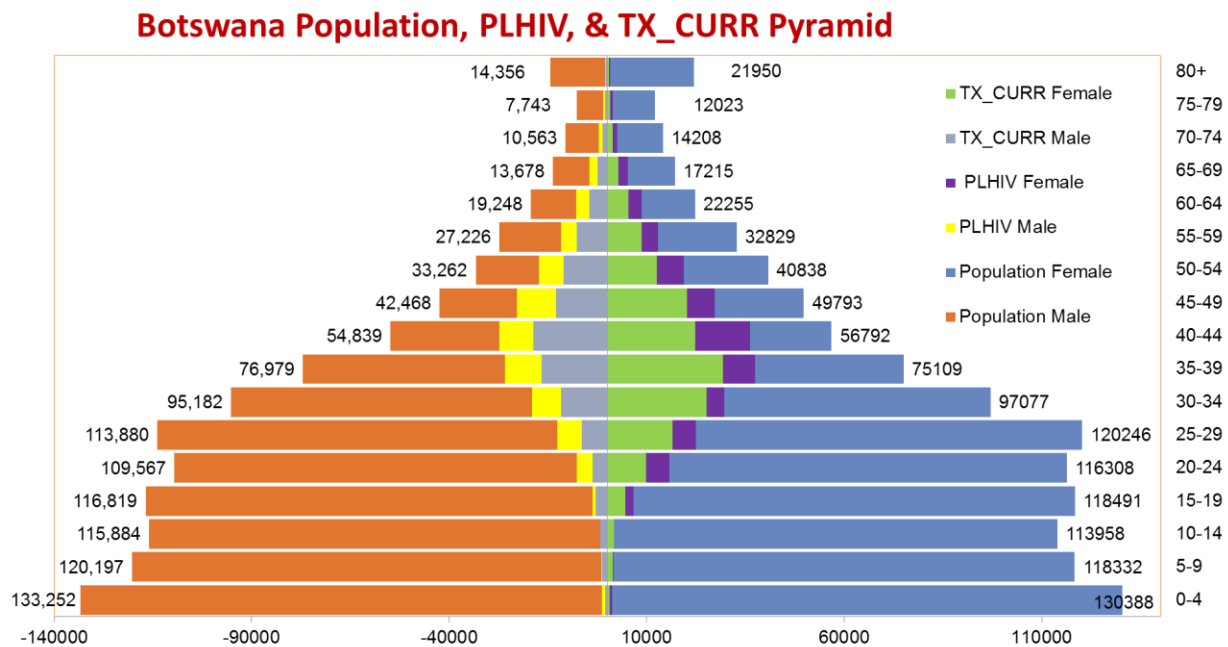


Figure 2.1 and Table 2.1.2 reflect an adjusted national ART coverage estimate (67%) following the adjustment made at the PEPFAR RPM. Questions raised following the preliminary DQA led to OGAC proposing a 20% decrease from the HAART report national ART program data entered into the datapack (Figure 2.1.3). Women age 25+ have the highest coverage at 73%; the lowest ART coverage is among males and females younger than 15, 54% and 59%, respectively. Botswana’s viral suppression rate overall is very high at 96.5%, however younger people have lower rates with the < 15 years olds at 89.6% and male and females between 15-24 at 88.1% and 89.8% respectively. The PEPFAR/B team used PEPFAR program data and the Data Warehouse to evaluate testing yields and linkage to ART rates in FY18 Q1. Just over 100,000 people were tested, more than 5,000 were identified as HIV positive and a little more than 3,000 initiated ART. The overall testing yield was 5%, ranging from 1% in those <15 years old to 7% in men 25+. The overall ART initiation rate was 60.5%, ranging inversely, from 54.6% in Men 25+ to 100% in the younger than 15 year old population. These data are invaluable for assisting the national and PEPFAR programs in developing population specific programming approaches.

The Botswana PMTCT program continues to achieve high coverage of HIV testing and enrollment of HIV-infected pregnant women on life-long ART. National HIV testing uptake of 96% and treatment uptake of 94% have resulted in a perinatal transmission rate of 1.4% in 2016 (national PMTCT program data). PEPFAR/B’s overall FY17 achievement for the percentage of pregnant women with known HIV status at antenatal care was 116%. Within the scale-up districts, 4262/4280 (99.6%) of pregnant women registered had a documented HIV status compared with 1593/1669 (95.4%) in sustained districts. There were 866 pregnant women out of 878 (98.6%) in the scale-up districts, and 398 of the 430 (92.5%) in the sustained districts, who received Option B+ as a PMTCT

intervention. Despite high coverage of HIV testing and enrolling HIV-infected pregnant women on life-long ART, coverage for early infant diagnosis (EID) at 4-6 weeks remained low at 46% according to 2016 national program data. This trend had never surpassed 50% since the inception of the EID program until FY17 data showed 60% EID coverage at two months and 88% at 12 months. EID is a major area of focus for PEPFAR/B in FY18 and FY19.

Since inception of the national safe male circumcision (SMC) program, 206,030 voluntary medical male circumcision (VMMC) procedures were performed in Botswana translating into 53% of the initial national target and representing 30% coverage in the male populations aged 10 to 49 years.

The Botswana key population (KP) program went through a joint HIV cascade assessment to diagnose implementation challenges and to find solutions to ensure optimal flow of KP beneficiaries through the HIV prevention, care, treatment and retention cascade. In FY19, PEPFAR/B will align and consolidate approaches toward achieving epidemic control for MSM and FSWs, their children and their sexual partners.

In FY19 PEPFAR/B's KP program will focus on scaling up with fidelity high-yield, facility and community-based HIV testing strategies. For the second 90, PEPFAR/B will focus on enhancing our linkage to care and early initiation on ART. Finally, for the third 90, PEPFAR/B will scale up with fidelity activities that retain those who are on treatment, provide adherence support, and ensure that they are virally suppressed.

In FY19 PEPFAR/B will introduce ART for foreign female sex workers. PEPFAR/B will continue collaborating with multilateral organizations and other bilateral partners to ensure that the GoB will eventually expand its ART program for everyone in the country, irrespective of their sexual orientation or nationality.

Key policy updates include:

- Fast track initiation of ART has been adopted as policy and is slowly being implemented as clinicians agree to initiate ART in well-appearing patients without baseline laboratory tests. However, many patients are still not provided same day ART initiation. Facility- and community-based treatment initiation in all testing programs through the use of ART starter packs would assist greatly. The PEPFAR team awaits policy decision and directive on this proposed innovation.”
- Integration of HIV testing and ART initiation through mobile outreach
 - In FY18 Q1 CDC's facility-based care and treatment partner supported GOB to integrate HIV testing and ART initiation services into the GOB “Mobile Stops” in Mahalapye (Appendix G). In COP18, this support will expand to two additional districts (Goodhope and Southern).
 - In COP18, USAID will initiate mobile outreach services in Greater Gaborone
- Additional models for community dispensing of ART to stable patients have not yet been considered by GoB.
- The GoB remains resistant to multi-month dispensing beyond two months; PEPFAR/B has offered TA and support for implementation of normative guidance by the WHO.

- A PrEP TWG is enthusiastically supporting implementing PrEP policy with policy now in place.
- HIV self-testing will initially be implemented through a phased approach in PEPFAR supported districts and then scale-up rapidly across the country to ensure an orderly roll-out. There is no TB Preventive Therapy (TPT) policy for adults living with HIV, although the GoB has been engaging in more exploratory conversations about integrating TPT into ART services.
- UNAIDS and PEPFAR/B have conducted preliminary epidemiology and costing modeling with respect to the treatment of non-citizens, and HIV managers are appreciative of this information. PEPFAR/B and UNAIDS will work together to develop an Investment Case and continue to advocate and have a successful dialogue with the new Minister of Health and Wellness, leading to a cabinet level discussion. In the meantime, PEPFAR/B has programmed some funds to provide ART and laboratory services to non-citizens living with HIV through non-governmental organizations Major programmatic gaps and barriers to achieving epidemic control, in addition to the policy barriers noted above, include:
 - Inefficiencies in budgeting and expenditure by MoHW make it difficult for GoB to sustain its commitment to funding the HIV response in Botswana.
 - While Treat All is being rolled out there is still a significant proportion of Botswana who, despite knowing they are HIV infected, do not want to initiate treatment.
 - Reluctance of MoHW to openly support programming for KP limits provision of quality and completeness of services for KP.
 - Insufficient capacity by CMS in forecasting and tracking ARVs and other HIV related supplies. MoHW is in the process of re-tendering of the CMS warehousing and distribution.
 - Testing interruptions and/or delays from remaining gaps in specimen and results management, inconsistent quality and monitoring of testing, and issues with lab-related commodities management.
 - Inconsistent capacity by national TB program to ensure detection of all HIV+ TB cases hinders the ability to ensure appropriate treatment.
 - Absence of a system to quantify OVC services or the effectiveness of national OVC activities hinders the ability of the government in planning and targeting OVC services.
 - Continued need for additional human resources support for routine monitoring and reporting, especially in the areas for PMTCT, uptake of ART by children, and other integrated clinical services.
 - Missing recent epidemiological and laboratory support in BDF and associated military camps.
 - Lack of coherent strategy for AGYW response.
 - Minimal engagement of community leadership.

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	2,220,674	100	356,137	16	362,684	16.3	230,284	10.3	222,086	10	549,713	24.7	499,770	22.5	Census 2017
HIV Prevalence (%)		17		1.3		1.3		10		5.2		34.2		29.3	UNAIDS, 2017
AIDS Deaths	4,062		121		127		219		173		1595		1827		UNAIDS, 2017
# PLHIV	378,184		4467		4537		23089		11653		187799		146639		UNAIDS, 2017
Incidence Rate (Yr)		0.62		0.084		0.085		1.38		0.65		0.73		0.91	UNAIDS, 2017
New Infections (Yr)	13,797														UNAIDS, 2017
Annual births	49,836														PMTCT, FY2017
% of Pregnant Women with at least one ANC visit	46,872	94.1	222	0.5			20,317	43			26,333	56			BFHS, 2007
Pregnant women needing ARVs	11,629	23.3													PMTCT, FY2017
Orphans (maternal, paternal, double)	123,459		51,284		52,226		10044		9906		NA		NA		BAIS IV, 2013 Census 2017 Proj
Notified TB cases (Yr)	5,260		156		146		390		343		1,718		2,507		BNTIP, 2016
% of TB cases that are HIV infected	2,946	56	21	0.7	30	1	135	4.6	72	2.5	1,224	41.6	1,463	49.7	BNTIP, 2016
% of Males Circumcised	294,720	26.8			120835	41			117,888	39.7			55,997	19.4	BAIS IV, 2013 Census 2017 Proj
Estimated Pop. Size of MSM ¹	781														BBSS, 2012
MSM HIV Prevalence		13.1													BBSS, 2012
Estimated Pop. Size of FSW	4995														BBSS, 2012
FSW HIV Prevalence	NA	61.9													BBSS, 2012
Estimated Population Size of PWID	NA	NA													Not Available
PWID HIV Prevalence	NA	NA													Not Available
Estimated Size of Priority Populations (AGYW)	230,284	10.3					NA	NA	NA	NA					Census 2017 Proj.

**If presenting size estimate data would compromise the safety of this population, please do not enter it in this table.*

NA = not available; LG = limited generalizability

¹ Includes orphans 15-17 years of age

² Denominator is those with known HIV status.

³ Estimates for male ages 10-64 only (per BIAS IV), applied to 2017 population projections

PMTCT, FY 2017- National PMTCT program data as reported from January – December, 2017

BNTIP, 2016 – Botswana National TB program data as reported from January – December 2016

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 ¹	HIV Prevalence ²	Estimated Total PLHIV ³	PLHIV diagnosed (#)	On ART ⁴	ART Coverage (%)	Viral Suppression ⁵	Tested for HIV ⁶	Diagnosed HIV Positive ⁶	Initiated on ART ⁶
Total population	2,220,674	17.00%	378,184	NA	254,782	67%	96.50%	101,848	5,067 (5.0%)	3,065 (60.5%)
Population <15 years	718,821	1.30%	10,008	NA	5,753	57%	89.60%	3,919	41 (1.0%)	41 (100.0%)
Men 15-24 years	222,086	5.20%	11,840	NA	6,406	54%	88.10%	10,316	166 (1.6%)	122 (73.5%)
Men 25+ years	499,770	29.30%	143,018	NA	89,645	63%	97.00%	29,381	2,043 (7.0%)	1,115 (54.6%)
Women 15-24 years	230,284	10.00%	23,451	NA	13,732	59%	89.80%	20,260	633 (3.1%)	394 (62.2%)
Women 25+ years	549,713	34.20%	189,867	NA	139,245	73%	97.60%	37,972	2,184 (5.8%)	1,393 (63.8%)
MSM	781	13.10%	102	NA	38	58%	NA	179	7 (3.9%)	0 (0.0%)
FSW	4995	62%	3092	NA	443	68%	95%	422	34 (8.0%)	19 (55.9%)
PWID	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Priority Pop (specify)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA = not available

¹ Statistics Botswana Populations Projections 2011-2026

² UNAIDS 2017 and BBSS 2012

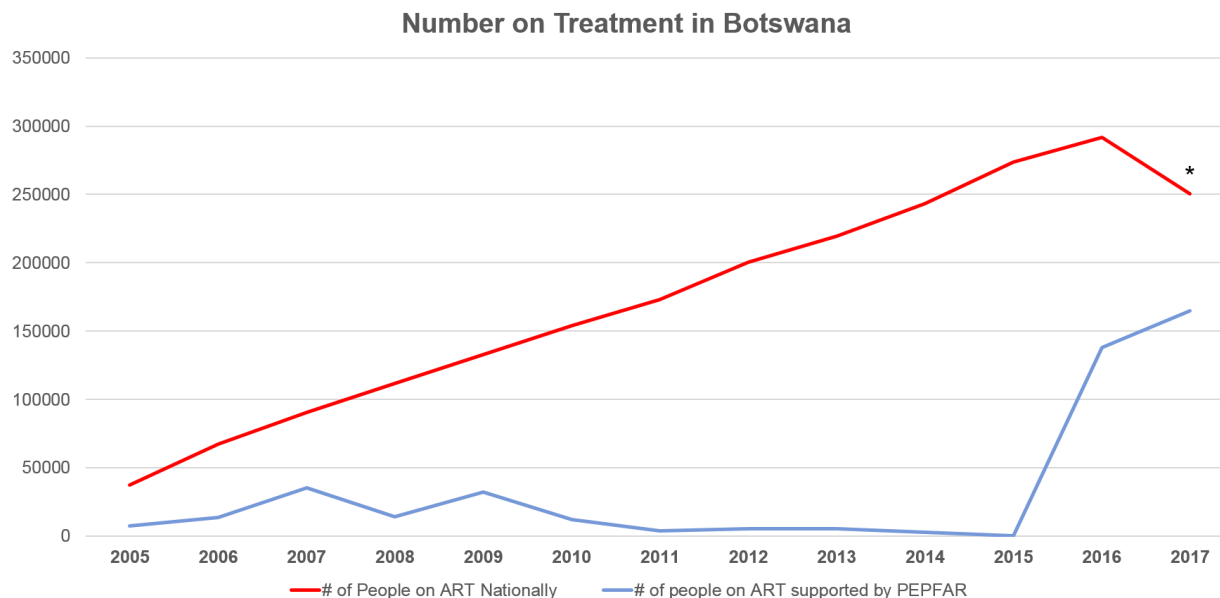
³ UNAIDS 2017

⁴ MOHW HAART (Highly Active Antiretroviral Therapy) Update, adjusted down by 20%

⁵ MOHW Data Warehouse viral suppression data at <400 copies / mL

⁶ PEPFAR testing and linkage data from FY18 Q1

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



* To account for inconsistencies identified in preliminary DQAs, PEPFAR/B has assumed a 20 percent reduction in current treatment coverage for COP 2018 case-identification and treatment targets. PEPFAR/B will continue to revise as more data becomes available and through COP 2019 planning.

2.2 Investment Profile

The 2013/2014 *National Health Accounts* (NHA) is the most recent health investment data available in Botswana. There are plans to complete a National AIDS Spending Assessment (NASA) in 2018 or 2019 as the last one was conducted in 2012. According to the 2013/2014 NHA data, the GoB remains the primary funder of HIV/AIDS programs in Botswana. The GoB contributed 57% of funding for HIV/AIDS programs, while external donors contributed 38% and private funders accounted for just 5%. This represents a decline from 2012 NASA, which showed the GoB contributed almost 70% of funding for HIV/AIDS programs, external donors just over 28% and private funders just under 2%.

Public funding gradually increased over a three-year period, from \$186.8 million in 2009/10 to \$253.5 million in 2011/12, while external sources of funding peaked in 2010/11 at \$113 million before declining in 2011/12 to \$105 million. PEPFAR, the largest external donor, has seen funding decline to \$43.2 million in COP16 from its highest level of about \$90 million just seven years ago; however, COP18 has seen an uptick to \$70.2 million. In 2016, the Global Fund became the second largest external donor by providing a grant totaling \$27,043,808 over three years for TB/HIV programs. The new proposal to GFATM for Botswana requests \$15.87 million for HIV and TB. This reduced funding is to begin in January 2019. Other development partners in Botswana include the EU, SIDA, and UN agencies; however their financial contribution to HIV/AIDS programming is minimal.

Table 2.2.1 Sources of Financing for HIV/AIDS Programs (2013-14)¹

Source of finance	Percentage of total financing provided
GoB Public Funds	57%
Private Funds	5%
External Funds (bilateral/multilateral)	38%
NGOs	< 1%

More than half (56%) of the GoB's HIV/AIDS funding was spent on care and treatment, 16% on OVC activities and 14% on prevention activities. Prevention spending decreased 35% from \$52.8 million in 2009 to \$34.2 million in 2011/12. An examination of the total health expenditures also found 53% of the spending went to hospital-based care². The data likely does not provide the most current picture of HIV/AIDS spending in Botswana as it is now outdated. The data reveals a costly physician-based system of care, placing Botswana amongst the most expensive HIV care and treatment programs in low or middle-income countries.³ GoB has started to implement more cost-effective methods of providing services, including task shifting, and with the completion of a Health Financing Strategy the MOHW is taking action to be able to address the high cost of treatment. The government realizes that continued funding of the HIV/AIDS and health costs in Botswana, as currently designed will pose a challenge for the country and, therefore, Botswana is looking toward more efficient ways to spend its health budget. One study, published in *The Lancet*, concluded Botswana should be able to finance its entire HIV/AIDS program without external aid.⁴

While total health expenditures grew from approximately \$337,000,000 in 2000 to \$868,800,000 in 2013/2014, total government health expenditure as a percentage of general government expenditure (GGE) declined from 19 percent in 2007/2008 to 18 percent in 2009/2010, sustaining an average of 18 percent during this period. As of 2013/2014, government expenditure on health as a percentage of GGE was 12 percent. This level of government spending as a proportion of GGE puts Botswana below the Abuja target of 15 percent in 2013/14 for the first time since 2007/8.

¹ National Health Account, 2012.

² National Health Account, 2012

³ According to Michael Ruffner, the PEPFAR Director of Financial Sustainability, direct spending per patient living with HIV ranges from \$800 to \$1,200 annually. Comparatively, South Africa spends about \$300 per person living with HIV (PLHIV) and Malawi spends about \$183 per PLHIV annually.

⁴ Resch, Stephen; Ryckman, Theresa; and Hecht, Robert. "Funding AIDS programmes in the era of shared responsibility: an analysis of domestic spending in 12 low-income and middle income countries" *The Lancet*, Vol3. January 2015.

Table 2.2.1: Annual Investment Profile by Program Area, 2013/2014⁵

Program Area	Total Current Expenditure (millions USD)	Percent Contribution			
		PEPFAR	GF	GoB	Other
Clinical care, treatment and support	220.9	14%	0%	83%	3%
Community-based care, treatment, support	Not disaggregated	NA	NA	NA	NA
PMTCT	5.1	NA	NA	NA	NA
HTS	4.9	78%	0%	22%	0%
VMMC	4.2	90%	1%	9%	3%
Population Prevention	20.1	55%	1%	43%	1%
OVC	53.0	2%	0%	98%	0%
Laboratory	NA	NA	NA	NA	NA
SI, Surveys and Surveillance	15.4	100%	0%	0%	0%
HSS	1.5	99%	0%	1%	0%
Other*	43.9	85%	0%	15%	0%
Total	369.1				

*Includes program management, administration, human resources and enabling environments

During the GoB Fiscal Year 17/18 (April 1, 2017 to March 31, 2018), the procurement of key health commodities has primarily been funded by GoB as reflected in the data obtained from the CMS in Table 2.2.2. The total amount spent on ARVs, other commodities (HIV test kits, condoms, viral load reagents, VMMC kits) and other drugs was \$125.6 million, an increase from \$92 million last FY, and an increase in GOB expenditures from \$85.2 million to \$115.7 million. PEPFAR's contribution was primarily for the procurement of ARVs and rapid test kits through the USAID Global Health Supply Chain Program – Procurement and Supply Management (GHSC-PSM). (see Table 2.2.2).

Commodities-related issues that may affect the ability of PEPFAR to support the country's achievement of epidemic control include:

- The national supply chain issues that may negatively impact the last mile distribution of required commodities to the patient include inefficiencies, inadequate procurement staffing capacity at CMS, insufficient forecasting technical expertise that may lead to potential stock-outs, and lack of visibility and data from the facilities to CMS – leading to poor consumption data required for a reliable and effective procurement planning by CMS. PEPFAR continues to support capacity building and system strengthening of CMS, to develop more efficient systems and to realize associated cost savings for HIV drugs and other key commodities.

⁵ Source: NASA 2012, Gaborone, Botswana

- Stock-outs of essential commodities are periodically experienced at the national level, and PEPFAR/B will usually assist GoB by doing emergency procurement(s); such as for HIV rapid test kits and condoms. PEPFAR/B also keeps minimal stocks on RTKs for the benefit of our implementing should there be national stock-outs.
- As a matter of policy, GoB also does not fund commodities such as lubricants for Key Populations, which can negatively impact the efforts toward epidemic control.

Table 2.2.2: Annual Procurement Profile for Key Commodities, April 1, 2017 to March 31, 2018

Commodity Category	Total Expenditure USD	% PEPFAR	% GF	% Host Country	% Other
ARVs	57,405,923	16		84	
Rapid test kits	1,805,885	17		83	
Other drugs	43,263,545	-		100	
Lab reagents (General reagents)	5,132,828	-		100	
Condoms (Male)	422,048	35			65
Viral Load commodities (HIV reagents)	11,020,304	-		100	
VMMC kits	217,032	60		40	
MAT	-	-			
Other commodities	6,353,170	-		100	
Total	125,620,735	7.8		92	0.2

- I. Government procured large quantities of condoms for the period April 2016-March 2017 and these were used up to the time PEPFAR condoms were received in December 2017.
- II. The expenditure figures were converted from the local currency (Botswana Pula – BWP) using exchange rate of 9.42586 from OANDA Currency converter on March 2, 2017; www.oanda.com/currency/converter

Table 2.2.3: Annual USG Non-PEPFAR Funded Investments and Integration (FY18)

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	N/A	N/A	N/A	N/A	N/A
USAID TB	N/A	N/A	N/A	N/A	N/A
USAID Malaria	N/A	N/A	N/A	N/A	N/A
Family Planning	N/A	N/A	N/A	N/A	N/A
NIH	N/A	N/A	N/A	N/A	N/A
CDC (Global Health Security)	N/A	N/A	N/A	N/A	N/A
(CDC Other) National Public Health Institute	\$179,006	N/A	N/A	N/A	Establishment and support of Botswana National Public Health Institute
(CDC Other) DTBE	\$15,595	N/A	N/A	N/A	Field Evaluation of HIV Point-of-Care Technology for Viral Load Testing in Botswana
Peace Corps	\$1,769,970				PC Appropriation for non-PEPFAR volunteers
MCC	N/A	N/A	N/A	N/A	N/A
Total	\$1,964,571				

Table 2.2.4: Annual PEPFAR Non-COP Resources, Central Initiatives, PPP, HOP, FY18

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
VMMC – Central Initiative	\$3,660,000			2		1. Circumcise a total of 21000 males and increase VMMC coverage among males 15-29 yrs(included targets for both ACHAP & GOB)
LCI	\$250,000					1.Create an enabling environment to improve access to and use of quality services for KPs 2.Address legal and policy barriers at the national level to create an enabling environment for KP to access services 3.Reduce stigma and discrimination at local levels through social mobilization, empowerment, education and advocacy around human rights and legal issues to increase access to services
GOB	\$1,000,000			2		1. To support the BIAS-V survey GOB and BHP.
Test and Start Year 2	\$7,400,000			1		1. To procure ARVs in support of Test and Start and DTG transition 2. Provide TA to CMS in forecasting and tracking of drugs
BCPP Project Funds (ARV Procurement)	\$6,100,000			1		1. These funds are to be used to procure ARVs to continue treatment of clients initiated by BCPP
BCPP	\$3,062,506			6		1. To wrap up the implementation and compile, write up and dissemination the results of the combination prevention (CP) interventions package in combination prevention communities (CPC) and determine uptake of interventions in CPCs, HTS, male circumcision, HIV C&T and PMTCT
HIS-Central Initiative	\$3,000,000			7		Strengthen Botswana’s HIS to measure: continued provision of quality clinical care services; sustained attainment within sex/age bands; index finding and real-time triggered response; real-time data sharing/dissemination/use accessible to all; standard HIV

			case surveillance and reporting
PRRR	\$165,874	1	Continued scale up of see and treat services cervical cancer in GoB
Total	\$24,738,380		

2.3 National Sustainability Profile Update

The HIV/AIDS Sustainability Index and Dashboard (SID) is a tool completed every two years by PEPFAR teams and partner stakeholders to sharpen the understanding of each country’s sustainability landscape and to assist PEPFAR and others in making informed HIV/AIDS investment decisions. Based on responses to 89 questions, the SID assesses the current state of sustainability of national HIV/AIDS responses across 15 critical elements. Scores for these elements are displayed on a color-coded dashboard, together with other contextual charts and information. As the SID is completed over time, it will allow stakeholders to track progress and gaps across these key components of sustainability.

Botswana Overview: With the introduction of the “Treat All” policy in June 2016, Botswana has made significant strides in reaching epidemic control over the past year. The government is refining its policies and guidelines to increase the number of people on treatment with an attempt to reduce the burden on its increasingly overtaxed health care system. However, there are significant challenges in supply chain management and health information systems, both of which are woefully inadequate in gathering accurate data regarding commodities and patient information. Without accurate epidemiological and health data, the country will have considerable challenges in meeting its citizens’ needs in the near future. The GoB’s policy of not providing free HIV treatment to non-citizens will also negatively affect achieving total epidemic control. The impact of a senior leadership transition within the MoHW remains to be seen and may affect MoHW’s ability to coordinate the national response.

SID Process: On November 14, PEPFAR/B and UNAIDS Botswana co-convened a one day off-site meeting. Thirty nine representatives of civil society, multilaterals, government and USG staff participated in the activity. PEPFAR/B provided hard copies of at least 40 reports and related documents to be used as data sources. Electronic copies of an additional 20 historical documents were also available. The participants broke into four domain groups to discuss and complete the SID questionnaire. Each group was facilitated by either UNAIDS or PEPFAR/B staff and at least one note taker was in each domain group. After the questionnaire was completed, the dashboard was displayed to the entire group for broader discussion, feedback and analysis. It was agreed that the tool had limitations due to the binary nature of the answers and that it could serve as a reflection of perceptions of sustainability at this particular point in time.

Sustainability Perceived Strengths

- **Planning and Coordination:** Botswana develops, implements and oversees a National Strategic Framework (NSF) every five years with midterm reviews. The third iteration of the document (NSF III) is currently being worked on and has been a process that has taken

over six months now. There is generally good participation from non-governmental stakeholders and donor agencies, however invitations to meetings are often called at the last minute. The involvement of the private sector in NSF development could be improved. While the NSF includes mention of programs to address needs of key populations (FSW and MSM), respondents said it is an area in need of improvement. Currently, most key populations' activities are funded by USG and implemented by our partners. However, there is little mention of this in the national strategy. In contrast, the need to strengthen coordination is mentioned in every venue by the director of NACA and is apparent in all our every-day work to implement the PEPFAR program.

- **Domestic Resource Mobilization:** One of Botswana's strengths is that the government covers close to 60% of the cost of the HIV response. PEPFAR/B covers over 30% and the GF covers the remainder. However, the Government as Principal Recipient of the GF grant is behind in spending and has not achieved the majority of its goals. It is in danger of returning millions of dollars back to the GF unless there are significant improvements in the management of the grant and government procurement processes. PEPFAR/B, through central funding, is covering the costs of all ARVs for new initiations for the Treat All roll out. This funding ends at the end of FY18. The next planned GF allocation beginning in 2019 is also considerably less than its current grant. These two realities will require the government to increase its HIV budget in the upcoming years.

Sustainability Vulnerabilities

- **Policies and Governance:** Botswana deserves credit for adopting Treat All and other HIV policies which protect populations living with HIV. It should be noted, however, that the policy does not cover non-citizens who are infected and this question was not asked on the SID. In the last year, under Treat All, there has been a directive by MoHW to fast-track clients for treatment in 1-3 days which is a positive move in ensuring PLHIV are quickly initiated on treatment. There are no laws or policies which specify protections for KP in Botswana. In 2017, a KP group was allowed to officially register as organization after winning the right to do so in court, but KP groups are still discriminated against and often marginalized.
- **Strategic Information:** While surveys and surveillance activities are generally planned and conducted by GoB, there is significant technical support needed from external agencies and donors. There are still many holes in the collection of data at the site level and much of the collection is still paper-based. The government currently has disparate information systems for the management of HIV and TB patients. There is a lack of an automated data transfer/sharing protocols between systems in order to share key patient data (lab results, linkage & retention outcomes) across systems. There is also a lack of integrated health information systems necessitating the need for a Data Warehouse in order to construct a longitudinal record for patients. These factors, combined with the fact that only 75% of

the health facilities have electricity and of those with power only 70% have computer capacity, create huge gaps in data collection.

COP18 Prioritization

- To address the vulnerabilities, PEPFAR/B will be prioritizing Host country institutional development and policy reform in COP18. ART for non-citizens, TB preventive therapy (TPT) implementation and multi-month dispensing (MMD) of ARVs are three policy areas that we will be strongly advocating for and for which we will provide TA to the MoHW in order to enact these policy changes. During COP18 planning, we have already seen openness by the MoHW to move these policies forward. For Strategic Information (SI), PEPFAR/B will strengthen MoHW DHIS capacity for routine monitoring and reporting. Negotiations with the MoHW during COP17 implementation (FY18) will result in the use of DHIS for data alignment reporting going forward in FY18. We will institutionalize routine DQAs and strengthen data quality improvement initiatives so that PEPFAR/B will be better able to report on national results at site level and the government will be better able to track results by site in each district.

Other Donor Investment

- The Botswana HIV/AIDS Impact & TB Prevalence (BAIS-TB) is funded by the GoB and GF with additional funding through CDC Central Initiative Funds. CDC and USAID through KNCV/Challenge TB are also providing TA to the GoB in developing the protocols. Lessons learned from developing and implementing this survey, which combines TB and HIV prevalence, will be very useful for other countries. Data collection is planned to begin by July 2018 with a preliminary report scheduled for November 2018. The GF grant has had an electronic Logistics Management System (eLMIS) in its budget for over 23 months. The MoHW reprogrammed a large portion of this budget amount to support the BAIS-TB survey, but the remainder has still not been utilized to strengthen the eLMIS system at the Central Medical Stores (CMS).

2.4 Alignment of PEPFAR investments geographically to disease burden

PEPFAR/B's scale-up SNUs represent the districts with the highest total number of PLHIV in need of ART (Figure 2.4.1). Sustained districts in FY17 had high overall ART coverage levels (with the exception of Ghanzi), and good viral load monitoring coverage is seen throughout the supported districts. Services in sustained districts continued to focus on retention and viral suppression, targeted key populations activities, and case detection and treatment activities targeting age-sex groups with poor ART coverage.

As in years past, Ghanzi/Charles Hill will be targeted as a TB/HIV micro-epidemic based on the SNU having the highest TB incidence in the country and an unmet need for ART. Reaching these populations and working in sparsely populated districts is generally more expensive than serving

urban and per-urban populations. Investments from DoD were also spread to sustained and non-PEPFAR districts, generally around BDF military bases, to conduct VMMC and testing of military and civilian populations.

Expenditures between FY16 and FY17 increased at a higher proportion in scale-up vs sustained districts (Figure 2.4.2), mainly as a result of the facility realignment process and IPs right-sizing their approaches to invest proportionally more in scale-up SNUs. DREAMS-like funding will focus on two districts within the Greater Gaborone SNU cluster (Gaborone and Kweneng East) with the highest number of AGYW living with HIV.

FY17 expenditures in non-focus districts were predominantly from PEPFAR-procured ART and Botswana Combination Prevention Project (BCPP) work (Figure 2.4.3). Expenditures outside of PEPFAR priority districts were reported by the CDC/GoB Cooperative Agreement (Co-Ag), BCPP and Peace Corps. The GoB Co-Ag accounted for the majority of these expenditures in non-priority districts, including spending on ARVs from the co-ag pipeline (Figure 2.4.5).

Figure 2.4.1: PLHIV, TX Coverage & VL Coverage by SNU

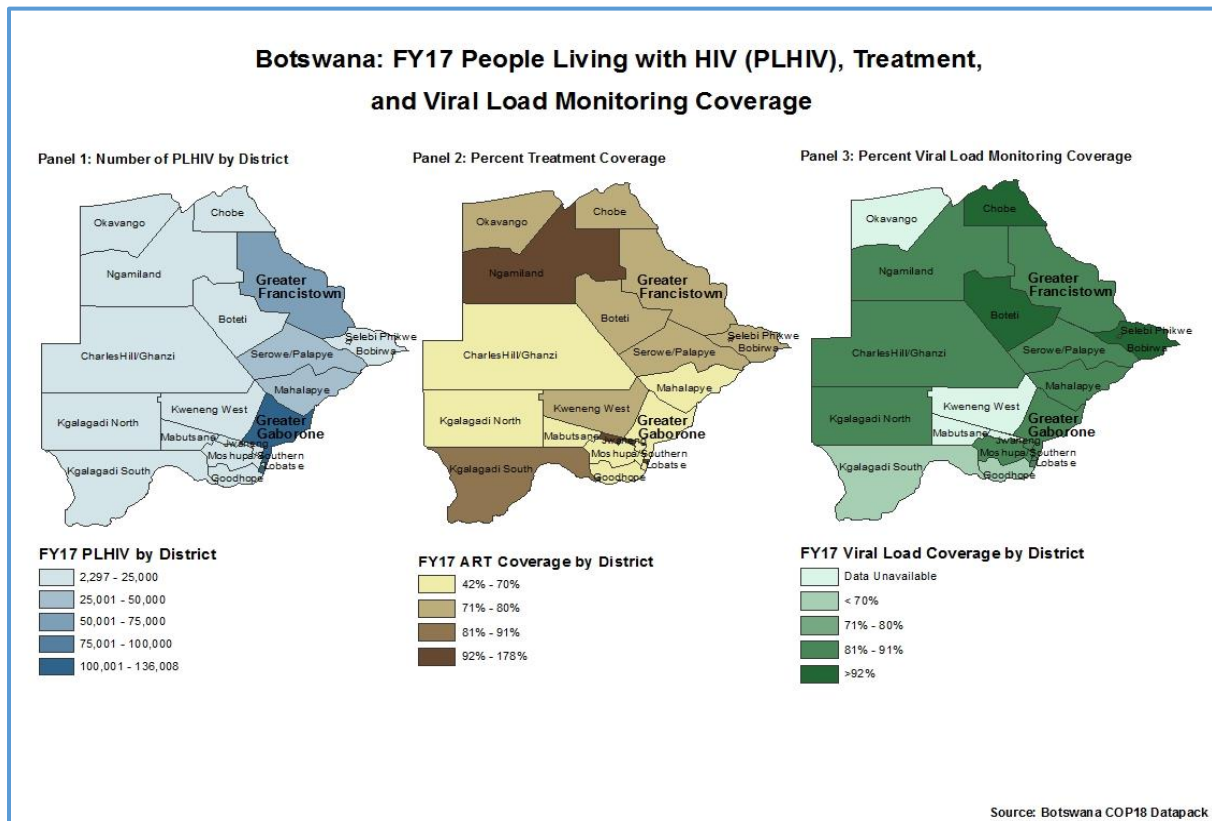
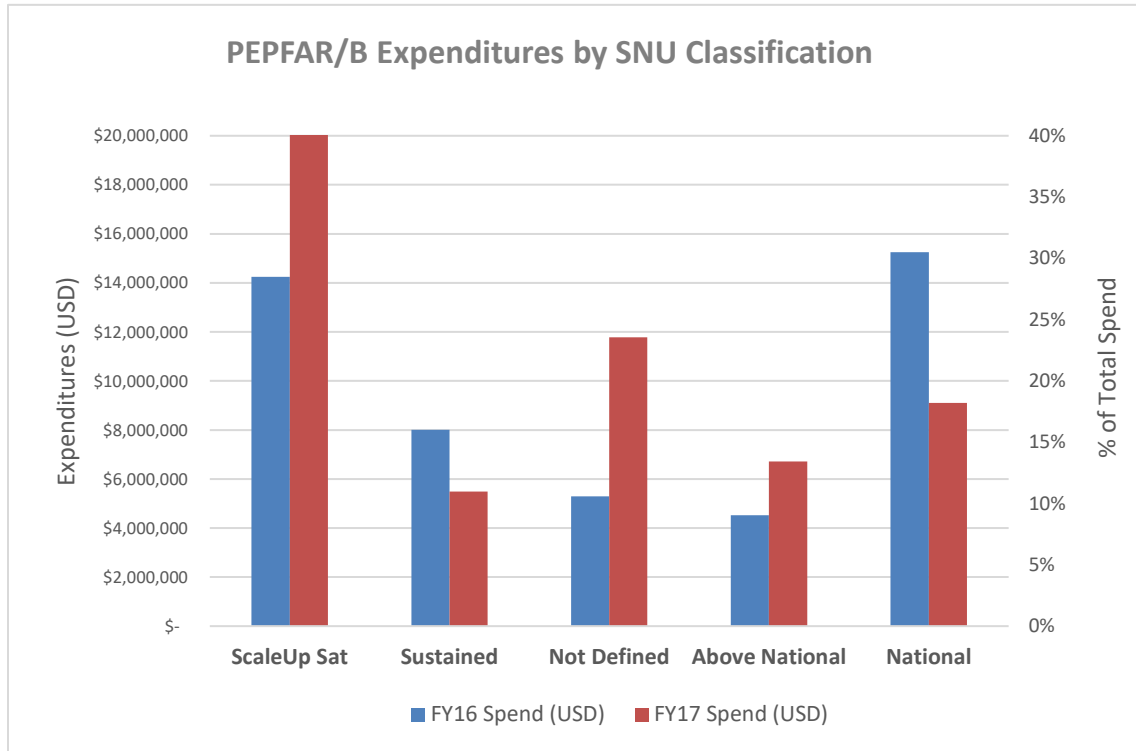


Figure 2.4.2 PEPFAR/B FY16 Expenditures by SNU



Figure

2.4.3 PEPFAR/B FY16 Expenditures in Non-Priority Districts

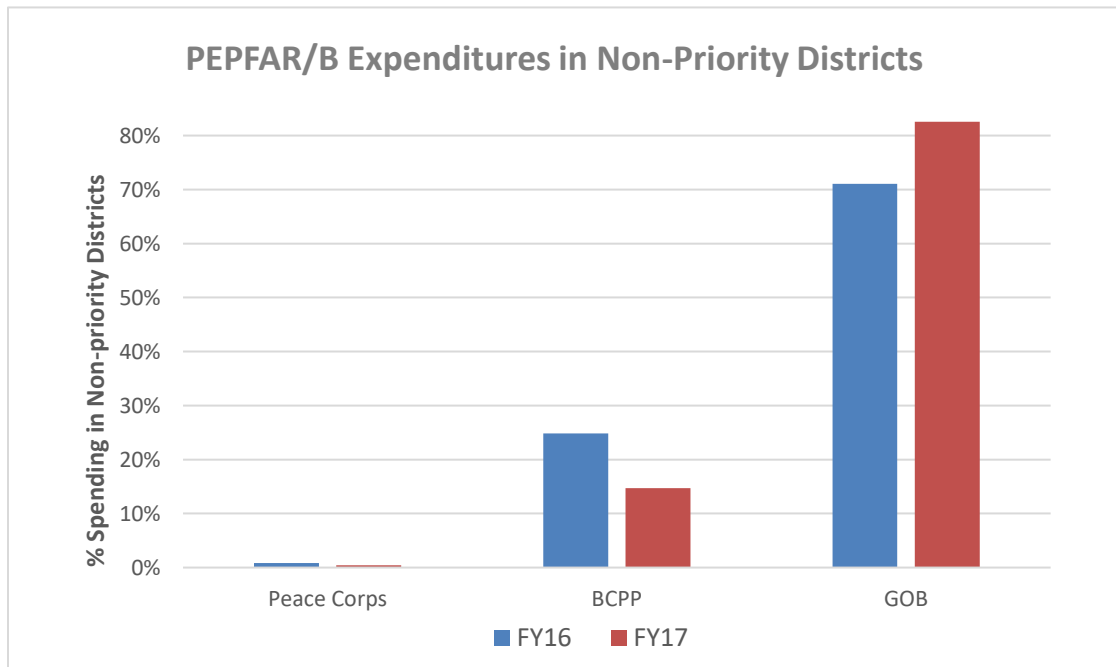
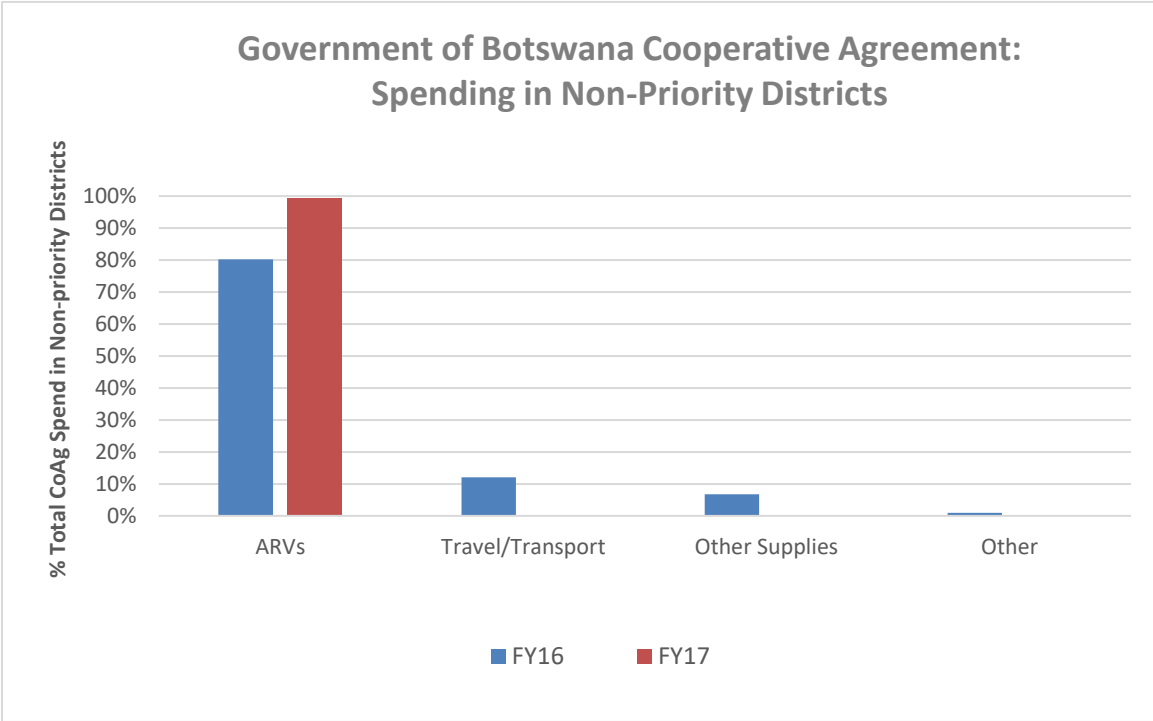


Figure 2.4.4 PEPFAR/GoB Cooperative Agreement FY16 and FY17 Expenditures in Non-Priority Districts



2.5 Stakeholder Engagement

PEPFAR/B is dedicated to stakeholder inclusion in order to accomplish one national response for epidemic control, and has engaged a wide variety of stakeholders in the development and planned implementation for COP18 (See Appendix F for complete list of stakeholders and partners).

Throughout the COP planning process the PEPFAR/B team has engaged stakeholders formally and informally. The PEPFAR/B Team retreat on January 24-26th included a full day of consultation with more than 25 representatives from the GoB, including MoHW, the National AIDS Coordinating Agency (NACA), Ministry of Local Government and Rural Development (MLGRD), Ministry of Nationality, Immigration, and Gender Affairs (MNIGA), Ministry of Basic Education (MoBE), and Central Medical Stores (CMS). PEPFAR/B presented the COP18 planning letter and discussed the budget limitations and earmarks. GOB presented on their key priorities and the gaps they need PEPFAR support to cover. Participants were grouped according to technical areas to prioritize needs, programs, and policy issues to be considered in COP18. Every group presented in a plenary session and presentations were used to inform the COP development.

After the meeting, the TWGs continued dialogues with GoB officials in preparing for the RPM. There were also three GoB officials who attended the RPM (two from MoHW and the National Coordinator from NACA) to provide their input into the COP18 plan.

As a follow-up, the PEPFAR/B team engaged the Ministry of Finance (MoF), Ministry of Tertiary Education (MoTE), and Statistics Botswana on separate occasions and will include them in future stakeholder consultative forums.

On 6 February, approximately 90 participants from various organizations including PLHIV support groups, national and international NGOs, CBOs, faith-based organizations, and multilaterals agencies met for a full day consultation. PEPFAR/B presented the priorities collected during the GoB consultation, COP17 activities, and tentative plans for COP18.

The participants then broke out into smaller groups to discuss priorities based on different topical areas. This information was collected by the two civil society representatives who attended the RPM in Johannesburg (one from Lesbians, Gays, and Bisexuals of Botswana [LeGaBiBo] and one from Botswana Network of People Living with HIV and AIDS [BONEPWA+]) in order to be the voice of civil society in the COP18 planning process. There were also attendees from the meeting from UNAIDS and WHO attended the RPM to ensure a coordinated and complimentary COP18 strategy. PEPFAR/B was then able to triangulate priorities from the COP18 planning letter, GoB, and Civil Society/other.

PEPFAR/B has made efforts to engage stakeholders in implementation of COP activities, and will continue to do so for COP18 activities. The Surge campaign has been a successful way of engaging stakeholders at the district level. The DREAMS-Like program has stakeholders from GoB and CSOs involved in planning and implementation. A national TWG has been formed that meets once per month to discuss planning and provide general oversight. Implementing partners meet weekly to create tools, discuss progress, and ensure coordination of layering activities amongst all

stakeholders. The official launch of the DREAMS program is expected to generate a large amount of excitement from engaged stakeholders adolescent girls and young women alike.

PEPFAR/B has continued to make investments in strategic communications across all agencies which are providing a deeper level of engagement with Botswana's national ministries and district government agencies, multilateral organizations, the private sector, civil society, and faith-based organizations. PEPFAR/B held four "New Directions in Global Health" seminars in 2017 and will hold more in 2018. These seminars gather 40-50 healthcare workers, local government and civil society leaders, and program beneficiaries, to discuss COP priorities, program results, HIV-related research, policy, and practice, as well as build the capacity of journalists to effectively report on health and gender issues.

PEPFAR/B is working to harmonize and create complementary messaging across all programming aspects particularly with Treat All. The Treat All Communications TWG has been formed in order to ensure messaging about Treat All is widely dispersed in appropriate mechanisms. One of the mechanisms including the Treat All Champions project which uses expert patients as mentors for individuals newly initiated on treatment. These champions were chosen from PLHIV support groups and vetted by the MoHW. Finally, PEPFAR/B continues to distribute the *Marang* monthly e-newsletter to stakeholders to strengthen the communication process between meetings.

The PEPFAR/B team has made efforts to be inclusive of stakeholders at regular and TWG meetings. A joint strategic information TWG has been formed to ensure coordination of strategic information, monitoring and evaluation, and data quality. All quarterly and COP preparatory stakeholder meetings and communications have produced feedback (verbal or written) which PEPFAR has utilized in program decision making. The CDC, USAID, DoD, State Department, and Peace Corps offices all participate in regular, joint communications and external partner engagement activities.

Lastly, the CDC Country Director serves as a voting member of the Global Fund's Country Coordinating Mechanism (CCM) and the PEPFAR Country Coordinator serves on GF Oversight Committee, and is in regular communication with the GF Portfolio Manager in Geneva. USAID'S Project Development Specialist for Continuum of HIV services and the VMMC advisor are members of the GF's Proposal Development Committee (PDC).

3.0 Geographic and Population Prioritization

Geographic Prioritization

The criteria used for geographical prioritization includes total number of PLHIV, ART coverage, and net new needed for ART saturation by SNU. Further stratification by age and sex were utilized

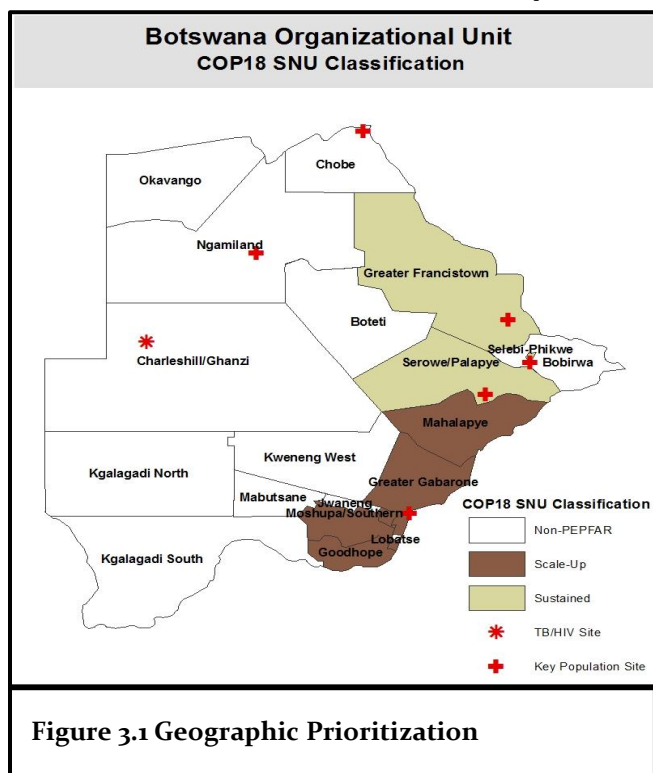


Figure 3.1 Geographic Prioritization

in COP18 to refine targeting for populations with the greatest gap in ART coverage and to identify programming needs in the sustained (non-KP, non-TB-HIV) SNUs. ART coverage by district, age and sex were estimated using the most recent data sources available, including national ART program data (“HAART Report”)⁶, PEPFAR program data and the 2017 UNAIDS Spectrum modeling results. The updated Spectrum model produces PLHIV estimates for 5-year age categories (0-4, 5-9, 10-14 etc.) by male and female allowing for even finer analyses to ensure coverage of all populations. As in previous years, UNAIDS PLHIV were proportionately distributed by district based on BIAS IV (2013) HIV prevalence estimates and district population projections.

To ensure the most accurate data were used to calculate the number of persons currently on ART, a preliminary DQA was conducted in six health facilities (three PEPFAR-supported and three non-PEPFAR-supported). The results of the DQA suggest national ART estimates are over-reporting the number of persons on ART. As a result, 20% reduction to National ART program data was applied to the data pack during the COP18 RPM in Johannesburg. This reduction has led to lower ART coverage estimates than in previous COP years and thus a greater gap to ART saturation than previously assumed. PEPFAR/B estimates the revised national ART coverage is at 67%. Before the end of COP18 implementation, we expect the fifth BAIS to be completed, which will provide high quality national and sub-national PLHIV and ART coverage estimates. Coupled with the ongoing COP17-funded Health Information Systems (HIS) plan efforts to improve site level reporting through DHIS and implementation of routine data quality assessments, data of improved quality will be available as we enter COP18 implementation and COP19 planning.

Comprehensive PEPFAR programming will continue in the six highest burden SNUs with the greatest gap in ART coverage. SNU classifications are maintained from COP17 and include four

⁶ Highly Active Antiretroviral Therapy

scale-up Saturation SNUs (Greater Gaborone, Goodhope, Mahalapye, and Southern) and two sustained SNUs with micro-epidemics identified through attainment analysis (Greater Francistown and Serowe/Palapye). An aggressive, multi-pronged approach to HIV programming during COP18 implementation aims to reduce the gap in ART coverage in these high burden districts.

In FY19 key population interventions will be implemented in the following districts/sites: Greater Gaborone (Gaborone SNU), Greater Francistown (Francistown SNU), Selebi-Phikwe, Chobe. Ngamiland (Maun), and Serowe/Palapye. In these districts the KP Implementing partners will offer a full cascade of services to female sex workers (FSW) and men who have sex with men (MSM).

Table 3.1 Current Status of ART Saturation

Prioritization Area	Total PLHIV/ % of all PLHIV for COP18	# Current on ART (FY17 HAART Update/ Adjusted down 20%) ²	# of SNU COP17 (FY18)	# of SNU COP18 (FY19)
Attained	None	None	0	0
Scale-up Saturation	200,431 (50%)	130,030/ 104,031	4	4
Scale-up Aggressive	None	0	0	0
Sustained¹	138,519 (35%)	127,242/101,794	6	6
Central Support	59,834 (15%)	61,195/48,956	9	9

1. Includes 2 sustained SNUs, 3 KP specific sites and 1 TB/HIV specific site. In COP17, 1 sustained SNU also had micro-epidemic programming; in COP18 all 4 will have this programming.
2. The HAART Update contains the official National ARV program data of those currently enrolled on treatment. After an initial PEPFAR-supported data quality assessment in 6 sites, HAART Update numbers have been reduced by 20%.
3. To account for inconsistencies identified in preliminary DQAs, PEPFAR/B has assumed a 20 percent reduction in current treatment coverage for COP 2018 case identification and treatment targets. PEPFAR/B will continue to revise as more data becomes available and through COP 2019 planning.

The COP18 attainment analysis shows ART and VMMC coverage gaps for finer age disaggregates across all populations. There is no district in Botswana that has been saturated with ART and VMMC services across all age bands. Regarding ART, the first SNU to be saturated will be Greater Gaborone assuming both FY18 and FY19 targets are reached (Appendix A). It is expected that Goodhope district will reach approximately 69% coverage for VMMC in the 15 to 29 years age group by the end of FY19.

Population Prioritization for ART

Children younger than 1 year of age, AGYW, adult men, adult women, FSW and MSM are priority populations for reaching ART saturation. The adjusted attainment analysis for FY18 taking into account the 20% national ART reduction (Table 3.2) shows that treatment coverage for children, adult men and women is below 81% for all of our scale up and sustained districts.

Table 3.2 Projected ART Coverage by age and sex bands by SNU, FY18*

Expected end of FY18 ART Coverage (Sub Nat)	Overall	<1 years		1-9 years		10-14 years		15-19 years		20-24 years		25-29 years		30-34 years		35-39 years		40-49 years		50+ years		
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Greater Gaborone	ScaleUp Sat	65%	43%	40%	77%	70%	78%	72%	74%	68%	69%	64%	70%	65%	72%	66%	70%	64%	67%	60%	65%	59%
Mahalapye	ScaleUp Sat	64%	58%	59%	104%	103%	171%	159%	74%	65%	55%	49%	67%	80%	61%	78%	54%	65%	56%	63%	47%	68%
Southern	ScaleUp Sat	70%	27%	32%	49%	57%	106%	86%	71%	53%	24%	45%	22%	60%	36%	74%	50%	80%	71%	79%	91%	89%
Goodhope	ScaleUp Sat	57%	32%	39%	58%	68%	147%	70%	88%	66%	17%	62%	10%	63%	31%	64%	49%	62%	58%	58%	68%	57%
Serowe/Palapye	Sustained	79%	52%	61%	93%	107%	149%	133%	66%	56%	39%	64%	51%	86%	62%	111%	70%	104%	71%	75%	74%	80%
Greater Francistown	Sustained	74%	40%	53%	71%	93%	72%	95%	68%	90%	64%	85%	65%	85%	67%	88%	65%	84%	62%	80%	60%	78%

* To account for inconsistencies identified in preliminary DQAs, PEPFAR/B has assumed a 20 percent reduction in current treatment coverage for COP 2018 case-identification and treatment targets. PEPFAR/B will continue to revise as more data becomes available and through COP 2019 planning.

Both male and female children were identified as having significant unmet need. More focus will be needed to scale up ART coverage for children <1 year in all scale-up and sustained districts. Additional scale up of ART is needed for children between the ages of 1-9 years of age at Southern, Goodhope and Greater Francistown districts as well as children aged 10-14 years in Goodhope district.

For FY18 and FY19, Botswana needs to improve in case identification and linkage to treatment for AGYW across all four scale up SNUs and the one sustained SNU. With increased effort, the picture will change in FY19 where Greater Gaborone will reach 85% among AGYW in the age brackets 15-19 and 20-24.

For men, the need to improve case identification is particularly high for ages 20-24 and those 35 and older, assuming targets are reached by the end of FY19. Attainment for adult men, especially those aged 20-24 and 35-49 for all our priority SNUs, will not be reached then except for in Greater Gaborone. Among women, assuming targets are reached by end of FY19, Botswana will still have a treatment coverage gap for 15-29 and those over 40 in scale up districts of Southern, Mahalapye and Goodhope.

One additional SNU, Ghanzi, has a TB/HIV micro-epidemic requiring additional support for the largely rural, migratory population. Ghanzi has a TB prevalence rate 2.5 times the national average. People with TB are a high-yield population for HIV case-finding and new ART initiations given the high co-infection rate in Botswana (61% of TB patients are also living with HIV).

PEPFAR/B's focus on KPs (FSW and MSM) is an effort to meet the needs of these groups as they are high-risk populations with a higher incidence than the general population. Both NSF II and III for 2010–2016 stipulates the need to increase HIV prevention services for the most-at-risk and hard-to-reach populations as one of its prevention implementation strategies. PEPFAR has continued to fund a comprehensive key population program. Other donors such as the GF, UNAIDS and WHO fund only prevention interventions and human rights aspects of the key population program.

In line with WHO and UNAIDS framework for voluntary medical male circumcision, the PEPFAR/B VMMC program prioritizes circumcision for adolescent boys and males aged 10 – 29 years. Within this age group, emphasis is on the age group of 15 – 29 years which has a more immediate impact on HIV acquisition risk. This particular age group will represent 50% of the overall target. In COP18

PEPFAR/B will support efforts to scale up VMMC services in priority districts and provide DSD using approved age-specific VMMC surgical techniques in the following four scale up SNUs: Greater Gaborone, Mahalapye, Southern and Goodhope; PEPFAR/B will allocate 80 % of the overall target to these high burden SNUs. Assuming that we achieve the set targets, the coverage for VMMC among adolescent boys and men aged 15 to 29 years in Greater Gaborone, Mahalapye, Goodhope and Southern SNUs will reach 49%, 59%, 58% and 69%, respectively, by end of FY19.

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

4.1 Finding the missing cases, getting them on treatment, and retaining them

The PEPFAR/B COP18 plan proposes to prioritize specific age bands in children, AGYW, adult men, and adult women as target populations for focused programming to achieve the 95-95-95 goals. The plan encompasses activities across prevention, HTS, care and treatment services, HIV/TB, laboratory and systems support (i.e. HRH, commodities). To enhance recruitment and retention efforts, focused communication strategies will be utilized to increase demand creation and awareness of Treat All in both scale up and sustained SNUs. To find the missing HIV positive cases, self-testing, targeted PITC, community-based testing, and index client partner testing (ICPT) will be among the primary case identification strategies utilized in COP18 (Table 4.1).

In COP 18, PEPFAR/B will continue to implement the community HTS strategy using two testing partners, BUMMHI and APC. To avoid duplication of effort, each partner will target different scale-up districts, with BUMMHI focused in Mahalapye, Southern, and Goodhope, and APC in the Greater Gaborone cluster (Gaborone, Kweneng East, Kgatleng, and Southeast).

This section describes the COP18 approach to scaling up, optimizing or initiating case identification strategies for both general populations and sub-population groups. A summary table of key HTS strategies is presented at the end of the section.

4.1.1 Case identification strategies relevant to adult men and women, AGYW and KP

- **Scale-up with fidelity index client partner testing**, ensuring that newly identified PLHIV and those enrolled in care in the last 24 months are offered partner elicitation services (facility & community) - Available program data from APR17 and FY18 Q1 highlight index client partner testing (ICPT) as the highest yield case identification strategy in both facility and community settings. Yields of 15% and 18% were achieved during APR17 for facility and community testing, respectively, whilst 15% and 17% were achieved for FY18 Q1. Other strategies, such as facility testing at outpatient departments and mobile testing in community settings, had relatively lower yields of 7% and 5%, respectively, but reached higher volume of patients. To scale index testing, the number of tests performed will increase from 6,882 in FY17 (actual) to 47,991 in FY18 (target) and further to a target of 54,473 in FY19. The PEPFAR/B team carefully evaluated the absorptive capacity for index testing based upon past partner performance and the estimated number of index cases available among ART clinic (these are called IDCCs in Botswana) patients initiated on ART in the past 24 months. All PEPFAR implementing partners will prioritize elicitation by offering index testing to all newly HIV-diagnosed men and women that are diagnosed through all other modalities. Index cases will also be sourced from cases registered in IDCC and those reached through PHDP programs. The facility-based partner will also collaborate

with community testing partners and handover of index partners who have not come to the facility for a test.

- **Scale-up with fidelity HIV self-testing-** HIV self-testing (HIVST) addresses major access and social barriers to HTS uptake among populations with the greatest unmet need such as adult men and adolescents. HIVST will achieve greater early diagnosis of PLHIV unaware of their status, improve HTS program positivity and help optimize human resources. This strategy will help reach, high-risk populations including AGYWs, key populations and the sexual partners of all newly diagnosed clients of the HTS program. . Also, HIVST kits will be offered to HIV-positive women in ANC, who are unlikely to bring their partners to the facility for a test. This assessment of the likelihood that the partner will come to the facility or not will take place at the time of partner elicitation. For tracking, all HIVST kits will be marked with a unique identifier, and a comprehensive M&E system will be developed to link partners who present for testing to the index case so it is known that the person’s partner has been tested. Reimbursements such as transport vouchers or airtime cards will be offered as appropriate to encourage the return of HIVST results in non-supervised settings. HIVST will also be used as a differentiated testing strategy to decongest the testing flow at facilities through testing kiosks. Currently 94.4% of clients presenting at PEPFAR supported hospitals are screened for HTS eligibility while 96% of those screened are tested for HIV. Decongesting with such kiosks will help achieve cost efficiencies by reducing the number of counselors needed to test all the eligibles. Refer to sections 4.1.2 below for detailed approaches for implementation of HIVST by population sub-group.
- **Optimize TB hotspot mapping for Targeted Community Testing** – In 2016, the Botswana-UPenn (BUP) Partnership conducted a population-based study of TB transmission in two high HIV-burden locations in Botswana. The overarching goal of the study was to identify social networks and social gathering hot-spots where TB transmission occurs at a higher frequency through genotyping and spatial mapping. Because 60% of individuals with TB in Botswana are HIV co-infected, the resulting spatial maps were adapted for targeted HIV case finding based on clustering and geography. Lessons learned from implementation of this innovative approach to community testing will be expanded significantly in COP18 to include mapping of TB hotspots in all remaining scale-up districts. The detailed maps will highlight households of TB cases to be targeted for community testing. ICPT will also be conducted during these community home visits.
- **Optimize Additional Community Testing Targeting** - Other targeted testing approaches in the community include mapping of high drug and alcohol-use neighborhoods and households with high risk individuals identified from HIV prevention and GBV risk assessments. The household screening tool used by CHWs for home testing assesses family members for HIV-related risk and the time since their last HIV test. This approach identifies first-time testers and those who have not tested for more than 12 months – the two populations who tend to yield more positives. Current FY17 APR data from

community partners shows that 19% of those tested through targeted community approaches were first-time testers contributing 27.5% of positives (with a yield of 12.5%).

- Testing among presumptive TB and TB cases** - - About 10% of patients screened for TB disease using the four cardinal TB symptoms would be expected to be presumptive TB based on unpublished research data from Botswana. Early program data showed a 15% identification of presumptive TB clients in the facility-based testing setting and 9% in the community-based testing setting. In FY 18 Q1 a total of 158,676 patients visited health facilities and only 2% (n=2836) were reported as presumptive TB indicating 8% (n=13,032) gap. At community level during the FY17 APR period 280 TB presumptive clients were identified but only 184 of them (66%) were screened for HIV, leaving a gap of 96 (34%) of patients. The yield was only 3.3%. This huge gap was caused by the fact that the screening for HIV and for TB were done by 2 different CHWs, at different times and this has been changed. In FY18 Q1, 48 TB presumptive clients with unknown status were identified and 44 (92%) were tested for HIV leaving a gap of 4 (8%) of the cases yielding a positivity rate of 9%. Priorities in COP18 include ensuring universal screening for presumptive TB in PEPFAR supported health care facilities and HIV testing of all HIV negative and unknown status presumptive TB cases. Additionally, providers will review TB registers and client cards to ensure that all TB patients without a documented HIV status are offered a test.
- Recency HIV Testing:** Botswana will roll-out HIV recency testing for the first time in COP18. Universal index testing will be especially prioritized among those with a positive recency test. Recency testing will be used to identify hotspots for targeted HIV testing in communities. In community settings, recency will be used for mapping hotspots for new infections and targeted community testing.

4.1.2 Case identification strategies specific to major population groups

Adult Men - 15 years and above:

As shown in Table 1, there are many adult men ages 35 and above who are HIV positive but do not know their HIV status. COP18 prioritizes finding these older men and ensuring they are linked and initiated on treatment. Furthermore, there are many younger adult men between 15-29 than men aged 30-34 who are HIV positive and do not know their status. Therefore, targeting young adult men is also a key HTS priority for COP18.

Table 4.1.1: COP18 HTS_POS Targets by Scale-up SNU for Adult Men 15 years+

SNU	15-19	20-24	25-29	30-34	35-39	40-49	50+	Total
Gaborone	56	310	392	358	854	3083	3484	8537
Mahalapye	1	76	1	48	264	567	905	1862
Southern	0	130	225	218	149	0	0	721

Goodhope	0	69	128	125	99	144	73	638
Total	57	586	746	748	1366	3794	4462	11758

*Current numbers reflect estimates which may change slightly as age disaggregated testing targets are finalized.

Case identification among men has remained lower than women. Of the 14,998 cases identified in FY17 by PEPFAR implementing partners across all modalities, 39% were adult men aged 15-50 years and older. To increase case identification of adult men, the COP18 approach will include the following strategies in scale-up SNU:

Facility Based Testing/Provider Initiated Testing and Counseling - In Botswana, as in other countries in Sub-Saharan Africa, men are less likely than women to present at health facilities seeking health care. However, lessons learned from “surge” have helped the country team identify specific strategies to identify and diagnose men. In FY19, the following will be expanded:

- *Facility based Index Client Partner Testing (ICPT)* – Facility-based testing generally reaches more females than men. Given the large remaining gap and corresponding COP18 target among adult men age 25 and up, we plan to conduct index partner elicitation among HIV positive women in order to access their male counterparts for testing. Index cases will also be sourced from new cases identified among women attending and from PLHIV at time of diagnosis or enrollment in care and treatment. Additional elicitation will be conducted among PLHIV already on treatment within the prior 2 years during regular IDCC visits.
 - At sites where a PEPFAR supported HIV testing partner has a presence, the index elicitation from IDCC will be done by this facility testing IP. If the facility testing IP fails to reach the referred patient’s network after 30 days, they will hand over the list to the community IPs for follow up and testing in the community as per the National Partner Notification SOP.
 - At sites where only the PEPFAR treatment IP has a presence, that treatment IP will do partner elicitation and provide the partner list to the community testing partner.
 - In a scenario where there are no PEPFAR IPs, the community partner will collaborate with MOHW to access the index list and they will do the partner elicitation and follow-up testing in community settings.
- *Expansion of after-hours and weekend HIV testing services and introduction of holiday testing hours* – Optimizing other successful strategies for identifying men will be key in meeting COP18 targets. In FY17, the implementation of afterhours and weekend services significantly improved the proportion of adult males identified. For instance, 35% of the cases identified were adult males when services were provided during normal hours. However, the proportions increased to 39% and 59% when services were provided during afterhours and on weekends, respectively. PEPFAR support will therefore be directed to expanding these after-hours services and will also include testing and at school clinics targeting 15-24 school-going younger men across all SNUs. Facility HIV testing program data has shown an increase in case identification and yield among 15-24. For instance, during the first 6 months of FY17, of the total 4,744 cases identified during standard hours of operation (includes testing from Monday to Friday: 07:30 to 16:30) only 2% of the cases

were younger males aged 15-24. However, when HTS services were expanded and provided through afterhours and weekly the numbers of cases identified increased to 3% and 4% respectively. Currently, provision of testing services at school clinics is very minimal. The plan for COP18, is to ensure integration of HIV testing at school clinics targeting at risk younger seeking STI treatment, PrEP and testing for VMMC.

- *HIV self-testing targeting sex partners of ANC attendees and of at-risk AGYW presenting at youth friendly clinics* - Facility-based PITC is the most efficient testing modality and will be prioritized whenever possible. However, HVST is a critical tool to fill the gaps when PITC is not a good option. To optimize testing of men in facilities pregnant or post-partum women (18-39) presenting at post-partum or ante natal care who are believed to be high risk for not bringing their partners in for testing at the facility, or fail to bring their partners in for testing will be given self-tests and instructions to provide to their sexual partners. Women presenting at health facilities for STI and TB treatment will also be leveraged to reach their male sex partners through HIVST. It will be explained to patients that self-testing is a screening test and does not itself provide an HIV diagnosis and thus individuals whose self-tests are reactive, indicating that they may be infected with HIV, will need to seek further testing at a health facility. In addition, client will be informed on the potential health benefits of disclosing the HIV status to significant others prior to receiving their self-test kits. To improve linkage to care, brochures and flyers will be distributed together with HIVST kits, containing information on HIV testing services, HIV prevention, treatment and care. Contact details for the client provided with the self-test kit will be collected and used for follow-up by the facility health education assistant (HEA) in the case of public health distribution and community-based follow-up by peer and outreach workers (in-person or via telephone/text messages) will be used where HIVST kit distribution was done in community settings.
- *Male friendly corners in facilities* - Lessons learned from Lesotho have demonstrated that the introduction of male friendly corners has potential to improve male health seeking behavior in addition to HIV testing and linkage to care. The male friendly corners will provide integrated services that will attract men including sexual health and wellbeing for men and services for non-communicable diseases such as diabetes and blood pressure in addition to HIV testing. A phased roll-out of male friendly corners will be supported in COP18 with priority given to sites targeting men through provision of extended and weekend services. To increase uptake of HTS among adult men, PEPFAR/B will introduce the “red carpet/fast pass” for men to reduce waiting time for men at health facilities.
- *Expanded testing at Accident and Emergency (A&E) departments* - Hospital A&E departments continue to be strategic locations for identification of undiagnosed HIV positive young adult men. In FY17, while just over 2% of all cases identified in facilities were at A&E departments, 35% were men aged 20-39 years. In addition to expanding Health Care Auxiliaries (HCAs) at all A&E departments and prioritizing testing of men, COP18 will support expansion of testing to include family members and sex partners of A&E patients. HIV eligibility screening for family members in A&E waiting areas will also be scaled-up.
- *Reaching adult men through screening of presumptive TB patients* - Collaboration between facility HIV testing and TB/HIV implementing partners has significantly improved

identification and HIV screening of presumptive TB patients. At most facilities, twice as many women as men present to health facilities. Presumptive TB identification was marginally higher in men than women age 25+ (11% versus 9%), reinforcing the value of this strategy for identifying men. COP18 will include strengthening demand creation, both through facility attendance and community approach, intensifying TB screening and HIV testing among males aged 25+.

Targeted Community Testing - Community-based testing plays a key role in HIV case finding among those who do not typically access healthcare facilities and among those who would not be reached through the index partner approach.

- *ICPT* – In COP18, ICPT will also be scaled-up with fidelity in community settings. Index testing for adult men will be conducted through newly identified cases of females within the community. Index elicitation will also be conducted among AGYW identified through mobile and outreach testing for testing of their sex partner(s), who tend to be adult men. Partners and children of FSW who test positive will also be referred and targeted for ICPT. FSWs had a high yield of 8% in FY 17 APR. Additionally, index client elicitation will be conducted from patients already on treatment at the IDCC as described above.
- *Mobile and outreach testing* - Support will also be directed to reaching young males (15-24), using targeted community based strategies such as mobile and venue-based testing at secondary and tertiary schools, colleges and sporting events. Data from BCPP suggests that both mobile and targeted home testing are effective strategies for identifying younger adult males.
- *Social Network Testing* – Social network testing has been used successfully in key population programming. Lessons learned will be applied to improve case identification among men. PEPFAR/B will support engagement of HIV positive and high-risk persons who are popular leaders to serve as recruiters within their networks. The strategy will be used to access the network of HIV positive men 25-35 less likely to present at health facilities.

Testing For First Time Testers - The household screening and assessment tool identifies first time testers, and those who have not tested for more than 12 months; these populations yield more positives. FY17 APR data from a community IP shows that 19% of those tested through targeted community approaches were first time testers, and 58% of those were males, with an average yield of 12.8%.

Integrated VCT – One-stop-shop services including HTS, screening for STIs, TB, and NCDs and ART initiation, will be accessible through weekend and extended hours of operation. These services are especially attractive and highly accessible for men and young people who do not readily access health facilities because of time constraints.

Adult Women – 25 years and above

- In FY17, a total of 37,972 women aged 25 and above had been tested for HIV, and 2,184 of them were identified HIV positive, with a total yield of 5.8%. The women in this age

bracket have a prevalence of 34.2% (UNAIDS 2017), the highest amongst all age/sex bands. The attainment analysis also shows an overall gap in reaching women across all the scale up SNUs, with the greatest unmet need cutting across all age bands in Greater Gaborone and Goodhope. To increase uptake of HTS, both facility and community based partners will continue to accelerate innovative testing modalities to identify more cases among adult women and link them to care and treatment. Therefore, a key focus for COP18 will be to ensure that older women are diagnosed and linked to treatment.

Table 4.1.2: COP18 HTS_POS Targets by SNU:

Adult Women 15+

SNU	15-19	20-24	25-29	30-34	35-39	40-49	50+	Total
Greater Gaborone	110	876	1259	1259	2226	5823	5164	16720
Mahalapye	0	233	2	3	5	375	152	771
Southern	15	119	24	0	0	0	0	159
Goodhope	2	26	37	34	66	189	170	523
Total	127	1255	1322	1300	2297	6386	5486	18,173

*Current numbers reflect estimates which may change slightly as age disaggregated testing targets are finalized.

The following strategies will be employed to increase our case-detection among adult women in both facility and community across scale-up SNUs.

Facility Based Testing

- *Optimize PITC* – As mentioned above, PITC approaches tend to reach more females than males. Given the targets, we estimate at least 80% of the 25+ females will be reached through the expanded PITC. In FY17, 78% of all female cases identified by the PEPFAR/B program were identified through PITC. Currently 94.4% of clients presenting at PEPFAR supported hospitals are screened for HTS eligibility while 96% of those screened are tested for HIV. Although the screening and testing rates are high, there are leaks along the cascade. Moreover, screening for HTS eligibility at clinics is sub-optimal. COP funds will support efforts for ensuring screening of patients coming to facilities (including ANC, TB, STI and OPD, inpatient) and implementation of strategies for preventing leaks in the eligibility cascade such as continuous quality improvement (CQI) activities for managing client flow.
- *ICPT* - To reach adult women, males enrolling in IDCC in the last 24 months will be prioritized for partner elicitation. Index client ART files in IDCC/ANC will use color coded flags for “needs elicitation,” “in progress,” “handed to community partner,” and “complete.”
- *HIVST* – To optimize case finding among adult women in facility settings, HIV self-test kits will be distributed to the older men presenting at health facilities to distribute to their sex partners.

Community Based Testing targeting adult women

- *Integrated VCT* - This approach, which targets older women, is an expansion of HIV testing services through an integrated, one stop shop services. Women will be referred from other services under the same roof including STI screening, SRH services, GBV screening, screening for NCDs and TB screening. The services will be offered directly by the testing partners or in collaboration with facilities. Measures will be put in place to make sure services are easily accessible to older women by offering appropriate hours of operation including weekend testing services.
- *ICPT-PEPFAR* implementing partners will prioritize female partners aged 25 years and older for optimization of index partner testing. According to FY17 APR data, the yield for index testing among adult women was 18%. Partners will focus on strengthening and expanding this strategy as it continues to yield more than any other modality. Index testing for adult women will be conducted through newly identified cases of males within the community. Additionally, index clients’ elicitation will be conducted from patients already on treatment at the IDCC, TB and PMTCT clinics as described above (*Facility based Index Client Partner Testing (ICPT)*). In addition, newly identified PLHIV from community testing, and clients enrolled on the community HIV care program, will serve as additional contacts for index cases.
- *Work place testing* –A 2007 survey in Lesotho found 43% of apparel workers to be HIV-positive. This is not a surprising result given that the majority of these factory workers are

young adult women living in a high-prevalence urban environment.⁷ COP18 will support a special industry-targeted intervention that provides workers with HIV testing, immediate ART initiation using starter packs and ongoing support through case management.

- *Targeted home testing* - This strategy is anchored on the TB hotspot mapping completed by Botswana University of Pennsylvania (BUP) during the Kopanyo study. The rationale for this strategy is to direct PEPFAR/B testing activities to potential high-yield neighborhoods for case identification. Counselors target women in households with high TB prevalence, households with presumptive TB clients, high drug and alcohol-use neighborhoods and households with high risk individuals identified from HIV prevention and GBV risk assessments. This approach will target women who are first time testers, those who have not tested for more than 12 months, and individuals identified to be at high risk for HIV. Current APR data from APC shows that 42% first time testers in the community were female, reached through the targeted home testing modality. The average yield for these first time testers was 12.1% with women in the 25-39 categories yielding as high as 44.9%.

4.1.3 Getting adult men and adult women on treatment

Botswana has been implementing BCPP for the past five years and PEPFAR/B has been able to use lessons learned and understand hard-to-reach population groups as summarized below.

- Lessons from the 310 (9%) persons who never linked to treatment in BCPP include:
 - Males are more likely to never link than females ($p < .0001$)
 - Younger people are more likely not to link ($p < .0001$) than older people.
 - People with a secondary or higher education were more likely to never link than people with a primary education ($p < .0001$)
 - Employed people are more likely not to link than unemployed ($p < .0001$).
 - Multiple regression analysis revealed that each of these factors was significantly and independently associated with never linking to care.
 - Most frequent reasons reported for not keeping appointments by people who never linked included: too busy, unable to miss school/work, and not ready to accept HIV status.

⁷ The Apparel Lesotho Alliance to Fight AIDS (ALAFA)

Table 4.1.3 of key HTS strategies by specific sub-population groups and all populations

AGE BANDS	ADULT MEN		ADULT WOMEN	
	Facility-Based HTS Strategies	Community-Based HTS Strategies	Facility-Based HTS Strategies	Community-Based HTS Strategies
15-24	<ul style="list-style-type: none"> • Testing at school clinics • Integrating testing at YF clinics 	<ul style="list-style-type: none"> • Mobile and Venue based testing at secondary and tertiary school and sporting events • Targeted Home testing through TB hotspot mapping 	<ul style="list-style-type: none"> • Testing at school clinics • Integrating testing in YFS 	<ul style="list-style-type: none"> • Integrated VCT-One stop shop services • Work place testing
25-34	<ul style="list-style-type: none"> • Accident and Emergency • Extended Hours and weekend services 	<ul style="list-style-type: none"> • Targeted workplace • Targeted Home testing through TB hotspot mapping 	<ul style="list-style-type: none"> • Sustained testing at ANC, STI &FP clinics 	
35-45	<ul style="list-style-type: none"> • Men Friendly corners • Fast pass 			
50+	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Targeted Home testing through TB hotspot mapping 	<ul style="list-style-type: none"> • 	
All Populations	<ul style="list-style-type: none"> • Index Client Partner testing • HIV Self-testing <ul style="list-style-type: none"> ◦ Including use of testing kiosks in facilities to decongest testing flow • Recency HIV testing • Social Network testing • Risk screening and assessment to improve yield • Targeting partners of STI and TB patients • Targeted Mobile and outreach Testing • Testing for GBV survivors • Sustained Testing for TB and STI patients and inpatients Integrated VCT 		<ul style="list-style-type: none"> • Index Client Partner testing • Self-testing • Recency HIV testing • Risk screening and assessment to improve yield • Targeting partners of STI and TB patients • Testing for GBV survivors • Sustained Testing for TB and STI patients and inpatients • Social Network testing • Targeted Home testing through hotspot mapping • Index client Partner Testing • Social Network testing • Targeted Home testing through hotspot mapping • Index client Partner Testing 	

Recent analysis of our PEPFAR/B program data has revealed the following best practices for linking patients to treatment. These observations are driving our COP18 program design for enhanced linkage to care and ART initiation:

- Individual case management of TB patients who have not yet started ART resulted in improved IP understanding of the barriers and effectively increased the rate of ART initiation and results in improved documentation.

- Factors observed in facilities that were most successful at linking men 25-39 to ART:
 - Immediate ART initiation after diagnosis and transfer to preferred facility;
 - IDCC right next to testing room; and
 - ‘Warm handover’ of clients.
- Factors observed in facilities that were most successful at linking women >25 to ART:
 - Presence of a facility based linkage officer (FBLO) and case manager has resulted in increased linkage for all populations, in particular for women in our analysis of best performing sites. FBLOs physically escort women to IDCCs and ensure that they are registered, track each of their appointments and ensure that they are initiated and adhere to medication.
 - Case managers are handed lists of patients not reached by FBLOs, identify case by case barrier to initiation, perform customized barrier counseling, and thereafter employ customized interventions as part of the care plan. Case Managers collaborate with psychologists, social workers and local NGOs to address identified barrier, problem solve and implement customized intervention together.
 - Fast tracking initiations, use of 30 day starter packs in district hospitals e.g. DRM Hospital in Kgatlang districts and transferring out immediately, and ART integrated into facility-based mobile stops have all been identified as best practices in linkage best performing site analysis.

Through program data, we identified the following as issues that hinder linkage to care and treatment:

- Individual-level factors that include readiness, stigma, fear of disclosure and perceived good health. To address these issues, PEPFAR/B will implement strategies at facility and community level that include assisted disclosure, client centered messaging, client literacy to address perceived good health, readiness and stigma, offering integrated one-stop-shop services, use of expert-clients and ensuring CHWs serve as escorts to health facilities on a case by case basis as needed. These strategies have been shown to work based on BCPP data which showed that facilitators of linkage to ART included self-acceptance and disclosure of HIV status and family support. Of note, many participants in BCPP expressed the belief that immediate and universal ART is preferable to waiting for CD4 count to drop before starting ART. Participants also noted that knowing that ART can lower the risk of HIV transmission to others is a further motivator to take treatment.
- Environmental factors such as difficult roads, distance and lack of transport. To address these challenges, PEPFAR/B will implement programming that includes facility-based mobile stops that provide HTS and treatment, integrated one-stop-shop services and collaboration with social services department to intervene especially in cases of vulnerable populations who deserve assistance such as transport to access health facilities.
- Monitoring and documentation challenges to ascertain completion of referral both at community and facility level. To address this challenge, PEPFAR/B implementing partners will have regular meetings to review referral completion and address challenges identified.

According to program data analysis by one of the IPs, most women fail to link because of personal choice (44%); waiting for lab results (35%); or because they are put on waiting lists for ART at the facility (14%). All counselors follow up clients tested positive in the community to ensure active referrals and linkages. During follow-up, if a client is not linked to the facility, the counselor finds out why the client has not linked. Reasons advanced include; personal reasons (not ready to go to facility, not yet disclosed to partner/family) client out rightly refusing to go to facility, transport challenges and work related issues. In some circumstances as counsellors follow up positive clients for linkages, their phone numbers are switched off or clients have changed addresses and they document it as “client cannot be contacted”. Counsellors document these reasons on a tracking log that they use to follow up all positive clients, and update the status of each client as their linkage status changes.

After linkage, counselors follow up all linked clients to ascertain their treatment status. At the time of reporting, some clients that have reached the facilities (linked) are still not initiated on treatment. This may be due to; the doctor waiting for lab results, client still has to undergo adherence counselling, doctor’s advice etc.

- To address these issues, PEPFAR/B will implement the following measures immediately to better understand the situation and develop remediation plans:
 - Conduct focus group discussions with PLHIV and other stakeholders to address the ‘personal choice’ issue and other individual-level factors that may affect ability to link to treatment.
 - Intensify provider training and client literacy on Treat All.
 - Address stigma and discrimination issues.
 - Address issues of waiting lists, delayed lab results prior to initiation and negative staff attitudes. Additionally, group counseling will be scaled up to reduce waiting times.
- Through site analysis for the best and lowest performing sites for linkage, PEPFAR/B found the lowest performing sites were district hospitals and major referral hospitals. This is because they refer patients to initiate treatment closer to their respective places of residence, thus making it difficult to follow-up and confirm initiation especially at non-PEPFAR supported sites. Also, clients were identified at odd hours when IDCCs were closed and they did not return for initiation. One district hospital that performed better used “Full initiation & Transfer out (FITO) model.”. The registered patients are provided 30 days of medication and immediately transferred out to their preferred facilities to continue treatment. This best practice will be expanded to other hospitals starting during COP17 implementation and fully scaled up in COP18.
- One reason co-infected TB patients did not initiate ART was due to falling in the “window period” (delaying ART until the two month intensive TB treatment phase completed, accounting for 40% in FY17 and 24% (FY18Q1). Others died before ART initiation, or were non-citizens. These challenges were identified through a case-by-case approach where the IP followed each case until individual reasons were documented. Further, the IP designed a strategy to address those reasons for each individual case. For those pending ART while in the intensive TB treatment phase, patient follow-up continued until ART was initiated after

completion of intensive phase. Non-citizens were referred to affordable private practitioners. Those who died before ART initiation were the result of late presentation to the health facility; intensified mentorship was provided to health care workers to educate patients to present early for ART initiation soon after patients learned that they are HIV infected. Continuing in COP18, case management will be optimized to ensure all identified PLHIV are initiated on treatment. The lessons learned from the TB-HIV setting will be introduced and scaled up for all patients to support rapid ART initiation and systematic follow-up with those who are not immediately ready.

- Factors observed in facilities that were least successful with linkage to ART:
 - Cases identified after hours and weekends when the IDCC is closed;
 - Cases identified at accidents and emergency departments; and
 - Referrals from distant facilities esp. non-PEPFAR sites and non-PEPFAR districts.

- Age-sex specific observations include:
 - Slightly higher linkage among women 15+ (66%) than men 15+ (60%), but low for both groups; and
 - Among females, linkage rates increase with age till age 49 (maximum 69%), then decline. Males are diagnosed at an older age, with slightly higher linkage rates than females through later adolescence, then slightly lower rates through adulthood. There is no clear pattern of linkage rates with age.

- Testing venue (facility and community) observations include:
 - Adult women's cascade for facility-based testing meets the BCPP 'gold standard,' with 90% linked to care and 81% of those initiated on ART; and
 - For men testing in facilities the primary gap is into care (76%), and once linked a good proportion of them start treatment (84%).

- Preliminary data from a qualitative sub-study of BCPP participants identified the following barriers:
 - Health facility stigma and discrimination and negative staff attitudes;
 - Overcrowding and long queues;
 - Segregation of care and service delivery; strong discontent with receiving HIV care and treatment outside of routine healthcare, feeling inconvenienced and stigmatized by the separately designated locations and days of service (including clinic visits and medication dispensing) for HIV-related care;
 - Personal factors like age, gender, self-acceptance and alcohol consumption; and
 - Social factors such as lack of family support, unemployment, distance from health facility, difficulty taking time off work for frequent clinic visits, or certain religious beliefs.

- As described above, the BCPP sub-study identified the following facilitators:

- Self-acceptance and disclosure of HIV status and family support;
- Many participants expressed the belief that immediate and universal ART is preferable to waiting for the CD4 count to drop before starting ART; and
- Participants also noted that knowing that ART can lower the risk of HIV transmission to others is a further motivator to take treatment.

Improving availability and access to the full cascade of HIV care and treatment services for PLHIV depends on successful linkage between HIV diagnosis and HIV care & treatment. In COP18 PEPFAR/B will support technical assistance with an increased focus on strong linkages within facilities, between facilities, and between facility and community settings to ensure quality health services across the HIV care continuum.

General Linkage to Care (LTC) and ART initiation strategies that are relevant for both adult men and adult women

Client literacy: In efforts to improve treatment initiation and retention, all HTS implementing partners will be required to focus on improving patient understanding of Treat All and address treatment literacy at the time of diagnosis by counseling on treatment readiness and actively linking clients to treatment. A new Implementing Mechanism is being put in place, supporting all PEPFAR/B programs in both scale-up and sustained/micro-epidemic districts, to ensure that the Treat All communications strategy is implemented.

Active referrals: Community and facility testing partners will implement previously developed standard operating procedures (SOPs) for active referrals from testing sites to community-based service delivery sites or IDCCs (or other ART sites as these services become more integrated into general health services) and will continue to monitor the use of these guidelines to improve linkage. There are two types of referrals in place:

1. ***Counselor-managed (unaccompanied) referrals:*** This approach relies on the counselor/tester to manage the active referral to care. The counselor/tester establishes the IDCC of choice for the client during post-test counseling, and informs clients about procedures and benefits they will receive at the HIV clinic. Counselors assist clients to plan their attendance, and subsequently ensure completion of referral through follow-up (often by phone) with health facilities. When referrals are not completed, the counselor will follow-up with the client, and continue to counsel them to foster health facility attendance, or plan to meet and accompany them to the facility.
2. ***Linkage facilitator-managed (accompanied) referrals:*** In this scenario, during the pre-test counseling session, clients are informed about available support services. HIV positive clients have the option to request an escort who can accompany them to the clinic and assist them with enrollment procedures. These accompanied referrals may prove particularly relevant at busy high volume sites.

Enhanced Client Flow and Referral Process: In FY17, IPs developed a client flow process from the community to the facility including defined stakeholder roles and responsibilities. This client flow process is aimed at ensuring smooth and effective linkage of clients tested in the community. The improved client flow and referral process will be enhanced by innovations including a mobile information and communication technology platform linked to a central database. This system will enable both district and national teams to monitor referral completion rates at individual and at aggregate-level. District health teams will also be supported to better monitor and improve referrals through technical assistance in developing standardized forms with return slips.

Adaptation and scale-up of *CommLink* implementation strategies that provide point-of-diagnosis clinical care, linkage through case management, expert client support, and treatment navigation services for clients diagnosed in community settings. In August 2017, an interagency PEPFAR/B team, accompanied by MoHW national program coordinators for HTS and ART, undertook a study tour to Swaziland to observe and learn about HTS and *CommLink* implementation strategies. Swaziland began implementation of *CommLink* in June 2015, designed to improve exceptionally low enrollment in HIV care among community-diagnosed clients. Cited as a best practice in the 2018 PEPFAR Key Solutions platform, with a 95% linkage rate, *CommLink* strategies will be adapted and scaled-up in Botswana starting in FY18.

1. COP18 implementation will involve on the spot provision of integrated services including HIV testing, confirmatory test, adherence counseling and treatment initiation in the three SNUs of Mahalapye, Goodhope and Southern where the CDC IP will be implementing the community program. Note, however, that this program will be implemented by the facility based IP. Through this integrated service delivery model, using the existing GOB facility-based mobile outreach (mobile stops) in Mahalapye, Goodhope and Southern, patients will be given a 30-day supply of ART and advised to go to the lab within 14 days to do baseline laboratory tests. Since this service is an extension of facilities where these mobile outreaches originate from, these clients are automatically registered with the mother clinics to continue care there. The preferred nomenclature for this 30 days' supply of ART is "Facility based mobile outreach ART initiation (FBMI)" GOB facility based mobile outreach (mobile stops) are well defined and with specific schedules. (See Appendix G for additional Information). USAID will also implement mobile outreach in the four district of Greater Gaborone SNU. This will include HIV testing, confirmatory testing, adherence counseling and treatment initiation.
2. The expert client / peer navigator model will be adopted for case management when needed, as described above.

Adoption of the BCPP Linkage SOPs – In FY17, the PEPFAR/B team in collaboration with the MoHW HTS unit adapted the BCPP SOP for linkage to care. BCPP has a very high linkage rate (91%). Although scale-up is ongoing, some aspects of the SOP such as tracing and providing the needed support have just started being implemented consistently by all partners as part of the case management approach.

Integrated VCT – As a new initiative PEPFAR/B plans to introduce community ART initiation. This will depend on MoHW accreditation and approval of a local organization, to start this activity in the community, the process which has commenced and is ongoing. ART initiation in the community will be a game changer for the community response by closing the linkage to care gap, providing a rapid ART initiation platform and offering clients an additional option outside of facilities. These services will be accessible through weekend and extended hours of operation and are envisioned to be especially attractive and highly accessible for men and young people who usually do not readily access the traditional health facilities because of time constraints. Community ART initiation will be provided in a one stop shop platform together with other services covering HIV initial and confirmatory testing, family planning integration, STI screening, TB screening, and NCD screening. This is expected to substantially reduce the linkage gap and loss to follow up (LTFU), which is usually the case with referrals of cases identified in the communities to initiate in another place, mainly the health facilities. Additionally other strategies that were used in COP17 will be optimized and used in COP18 to address linkage challenges including case management, and incentivizing counselors.

LTC and ART strategies that are specific to major population groups.

Adult men

- Lessons learned from surge implementation have shown that facilities that implement immediate ART initiation after diagnosis and transfer-out patients to their preferred facility have a very high linkage rate of over 90%. Most referral hospitals that admit patients from across the country are not able to successfully track and document successful linkage. This is because they refer patients to initiate treatment in their respective places of residence thus making it difficult to follow-up and confirm initiation especially at non-PEPFAR supported sites and SNUs. Through the best performing site analysis that PEPFAR/B conducted for COP18, Deborah Retief Memorial (DRM) district hospital was found to be better performing than most district and referral hospitals when it came to linkage to treatment. This was attributable to the recent introduction of 30-day starter packs. Patients are registered and initiated in the hospital and then transferred to continue treatment services at facilities closer to their homes. PEPFAR/B plans to expand this to other regional, district and referral hospitals through COP17 implementation, and make sure it is fully scaled up by COP18 implementation. Sites that also have the ART clinics next to the testing rooms have a similar high linkage rate. COP18 support will include scaling-up these best practices to other high volume facilities, especially referral hospitals.
- In FY18 Q1, a PEPFAR/B partner began piloting integrated ART services in existing MoHW facility-based outreach “Mobile Stop” clinics in collaboration with the District Health Management Team (DHMT) in Mahalapye. Through use of a mobile unit, this strategy has allowed the partner to reach more distant rural areas that have a predominantly high number of men (herd boys and farm workers) with HIV testing and on-the-spot,

immediate ART initiation, FBMI. To help achieve testing, linkage and treatment targets, COP18 funds will support expansion of this innovative approach to more rural areas.

Adult Women

Facility

- FY18 Q1 OU results showed only a slight increase in ART initiation in adult women, at 67.2%. In COP18, PEPFAR/B will continue to use FP as in COP17 as an entry point to both HIV testing and treatment services for adult women targeting especially women of child bearing age (20-24, 25-29 and 30-34). Intensified Treat All messaging intended to reach older women especially those beyond the child-bearing age who may have missed the PMTCT program or possibly got infected in the post-menopausal period. Treatment literacy is particularly important for this age group of adult women (40-49 and 50+ age bands) because they will not receive ART services through PMTCT similar to child bearing age women. In COP18, PEPFAR/B plans to target women who were previously on PMTCT Option A and B prior to B+ option with Treat All messaging emphasizing the importance of early treatment initiation and treatment as prevention.

Community

- Community ART initiation will be provided in a one-stop shop platform together with other services targeted at older women entailing HIV initial and confirmatory testing, family planning integration, STI screening, TB screening, and NCD screening, tracking women in the community who were previously on PMTCT Option A and B prior to B+ and linking them back to treatment. ART initiation in the community will close the linkage-to-care gap, providing a rapid ART initiation platform and offering clients an additional option for ART care.

4.1.4 Retaining adult men and women on ART and keeping them virologically suppressed

At APR₁₇, the 12-month retention rate was 91% while the viral load (VL) suppression rate for the same reporting period was 97%. However, only 71% had documented access to VL testing. This challenge has been fully described in section 4.3 under Treat All policy barriers. In this section both laboratory capacity and patient factors are addressed to close this 29% access gap to ensure optimized VL suppression for all populations. Regarding retention, the major challenge is client literacy and understanding the need to stay on treatment. PEPFAR/B has facility and community based interventions to address this challenge.

For retention at the facilities, PEPFAR/B will scale up technical assistance to ensure compliance with adherence, LTFU and defaulter management SOPs which form part of the mentorship program for HCWs. We will scale up client literacy programs at both the facility and community levels to emphasize adherence. Through mentorship, support is provided to facility staff to manage appointments and generate LTFU lists, which are then handed over to community partners to assist

tracking and bringing these lost patients back to care. We will support dissemination and compliance to the use of registers for missed appointments and LTFU as well as peer support groups to support adherence to treatment for all age and sex bands. Depending on MoHW policy review on MMD, this will be a new strategy to introduce in COP18 to improve retention in care.

To support retention and viral suppression for all populations, implementation of a comprehensive set of community-based care and treatment interventions tailored to the recurring needs of PLHIV will be of central importance. Adherence counselling will be implemented for all new clients on treatment, but especially the most vulnerable clients, and particularly following virologic failure. Other key activities will include PHDP minimum package, side effect monitoring for patients newly initiated on ART and unstable patients, STI screening, FP as an entry point to HTC and care and treatment services, and TB/HIV integrated services.

Community partners will implement differentiated models of care for clients enrolled into the community HIV care program tailoring the clients' frequency of follow-up to their needs. Stable clients will be followed on a quarterly or bi-annual basis, whereas clients with detectable viral load or clients expressing some difficulties with their treatment will be followed monthly. Similarly, new and defaulting clients will be followed monthly until they stabilize. Follow-up visits will include an evaluation of the client's adherence patterns and an individual assessment aiming to identify any health issues that may have arisen.

Table 4.1.4 Retaining adult men and women on ART and keeping them virologically suppressed

Retention Strategies by Population and age bands		
Age	Adult Male	Adult Female
25-34 35-45	<ul style="list-style-type: none"> • Use of social clubs for peer support • Expert Client • PHDP minimum package • Support Groups 	<ul style="list-style-type: none"> • Integrating ART with Family planning services • Peer support and Expert Clients • PHDP minimum package • Support Groups
50+	<ul style="list-style-type: none"> • Integrate ART services with other health services e.g. Hypertension and Diabetes Mellitus 	<ul style="list-style-type: none"> • Track LTFU after Option A and B, motivate to keep in care through integrated services

4.1.5 KP

PEPFAR/B has been successful in finding, testing, linking and retaining KP in treatment. In FY17 the KP program surpassed its annual targets for both KP_PREV (116%) and HTC_TST (126%) and achieved 90% of the TX_NEW targets. In FY17 2831 (92%) of FSWs eligible for HTS were successfully linked to testing services. It was however noted that few MSM older than 30 years presented themselves for services when current approaches are used. Case finding rates remain higher among the older FSWs, the highest being among the 30-39 and 40-49 age bracket. The majority of FSW reached were in the age group 20-24 years with a positivity rate of 8%.

In FY19 the KP program will hire and train peer outreach workers from the older age cohorts. This will scale up the use of Enhanced Peer Outreach Approach (EPOA)/ as a social network strategy that has resulted in the 25% achievement in Q1 FY18. In addition, PEPFAR/B will ensure that all KP sites provide a minimum package of services that includes reproductive health services.

To increase the reach of MSMs, older than 30 years, PEPFAR/B will scale up the use of HIVST and home based testing. Older peer outreach workers (POW) will be engaged to reach older peers and seeds for network testing. Home based testing as a strategy for reaching older MSM and FSWs will also be employed.

In FY17, LINKAGES project offered HTS to 67 non-nationals, 26 had a positive HIV result (39% case finding rate). None of these were initiated on treatment. Targeting and providing ART for foreign sex workers will be prioritized and in FY19 PEPFAR/B plans to offer treatment to 250 foreign FSW. We will also strengthen cross-border collaboration to increase access and coverage of ART for non-national KPs.

Between FY16 and FY17, LINKAGES KP project had a 91% treatment retention rate. To enhance this, LINKAGES will run community-based adherence support groups. Enhance defaulter tracking will be implemented by providing additional resources to Peer Navigators to enhance PLHIV tracking. These will include the introduction of virtual adherence clubs that use mobile phone reminders.

One of the limiting factors in addressing viral suppression testing coverage is the reliance on government laboratories, which have a high frequency of lab reagent stock-outs and out-of-service machines, often prohibiting timely viral load testing. At APR FY17 only 51% (283) of KP on ART have had at least one viral load test and 95% (268) were virologically suppressed. To strengthen adherence and retention of clients in care and ensure that those who are positive are virally suppressed, peer navigators will support adherence to medication and remind clients about clinic and laboratory test appointment. KP VL coverage will be supported through specimen and results management by introduction of viral load samples collection points at KP sites transporting them to the VL labs and following up of the results by the KP sites, thereby closing the VL turn-around loop.

PEPFAR/B will continue supporting the DHIS II patient tracker in FY19 so as to improve management of patient-level information of KPs enrolled in the project in all districts. DHIS II will also allow the project to configure SMS reminders, track missed appointments, and generate visit schedules. It will also allow better data management between the community and public health facilities. Patients receiving services through outreach activities, mobile clinics, or DICs will be

tracked to clinics and vice versa. The DHIS II system also has a built-in geographic information system (GIS) element that will be configured for better performance tracking and possibly automated updating of hot spots.

To strengthen treatment and retaining HIV positive KPs in care, the KP program will strengthen the integration of HIV/TB/RMNCH/ SRH-R/NCDs services at all levels by use of a one-stop shop model which minimizes loss to follow-up between referrals to different services.

4.1.6 AGYW

In FY18 and FY19, PEPFAR/B needs tremendous improvement in case identification, linkage to treatment and access to viral load testing for AGYW. If targets are reached in FY19, Greater Gaborone will reach 85% saturation of treatment among AGYW the 15-19 and 20-24 age groups. For FY18 Q1, the OU provided HTS to 19,806 AGYW, 654 tested HIV positive and 381 (58.4%) were linked to treatment. Program data showed that most of the HIV-infected AGYW were identified through PITC, VCT and mobile modalities. Going into FY19 and beyond, there will be the need to increase focus in using high-yield modalities.

During COP18 planning, the OU went through an intense process of identifying best sites and approaches for case identification and linkage to treatment among both community and facility service providers. Some of the findings from this exercise include:

- High treatment initiation for AGYW was observed in urban settings.
- Sites with trainer of trainers and service providers who are trained in youth friendly services (YFS) such as those in Gaborone, Mahalapye, Francistown and Kweneng East tended to attract high numbers of AGYW.
- Sites that collaborated with organizations that have AGYW programs for demand creation and retention tended to help these sites receive and serve more AGYW.
- Sites with YFS nurses in Kweneng East and Gaborone did better in attracting AGYW.
- Prevention intervention delivered at community level served as an excellent entry point for HTS.
- Participation in teen clubs improved adherence.
- Provision of comprehensive youth friendly services at community level offers an opportunity to identify and provide retention interventions for AGYW.

In COP18 PEPFAR/B will reach 23,500 AGYW with risk avoidance and risk reduction interventions, 5761 AGYW will be tested and 95% of those who test positive will be linked to treatment and care services.

Finding AGYW

The Botswana Youth Risk Behavior Survey (BYRBSS) has shown that AGYW remain at high risk for new HIV infections. In COP18, the AGYW specific strategies for identifying cases include mobile and specific venue based testing; this will help reach AGYW at secondary school and tertiary

institutions, sporting events, chill sessions and various youth events. This will also address the transport costs and operating hours of facilities cited as a barrier to access HTS. Integrating HTS into DREAMS and leveraging captive audience in social asset building and sexual violence prevention tracks will improve case identification for AGYW. Leveraging the OVC program and using index partners testing elicitation (following up partners of men 25 and above) presenting at facilities and community testing platforms will also improve case identification. One of the barriers to finding AGYW includes low risk perception. To address this in COP18, PEPFAR/B will focus on youth specific demand creation communication, including use of social media. Use of screening tools in various service delivery points, including DREAMS social asset building sessions, will help target most-at-risk AGYW.

Social network testing will continue as part of efforts to target AGYW. Social network HIV testing is a strategy whereby new cases of AGYW, young men, and older men (potential partners of AGYW) are used to identify other potential newly infected through use of the AGYW social networks. HIV prevention services targeting high-risk AGYW act as entry points to these social networks. In addition, implementing partners will utilize these networks to target sexual partners of AGYW. The snowball approach is stopped when no more cases are identified. PEPFAR/B will implement social network testing using different approaches such as:

1. The use of HIV prevention activities to administer a risk assessment checklist to identify individuals eligible for testing. Clients identified as having “risky behaviors” are tested and recruited as “seeds.” Partners work with these “seeds” to access individuals in their social groups with similar risk, who will in turn be offered HIV testing. They too will refer other networks in and away from their neighborhood and link them for HIV testing and the cycle would then commence. The primary target populations for social network testing are in and out of school AGYW and their partners, as well as partners of KPs and their children.
2. Collaboration with the Botswana Student Network and direct collaboration with secondary and tertiary institutions: implementing partners work with students with HIV and those without HIV but at high risk for HIV to become recruiters. Recruiters identify those at greatest risk and offer them testing. Any one of those members can also become a social network recruiter and can reach out to his or her social or sexual networks.

Other case identification strategies for finding AGYW include:

HIVST: Through DREAMS activities, AGYW at risk will be offered self-testing for their use and for them to give to their sexual partners. Test kits will be distributed during community prevention activities as well as in the integrated, Youth Friendly Services (YFS) one stop shops. Follow-up will be made with test recipients to document usage, outcomes and facilitate referrals for diagnosis.

Integrating Routine HIV Testing into Youth Friendly clinics that Treat AGYW: However, there are few PEPFAR/B supported facilities successfully integrated family planning and HIV care services to improve testing and diagnosis rates among AGYW.

Treating AGYW

PEPFAR/B plans to continue support for Post-Exposure Prophylaxis (PEP) for HIV negative survivors of sexual violence, and adolescents at high-risk, and scale it up beyond the two districts providing DREAMS activities in COP18. Extended hours for treatment initiation targeting adolescents will be scaled up through COP18 support. Even though not specific for AGYW, the adolescent transition to adult care strategy described under the section on children will greatly support AGYW during COP18 implementation. TA through training and mentoring will be provided to both facility and community service providers to provide youth friendly services to AGYW.

Retaining AGYW

In COP18, PEPFAR/B will scale up treatment literacy efforts for AGYW, including strengthening teen clubs, using social media platforms, SMS reminders for medication and viral load and clinic schedules, integrating ART with family planning. Existing youth friendly services at facility and community level will be strengthened to continue to deliver the minimum package for PHDP. This package includes adherence counseling and support, risk reduction counseling, STI education, screening and referrals, FP integration, and support. Particular attention will be paid to strengthening support for disclosure and acceptance of HIV status following a positive status diagnosis. What is new for COP18 is development of the Adolescent transition to adult care strategy with an implementation plan. Health care workers both facility and community based will be capacitated on this strategy.

All clients (adults and children including AGYW) enrolled in community HIV care undergo an individual needs assessment to identify their care needs. A care plan is then developed to address the specific needs identified and evaluate progress during follow-up visits. At each follow-up visit, clients are re-assessed to determine adherence to treatment and clinic appointments, screened for TB, assessed for nutritional status, STI symptoms, alcohol use and any barriers to care. Furthermore, CHWs actively refer clients for high impact HIV care services such as STI treatment, TB diagnosis and treatment, partner testing, family planning and nutrition support services whenever appropriate. Each client referred is followed-up to support referral completion. Clients who do not complete referrals are supported to overcome barriers. This intensive case management will improve adherence among AGYW and help facilitate support of their families.

4.1.7 Children

Finding Children

The projected FY18 attainment analysis for children under 1 year and between 1-9 shows low treatment coverage across all scale-up SNU. The treatment coverage for under 1 year old is alarmingly low and could be attributable to an underperforming EID program. At facility level, the strategy for ensuring children are tested for HIV will mainly focus on EID while the community level will use platforms that focus on PMTCT, care and support and OVC to identify children who have never tested for HIV and either provide them HTS directly or link them to HTS providers.

Facility and community-based partners will work collaboratively to strengthen patient linkage and referrals, including for OVC programs.

Among adult pregnant women, Botswana has high testing and ART coverage rates. However, coverage for EID at 4-6 weeks remains low at 46% (2016 national PMTCT program data), and this trend has never surpassed 50% since the inception of the program. EID has unique challenges and barriers of its own. Challenges include clients being highly mobile, stigma leading to children's HIV status being unknown (especially if they are under the care of a guardian) and poor record keeping. System based barriers are related to inadequate internal control for DNA PCR specimens and delayed results contributing to long turn-around times. In addition, HEIs born to non-citizen mothers without maternal ART may represent a significant proportion of the next generation of HIV-infected Botswana and may impede to the country achieving eMTCT goals.

Currently, facilities have introduced log books to track DNA PCR specimens and results in order to strengthen management of sample transport at the site-level. In COP18, focus will be on the elimination of mother-to-child transmission of HIV (eMTCT) by streamlining existing strategies and enhancing technical assistance and capacity building efforts. Community-based programs will collaborate with health facilities to track and trace mother infant pairs and link them back to health facilities for early infant diagnosis, care and treatment.

At the facility-level, PEPFAR/B will implement the VL/EID “champions” program to minimize post-analytic EID results reporting turn-around-time in scale-up districts. VL/EID Champions will also serve as liaisons and form collaborations with “child welfare clinics” and community health workers to identify children lost to follow-up (LTFU) and ensure children are linked to care and appropriately tracked. Birth cohort registers for HIV Exposed Infants (HEIs) are being developed in FY18 and will be introduced and scaled up in FY19 to ensure appropriate linkage to care and treatment is tracked. Since EID currently leverages the mothers 6 week postpartum visit but only slightly more than 50% of women attend this visit, PEPFAR/B will strengthen integration of EID with other MCH and child health programs such as immunization, child welfare clinic, formula pickups and nutrition platforms. Birth cohort registers for HIV Exposed Infants (HEIs) are being developed in FY18 and will be introduced and scaled up in FY19 to ensure appropriate linkage to care and treatment is tracked. PEPFAR/B will support some treatment of non-citizen HIV+ mothers in non-governmental settings in COP18 and we will continue to develop an investment case for use by the MOHW in discussions with cabinet on the longer-term policy and financing issues. In support of the PMTCT program, at community level, CHWs will track mother-baby pairs to ensure that infants in the PMTCT program are linked back to the health facilities for early infant diagnosis.

At the community-level, PEPFAR/B will ensure convenient and timely access to testing services for children at high risk; children whose HIV status is unknown and whose parents have tested HIV positive (index testing); children of key populations especially female sex workers; HIV exposed infants, and children who are victims of abuse and with a history of sexual violence. All parents and care-givers of these children will be educated on the importance of knowing their children's HIV status and counseled and encouraged to consent for their child to be tested. The process of securing

informed consent for children will be intensified through strengthened case management where those families with children found to be at risk of HIV infection will receive regular home visits to help them understand the need for testing, the need to return to the facility to receive results of their babies/children in the case of EID and the importance of accessing treatment early for children whose results come out positive. Intensified HIV risk assessments will be undertaken for all OVC with an unknown HIV status. OVC that will be prioritized for linking to HTS include those presenting with issues noted at the top of this paragraph (children whose HIV status is unknown, whose parents have tested HIV positive, children of key populations, HIV exposed infants and children with a history of sexual violence and those that are sexually active). Parents/caregivers of OVC deemed priority for HTS will be provided with a referral for an HIV test and will be closely followed to provide the necessary assistance and support to access the service.

OVC platforms, such as those that bring parents together for household economic strengthening and caregiver/parenting programming, will be utilized to provide ongoing education on the need to know their children's HIV status and the need to support their children to access the service by providing consent. These platforms and others at community level will also be utilized to educate pregnant mothers on issues of booking ANC early and re-testing especially at third trimester as well as educating pregnant and nursing mothers on the importance of accessing post-natal care services so that they bring their babies for EID.

Treating Children

PEPFAR/B will continue pediatric treatment activities including targeted TA at the facility level, DSD for pediatric care and support at the community level, and treatment for refugees if GOB does not take over this responsibility in FY19 as requested by PEPFAR and UNHCR. The EID strategies described above will result in increased treatment coverage for children. At facility level VL/EID Champions will serve as the liaison between the laboratory and the clinic to ensure that viral load results are received and documented, and that those with detectable VL are followed up and managed. At the community-level, PEPFAR/B will support efforts to improve linkages between pediatric care and treatment, PMTCT and OVC programs ensuring children diagnosed HIV-positive are linked to and retained in care. Specifically for PMTCT, infants with a positive DNA PCR will be tracked by CHWs and linked back to the facilities to initiate treatment.

Retaining Children on Care and Treatment

Since children and adolescents on ART are less likely to achieve virologic suppression, focus will be placed on adherence, retention, and VL monitoring. Infants with a positive DNA PCR will be found by CHWs and linked back to the facilities to initiate treatment. The mother-baby pair will be supported to adhere to treatment and clinic appointments. OVC platforms such as early childhood development programs will continue to be used to provide support for OVC on treatment ensuring they adhere to their treatment and clinic appointments. In some places OVC partners work closely with guidance and counseling teachers to ensure school going children on ART are supported to maintain their clinic appointments and take their treatment regularly. Efforts will also go towards strengthening existing youth friendly services to provide the minimum package for PHDP. Adolescents who test HIV positive will continue to be integrated into teen clubs to assist in

monitoring their ART adherence plans and to provide ongoing psychosocial support in addition to case management. In order to strengthen the smooth transition from adolescent to adult care, in COP18, PEPFAR/B will develop and implement the adolescent transition to adult care plan/strategy. Once completed, health care workers at facility and community levels will be trained and mentored on this strategy. Additionally, PEPFAR/B will ensure that all partners working with children continue to monitor VL for all HIV positive children.

Addressing partner performance in COP18 will include data triangulation of key MER indicators, SIMS findings, and budget/expenditure data, as well as combined group and individual partner meetings.

4.1.8 Cross cutting strategies that support the finding the missing, treating and retaining them for all populations

A. TB/HIV services

In Botswana, despite free ART and access to health services, the estimated annual incidence of TB at 326/100,000 and TB/HIV co-infection at 60% are among the highest in the world [1]. In the past year (FY17) among 2,733 TB patients identified, 2,700 (99%) knew their HIV status and 1,362 (90%) were initiated on ART in PEPFAR/B supported districts. It is also evident that HIV testing among presumptive TB patients is high yielding (15% in facilities and 9% in communities among presumptive TB tested in FY18Q1). Though high ART coverage is being achieved among identified TB/HIV patients, the following major gaps remain in Botswana hence the need for more effort to control the HIV and TB epidemic:

1. Both TB and TB/HIV co-infection rates are unacceptably high;
2. There is loss of patients between TB diagnosis and registration to TB treatment;
3. TB screening and HIV testing among presumptive TB is not optimized as yet; this is especially evident among male age group 25 and above;
4. Non-citizens TB patients are not eligible for ART and failing to initiate non-citizens on ART compromises our effort to reach our 100% target; and
5. TPT greatly reduces development of TB and most importantly current evidence indicated that TPT reduces 5-year mortality among PLHIV by 37%, independent of ART [2]. There is no policy and guidelines on adult TPT to allow TPT implementation and scale-up to address the TB prevention need among people living with HIV.

To address these challenges, an innovative strategic approach is invaluable in the Botswana context and the following priorities are considered in TB/HIV control and prevention efforts.

- Strengthen the tracking system for patients diagnosed with TB but not registered for TB treatment and linkage of TB patients to HIV testing and ART if positive.
- Strengthen facility and community based TB screening and testing presumptive TB patients for TB and HIV and initiate on ART if HIV positive. At the community level among 2011

(almost 100% of 2012) who tested HIV positive and were screened for TB, 104 (5%) were presumptive, six were diagnosed with TB. These are the cases that would not be identified through the facility based approaches since they were not sick. At the facility level TB screening among HIV patients and HIV screening among presumptive TB patients will continue to be strengthened by coordinating implementing partners activities so that yield increases and resources are utilized efficiently and effectively.

- Through focus group discussions, identify the bottlenecks to health-seeking behaviors around HIV and TB screening for males aged 25+ who have the highest unmet needs for ART, as low as 10% in some SNUs, and design HIV and TB screening strategies that address identified gaps to reach males aged 25+ and strengthen the community and workplace TB screening and linkage to HIV testing.
- Support TPT Policy and guideline development, initial implementation and nationwide scale-up of TPT.
- Advocate for policy change for non-citizens TB patients who are not eligible for ART and in the meantime coordinate access to ART through private practice.
- Continue training and strengthen supervision and mentoring activities. Continue to Support the MoHW through technical assistance to achieve HIV epidemic control by capacitating health care workers, providing mentorship, supportive supervision and technical assistance in TB/HIV related activities at the national, district, health facility and community levels.
- Continued Support will go towards strengthening automatic real-time data availability from all (33) GeneXpert sites through implementation of GxAlert initiatives. As a sustainability measure PEPFAR/B will support the MoHW to interface GxAlert with the Data warehouse and other MOH HIS.

B. PEPFAR/B Laboratory Program for All Populations

Although the GoB continues to support a large proportion of the national laboratory health sector response to the HIV/AIDS, gaps still remain in areas such as specimen and results management, viral load and EID coverage, monitoring of testing and quality control, and availability of testing reagents (VL, TB and HIV Drug Resistance [HIVDR]) as well as other lab commodities which often results in testing interruptions. The recently conducted lab cardinal and mapping has showed that VL labs are currently operating at 60% functional capacity.

Through the PEPFAR laboratory optimization exercise, we have determined that Botswana has 27 VL/EID machines placed in 24 VL/EID laboratories and have an ideal estimated capacity of 750,240 tests per annum using WHO calculations (240 workday and two technicians per machine). There were 420,233 viral load tests done in country in FY17 indicating functional capacity of 60%. Viral load coverage in PEPFAR districts was 71% (APR FY17). The testing and coverage gap is mainly attributed to the following challenges:

- Equipment breakdown and repair;

- Reagents and supplies outage (e.g. some laboratories have reported stock outs of more than two weeks in a three months period);
- Poor results return due to unavailability of the electronic health information system (IPMS) in some clinics; and
- Lack of dedicated specimen transport as the facilities are using ambulances to transport patients and samples.

The majority of the laboratories are operating with only one technician, thereby leading to scheduling of viral load testing twice a week at most, as the same technician has other responsibilities beside viral load which reduces the number of tests performed each week. The other challenge faced by the viral load laboratories are to do with lack of enrollment in continuous quality improvement as only 16% of the laboratories are accredited to international standards. In addition, most laboratories have issues of electricity outages and non-functional generators.

WHO normative guidance recommends that one VL test is conducted annually, per patient on treatment for more than 12 months. Based on the estimates of people living with HIV who should be on ART, Botswana has enough VL/EID equipment capacity to meet this demand. The system gaps will be addressed in COP 18 through:

- continuing the strengthening of the specimen and results referral network (expanding the Integrated Patient Management System (IPMS), use of SMS and VL/EID “Champions” to ensure VL documentation and results return;
- Providing technical assistance (TA) in Laboratory commodities forecasting and inventory management to prevent and eliminate stock-outs; and
- Ongoing encouragement of the VL reagent rental program that GOB is in the process of tendering.

The EID testing capacity is adequate with 15,154 tests done out of the needed 12,825. However there are still challenges with testing children on time due to issues of sample collections and returning of results. There are 34 GeneXpert machines in country, and only 26 are functional. There were 6,641 tests done out of the estimated 104,000 tests in FY17, showing more than 90% capacity still available for use. All VL/EID and GeneXpert sites will be enrolled in continuous quality Improvement to improve testing availability, quality of testing and results turn-around-time (TAT). KNCV is supporting GeneXpert implementation while ASM/GOB is supporting CQI for all HIV and HIV related lab testing. There are no stand-alone GeneXpert sites in Botswana. These are a subset of sites that offer VL/EID and other tests.

With the realization of gaps such as VL coverage of 71%, EID coverage of 60% for ages below 12 months and 88% ages above 12 months (APR 2017), testing interruptions at sites and low proficiency testing (PT) coverage (SIMS 2017), the PEPFAR/B laboratory program will continue to provide support to try and address some of these challenges. All areas related to PEPFAR/B testing activities across the continuum of care will be supported mainly through technical assistance, with a focus on rapid HIV tests, viral load, EID, TB and Cryptococcus screening. PEPFAR/B COP18 laboratory

support will only be focused at 40 laboratory sites in the PEPFAR supported districts as well as 61 facility RHT sites, 15 of which are part of VMMC sites. Additionally, laboratory support will extend to community testing which is spread among the four scale up and two sustained SNUs, as well as six key population sites. Community testing support for CQI includes; PT provision, HTC Algorithm trainings and refresher trainings, RHT CQI trainings and implementation; and monitoring of the SPI-RT checklist implementation. Specifically for DoD, funding for viral load commodities through reagent rental will be provided to cater for 1000 viral loads per year and TA will be provided for CQI at the four military laboratories.

Challenges in addressing the viral load and EID Gaps will be addressed in both clinical and laboratory areas. There will be refresher trainings and onsite mentorship on specimen and results management, utilization of Integrated Patient Management System (IPMS), and results documentation. Client VL literacy activities will be deployed and SMS phone reminders will be sent to clients for blood and results collection. Triggers will be set up at pharmacy points to remind clients of viral load tests due. The lab IPMS modules will continue to be rolled out to sites to provide results in real time. VL and EID champions will be deployed at sites to strengthen results documentation, follow up missing results with the laboratory, and trigger patient management for all those with detectable viral loads. Detectable VL and positive EID results will continue to be reported and monitored as part of the lab critical reporting process to improve patient management, and negative EID results will be added to this process. VL and EID lab surge activities will be employed to monitor EID and VL testing coverage. In order to address testing interruptions due to commodities outage, onsite mentorships and in service trainings on lab commodities management, equipment preventive maintenance will be provided at sites, and TA will be provided to GoB on lab commodities forecasting and equipment rationalization and optimization. With these efforts we hope to improve laboratory efficiency to 80% by end of FY19.

PEPFAR/B support for aspects of the continuous quality improvement activities CQI will include support for PT and internal quality control (IQC) for PEPFAR HIV testing activities at both facility and community RHT sites. Stepwise Process for Improving the Quality of HIV Rapid Testing (SPI-RT) checklist will be utilized to assess RHT sites. In the laboratories, CQI will be implemented through the rollout of Strengthening Laboratory Management towards Accreditation (SLMATA). The Stepwise Laboratory Improvement towards Accreditation (SLIPTA), viral load score and SIMS will be used to identify gaps for improvement. The challenges identified will be addressed through onsite supportive visits, mentoring and training. Working with the National Health Laboratory, lab monitoring systems will be strengthened by developing lab monitoring tools, and monitoring lab performance and quality indicators.

In COP18, the PEPFAR/B's laboratory program will support protocol development, planning and implementation of surveillance activities and surveys that include case-based surveillance with HIV recency testing and HIV Sero-prevalence and Behavioral Epidemiology Risk Survey (SABERS) for DOD.

COP18 activities will also support introduction of rapid HIV recency testing and implementation and CQI at national level. The support will be in the form of technical assistance, training,

supportive supervision, and mentoring. Other policies related to diagnosis (self-testing & pharmacovigilance) will also be supported through TA during policy/guideline development and implementation stages. Additionally, for self-testing implementation, CQI level will be supported.

COP18 funds will also be utilized to develop the Health sector Laboratory Strategic Plan 2020-2025. Activities to support the Botswana Public Health Lab will not be funded through COP18 funding and have been transitioned to the GoB.

C. Demand Creation

PEPFAR/B will update and refine a demand creation strategy in close coordination with the MoHW to ensure Botswana's Treat All policy is fully implemented in facilities, embraced by communities and well-known to the general population. Through a new Treat All communications implementing mechanism, PEPFAR/B will actively create demand for existing Treat All services as well as bring attention to newly introduced programs and innovations to increase case identification, linkage, retention, and viral suppression. The demand creation strategy will encourage full uptake of Treat All and address the following barriers: 1) Low literacy of clients in relation to Treat All 2) low awareness of Treat All among service providers and 3) linkage rates that are lower than 90% target. The activity will include provider training on Treat All, and create and disseminate tools to ensure providers are fully aware of and complying with Treat All protocols. The strategy will utilize community education and mobilization as well as targeted communications activities and mass media. Treat All demand creation will contribute to epidemic control with targeted messaging and channels to reach the following specific age/sex populations:

Children & OVC: A specific communication strategy for EID will be designed to improve awareness of the importance of bringing infants into facilities for testing to increase treatment rates in this population. Specific communications activities will support ongoing OVC activities to maximize impact and effectiveness.

AGYW: Youth-oriented radio and social media campaigns will be used to reach this population with messaging about prevention, testing, and the importance of early treatment. The parents of AGYW will also be targeted with messaging about the importance of talking to children about sex and HIV risk, given focus group results that show the majority of youth prefer to receive this information from their parents above any other source.

Adult Men: The demand creation activity will use radio campaigns on stations popular with adult men and other media to encourage testing, address misconceptions about treatment, bring attention to innovations such as male-friendly corners, and increase awareness and urgency on the part of men to know their status and take charge of their health given the low attendance at clinics. Men currently on treatment will be validated for their behavior and encouraged to adhere.

Adult Women: The strategy will increase testing in this population by targeting women who have been missed by the PMTCT program and highlight the importance of testing even if not pregnant. To increase linkages on the client side, the strategy will examine and address the reasons women are not initiating. On the provider side, health worker training will help address adult women who

failed to link due to waiting for lab results, improving understanding and implementation of Treat All protocols at facilities to improve linkage rates.

Key Populations: Provider training will be offered on the importance of the KP demographic in achieving epidemic control as well as methods to make facilities more client-friendly for KPs.

Viral Load (VL) Literacy: Despite the fact that Botswana introduced VL testing from the inception of the national ART program in 2002, the country is still faced with suboptimal VL uptake. APR17 showed 71% VL testing coverage in PEPFAR supported districts. There are obviously multiple factors contributing to this low VL testing coverage, including laboratory capacity challenges as described in laboratory optimization section. However of crucial importance are patient and provider factors on the use and interpretation of VL tests and results. The demand creation strategy will help promote VL literacy among patients and providers as a measure of treatment success. Currently patients prefer to know their CD4 count as a means to monitor treatment success. In COP18 through the demand creation strategy PEPFAR/B wishes to see this narrative change. We would like patients and providers to know and understand that an undetectable viral load means un-transmittable (U=U).

D. Gender and GBV

PEPFAR/B will continue to integrate gender throughout the program by ensuring that appropriate strategies are used to reach women and men in different age groups. Activities will be implemented to build capacity of government and communities to prevent and respond to gender based violence. Sexual violence prevention will be a key component for DREAMS risk avoidance and risk reeducation activities for all age groups including 9-14 category. Four community mobilization activities will be implemented to address gender norms as well as structural barriers including stigma and discrimination. Post violence care services will be provided through community-based centers. These services include post exposure prophylaxis (PEP), rapid HIV testing with referral to care and treatment as appropriate, STI screening/testing and treatment, and counseling (separate to HIV counseling and testing). For both sexual violence and physical and/or emotional violence, longer-term psycho-social support, shelter (e.g., peer support groups), legal counsel, police, child protection services as well as economic empowerment will be provided. Additionally post GBV care TA will be extended to the non-health sector that includes schools, police, and social protection officers, recognizing that these officers are also involved in the response on post-GBV care. Service centers providing comprehensive health services including family planning and PrEP, and will also screen for GBV. In COP 18, PEPFAR/B will track closely all activities with gender equality and GBV budget attributions to ensure that program implementation incorporates these aspects sufficiently.

E. Pharmacovigilance

WHO encourages countries to complement routine toxicity monitoring via the HIV patient monitoring system by implementing active toxicity monitoring and safety surveillance projects. In Botswana, the ADR reporting is completely paper-based. Tools, such as the ADR reporting forms to support pharmacovigilance (PV) are available; however, efforts are needed to ensure

accountability and standardization of consistent reporting. PEPFAR/B is planning to working with Government of Botswana (GoB) and other stakeholders to improve on existing systems to align with objectives.

Stakeholders, such as, WHO is supporting Botswana to actively collect information on treatment limiting toxicities related to DTG using standardised tools and approaches that will allow for dissemination and data use to enhance the quality of care and safety of ARV programmes. To date WHO has developed tools and training material to support countries with implementing DTG toxicity monitoring within the context of national programmes. Going forward in line with country priorities WHO plans to provide technical and financial support to priority countries that have transitioned to DTG in implementing active toxicity monitoring in support of the Ministry of Health and Wellness (MoHW) and in collaboration with key partners. The MoHW National TB Program in collaboration with PEPFAR revised and updated the National Drug Resistant TB guidelines, and included a major chapter dedicated to pharmacovigilance and an Adverse Drug Reaction (ADR) reporting form was also included.

Currently, PEPFAR/B is supporting PV activities for DTG and new TB drugs by strengthening the capacity of health care workers to report adverse drug reactions (ADRs) on standardized forms. Botswana Combination Prevention Project (BCPP) was the first to lead the process to revise the existing national ADR forms to use when DTG was introduced in the study setting. The national program adopted the revised form even though currently it may have not been fully disseminated for use by health care workers. This data is then directly submitted to the Drug Review Unit (DRU) for review.

In addition to improving the existing data collection tool, support went towards revitalization of a national PV Technical Working Group (TWG) which was tasked with developing an active drug safety monitoring and management (aDSM) and integrated pharmacovigilance (PV) for ART drugs including Dolutegravir (DTG), and new TB drugs, to align reporting forms and flow, and joint causality assessment for patients receiving ART and anti-TB treatment.

In COP 18, PEPFAR/B plans to continue these efforts as well as conduct a retrospective cohort review to determine whether the switch from EFV-based ART to DTG-based first-line ART, with or without Fast Track ART Initiation, was associated with any change in the rates of hospitalization or deaths in the first six months after ART initiation. Furthermore, the TWG will be strengthened and trained in PV to strengthen the national PV system, through the development of a PV guideline, covering ARVs, TB and other drugs, in collaboration with the clinical and community IPs. Additionally,

Continued support will go towards strengthening automatic real-time data availability from all (33) GeneXpert sites through implementation of GxAlert initiatives. As well as sustainability measure, PEPFAR/B will support MOHW to interface GxAlert with the data warehouse and other MOH HIS.

4.2. Prevention, specifically detailing programs for priority programming

a. HIV prevention and risk avoidance for AGYW and OVC

PEPFAR/B is implementing a limited HIV prevention program focusing on AGYW and limited to two DREAMS districts that are within Greater Gaborone SNU.

At the beginning of the COP17 implementation period, extensive planning took place between PEPFAR/B staff, implementing partners, and the GoB. The GoB has shown very strong support for DREAMS programming through identifying a DREAMS point of contact and two officers while awaiting hiring of a National Coordinator, forming and co-chairing a national DREAMS TWG that meets monthly, hosting two DREAMS M&E officers, participating in weekly IP coordinated meetings for DREAMS planning, participating in a week-long training provided by Population Council on Girl Centre Programming, drafting and finalizing DREAMS tools that include the layering table, M&E framework, assessment and referral tools, organizing meetings with district leadership where DREAMS will be implemented, organizing two consultative meetings with AGYW in both Gaborone and Kweneng East to gather AGYW opinions and ideas on DREAMS programming, and supporting and participating in a week-long DREAMS study tour to Zimbabwe. GoB is supportive of endorsing the tools that will be used for DREAMS programming to make them national tools; once this process is finalized, enrollment of girls into DREAMS will start.

In COP18, PEPFAR/B will continue to implement the full package of DREAMS services using a mix of community and facility partners with most of the direct service delivery taking place at community level. One facility partner provides DSD for HTS while the other facility partner provides TA services to AGYW on areas of PrEP, post-GBV services and contraceptive method mix. The Botswana DREAMS program will not provide educational subsidies, however, referrals will continue to be provided to the GoB for educational support as most school-aged adolescents in Botswana are in school due to automatic progression. Additionally, the DREAMS TA partner will work closely with five GoB health facilities that provide youth friendly services to build their capacity to provide DREAMS programming for the benefit of AGYW who may prefer to receive services from GoB facilities.

To strengthen its DREAMS programming for COP18, PEPFAR/B reviewed the DREAMS efficiency questions to determine if and where efficiencies can be gained and to ensure that Botswana's DREAMS program is in alignment with COP18 DREAMS Guidance. As a result of this exercise, a few tweaks were made to the program to ensure resources are redirected to where they will be needed the most. Some of these improvements which are in COP18 include:

- **Post GBV-Care** Extending TA on Post-GBV to the non-health sector that includes schools, police and social protection officers recognizing that these officers are also involved in the response on post-GBV care.
- **Social Asset Building** Including Girl Roster as one of the methods for identifying at risk AGYW following the training on Girl Centered Programming by Population Council. Other

methods for identifying girls include social media platforms, snowballing, home visits, guidance and counseling teachers, ante-natal clinics, and expanded peer outreaches.

- **Parent/Caregiver** Supporting Families Matters Program (FMP) targeting parents of girls 9-17 years; in COP17 we did not have FMP as one of the programs that we had planned to implement. However, FMP was adopted during the planning phase that started immediately after COP17 was approved. The PEPFAR/B implementing partner who will implement FMP has already started receiving training and working closely with TA providers based at CDC HQ in Atlanta to plan for implementation in Botswana.
- **Community Mobilization for Norms Change:** Activities will shift to target community and religious leaders (Dikgosi, headmen, church leaders, etc.).
- **Resource distribution to IPs:** A thorough review of how implementing partners were assigned to deliver on the DREAMS program showed the need to re-structure to ensure we maximize on efficiencies. For example in COP18, PEPFAR/B has reduced the number of partners doing community mobilization and norms change from three to one and the number of partners providing direct service delivery at community level for HIV and violence prevention and social asset building from two partners to one. We have one partner providing direct service delivery for the clinical components of DREAMS which include PrEP, PEP, and contraceptive method mix. This was done to ensure we maximize partner strengths, remove duplication, and align to guidance on maximizing efficiencies of implementing partners as laid out on page 124 of the COP18 guidance.

PEPFAR/B will greatly expand its prevention program for the 9-14 year age-band through increasing programming for preventing sexual violence and preventing HIV through avoiding risk. Evidence-informed modules will be integrated into existing DREAMS curricula and delivered by one DREAMS partner in communities and schools. PEPFAR/B will work closely with this partner to ensure that modules are facilitated and activities are implemented in accordance with guidance from S/GAC. Interventions will focus on:

- Healthy and unhealthy relationships.
- Healthy choices about sex (including delaying sexual debut, abstaining from sex, and protecting yourself).
- Prevention of sexual violence and consent. Outside of the two districts within the Greater Gaborone SNU where DREAMS programming is implemented, the OVC partner will continue programming for preventing sexual violence and preventing HIV through avoiding risk for 9-14 years olds in other SNUs. This work will mainly be delivered through existing school platforms working very closely with the Ministry of Basic Education (MoBE) Guidance and Counseling Teachers. Currently the partner doing this work is using the UNESCO curriculum as well as the MoBE curriculum on life skills called LIVING. Evidence informed modules adapted for DREAMS programming will also be adapted for implementation in other SNUs to ensure provision of similar programming across all PEPFAR supported SNUs. Similarly, the OVC partner will adapt lessons from DREAMS

districts targeting older age groups in non-DREAMS districts to ensure reach for a wider audience with evidence informed programming.

b. HIV prevention and risk avoidance for children

In FY18, PEPFAR/B will continue to support the most effective PMTCT program possible by ensuring that women and their children have access to care and treatment in order to prevent HIV. These services include antenatal services and HIV testing during/post pregnancy; use of ART by pregnant women living with HIV; and infant HIV testing and other post-natal healthcare services.

HIV testing and ART rates are relatively high, while EID requires significant strengthening. Thus, PEPFAR/B will provide support for viral load and will introduce VL/EID 'champions' to strengthen post-analytic EID and VL results return and turn-around-time in scale-up districts. The VL/EID Champions are qualified PMTCT lay counsellors/HCA who will be deployed at facility level in all scale up districts to help track viral load and EID results between the facilities and HIV laboratories. These Champions will link with "child welfare clinics" within the facility level to identify the missing children and collaborate with community workers to trace missing children. They will provide support at the laboratory-clinic interface to track and provide follow-up for HIV services provided to HIV-exposed infants.

In addition, the role of VL/EID champions is to 1) ensure VL test results are returned in a timely manner from labs to clinics, with priority given to 'high' VL results (because they require a clinical intervention) and with a priority given to pregnant and breastfeeding women (because of the short window of time to make an intervention that is effective), 2) that clinicians act on the results by making a clinical intervention (such as altering drug regimen) with patients if VL is high.

In terms of CHW's, their role includes 1) generating lists of women needed to return to the health facility for testing of their babies at 6 and 18 months from PMTCT focal persons, 2) tracking and tracing these women in the community and supporting them to return to the health facility, 3) providing education and counseling to the women on the need to continue accessing services and 4) providing support for adherence.

Birth cohort registers for HIV Exposed Infants (HEIs) are currently being developed and will be scaled-up to ensure appropriate linkage to testing, care and treatment. In support of the PMTCT program, CHWs will track mother-baby pairs to ensure that infants in the PMTCT program are linked back to the health facilities for early infant diagnosis.

Training and mentoring of health care workers caring for infants and children with HIV exposure or infection will continue in FY18 to ensure that the children of PLHIV in care and newly diagnosed including siblings of these patients have also been evaluated for HIV infection. For instance, when managing an HEI, the health care worker should recommend to the mother that she have her other children tested for HIV infection, even if they appear healthy, unless there is documentation that she did not have HIV infection at the time she was pregnant with or breastfeeding those older children.

Facility and community based partners will work collaboratively to strengthen patient linkage and referrals, including for OVC programs. Strengthening systems for tracking patients to ensure linkage and coordination of community and facility staff in documenting linkage will be emphasized. In terms of programming that addresses risk avoidance for children, the OVC platform will provide such services targeting children aged 9-14 as explained in detail in the section on AGYW and OVC. These services specifically targets children who are deemed to have not started engaging in risky behavior and programming is targeted to provide them with the necessary skills needed to prevent HIV acquisition later in life. OVC who are in the 15-17 year age-band are reached with HIV and violence prevention programming through school based interventions using the MoBE life-skills curriculum combined with the UNESCO comprehensive sexuality education curriculum. Additionally, Peace Corps Volunteers placed in OVC centers are uniquely placed to directly work with children formally identified as OVC. These volunteers and their counterparts use age-appropriate interventions aimed at educating OVC about HIV prevention and risk avoidance. The most common interventions include Grassroots Soccer, PACT clubs, ASRH camps, and screening and facilitated discussions using STEPS and Shuga films. Volunteers and their counterparts also incorporate gender norms and gender-based violence awareness into the above activities, as well as substance abuse education, as these are key drivers of transmission.

Additionally, the OVC program will ensure that the HIV status of all OVC being served is captured. All OVC reporting unknown status will be followed through their parents/care-givers to assist to access testing services. The OVC platform works with parents/care-givers to 1) establish HIV status of all OVC, 2) provide HIV risk assessment for all OVC reported as HIV status unknown to ensure they identify OVC most at risk of HIV acquisition and link them immediately to HTS, 3) provide ongoing education and support to parents/care-givers on the need to know their children's HIV status so that parents can provide consent for their children to access HTS and 4) support parents/care-givers to access HTS as needed.

In COP18, PEPFAR/B will continue to support provision of VMMC services targeting eligible males aged 10 to 14 years. Targeting this age group constitutes a huge contribution and investment in reduction of HIV acquisition risk for boys. In COP18, 35 % of the overall target will be allocated to the age group of 10 to 14 years old boys. Building on a strong existing partnership with Botswana MoBE and the school health program, PEPFAR/B will continue to support creation of demand for VMMC services and ensure scale of provision of age-appropriate VMMC services. These services includes early parents and teachers engagement to ensure appropriate mechanisms for acquiring legal consent are followed and that boys and parents receive the necessary accurate information on voluntary medical male circumcision, basic adolescent sexual and reproductive health, HIV testing and post-operative wound care.

Services will be provided through VMMC school campaigns aligned with the national school calendar. School campaigns are held during school holidays to ensure that the learning program is not disturbed by VMMC activities. It is expected that three to four school campaigns will be held during COP18 implementation year. PEPFAR/B has recorded major success in the past in the implementation of school-based VMMC campaigns.

In order to fully comply with PEPFAR and WHO recommendations on the use of appropriate surgical techniques for circumcision of boys aged 10-14 or with immature genitalia, also in line with Botswana recent policy prohibiting use of forceps guided surgical techniques for circumcision of 10 to 14 years old boys, PEPFAR/B will only support provision of services to boys aged 10-14 years using a dorsal slit surgical techniques. PEPFAR/B have put measures in place to ensure that all implementing partners and providers fully comply with this policy. These measures include continuous quality improvement visits, external quality assurance assessments, SIMS visits, mentoring of newly trained providers and refreshers for previous providers.

c. HIV prevention and risk avoidance for KP

From the static and mobile clinics trained providers will provide integrated services following the community-based models where STI/FP/TB/ART services are delivered in one setting without the need for referral to a health care facility.

To increase uptake of HTC and improve positivity yield, LINKAGES will strengthen HTC services by implementing home-based testing, targeted mobile hot spot testing, and DIC testing. Partner index testing for FSWs will also be introduced in collaboration with the APC project under FHI 360.

In FY18, home-based testing was the preferred modality for MSM. PEPFAR/B will continue to implement this strategy and look for opportunities to increase the testing yield for older MSM. Home-based testing provides the seclusion and privacy that is often necessary for this group.

A risk segmentation component will be continued in FY19. KPs will be assessed and classified based on their client volume, HIV/STI status, time in the project, number of visits to the clinic, and the degree and extent of risk taking behaviors. Service delivery of HIV testing, STI services and hepatitis screening will be prioritized as per the risk of the individual KP, and risk reduction education and strategies will be tailored.

PEPFAR/B will provide KPs with essential package of services as defined by WHO. This service package will include:-

- PrEP for HIV negative FSW and MSM. Key elements of PrEP implementation will include: (1) involvement of the community through their continued participation in the PrEP technical working group, (2) an enabling environment to provide accurate information about PrEP, (3) training of health care workers to provide culturally appropriate PrEP services, with risk segmentation to be used to help identify HIV-negative, high-risk KPs who are eligible for PrEP, (4) Monitoring of clients on PrEP to ensure that those who seroconvert are given ART to prevent development of drug resistance.
- Co-trimoxazole preventive therapy (CPT) will be introduced as an integral component of a package of HIV-related services.
- Among HIV positive KP, isoniazid preventive therapy (IPT) will be made available.
- Hepatitis B and hepatitis C screening will be intensified.

- STI screening and referral for treatment for all STI and periodic testing for asymptomatic urethral and rectal *Neisseria gonorrhoeae* and *Chlamydia trachomatis* infections and asymptomatic syphilis infection among FSWs, MSM and transgender people.
- PEPFAR/B KP program will proactively follow up on children of KPs to help them access health care services and social protection packages. The minimum package for children of KPs will include identifying children who need HIV testing, children who are HIV positive and not on treatment, and children who are at risk of poverty, neglect, violence, and stigma and not attending school, and referring them to OVC programs and pediatric HIV treatment centers. The KP program will closely collaborate with the Project Concern International/OVC project to strengthen these referral systems and ensure that vulnerable children are actively linked to social services for further assessment and interventions.

PEPFAR/B will continue to support MoHW and CMS to ensure consistent provision of condoms and water-based lubricants for FSWs and MSM. Condoms and lubricants will be distributed at clinical service delivery sites, DICs, and during community outreach visits, including mobile clinic sites for all KPs (HIV negative and positive). In FY17 the KP program distributed 264,819 male condoms, 197 female condoms and 11,198 sachets of lubricants.

Recognizing the importance of demand creation, client literacy and continuous community engagement, the KP program will be a key partner in Botswana's Treat All Communication Strategy. In addition, to improve the uptake of services across the HIV continuum, we will use the information and communication technologies platforms to reach more KP individuals and link them to services. Context-appropriate and sensitive messages will be periodically loaded on the social media platforms to be accessed by MSM. Other forms of messaging such as posters and business cards will be used to improve access to information on MSM health.

d. VMMC

Males aged 15 years to 29 years

Through direct service delivery, PEPFAR/B continues to support Botswana efforts to scale up VMMC services in priority districts. In COP 18, PEPFAR aims to provide DSD using only approved age-appropriate VMMC surgical techniques in the following four scale up SNU: Greater Gaborone, Mahalapye, Southern and Goodhope. PEPFAR/B VMMC program focuses on these priority districts by allocating 80 % of the overall target to these high disease burden SNUs. To maximize the impact of VMMC as an HIV prevention strategy, almost 50% of the OU target is within the age group of 15 to 29 years. PEPFAR also targets the military population by providing VMMC services to the military and surrounding civilian communities.

In order to fully take advantage of the effect of VMMC in reducing HIV acquisition risk, VMMC activities targeting adolescent boys and young men aged 15 to 29 years remain the main focus of PEPFAR/B VMMC program in scale up districts. PEPFAR/B supports demand creation and service delivery activities targeting men aged 15 to 29 years. Within this age group, demand creation and service delivery will require a mix of different approaches and platforms in order to reach all men.

For those aged 15 to 19 years and mostly in schools, a school-based approach will be used alongside other platforms like vocational training, youth and sports clubs. For those aged 20 to 29 years, demand creation activities will include sector-specific approaches targeting different workplaces, door to door mobilization and interpersonal communication, as well as village's road shows. A human centered approach to demand creation will be implemented using the IPSOS Action Catalyst Tools (ACT). Services will be delivered using static sites, regular outreaches and mobile clinics targeting settings hard to reach like farms and cattle posts.

A comprehensive service delivery package will be offered to clients including the WHO minimum package of services for VMMC. These services include sexual risk reduction counselling, condom use promotion and distribution, STI screening and management, HIV testing and linkage to treatment, provision of surgical procedures and post-operative care. To ensure continuous quality of services and efficiency, implementing partners will be regularly assessed and monitored using PEPFAR VMMC quality tools as well as through SIMS visits. Several measures will continue to be put in place to reduce the cost of VMMC activities, these strategies will include strengthening task shifting by supporting training of more nurse providers and universalizing use of VMMC reusable kits for all non-campaigns procedures. The PEPFAR program will also leverage on the DREAMS platform to refer males who are most likely to be sexual partners of AGYWs.

In order to support districts to approach saturation for the males aged 15-29 years. PEPFAR/B will continue to support GoB in the implementation of winter accelerated campaigns in scale-up districts which has the potential of attracting many young men and out of schools clients.

Greater Gaborone SNUs as a targeted priority area remain a great focus for PEPFAR/B VMMC program strategy. Out of the total OU target of 26000 males, 13150 VMMCs (50%) have been allocated to the greater Gaborone cluster with a major focus on Kweneng East given its high population and PLHIV number. It is expected that Greater Gaborone SNU VMMC coverage among males aged 15 to 29 years would have improved from 38% in FY18 to approximately 50 % by the end of FY19. An accelerated GoB campaign will be implemented in COP18 in Goodhope and Southern SNUs targeting a total of 2630 males. A successful completion of this campaign and target achievement in Goodhope and Southern districts is expected to increase the coverage of circumcisions in males aged 15 to 29 to approximately reach 69% and 58% in FY19 respectively.

Males aged 30 years and above

For men aged 30 years and above, strategies for demand creation and service delivery remain the same as for men aged 20 to 29 years old. However in COP18 PEPFAR only 15% of the overall target will be allocated to this particular age group.

4.3 Additional country-specific priorities listed in the planning level letter

The following Policy Directives and Technical Approaches are addressed elsewhere:

- HIV Testing Strategies, including Index Testing Scale-Up and testing in school clinics in collaboration with the Ministry of Education
- Prevention Among AGYW
- Partner Management
- TB Preventive Therapy
- Laboratory Optimization

A. *Policy barriers to full implementation of Treat ALL*

Botswana's Treat All policy was adopted and launched in June 2016. PEPFAR/B supported this progressive treatment initiative from the beginning and continues to do so, however, it is faced with some policy and programmatic barriers that are most critical to support the successful implementation of the program.

At the start of Treat All there was reluctance to accept same-day treatment initiation by some providers and patients. During COP16 implementation, the current treatment guidelines were revised to include fast track initiation with an algorithm for clinicians to provide differentiated care depending on whether a client presents healthy or sick. The current guidelines were also revised to allow for clinicians to start ART without baseline laboratory. Additionally, a Savingram memo from the MoHW to DHMTs addressing clinicians to communicate these major changes in the treatment guidelines was written. Despite all of these efforts, there is continued provider reluctance to do same day initiation without baseline laboratory results; more importantly, there is poor patient literacy on the benefits of early treatment in which some patients choose not to start treatment due to "personal" reasons. We anticipate with continued training, mentorship, and coaching of clinicians in COP17 and COP18 we will see more acceptance of rapid treatment initiation. Through patient literacy efforts and the expert client model in COP18, we hope to see many more clients starting treatment early.

Another policy barrier to Treat All is the provision of multi-month dispensing (MMD) which the GOB has been very reluctant to adopt and introduce. The main reasons given are availability of ART stock and this is further described in the commodity and supply chain section. If adopted, MMD will increase treatment adherence and retention in the context of Treat All.

The launch of Treat All saw the introduction of DTG in the ART formulary in Botswana, however as a single dose combination. Unfortunately at the time, there was no fixed-dose combination (FDC) available. PEPFAR/B is excited to support the introduction of an FDC containing DTG in the form of TLD to support the Treat All efforts. This FDC will also promote treatment adherence as it will reduce the pill burden of patients significantly and improved tolerability by patients. See more details in the commodity and supply chain section about the TLD transition plan.

B. Supply Chain Strengthening

TLD Transition

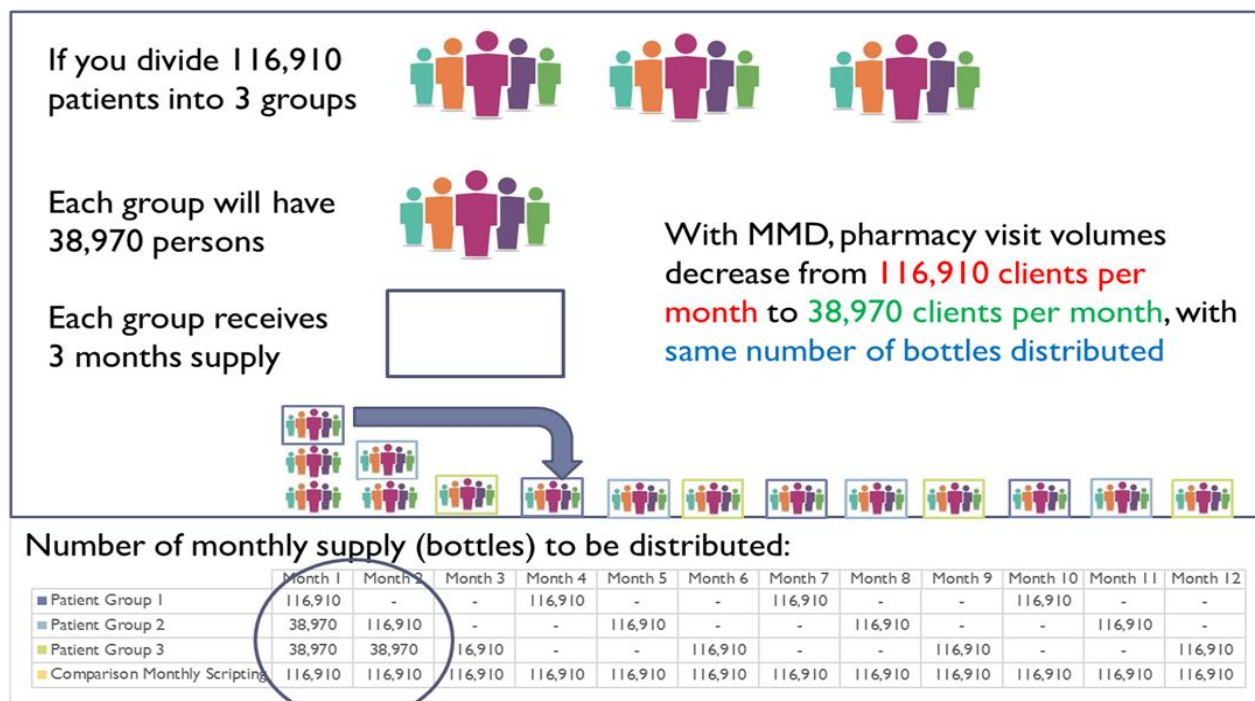
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Multi-month dispensing (MMD)

PEPFAR/B is currently engaging with relevant MoHW/CMS officials on the need for a MMD policy to allow dispensing of ARVs for at least three months to clients who have been on treatment for one year, and who are both stable and have good adherence history. While the Botswana 2016 Integrated HIV Clinical Care Guidelines makes provision for MMD, there is reluctance by GoB to implement the policy citing supply chain challenges. The guidelines state that CMS will notify health facilities individually when they can begin to provide between two-to-three months ART stock to stable patients, and further emphasize that facilities should not begin to change pharmacy pick up schedules until they have received official notice to do so.

Indications are that patients prefer MMD since it will greatly reduce the burden of frequent visits to facilities, as well as the inherent financial implications to most of them. Moreover, the PEPFAR team is reliably informed that Pharmacists/Pharmacy Technicians have already “informally” started 3-month dispensing to better manage congestion at facilities and their own workload resulting from the Treat All strategy. While GoB officials have fears of disruption to the supply chain (i.e. increased stock on-hand, shortage of storage facilities and overall increased costs) the PEPFAR team has shown – using the MMD Forecasting Tool – that the initial stock increase will be equivalent to only 2/3 of additional monthly supply, and will normalize from the third month after starting MMD. Most importantly, there will be an added benefit of having only 1/3 of the total patients going to the facility every month vs. all of them going every month at the same time without MMD.

Botswana Atripla - Comparison of Roll-Out of 3 Group, 3-Month MMD (Monthly-Dispensing vs. Roll-out of Multi-Month Dispensing)



Monthly stock distributed with MMD: Month 1: 194,850 Month 2: 155,880
 Month 3 & beyond: 116,910 (same as with monthly dispensing)

CMS & Supply Chain Capacity Building

PEPFAR/B continues to build capacity at CMS through the following investments in COP17 and continuing in COP18:

- Embedding a Track & Trace Manager at CMS to oversee the implementation of tracking commodities from CMS all the way to facility level to ensure visibility and reliable data flow on consumption, and to improve procurement/distribution of commodities; as well as to avoid potential stock-outs and ensure reliability of the national supply chain and availability of drugs where & when they are required.
- Assigning a team of up to twenty (20) Site Monitors to various facilities across the health districts in the country under the supervision of the Track & Trace Manager; whose duty will be to collect and compile data at facilities for submission to CMS to support the mandate of their manager – as well as to build capacity of the GoB health care workers at the facilities in data collection and management. Interviews have already been conducted by PSM for the initial ten site monitors, and recruitment for the other ten expected by Q3.
- Embedding a Logistics Management Unit (LMU) Manager at CMS to support the areas of drug quantification/forecasting, and procurement of required stock levels to ensure reliability and integrity of the national health supply chain, as well as capacity building of the LMU staff at CMS.

- Both the Track & Trace and LMU Manager will also assist CMS to strengthen and build a robust and reliable IT infrastructure between CMS and facilities across the country, to ensure data integrity throughout the supply chain.

The supply chain implementing partner is USAID Global Health Supply Chain Program – Procurement & Supply Management (GHSC-PSM) and managed centrally from headquarters. Notwithstanding that, there is a small team in-country that works closely with the PEPFAR team on all commodities/supply chain related issues. Additionally, we have monthly reports submitted to the USAID Health Office in Botswana, as well as monthly scheduled tele-conferences with all US-based & locally based stakeholders to discuss relevant/pertinent issues and resolutions if required.

C. Health Financing

While the Government of Botswana (GOB) provides nearly two-thirds of the funding for its HIV program, it is evident that the way in which the GOB budgets and spends its resources is not sustainable. PEPFAR, through the Health Financing and Governance (HFG) Project has been supporting the MOHW interests in improving its budgeting processes. Furthermore, the Ministry of Finance and Development Planning (MFDP) has been implementing a public financial management (PFM) reform program since 2010, which includes improvements to the budget planning and formulation process that will impact all line ministries. In COP16, PEPFAR assisted the MOHW in developing a Health Financing Strategy designed to guide the Ministry in maximizing efficiencies in the health system. This has led to work in COP16 and COP17 to define packages of essential services, a framework for setting tariffs for health services, and novel budgeting processes for districts and health facilities. Though progress has been slow, PEPFAR continues to develop products in close consultation with MOHW to keep the agenda moving forward.

Botswana is in a period of transition with the current president stepping down in April 2018 and the current vice president ascending to the presidency. Due to uncertainty around the transition, high-level decisions, especially around issues that may require citizens to pay for services that were previously free or that will limit free services, are ones that decision makers are reluctant to make. While this uncertainty will continue into early 2019, when Botswana prepares for elections, PEPFAR will continue to move ahead with the planned health financing activities that will allow for significant movement in COP18.

PEPFAR is planning to increase funding available for health financing in Botswana, with \$1 million in central funding coming from the Sustainable Financing initiative. With these resources PEPFAR/Botswana will have an in-country presence from our implementing partner that will allow for a greater level of effort overall and greater momentum for this program. The U.S. Treasury and its Office of Technical Assistance (OTA) is currently in negotiations with the MOF and MOHW to second resident advisors in both ministries. With these advisors inside government, the precursors for potential dramatic reform are in place. These staff, paired with additional resources that will allow an increased effort and an in-country presence for our implementing partner will better allow the USG to move forward to support policy change and implement budgetary reforms that will

ultimately lead to more efficient allocation of resources. It is anticipated that during COP18 the GOB will be able to implement public financial management reforms that will allow for a more robust and efficient budget development process to be rolled out within the MOHW. Additionally, MOHW is very interested in implementing an essential package of services and reducing spending on other services, including those requiring international travel. This will ultimately lead to more efficient spending within the MOHW, which is essential for Botswana to continue to support its HIV program at the current level and ultimately without donor funding.

D. Non-Citizens

Currently, documented and un-documented non-citizens are ineligible for publically-funded ARVs. Recent data from BCPP found that while 71% of citizen PLHIVs are on ART, only 27% of non-citizen PLHIVs are receiving treatment. While this is only one data source, it is a startling contrast that begs further investigation. This disparity undermines the full implementation of government of Botswana's Treat All strategy.

Starting in FY17, PEPFAR/B has worked with UNAIDS and other stakeholders to develop a policy brief estimating the size of the non-citizen population and the costs and cost-savings associated with offering them free treatment. This brief includes modeling the impact of withholding treatment on the course of the epidemic and the associated costs to the Government of Botswana.

UNAIDS, PEPFAR, and other stakeholders now all work together to further refine the analysis, develop key messages, and present the findings to the Minister of Health and Wellness and other relevant ministries using an investment case model and building off of the current Botswana investment case. The minister can then use this information in cabinet discussions to influence change in policy.

As this policy shift is being worked on, PEPFAR/B has budgeted to support HIV services for some non-citizens in non-governmental settings. PEPFAR/B support will also include some ART procurement for non-citizens.

Depending on the policy directive, the support may be through direct service delivery as we currently do with refugees and the key populations program, or through TA provided to MOHW public facilities. Implementation is contingent upon the provision of interim guidelines from Ministry Of Health and Wellness by way of a Savingram and will begin as soon as this is made available. PEPFAR/B support will also include ART procurement for non-citizens.

The National Strategic Framework (NSF III), currently in draft, postulates that “the Constitution of Botswana protects its entire people from discrimination as confirmed by the absence of laws that impose restrictions on entry, stay or residence based specifically on HIV status. ... The Botswana HIV policy has to be comprehensive to include non-citizens as well as Key and Vulnerable Populations in relation to access to HIV services, in order to boost HIV prevention efforts that contribute to sustenance of the national response.” PEPFAR/B will work closely with National AIDS Control Agency (NACA) to set out milestones for the implementation of NSF III legal and policy actions through the Local Capacity Initiative (LCI) project funded by PEPFAR.

Botswana has endorsed the 2016 Political Declaration on ending HIV/AIDS by 2030, and adopted the fast-track targets of reaching 90:90:90 by 2020. The theme of the Sustainable Development Goals (SDGs) of “leave no one behind” underscores the importance of equity and the need for innovative and more effective strategies to ensure that health services reach and address the needs of the socially and economically marginalized who continue to suffer disproportionately. During the PEPFAR/GOB retreat in January 2018, MOHW representatives indicated willingness to allow non-citizens to access free ART. During the Universal Periodic Review (UPR) mechanism of the United Nations Human Rights Council held on January 15-26, 2018, Botswana accepted a recommendation made for the country to enable migrants and refugees to benefit from a pilot project to fight HIV/AIDS. In COP 18, PEPFAR/B has set aside \$ 74,851 to purchase ARVs to support this initiative.

E. Award Agreements

In the COP18 planning letter to Botswana, reference was made to "Award Agreements" and the need to establish processes for interagency agreements on all new awards, including awarding past TBDs (COP18 Letter, Policy Directives and Technical Approaches, page 7, item #8). In January 2018, the PEPFAR/B team adopted a "PEPFAR Botswana Interagency Country Team Guidebook" with sections on mission, organizational structure, roles and responsibilities, operational policies and procedures, and preparation of the COP. The guidebook - which makes reference to award agreements - is intended to bring a higher level of efficiency, transparency, professionalism and effectiveness to our work moving us closer to our shared vision of achieving an AIDS-free generation in Botswana. All members of the PEPFAR/B Agency Lead Team (ALT) signed the guidebook, thereby agreeing to and endorsing its contents.

Reference to award agreements is made at least twice in the guidebook, emphasizing the importance of informing and getting agreements from the interagency. The first reference is on page 10, where the guidebook states that one of the PEPFAR implementing agencies' responsibilities is to "inform the PEPFAR Coordination Office (PCO) and the Agency Leads Team (ALT) about developments of new procurements that will become a part of the PEPFAR portfolio. This should be done as early as possible in the process and the development of new program description should have interagency input based on the overall PEPFAR program." On page 19, under clearance processes, the guidebook instructs that any agency's "Funding Opportunities Applications (FOA) or Request for Application (RFA) programmatic sections must be reviewed by the PMT (PEPFAR Management Team) and receive interagency clearance that the proposed program activities are in line with COP plans and the overall PEPFAR/B agenda before being publically posted for submissions." In addition, any consideration of substantive changes to partner work plans should be reviewed by PMT to identify any potential areas of synergy, opportunities to reduce or eliminate duplication, impact on PEPFAR targets, etc., before finalization.

F. MoHW/PEPFAR Data Alignment

Following engagement with OGAC at RPM, PEPFAR/B and MoHW jointly committed to availing APR 2017 data on the six data alignment indicators reported for MOH/PEPFAR data alignment

across the three programs HTS, PMTCT and ART by end of FY18 Q2. Furthermore, there has also been a commitment from PEPFAR/B (reflected in funded COP17 activities) to assist the government in improving DHIS utilization for routine reporting by FY 18 reporting Q4 period. This will enable availability for site level data which are very critical for COP planning and tracking progress towards 90:90:90. PEPFAR/B is also developing a comprehensive DQA plan in order to validate ART numbers at sites representing 80% coverage in the country. The aim is to have this plan executed by APR 2018.

G. Establishment of HIV incidence surveillance system using the rapid recency assay

Historically recent infections were only determined in periodic surveys like the BIAS surveys using lab based methods such as the Sedia BED HIV-1 Incidence assay and the Sedia HIV-1 LAg-Avidity EIA. The introduction of the Asante™ HIV-1 rapid recency point-of-care assay will enable the country to determine recent infections at the time of diagnosis on-site for real-time incidence surveillance.

The identification of recent infection provides an opportunity for the country to more precisely describe the HIV epidemic, identify hot spots of ongoing transmission, and intervene to stop transmission. By identifying where and amongst whom recent transmission is occurring, PEPFAR and GoB can target our public health and programmatic response. Additionally, HIV recency results can also be used to reinforce messages on the importance of early ART initiation and avoidance of unprotected sex. It can be used to help prioritize index partner and social network testing.

Working with the GoB and implementing partners, the CDC headquarters-produced draft recency protocol will be adapted in FY18 to the country's context for implementation and submitted for IRB review with a non-research determination request as per the country's requirement for surveillance activities. Building off of a COP17 funded HIV case surveillance activity; this will include agreeing on a recency testing algorithm and the site roll-out plan. Per GoB requirements, the test will be validated in a laboratory setting utilizing validation panels during FY18. COP18 funds will be utilized to train personnel and roll out the testing in a phased approach. The roll out will start in sustained districts (where data capturing systems will already be in place through the HIV case surveillance to document the implementation and use lessons learnt for the scale up sites), then scale up districts, and finally non PEPFAR supported sites. The selection of the initial sites will include facility sites, community sites and a key population site. Implementing partners will participate in the training and help monitor the implementation including oversight on all continuous quality improvement (CQI) activities. This will include agreeing on a recency testing algorithm and the site roll-out plan. Per GoB requirements, the test will be validated in a laboratory setting utilizing validation panels during FY18.

Data for new infections will be mapped geo-spatially for identification of hotspots and target testing and treatment interventions. The data will be used in conjunction with the case-based surveillance system to monitor trends in the proportion testing positive on the recent infection testing algorithm (RITA) among newly diagnosed PLHIV by select demographic and risk behaviors, identify hot spots locations associated with testing recent on RITA, allow comparability of HIV positive contacts from index patient testing recent versus non-recent so as to inform prioritization

and targeting of interventions. The data will also help in prioritization of linkage of clients testing positive on recency to care and ART initiation. The real-time monitoring of the epidemiology of recent infections will allow Botswana to target the public health response to sub-populations and locations where high levels of transmission may be occurring. The POC recency test will provide continuous epidemiological data on person, place, and time of newly diagnosed individuals to inform prevention and treatment strategies and also to identify previously undiagnosed HIV infection among infected partners and prevent HIV transmission to uninfected partners. The results of the POC assay for detecting recent HIV infection will be generated in real time and allow for a more efficient targeted response for maximum public health impact. As a point-of-care tool, its ideal application would be at the individual level where results can be returned at the same time as HIV diagnosis and thus secondary prevention interventions can be delivered immediately.

H. Addressing the PLGHA Legislation

Due to the Protecting Life in Global Health Assistance (PLGHA) legislation, PEPFAR/B lost a key partner that was providing services to AGYW and KPs. Implementing partners have been working to find appropriate replacements for this partner. Currently, the OVC partner has been able to replace this partner with an indigenous local organization called Humana People to People (HPP) while the KP partner is working closely with the MoHW to get another indigenous organization accredited to offer clinical services to KPs.

4.4 Commodities

Antiretrovirals (ARVs) PEPFAR/B has not had any communication from GoB regarding issues of ARVs stock-outs. The CMS stock situation report for end of February 2018 shows Dolutegravir (DTG) procured for the country through PEPFAR funding since May 2017 is approximately 8.2 months of stock. To date 1,104 units of DTG (1st Line) have been procured at a total of \$8,981,702.00 in PEPFAR support for the nation's Treat All strategy. While there is 2.1 months of GoB procured Truvada (1st Line); Aluvia (2nd Line) at 14.1 months of stock, with an expected order of an additional 12 months; and Atripla (1nd Line) at 4.6 months of stock.

HIV Rapid Test Kits (RTKs) Due to national stock-outs of RTKs during COP15/16 PEPFAR/B budgeted \$600,000 to support the GoB procurement during COP17 (of which approximately \$198,800 has already been spent – this leaves a balance of around \$400,000 for spending on RTKs in the remainder of COP17/COP18). GoB shared that they had over 11 months of Determine kits and over 8 months of the Unigold kits. Nonetheless, the end of February CMS stock situation report indicated that there was only 2 months of Determine (with 3,840 kits/10 months stock that is expected in March 2018) and 5 months of Unigold remaining in stock (with 3,793 kits/an additional

5 months stock received - but yet to be updated in the report). We are following up with CMS and monitoring the situation to find out there is any need for PEPFAR intervention. PEPFAR currently has 140,000 Determine tests and 17,580 Unigold tests available in-country for distribution implementing partners.

Viral load commodities In COP18, DoD through PEPFAR/B will support the BDF with VL through the “Reagents Rental approach”. The Military undertakes 1000 viral load tests per year. The VL support is key to the Military continuum of care program, it is one gap that has existed and made worse with the implementation of Treat All. There is no doubt that with this support, the program will be more efficient and more tests will be done and indeed viral suppression and epidemic control can be a reality. It is important to note that this support will also benefit civilian populations which live around or near the Military installations, family members of the active duty officers and BDF civilian employees.

TLD The TLD Transition Plan has been completed jointly with MoHW/CMS officials. The agreed plan is to transition beginning in November 2018. PEPFAR has already placed an order of 350,000 units of TLD with an expected delivery of October 2018. The transition will start with 1st Line DTG based regimen, newly diagnosed, pregnant women, and TB Co-infected patients during the first six months, followed by 2nd Line patients and other identified populations.

VMMC In order to minimize the cost associated with VMMC disposable kits, PEPFAR/B is transitioning to universalize the use of reusable kits for VMMC in COP18. There is no plan to procure disposable kits in COP18. Consumables to be used with disposable kits and medium size autoclaves will be procured by partners to support this approach.

Male Condoms & Lubricants There have been reports of serious nationwide shortages/stock-outs of male condoms since the last quarter of 2017; to which PEPFAR/B responded with an emergency procurement of just over 4 million condoms through the centrally funded USAID Commodity Fund, and delivered end of December 2017. CMS was also expecting UNFPA funded condoms. The situation is currently being monitored to determine if further PEPFAR intervention may be required in the near future. Furthermore, there is a PEPFAR/PSM quantification exercise for condom procurement for COP18; which will be reflected in the FAST. Lubricants for KP will also be procured at a ratio of 15% of the male condoms.

GeneXpert Cartridges The use of GeneXpert as the initial diagnostic test for all presumptive TB cases (targeting priority population mainly PLHIV) is not optimally implemented. Though there are other gaps to be addressed, the supply of cartridges has been one of the key issues. There has been frequent stock-outs and interruptions in GeneXpert cartridges supply especially following the adoption of GeneXpert as initial diagnostic test for all presumptive TB cases. By the end of last year (2017) the Ministry of Health procured about 6,000 cartridges but that is still not enough as compared to the demand and stock-outs are really expected in the coming times. There is no also dedicated budget line for procurement of cartridges and the procurement is usually done on emergency/adhoc basis (only when there is stock-outs). PEPFAR/B plans to procure 277 additional cartridges to meet the huge demand and prevent interruptions in the GeneXpert tests. The

functionality of GxAlert is also totally dependent on the functionality of GeneXpert tests. If there is no test, nothing can be reported. Ensuring regular supply of cartridges is therefore a very critical activity.

4.5 Collaboration, Integration and Monitoring

- a. Strengthening cross technical collaborations and implementation across agencies and with external stakeholders, including the GFATM and MoHW;

PEPFAR/B has well-structured interagency collaboration and coordination that was enhanced at the end of 2017 with the development of an Inter-Agency Guidebook. The Guidebook was created to bring a higher level of efficiency, transparency, professionalism, and effectiveness to our work moving us closer to our shared vision of achieving an AIDS-free generation in Botswana.

Through the leadership of the PEPFAR coordination office, PEPFAR/B convenes regular PEPFAR country team (PCT) meetings where all PEPFAR staff across USG agencies participate, PEPFAR Management Team (PMT) meetings where TWG co-leads and agency leads convene for decision making process every other week, and agency lead meetings the alternating weeks. Interagency TWGs are expected to meet monthly at a minimum, and more as needed; the Guidebook has reinforced this expectations. The PEPFAR office also works very closely with the front office at the U.S. Embassy in Botswana to ensure senior USG leadership awareness and support for the broader PEPFAR policy decision making through the Integrated Country Strategy- (ICS) associated monthly Health Working Group (HWG) meetings. Regarding partner management, beyond individual partner agency specific meetings, PEPFAR/B also coordinates joint interagency partner meetings to ensure transparency and collaboration among all PEPFAR implementing partners.

The PEPFAR/B team routinely coordinates and communicates with the GoB, GFATM, multilateral organizations, the private sector, faith-based and CSOs. Host government and external partner engagement remain important interactions to help guide the work of partners in districts, communities and at the facility level. During the COP18 process, PEPFAR/B has also made external partner engagement one of its highest priorities with the Global Fund, UNAIDS, and the WHO actively participating in planning meetings.

The Interagency management team, including the DCM, has continued to make efforts to conduct monthly meetings with the Permanent Secretary (PS) at MoHW to discuss a common agenda. With the departure of the previous PS of Health, PEPFAR/B has worked with a range of offices in the MoHW to ensure that we are collectively addressing the challenges with full implementation of Treat All, including case detection, linkage to care, ART initiation, retention, viral load coverage and viral load suppression. Interagency technical staff actively participate in GoB-convened TWGs and other planning and policy processes. Current examples of this include participation include the processes to develop the National Strategic Framework (NSF), co-led by GoB and UNAIDS; the development of the HIV-TB joint prevalence survey; and the national DREAMS and PrEP TWGs.

PEPFAR/B has refined and strengthened our approach to GFATM Country Coordinating Mechanism (CCM) participation. The PEPFAR Coordinator sits on the Oversight Committee and is in regular communication with the GF Portfolio Manager in Geneva. The CDC Country Director

attends and actively participates in all CCM meetings as the PEPFAR representative. Both the Coordinator and the CDC Country Director actively solicit interagency input and provide real time updates from CCM meetings.

PEPFAR/B has also strengthened our relationships with multilateral organizations through the development of a Development Partners Health Group, co-chaired by the PEPFAR Coordinator. PEPFAR, UNAIDS and GoB now convene quarterly stakeholder meetings that are well attended and where lively and productive conversations are the norm. In COP18, PEPFAR/B will provide funding to WHO to strengthen their capacity to support GoB adoption and implementation of normative guidance and to strengthen GoB's approach to HR management and coordination. Both UNICEF and UNAIDS have reached out to PEPFAR/B to reiterate their full commitment to our partnerships and we all participate in the CCM and other multi-stakeholder processes together.

Treat All Communications

In May 2017, PEPFAR staff from three agencies co-hosted a stakeholder engagement workshop with MoHW to initiate the development of a Treat All communication strategy, which had not been developed since the launch of Treat All in June 2016. Over the next three months, PEPFAR's four agency staff and two implementing partners participated in a Treat All Communications technical working group that held a series of consultations and focus group discussions to complete the strategy in August 2017.

PEPFAR also funded a number of initial communications activities to support public awareness of Treat All and demand for testing and treatment, including producing a three-month radio campaign on GabzFM, producing a 45-minute documentary focused on five people living openly with HIV (which will be publicly released in April 2018), and a set of print materials including a Treat All Heroes calendar, pop-up banners and factsheets.

During the first quarter of 2018, PEPFAR has supported the MoHW to establish terms of reference and a monitoring and reporting framework to enable the technical working group to coordinate the implementation of communications activities across all stakeholders. Over the next year, PEPFAR will continue to support the technical working group in implementing key communications activities and coordinating Implementing Partners' activities. In COP18, PEPFAR will engage USAID's Breakthrough Action mechanism led by Johns Hopkins CCP to further refine demand creation strategies in support of Treat All and implement a number of activities targeting specific groups with the greatest unmet need for testing and treatment.

PEPFAR Small Grants

The PEPFAR Small Grants initiative provides annual grants to approximately 10-15 civil society organizations on the frontlines of their community or sector's HIV response. Several of these recipients are organizations led by people living with HIV, including Positive Moments, Thusang Bana Centre, BONEPWA+, Tsabong Teen Club, and Moshupa Teen Club. Beyond funding, PEPFAR includes these organizations in quarterly stakeholder meetings, monthly newsletters, and email consultations. As a result of these new relationships and funded activities, some of these

organizations have created partnerships with PEPFAR's Implementing Partners; for example, BUMMHI has engaged the Botswana Student Network, which created a sexual/reproductive health information app called TeenWyze during its grant period, to mobilize tertiary students for HIV testing events.

New Directions in Global Health Program

PEPFAR/B's New Directions in Global Health initiative delivers essential information and new developments in HIV prevention and care to the public through media capacity-building and stakeholder engagement activities. In 2017, PEPFAR hosted two-day seminars in Maun, Gaborone, Goodhope, and Mogoditshane, where 40 Botswana-based radio and print journalists interacted with public health professionals, HIV and GBV advocates, community healthcare workers, and program beneficiaries. These seminars yielded more than 30 print, TV and radio stories covering critical issues relating to recent progress and barriers in the national HIV response. Most recently, New Directions produced a newspaper supplement released on World AIDS Day 2017 that highlighted the importance of the Treat All Strategy and created the "Positive Living" column (running weekly throughout 2018 in the Midweek Sun) to give a greater voice to people living with HIV in speaking on these issues.

During COP18 preparation, PEPFAR/B hosted several stakeholder meetings where verbal and written feedback was collected from all participants. We had the most robust engagement and participation from GoB in this process that we have ever seen and this has really strengthened our planning and holds great promise for smoother and faster implementation of agreed upon activities. Civil society and private sector stakeholders were also convened on more than one occasion to educate them on the PEPFAR/B broader program and COP18 preparations and to enable the PEPFAR/B team to get their feedback.

- b. Strengthening IP management and monitoring and the implementation of innovative strategies across the cascade, with fidelity and at scale, to improve impact within shorter time periods

Immediately following the implementation of PEPFAR/B's "Surge strategies" in early 2017, individual and interagency partner monitoring, coordination and management have been significantly strengthened. Prior to that time, individual and group partner meetings relied primarily on partners presenting to PEPFAR/B technical staff. Now, PEPFAR/B program staff deep dive into Surge-related performance and budget data weekly to triangulate partner performance, including budget/expenditure data, MER results, and SIMS findings and propose areas of focus for collaborative discussions with IPs. PEPFAR/B staff have a clear SOP that includes expectations of staff responsibilities for partner management and accountability. For COP18 planning, these fora have been used to explore the "best and worst sites" analyses and the annual site selection process. During COP17 implementation, we have jointly discussed SIMS remediation, site flow assessments and IP staffing at the site level. Agency leads also work directly with IP leadership based both in Botswana and in the US to ensure the importance of partner performance is fully appreciated and supported at all levels of the IP's organization.

As a result of these enhanced partner management processes, PEPFAR/B staff are able to provide real time feedback to our IPs and we have seen optimization of individual and collected IP site staffing; targeted IP headquarters' technical assistance on client flow, index testing and linkage to care with ART initiation; increased index testing and detection of men; scaling up of universal TB suspect screening; and universal screening for HIV testing eligibility in hospitals. PEPFAR/B agency and interagency partner performance assessment and management are directly tied to improved testing, linkage and initiation on treatment. We repeatedly emphasize that our expectation is 100% achievement of COP targets.

Peace Corps Volunteers are placed strategically with local implementing partners - NGOs, health facilities and local government offices – to provide long term support and capacity building in making desired changes for improved testing, linkage and initiation/adherence with particular attention to 1) programs addressing in school and out of school youth and their supporting environments, and 2) sustainability of systems strengthening activities. For example, the Supply Chain Management program brings Volunteers and their colleagues from a variety of facilities to be certified in the Logistics Management of Health Commodities. Together they plan for implementation of change and are collaboratively responsible for ensuring that the change is institutionalized, partner performance and capacity is enhanced and commodities access is optimized over time. Peace Corps Volunteers submit reports to Peace Corps on a quarterly basis, and Program Managers visit Volunteers and counterparts annually to discuss progress on work plans and offer technical support. Peace Corps also conducts quarterly calls to Volunteers and counterparts/supervisors and holds regular training with Volunteers and counterparts during which challenges and best practices are shared. The inter-agency team also benefits from the insights of 3rd Year Volunteers, who have been seconded to work for a year with the different agencies.

Transparency about IP performance across all agencies is an important value in the PEPFAR/B program. A full set of interagency *Implementing Partner Profiles* was developed for the second year in a row prior to COP development. This detailed document serves as ready-reference material for inter-agency staff and stakeholders. The document contains the following information:

- Site/above site and Project description
- Obligated amounts/current COP funds/Pipeline
- Project sites (village level)
- Sub partners
- Goals and Objectives
- Key PEPFAR Indicators
- Policy Implications
- Justification
 - Why is this intervention important for Botswana?
 - How do program activities align with OGAC Technical Considerations?
- Key Issues and Implementation Challenges
- SIMS Results and MER Results
- Future Planning/Corrective Action Plans

Agencies may add additional information for their own monitoring purposes. The PEPFAR Coordination Office manages the *Implementing Partner Profiles* and the technical staff update the IP information in the document as needed in support decision making and reporting requirements with both new data and updated program strategies.

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

During our COP18 planning retreat with GoB, both GoB and PEPFAR staff identified the need for improved staffing levels at the national, district and site level, particularly for monitoring and evaluation and data clerk staff. There was consensus that having complete, accurate and timely data are both a high priority and a significant weakness in the current system. The PEPFAR/B staff and DCM have repeatedly requested a consolidated staffing needs analysis from GoB to assist us in resource allocation planning. Without this comprehensive analysis, it is difficult to design and effective and sustainable response. In COP18 PEPFAR/B plans to continue funding for a DREAMS Coordinator and M&E Officer and to add funds for a PMTCT M&E officer. We will continue secondment of select IP staff to GoB. PEPFAR/B will also work with agency headquarters subject matter experts, as well as WHO staff, to assist us and the government in completing the staff gap analysis and jointly developing a response.

PEPFAR funding of GoB staff positions will help with the immediate needs, but will not support the ownership and sustainability of GoB's HIV response. Thus, continued attention will focus on policy development and capacity building for a strong health workforce in COP18. This is an area of discussion at the HWG level as diplomacy and advocacy will be required to ensure the GoB fills its many health system related vacancies and provides effective supervision and performance management of their staff. The PEPFAR/B technical team will continue to support technical policy developments to strengthen the workforce. Integrated Community Service Delivery Guidelines will pave the way for institutionalizing the role of CHWs and the relationship between community and facility workers. Scaling up of task-sharing of HIV-related services across cadres both within and outside facilities will help to decongest facilities, share the workload, and respond to patient-centered approach is also important although it can be met with resistance at the higher level health facilities. With the adoption of the Guidelines and subsequent SOPs, PEPFAR/B will turn attention to training cadres to meet fulfill their scopes of work for these new delivery models. This is an area that the new COP18 supported cooperative agreement with WHO will focus on.

Botswana has long provided viral load monitoring for its citizens. Per Botswana guidelines, viral load is provided three times for those starting treatment, twice annually for stable adult patients, and four times a year for children. Through the PEPFAR equipment mapping and optimization exercise, PEPFAR/B identified that the current laboratory services are functioning at 60% efficiency. This efficiency challenge is compounded by the fact that Botswana does not follow the WHO guidance for viral load testing frequency, further stretching its limited resources and stressing its viral load system. PEPFAR/B is currently using the Data Warehouse to assess the proportion, age and sex of individuals who have received 0, 1, 2 and > 2 viral load tests in the previous year to help the PEPFAR/B and GoB teams to understand the full impact of these 2 factors on viral load access.

As long as the current testing algorithm is followed, GoB will have testing deficits starting FY 19. PEPFAR/B will continue to lobby the GoB to follow the WHO normative guidance for viral load testing frequency. We are excited that the GoB has a tender out for reagent rental, which we feel is a more sustainable approach than replacing old equipment. Our COP18 programming is aimed at helping GoB to improve testing efficiencies to 80%, which would ensure there is no viral load gap when using the WHO recommended frequency of viral load monitoring. PEPFAR will support:

Lab:

- QMS training for new lab site set up
- Refresher trainings on lab commodity management
- enhanced CQI including personnel and equipment certification, proficiency testing and site audits
- additional lab staff training on VL specimen management and continued roll out the integrated specimen management register
- collaborate with GoB on referral network review
- continue to work on the roll out of IPMS Laboratory specimen module to allow sites to document and track results and improve turnaround times of results.
- scale up critical reporting by labs for positive EID and non suppressed viral load.

Clinicians:

- refresher trainings for clinicians on IPMS and results documentation to address the missing results

Clients:

- development and use of viral load literacy materials
- SMS reminders for clients and triggers at pharmacies to alert clients on Viral load testing

Cross-Cutting:

- Utilize VL champions to follow-up on both viral load and EID results
- continuous use of SIMS dashboards and performance data for remediation of service delivery and quality gaps

As Botswana gets closer to epidemic control, the GoB will need to rationalize health spending to allow for continued funding of essential health services (including HIV). Continued investments in COP18 in sustainable financing will include the provision of technical support for implementing the medical tariff framework and costing analyses. Ongoing TA for future costing of service delivery (including for HIV/AIDS) at the community, facility, and district level will be provided to assist with the ongoing MoHW decentralization. PEPFAR/B will work with the GoB to develop a system for using tariff benchmarks and price data to monitor facility and HRH efficiency and set the stage for a transition to Universal Health Insurance. In collaboration with PEPFAR, though not funded in this COP, the US Treasury Department will provide technical support on Public Financial Management by imbedding advisors in Ministries of Finance and MoHW. The focus of the Treasury Department's TA will be on implementing the MoFD transition from line-item to program-based budgeting and training. Collectively, this team of sustainable financing experts will assist GoB with

the MoHW decentralization effort and help to determine a sustainable diffusion of the level of authority between districts and central government.

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

In COP18, PEPFAR/B prioritizes scaling up of effective interventions and introduction of innovative and improved service delivery models across the community and facilities to improve case detection, treatment initiation, retention in care and treatment and viral load suppression. Specifically, PEPFAR/B, with the support of our multilateral and community stakeholders, will support:

- Scaling up of “client-centered” service delivery hours/approaches and ensuring that communities and providers are aware of these service delivery options
- Integration of HIVST for partners of all newly identified PLHIV in PEPFAR/B supported testing programs
- Scaling up index testing
- Scaling up immediate treatment readiness and adherence counselling conducted at both community and facility HIV testing sites to minimize delays to treatment initiation and conducting periodic focus groups and other assessments to better understand the barriers to treatment readiness
- Moving the current GoB approach to “Fast Track ART initiation” to true same day initiation using ART starter packs with active linkage to the preferred ART service delivery sites
- Scaling up case management and one stop shop for tracking of mother-infant pair (MIP) using HEI cohort registers and improving all aspects of the EID program
- Scaling up the recently initiated integration of HIV testing and care and treatment services into the GoB health facility associated “mobile stops” program that reaches the harder to reach populations in the health facility catchment area
- Accreditation of Tebelopele community service centers to initiate “one-stop-shop” for integrated service delivery that will include dispensing of ARVs, but also include services that will bring clients in that can be linked to HIV services (such as diabetes and hypertension screening and family planning)
- Technical assistance and advocacy to support MMD and innovative models for community ART dispensing, simplified by the availability of TLD
- Scaling up community-based treatment and retention models, such as CHW ARV distribution to farms in Ghanzi, or Community ART Groups (CAGs) for AGYW in Greater Gaborone
- Enhancing facility-community coordination for tracing and tracking of LTFU patients and linking them back to care
- Enhanced case management to minimize the leaks along the cascade with a special focus on the age and sex bands with the biggest needs for improved linkage to care, ART initiation, and viral load testing

- Implementing strategies, including data gathering and communication campaigns and use of “champions” to minimize the number of clients testing positive opting to not initiate treatment

The PEPFAR/B approach to enhancing quality builds upon the data from SIMS assessments and the “best sites, worst sites” analyses that are then triangulated with MER and expenditure data and incorporated into a quality improvement model in order to empower IPs and service delivery providers to enhance the coverage and quality of all services according to the specific needs of all populations across the age and sex spectrum.

- e. Ensuring above service delivery activities are mapped to key barriers and measurable outcomes related to reaching epidemic control.

As described above, it will take a multi-dimensional approach to reach epidemic control in Botswana. This will include above site level activities in support of the site level priorities described above.

PEPFAR/B will further strengthen its robust communication strategy that has already been supporting the roll out of Treat All and continue to do so in COP18. Campaigns will be designed to address barriers in several areas, including:

- testing hard to reach groups, including older men and women
- same-day initiation of ART
- reaching legacy positives
- ensuring retention
- enhancing the understanding of viral load and encouraging patients to ensure it is done annually

Activities to strengthen capacity of CMS and the supply chain are critical in ensuring ARVs and other commodities are available where and when they are needed and that there are no barriers to initiation of treatment at any point along the cascade. Through a comprehensive supply chain assessment MoHW and PEPFAR/B will understand the weaknesses in the system and will be able to provide technical assistance to address these. In addition, policy and advocacy efforts, especially around MMD and other barriers will support the work at site level.

Although the GoB supports a large proportion of the national laboratory health sector response to the HIV/AIDS, gaps remain in areas such as specimen and results management, quality and monitoring of testing and commodities management which often results in testing interruptions. In COP18 PEPFAR/B will support MoHW in the following areas through above site activities:

- Forecasting laboratory reagents to minimize stock outs in the laboratories,
- Continuous quality improvement in all the laboratories in PEPFAR districts to improve the quality of testing and increase the number of laboratories attaining 5 star SLIPTA rating
- Development of the national laboratory strategic plan to replace the current one that will be obsolete in 2019.

PEPFAR's support for the National TB Program will address data deficiencies and technical capacity deficiencies that are preventing Botswana from realizing universal HIV testing for TB patients and TB screening for all those testing positive for HIV. Botswana's ability to collect, analyze and understand the data is the first step, which will allow the country to take more targeted action to address the deficiencies. In addition, use of TPT to prevent TB among PLHIV receiving ART will be instrumental to reducing the morbidity and mortality of PLHIV through GoB implementing national policy, technical guidelines, SOPs and in-service training on a national scale.

Additionally, while PEPFAR has made great strides in reaching key populations with the full cascade of services, this is still largely a PEPFAR initiative. KP generally prefer to go to facilities other than government as they see them as more KP friendly and government is cautious to embrace the work under PEPFAR. This means that data on KP are incomplete, commodities are often not available and resources are limited to what donors bring to the table. PEPFAR will continue to support KP and will continue to work with MoHW, through technical assistance, capacity building and policy dialogue, to take more responsibility.

Although GoB has marginally increased their capacity for routine monitoring and reporting for PLHIV, there remain many program areas which are not yet either reported electronically or systematically when services are delivered. In the following program areas, gaps in understanding where to target and use limited resources affects the ability to eliminate MTCT, increase pediatric ART uptake in non-urban settings, and coordinate services for AGYW. PEPFAR will be providing human resources support for National M&E in PMTCT and the coordination for DREAMS-like services for AGYW. In response to M&E human resource capacity gaps at MoHW, COP17 funds are currently being redirected to jump-start hiring of a DHIS officer and three program M&E officers for PMTCT, ART and HTS (key programs for MoHW/PEPFAR data alignment). Furthermore, four helpdesk officers are being engaged to support patient level data capture, data transmission and PIMS rollout and system support at non-PEPFAR sites and districts. In addition, PEPFAR will support an assessment to provide data not yet available through routine monitoring and reporting: evaluating service delivery uptake for children in rural and peri-urban areas served by BCPP. Furthermore, PEPFAR's support will focus on

- PIMS roll-out, system maintenance, training/mentoring: Roll-out of an improved PIMS electronic system to all eligible health facilities country-wide, train and mentor Health Care Workers to use to collect capture HTC, PMTCT and ART data in the system through a centralized call-in help desk and onsite support for special cases (BHP will provide mentoring support to PEPFAR sites while MoHW will provide support to non-PEPFAR sites).
- Secure patient level data transfer: The program will utilize the Government Data Network (GDN) to transfer data back-ups from stand-alone PIMS sites to the data warehouse.
- Data warehouse maintenance: Provide TA to maintain and manage the DW including conducting key analyses to inform 90:90:90 and act as foundation for HIV case surveillance.
- Strengthen HIV case surveillance: Support will be provided to implement a phased rollout of HIV case surveillance system (starting with sustained districts, then scale up and eventually central support district). HIV recency will be introduced in COP18.

- TB patient management system: Provide Maintenance support to the TB patient management system Open-MRS.
- Use of District Health Information System for PEPFAR/MoHW data alignment: Provide TA to MoHW to strengthen utilization of DHIS for site monitoring and reporting.

In support of military cascade, as BAIS-TB only addresses non-military population, the HIV SABERS is key to implementation of HIV/AIDS programs. The survey will show continuing gaps, if the epidemic is the same in all camps or particular camps.

4.6 Targets for scale-up locations and populations

Table 4.6.1 Entry Streams for Adults and Pediatrics Newly Initiating ART Patients in Scale-up Districts

Entry Streams for ART Enrollment	Tested for HIV (APR FY19) <i>HTS_TST</i>	Newly Identified Positive (APR FY19) <i>HTS_TST_POS</i>	Newly Initiated on ART (APR FY19) <i>TX_NEW</i>
Total Men	172,621	12,947	14,357
Total Women	249,860	18,739	20,782
Total Children (<15)	12095	532	521
<u>Adults</u>			
TB Patients	932	134	399
Pregnant Women	11574	752	880
VMMC clients	21,000	27	21
KP	2117	317	285
Priority Populations (AGYW)	5761	173	156
Other Testing	416,720	28,465	28,997
Previously diagnosed and/or in care		5347	5347
<u>Pediatrics (<15)</u>			
HIV Exposed Infants	2916	17	16
Other pediatric testing	9179	515	505
Previously diagnosed and/or in care	N/A	N/A	N/A

Table 4.6.2 VMMC Coverage and Targets by Age Bracket in Scale-up Districts

SNU	Target Population *	Population Size Estimate (15-29 males)	Current Coverage (APR17, 15-29 year olds)	VMMC_CIRC Expected (FY18, 15-29 year olds)	VMMC_CIRC (FY19 Target 15-29 year olds)	Expected Coverage (APR FY19, 15-29 year olds)
Greater Gaborone Cluster	15-29 years	137,418	39%	6500	6575	49%
Mahalapye District		22,836	33%	3250	2610	59%
Southern District		20,691	42%	2600	950	58%
Goodhope District		8,286	49%	1300	365	69%
	Total/Average	189,231	41%	13650	10500	59%

* This table is limited to 15-29 year olds. VMMC is also offered to boys aged 10-14 years and males aged >30 years, however the priority age group of 15 to 29 years represents 50% of the total 21,000 COP18 target in the scale up districts.

Table 4.6.3 Target Populations for Prevention Interventions to Facilitate Epidemic Control

Target Populations	Population Size Estimate (scale-up SNUs)	Coverage Goal (in FY18)	FY19 Target
¹ PP_PREV (AGYW)	188,520	18,826 (8%)	15,775 (8%)
² KP_PREV (MSM not SW and MSM SW)	781	824 (100%)	2,998 (80%)
² KP_PREV (FSW)	4995	4562 (100%)	4,718 (95%)
TOTAL	194,296	24,212	23,491

¹PP_PREV targets reflect work in scale up SNUs. Size estimates for priority populations based on Census projections 2017.

²KP_PREV targets reflect work in PEPFAR supported “KP SNUs.” KP size estimates based on BBSS 2012 only on two sites for MSM and three sites for FSW.

Table 4.6.4 Targets for OVC and Linkages to HIV Services

SNU	<u>Estimated # of Orphans and Vulnerable Children</u> [1]	Target # of active OVC (FY19Target)	Target # of active beneficiaries receiving support from PEPFAR OVC programs whose HIV status is known in program files (FY19 Target)
		OVC_SERV	OVC*
Bobirwa District	6,526	53	N/A
Boteti District	5,115	36	N/A
CharleshillGhanzi Cluster	3,048	67	N/A
Chobe District	1,308	71	N/A
Goodhope District	3,890	664	637
Greater Francistown Cluster	11,726	105	N/A
Greater Gaborone Cluster	48,621	11,373	11,288
Jwaneng District	845	9	N/A
Kgalagadi North District	1,371	13	N/A
Kgalagadi South District	1,813	18	N/A
Kweneng West District	3,356	36	N/A
Lobatse District	1,423	13	N/A
Mabutsane District	1,018	13	N/A
Mahalapye District	10,056	3,896	3,843
MoshupaSouthern Cluster	9,126	1,668	1,608
Ngamiland District	6,124	36	N/A
Okavango District	4,012	53	N/A
Selibe Phikwe District	2,521	40	N/A
SerowePalapye Cluster	7,857	76	N/A
NorthEast	4,353	26	N/A

Note: *The sites with N/A for OVC_STAT are sites where Peace Corps is working. Peace Corps will not be reporting on this indicator they do not have access to patients/beneficiary files.

[1] 2017 Population Estimates; 2013 BAIS IV (14.4% of children < 18 are OVC)

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

5.1 COP18 Programmatic Priorities

In COP18, PEPFAR/B will support reaching attainment or near attainment across all PEPFAR sustained SNUs, including Greater Francistown and Serowe/Palapye, as well as our KP and TB-HIV focused sites. COP18 priorities for sustained locations do not differ substantially from those described in sections 4.1 – 4.4 for all populations.

Prioritized activities for Sustained SNUs include:

HIV testing and counseling on request or as indicated by clinical symptomology or identified risk behaviors

PEPFAR/B will continue to implement facility and community tailored HTS programs targeting micro-epidemics and hot spots as guided by the attainment analysis. For micro-epidemics within sustained districts, people who test positive will be actively linked to treatment. However, there are two approaches for the sustained districts which began in COP17 which PEPFAR/B plans to continue in COP18. The first approach is the “baseline approach,” whereby PEPFAR/B will not be rigorously investing in active case detection in these sites therefore linkage and treatment initiation will also be passive. The second approach is the micro epidemic approach defined above.

Care services for PLHIV

Care and treatment programming will focus on building strong linkages between facilities and communities to ensure a continuum of care for all health services along the three pillars of the clinical cascade adult care and treatment package of services will focus on activities aimed at viral suppression and maintaining clinical services and sites for 81% ART coverage across age and sex bands. Provision of cotrimoxazole prophylaxis to those CD4 count <200, and TB/HIV co-infected for the duration of the treatment to prevent new opportunistic infections. Cryptococcal antigen screening which was introduced in COP17 with the 2016 Treatment guidelines will be continued and scaled up in COP18. TB/HIV services will be the same in all districts. PEPFAR/B technical assistance will continue to enhance TB screening and test for HIV all presumptive TB towards achieving first 90, maintain the COP17 high achievement in initiating nearly all TB/HIV on ART that contribute reducing morbidity and mortality and also improve TB screening among ART patients and diagnose and treat TB (see Section 4.0). TPT will also be part of the intervention together with the above once it is re-introduced in the Botswana the TB prevention policy and guidelines. M&E challenges for TB/HIV will continue to be addressed in sustained districts through the operationalization and utilization of OpenMRS for patient management and reporting.

Treatment services including routine clinic visits, ARVs, and care package

PEPFAR/B support for COP18 will mainly be through targeted TA for care and treatment services at facility level, and direct service delivery for care and treatment at community level for the support of these essential package of services in PEPFAR sustained SNU. The capacity building through training and mentorship of health care workers around this service package instils sustainability beyond PEPFAR support. Community based implementation will also entail a reduced package of services (HTS, CBCTS, CTB/HIV and community based PMTCT) as outlined for scale up SNUs (Section 4). Planning for transition of support to the GoB upon attainment in these sustained districts will also be a focus. PEPFAR/B continues to engage in dialogue with GoB to adopt multi-month dispensing for stable patients and we anticipate implementing this policy during COP18 implementation. In addition to MMD is to reduce the frequency of clinic visits by stable patients to once a year for clinical review and VL test.

Similar to the description under HIV testing services, there will be an active approach for age and sex bands with <90% ART coverage and a passive approach for those with >90% coverage. There will also be “customized supportive retention services” based on specific age, sex and HIV risk factors related to variable use of prevention and treatment services (e.g. Teen support groups and after hour clinics for men as described in section 4.1). PEPFAR/B will support the VMMC program in selected sustained districts through the DoD Program in close collaboration with the BDF, DHMTs and IPs. The support to these areas especially targeted to the civilian population started in COP16 and will continue in COP18 since these districts have a very low VMMC coverage and are still far from reaching saturation. It is expected that Selibe Phikwe, and Ngamiland will respectively reach 40%, 30% by the end of FY19. Just like in the scale up districts; the scale up of VMMC in high HIV burden setting with low VMMC coverage will help avert new HIV infections and ultimately contribute to the achievement of epidemic control. In FY19, most of our activities will be targeted at males aged 15 to 29 who form majority of our FY19 target and military males aged 18-35 are very much a target group through the DoD program. All demand creation and services delivery activities offered in the Scale Up districts will also be offered in the sustained districts. In addition, PEPFAR through DoD will continue to target military recruits with VMMC services.

Laboratory services support for PLHIV

PEPFAR/B will support GOB in the following areas in sustained district in COP 18:

- Strengthen of the specimen and results referral network through expanding the IPMS, use of SMS and VL/EID "Champions" to ensure VL documentation and results return.

- Refresher trainings and onsite mentorship on specimen and results management, utilization of IPMS, and results documentation.
- Providing TA in Laboratory commodities forecasting and inventory management to prevent and eliminate stock-outs.
- Support CQI activities by providing PT and (IQC) for PEPFAR HIV testing activities at both facility and community RHT sites. The SPI-RT checklist will be utilized to assess RHT sites. In the laboratories, CQI will be implemented through the rollout of SLMTA and assessment of facilities using the SLIPTA checklist and viral load score card.
- Provide TA in viral load, EID, HIV and TB diagnosis.
- Support implementation and roll out recency testing in sustained.
- Support implementation of self-testing and pharmacovigilance.
- Support laboratory based surveillance.

5.2 Targets for attained and sustained locations and populations

There are no attained districts in Botswana

Table 5.2.1 Expected Beneficiary Volume Receiving Minimum Package of Services in Sustained Support Districts

Sustained Support Volume by Group		Expected result APR 18	Expected result APR 19
HIV testing in PMTCT sites	<i>PMTCT_STAT</i>	5992	4594
HTS (only sustained ART sites in FY17)	<i>HTS_TST/HTS_TST_POS</i>	8369/ 4276	35389 / 2741
Current on ART	<i>TX_CURR</i>	59516	59870
OVC	<i>OVC_SERV</i>	496	181

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

PEPFAR/B does not have attained SNU's in COP18, therefore programming and establishing service packages to meet targets is only for the two sustained SNU's (Greater Francistown and Serowe/Palapye), and Ghanzi for CBT and CBCTS. The primary difference compared to our current COP17 program design is the expansion of targeted HIV testing to address age-sex groups identified in the attainment analysis in Serowe/Palapye, as we are currently doing in Greater Francistown.

The standard GoB package of services for care, support and treatment includes and is not limited to the following:

- **Targeted PITC**
 - Community Based Testing for hotspots targeting specific age/sex bands
 - Routine clinic visits
 - Provision of ARVs
 - Adherence and retention support and care package
 - Provision of cotrimoxazole prophylaxis to those CD4 count <200, and TB/HIV co-infected for the duration of the treatment
 - Therapeutic feeds for malnourished adults and children
 - STI screening and syndromic management
 - Screening for TB and other OIs (cryptococcal disease)
 - Provision of condoms
 - PHDP minimum package of services
 - Provision of laboratory services such as CD4 count, VL testing, EID, TB diagnostics, and EID tests.
 - Community based PMTCT- Tracking mother baby pairs
 - Community based TB/HIV

6.0 Program Support Necessary to Achieve Sustained Epidemic Control

Previous sections of this SDS describe the priorities and the approaches we will employ in COP18 to move forward toward epidemic control. Based on these priorities key system and policy barriers as well as other above-site gaps needed to address epidemic control were identified. Below is a discussion on how these barriers and gaps address were identified and how they will help achieve epidemic control. This section addresses the why of barriers and activities identified. Table 6 in Appendix C provides detail on the specific activities.

6.1 Do Table 6 investments on their own or in conjunction with identified site level approaches at the strategic objective level address epidemic control priorities?

All above site activities are tied to epidemic control; some will address urgent needs while others are medium or longer term. For example, barriers to fully realizing the potential of the Treat All policy include incomplete patient understanding and inconsistent implementation by clinicians. Addressing these immediately will have a dramatic impact on reaching epidemic control. Others, such as capacity building for central medical stores, strengthening systems needed to ensure the drugs and commodities are in place for services in the long run, PEPFAR/B has identified systems investments that are critical to addressing priority programmatic gaps and barriers. Continuing policy issues impeding reaching epidemic control in Botswana were described in Section 4.5, including the lack of policies allowing for services to non-citizens, TPT, multi-month dispensing, community ART and others.

Policy Barriers to Treat ALL

Since the Treat All policy was adopted nationally in June 2016, progress has been made to address barriers noted in COP17 and identified through implementation, and continue to be addressed at the site level through our partners and others. However, there are still ongoing barriers to be addressed. PEPFAR/B has identified several policy or programmatic barriers that are most critical to support the successful implementation of Treat All.

The first challenge faced by Treat All is reluctance to accept same-day treatment initiation. Current treatment guidelines, while advocating for rapid initiation among stable patients, are not widely embraced or universally implemented across HIV care and treatment clinics in Botswana. The main challenges facing same-day treatment initiation are provider reluctance to initiate without baseline lab results and lack of a starter pack policy and system. Additional barriers to full Treat All implementation include lack of a progressive MMD policy and supply chain weaknesses for medicines and laboratory supplies.

Data from BCPP showed that before introduction of Treat All, treatment initiation delays routinely exceeded 30 days (54%). However with fast tracking treatment initiation without waiting for baseline lab results, most patients (76%) were started on treatment within the same day. With the

initiation of Treat All the expectations were that something similar would happen across all treatment facilities. While time to treatment initiation has improved, it is not consistently the case. Stronger communication efforts with potential clients and service providers will complement service delivery strategies to address low linkage to treatment.

A second barrier to full implementation of Treat All is the prohibition of providing ARVs and HIV care to non-citizen PLHIVs in public health clinics. Non-citizens, documented and undocumented, are ineligible for publically-funded ARVs. Recent data from BCPP found that while 71% of citizen PLHIVs are on ART, only 27% of non-citizen PLHIVs are receiving treatment. While this is only one data source, it is a startling contrast that begs further investigation. We have also seen through our community service providers that they are unable to link non-citizens who test positive to treatment. PEPFAR/B has participated in developing a model to estimate the size of the untreated non-citizen population and the impact of withholding treatment on the course of the epidemic. UNAIDS is developing a policy brief to present to the Minister of Health. We hope this information will be instrumental to the ongoing health diplomacy efforts to identify and initiate a sustainable funding mechanism for this population.

An additional programmatic concern is the lack of controls for quality lab testing. Routine quality monitoring for both testing commodities and testing personnel is needed to ensure minimum standards are met. Post-market surveillance of test kits at national and site level, as well as routine HIV test kit validation procedures, are necessary. Lack of routine competency assessment and certification procedures result in testers with competencies that were only ascertained as far back as their initial trainings.

The supply chain is an additional barrier that has been identified. There are deficiencies in capacity at central medical stores that prevent accurate planning and tracking of drugs and supplies. Some of the deficiencies are known, while others are to be identified. In COP18 PEPFAR/B will support an assessment of CMS that will identify capacity needs. In addition, system strengthening for laboratory commodities with inventory planning will greatly reduce potential stock-outs for VL, EID and PT. These deficiencies have been the excuse for not fully initiating differentiated care models. If Botswana cannot accurately quantify its current needs, how will it do so for multi-month dispensing?

A concerted effort to address these barriers can have a considerable impact on the epidemic. If we are able to make progress Botswana's ability to reach epidemic control is greatly enhanced.

6.2 Do Table 6 investments address systems gaps identified through SID 3.o, MER, SIMS and other sources?

The Table 6 interventions are in line with the deficiencies identified in the 2017 SID. The National Health System and Service Delivery and the Strategic Information domains are the weakest and these are the areas with the greatest number of activities in Table 6. The table below shows the key barriers as they match up with the SID domains and elements. In the Governance, Leadership and Accountability domain, despite the higher scores, there are still specific areas that are critical to be addressed. The National Health System and Service Delivery domain is more focused on ensuring treatment for all, including non-citizens and Strategic Information will help us better target our services and understand and reach TB/HIV clients.

SID Domain	SID Element	2015 (SID 2.0)	2017 (SID 3.0)	Key Barrier(s)
Governance, Leadership and Accountability	1. Planning and Coordination	7.7 ^o	7.5 ^o	Need to enhance TREAT ALL guidelines implementation and strengthening advocacy, leadership and coordination between GoB & WHO Inadequate coordination of DREAMS-like activities to ensure effective targeting for both prevention and timely diagnosis and treatment of AGYW for HIV
	2. Policies and Governance	6.58	7.06	Inability to provide services to non-citizens impedes epidemic control No policy and guidelines to prevention of opportunistic infections such as TB among PLHIV Lack of buy in from MoHW to change policy for MMD
	3. Civil Society Engagement	5.60	6.88	Lack of partnership framework between GoB and CSOs
	4. Private Sector Engagement	3.08	5.78	
	5. Public Access to Information	8.00	6.00	Linkage to care still lower than 90% target
National Health System and Service Delivery	6. Service Delivery	6.11	6.90	Many clinicians still not following Treat All guidelines Government does not support services and procurements for KP Review criteria for assessing and enrolling beneficiaries into OVC programs
	7. Human Resources for Health	6.33	6.23	Limited capacity of BNTP to support technical needs
	8. Commodity Security and Supply Chain	6.27	6.79	Lack of current analysis to identify gaps and weaknesses in the supply chain system Inadequate capacity to properly forecast national needs Weak pharmacovigilance system makes it difficult to monitor adverse drug events and to understand the magnitude of the problem
	9. Quality Management	4.76	6.14	Inadequate capacity to properly forecast national needs Only 17% of PEPFAR-supported labs conducting viral load tests for PLHIV are accredited
	10. Laboratory	5.69	5.58	The BDF has no accredited labs and receives no other support Lack of POCT policy and the laboratory strategic plan ends in 2019 Inadequate capacity to properly forecast national needs Only 17% of PEPFAR-supported labs conducting viral load tests for PLHIV are accredited

SID Domain	SID Element	2015 (SID 2.0)	2017 (SID 3.0)	Key Barrier(s)
Strategic Investments, Efficiency & Sustainable Financing	11. Domestic Resource Mobilization	5.56	7.10	
	12. Technical and Allocative Efficiencies	5.75	6.89	DTG regimen has only been introduced for ART-naïve patients Poor allocative efficiencies
Strategic Information	13. Epidemiological and Health Data	5.48	4.76	Lack of current data to effectively target high risk populations and garrisons Low uptake of and retention in HIV services by children under 16 years in rural and peri-urban communities MoHW tools for HTC & treatment do not disaggregate data by KP Long delays and inaccuracy data entry hinder understanding of TB in Botswana Lack of accurate measure of national burden of TB and TB/HIV disease relies on models for estimates No strategy or related guidance in place for active TB case finding No data or benchmarks available to show outcomes for graduated OVCs and other adolescents Unclear referral networks for AGYW
	14. Financial/ Expenditure Data	8.33	5.83	
	15. Performance Data	5.77	6.66	Insufficient capacity to collect, manage and use routine program data in a timely manner Limited interface between laboratory diagnostics and other HIS

6.3 Do Table 6 investments leverage systems investments by the host country government and other donor investments?

The GoB contributes close to 60% of funds in Botswana. Given this any investments by PEPFAR are leveraging investments by the government. However, specifically the PEPFAR investments have been able to address certain aspects that will continue in COP18.

Treat All

With the acceptance of a policy that allows for all PLHIV to initiate treatment immediately the MoHW has made a great stride. This has meant the GoB has committed to putting a greater number of people on treatment and accepted the budgetary implications. In addition, MoHW has rolled this out to all clinicians and has been supportive of the Treat All campaigns that PEPFAR has been supporting in COP17. Further, MoHW has moved toward a greater acceptance of KP by allowing the training of providers in KP friendly service delivery. PEPFAR will continue to work with MoHW to address the barriers that are being identified that prevent fully realizing the promise of treat all.

Supply Chain

PEPFAR/B has facilitated the shift to DTG and soon to TLD in Botswana. With significant procurement under COP17 of first DTG and then TLD, PEPFAR has been able to support Botswana to realize lower prices for ARVs, but has also started a transition process that will make TLD the first line treatment in Botswana. Additionally, as PEPFAR will not procure ARVs beyond COP18, it will be the GoB moving forward with TLD procurements after PEPFAR's last shipment expected in-country by July 2019. This combined with the support to strengthen CMS will better position Botswana to reach epidemic control.

Community Service Delivery

PEPFAR/B has been working closely with the GoB on development of an integrated community strategy for community health workers entailing integrated service delivery guidelines and monitoring and Evaluation framework. This is something the GoB is committed to finalizing in COP17, with PEPFAR support that will allow PEPFAR to continue to strengthen the integrated community service delivery platform in COP18 to accomplish other community integration guides such as SOPs, curriculum and IEC materials development as applicable.

Health Financing

The MoHW has been very supportive of the work PEPFAR has been supporting in this area. There is great interest in MoHW in developing more efficient systems of budgeting and expenditure tracking and in realizing savings through a universal health service package. The MoHW has been supportive of the Health Financing Strategy PEPFAR has helped them develop and is expecting to continue to move this forward.

DREAMS

The GoB has been very supportive of the DREAMS-like initiative in Botswana from the start. There is a DREAMS TWG that meets regularly and overall engagement has been very positive. The TWG has developed M&E tools and has identified curricula to be used, among other things. PEPFAR will be supporting the hiring of a DREAMS coordinator and M&E officer to be sitting in the MoHW. The MoHW has agreed to fund these positions in the future.

Laboratory

Although the Government of Botswana supports a large proportion of the national laboratory health sector response to the HIV/AIDS, gaps remain in areas such as specimen and results management, quality and monitoring of testing, and availability of testing reagents (TB and HIVDR) and commodities management which often results in testing interruptions.

The PEPFAR/B laboratory program will provide support to the different programs through building testing capacity on HIV (self-testing), TB diagnosis, EID and VL. Proficiency testing programs for HIV related tests will also be strengthened through in-country capacity building. To further identify clients with TB and HIV coinfections so as to link them to treatment, PEPFAR will support optimization of GeneXpert TB molecular diagnosis for all presumptive TB cases and scale up the use of fluorescent microscopy for TB case monitoring through training, mentorship, and support supervision.

In order to reduce inaccuracy in laboratory results, quality assurance will continue to be supported through the viral load score card for viral load labs, rollout of Strengthening Laboratory Management Towards Accreditation (SLMTA) and gaps will be identified through Stepwise Laboratory Improvement Towards Accreditation (SLIPTA) and site improvement through monitoring systems (SIMS). Facilities will be provided with technical assistance including SOP development and mentorship for QMS implementation.

To assist towards management of patient on ART, new technologies (Cryptococcal antigen testing and HPV molecular testing) to screen for HIV-related opportunistic infections have been validated for uptake by GoB; technical assistance will continue to ensure implementation to scale. Integrase inhibitor HIV drug resistance testing capacities in support of newly introduced DTG treatment drug have been validated also and will be implemented for use among patients failing treatment.

Strategic information (SI) –Information Systems and Human Resources for SI

Availability of timely, representative and quality data is core in guiding Botswana's HIV program to prioritize geographic locations, populations, and interventions appropriately in order to achieve epidemic control. SI activities strive to improve availability of routine quality data that will better inform planning, and facilitate measurement of the impact of different HIV interventions towards reaching epidemic control. SI system activities will focus on continuing to optimize data from patient-level systems such as Patient Information Management System (PIMS II) and the Integrated Patient Management System (IPMS) through the MoHW's National Data Warehouse (NDW). A merged, comprehensive data set now allows for assessments of linkage to care, Treat All ART initiation strategies and final outcomes of HIV positive clients. Real-time data reporting of selected quality indicators through an SMS-based reporting system will continue to be expanded for various aspects of HTC and ARV Treatment, including those focused on PMTCT and TB programs, and pediatric, adolescent, and adult populations. Other systems will be incorporated into the NDW such as the TB Open Medical Record System (OMRS) which captures patient-level information of presumptive TB cases, diagnosed TB cases and information on HIV care and treatment for co-infected patients. In COP18, TA will continue to support mentoring, supportive supervision and training for GxAlert implementation and interfacing GxAlert with other information systems within the MoHW to assure complete TB data. The NDW serves as the foundation of case-based surveillance in Botswana, continuously adding more data from multiple systems. See Section 4.3 regarding the addition of recency testing for incidence integrated into the existing case-based surveillance system.

TA will continue to support routine M&E activities to improve data availability and use along the continuum of care. This includes support to conduct DQAs and supporting the collection of data on strategic and program planning indicators on OVC, KPs and other priority populations. Linkages between community data collection systems and facility-based systems will be strengthened to better track community-based testing and linkage to care.

Through a collaborative effort between MoHW, WHO and PEPFAR/B, BAIS V-TB survey will be the first of its kind and will provide invaluable information on TB/HIV interaction that will be used for national level programming and will be a model for other countries. The survey is being

administered by the GoB with coordination support from WHO and technical assistance from PEPFAR for both the HIV and TB modules.

In addition, since military are excluded from BIAS-TB, DOD through PEPFAR funding will support the Botswana Defense Force (BDF) in undertaking the second Military wide, HIV Sero-prevalence and Behavioral Epidemiology Risk Survey (SABERS). The first survey was conducted in 2009 and was instrumental in appropriately targeting HIV/AIDS resources across the cascade in the Military. The survey will assist planning and prioritization of strategies in combating HIV in the Military with data-driven decision-making while implementing better programs to address epidemic control priorities.

The Military SID 3.0 had data challenges as one major gap that exists in the program. It is important to note that the BDF will be a partner in this project; they will contribute towards the survey in terms of provision of logistics, transportation and also provide manpower. In terms of benchmarking, the BDF high Command attended and participated in the Defense Institute of Medical Operations in San Antonio, Texas where other Militaries presented their data on HIV/AIDS and this motivated them to also ensure they have data to back up their programs.

In line with the broader principles of streamlining in COP 2018, the intent of Table 6 (see Appendix C) is to target investment contributions in mostly 1-2 year outcomes. Outcomes and semi-annual benchmarks will be assessed through the POART process.

6.4 Are benchmarks and outcomes adequately defined to support monitoring of progress of Table 6 investments?

The PEPFAR/B team has developed Table 6 with the understanding that it is critical to be able to monitor progress over time to understand the impact of the interventions. This will be done on an activity-by-activity basis, but it is also important to understand the overall implications of the interaction of the activities. PEPFAR/B understands that Table 6 activities are integral in ensuring Treat All is realized, including supply chain capacity building and acceptance of treatment of non-citizens, and that data across HIV and TB/HIV programs are available and used to understand this progress. PEPFAR/B will ensure that we are looking at the larger objectives of our program and how the above site activities are contributing.

6.5 Include list of surveillance and surveys, evaluations and operations research (SRE)

Based on the SID and existing barriers, four new SRE activities have been proposed for COP18. Identifying children in BCPP communities who are not on ART will enable GOB health workers to ensure that they are provided with appropriate services. This important ART coverage gap was identified in COP17 during BCPP transition planning, as BCPP did not include children. We will use available data systems to describe and compare hospitalization rates in PLHIV taking efavirenz-containing regimens, those taking DTG-containing regimens before the initiation of Fast Track ART policy, and those being initiated on DTG during the Fast Track ART initiation era to identify any signal that suggests that widespread implementation of DTG outside a research setting, and/or Fast Track ART initiation in the Botswana health system context, may be associated with poorer outcomes. Although BIAS-TB will be ongoing in FY19, it excludes the military and BDF camps. As a result, a population-specific survey on military and BDF camps will be conducted. Two activities

are continuing into COP18, the fifth Botswana AIDS Impact Survey combined with the TB Prevalence Survey and the Evaluation of OVC service uptake. Case-based surveillance will be strengthened with recency testing for incidence reporting, especially when combined with full scale implementation of index testing.

In FY19, eight SRE activities will have results to be utilized. Dissemination of the results from the BCPP study will continue for improved case identification, linkage to services, initiation to treatment and retention in care. Assuming they are positive, the results of Xpert and DBS for VL will greatly improve the scale-up of these diagnostic tools for timely case identification. More will be known about acquired drug resistance in Botswana and how changing regimens or delayed initiation of second-line therapies contributes to HIVDRS. In addition, final reports from three bio-behavioral surveys and surveillance on children, youth and pregnant women will be distributed and utilized for improved service delivery and targeted HIV response. These national studies were led by GoB and PEPFAR/B provided technical assistance.

Gap/Barrier	Activity	COP18 Status
Real-time incidence, prevalence, reporting	Case-based surveillance (CBS) with Recency testing	New (Recency) Ongoing (CBS)
Low uptake of ART among <15	Identifying pediatric patients not on ART in BCPP communities	New
Impact of fast-track/DTG on hospitalization rates	Evaluation of changes in hospitalization rates using routine data systems	New
Need for population-specific prevalence by age/sex, such as military or residents at camps	HIV Sero-prevalence and Behavioral Epidemiological Risk Survey (SABERS) in BDF and at camps	New
Need for HIV/AIDS and TB Prevalence and other epi indicators nationally and when sample size permits by SNU by age/sex	Botswana HIV/AIDS Impact & TB Prevalence (BAIS V-TB Prev)	Data to be analyzed
Low uptake of HIV services by OVC	National OVC Situation Analysis	Ongoing
Unknown rate of acquired HIV drug resistance (HIVDR)	Acquired HIVDR	Will be done
Need for effective combination HIV prevention interventions for greatest impact	Botswana Combination Prevention Project (BCPP)	Completed
Low diagnosis of Multi-drug resistance TB	Xpert MTB/RIF POCT on TB dx	Completed
Simplifying VL diagnoses	Use of Dried Blood Spots (DBS) for VL	Completed
Impact of evidence-based behavioral intervention on youth behaviors and HIV	Public Health Evaluation (PHE): Project AIM	Completed
Knowledge of child violence and youth behaviors	Violence Against Children Survey (VACS) & Behavioral and Biological surveillance of HIV/STI among select High-Risk Populations (BBSS II)	Completed
HIV prevalence among pregnant women and infants	PMTCT Surveillance	Completed

7.0 Staffing Plan

As part of the COP18 process, PEPFAR/B examined its interagency staffing footprint and organizational structure. The staffing profile reflects cross-cutting technical support to the priority budget codes. The level of effort in M&O is appropriate for the technical team with some CDC M&O associated with administrative staff whose work in facilities management and related procurement supports the Gaborone West “GWest” facility shared by CDC, USAID, DoD and the PEPFAR/B Coordination Office, which is not located within the US Embassy compound.

As stated in the COP17 Staffing Plan, a rigorous assessment of CDC Botswana was undertaken with the closing out of both the CDC/Division of Tuberculosis Elimination (DTBE) and CDC/BCPP in September 2017 and June 2018 respectively. This, in addition to three mandatory staff position eliminations mandated by OGAC in Johannesburg (February 2018), has resulted in a significant reduction in CDC staff, from 65 in COP17 to a total of 47 in COP18. CDC is not adding any new positions.

Peace Corps again conducted its annual Integrated Planning and Budgeting System (IPBS) exercise to analyze its staffing footprint. Peace Corps is proposing one new position which will be detailed below under the “New Positions” section.

USAID is proposing two new positions, for a total of 17 staff managing 50% of the PEPFAR portfolio in COP 18. This will be discussed in more detail under the “New Positions” section.

DoD has only one technical staff member who is responsible for day to day management of the PEPFAR program, IP management and other PEPFAR duties.

Long-Term Vacancies

USAID currently has two previously approved positions that remain unfilled (1) Prevention Specialist and (2) Senior Health Financing Advisor. These positions are currently under recruitment with the USAID Southern Africa Regional Mission.

CDC Botswana has one long-term vacancy (Associate Director of Science) that was affected by the hiring freeze but has now been routed and is in final stage of classification and grading.

The PEPFAR Coordination Office has a Health Policy Specialist position open since mid-February 2017. As this is an EFM position, it was affected by the hiring freeze but has recently been advertised.

Peace Corps and DoD currently have no long term vacant PEPFAR positions.

New Positions

USAID is requesting 2 new Local Hire positions. The positions are:

- Strategic Information Advisor – Local Hire
- Clinical Care Advisor – Local Hire

The primary responsibility of the Clinical Care Advisor is to provide oversight of clinical aspects of the USAID portfolio and the Strategic Information Advisor will both generate and analyze data for USAID programming.

Peace Corps is proposing a new Driver/Mechanic position. The primary responsibility of this position is to assist with field visits for 30 staff and volunteer support for 143 current volunteers and 85 new trainees arriving July 2018. The addition of this driver will support nationwide site development needs in addition to ensuring urgent response to volunteer medical and security issues.

DoD, CDC and the PEPFAR Coordination Office are not proposing any new positions in COP18.

Overview of the CODB

The overall OU CODB increased by 29.5%. The increases were due collectively to inflation, increase in ICASS and LES Local Compensation Plan (LCP) and fully funding staff positions that are now filled. Specifically, by agency, CDC's CODB increased by 20%, some of which is due to fully funding staff positions that were previously vacant, increase ICASS and LCP costs and inflation. This increase also includes \$800,000 in maintenance and improvements to GWEST, on behalf of the three other agencies occupying offices in the GWEST buildings.

USAID's CODB increased by 47%. The increased funding for PEPFAR implementationThe increased funding for PEPFAR Implementation by USAID should be contextualized: due to the vacancies noted above, USAID currently manages 50% of the PEPFAR program in Botswana with only 13 staff. This has resulted in an extremely high burden on staff with significant overtime accumulated. While USAID expects to maintain a lean staffing pattern, under these circumstances the Agency has requested two new positions to help alleviate the burden and ensure adequate oversightoversite and accountability of partners. With vacancies filled, including the two new positions, this will bring USAID staff managing 50% of the PEPFAR program to 17. The agency also experienced increased ICASS charges, and increased costs to both regional support and LES local compensation plan. This staffing pattern is consistent with regional PEPFAR programs of a similar size. Additionally, as in past COPs, USAID's CODB includes the PEPFAR Coordinator and Deputy Coordinator salary support. Because of this, the USAID staffing footprint appears to be 19, while functionally, just 17 staff will be managing USAID programs in COP 18.

Peace Corps' CODB increased by 42%. Peace Corps was required to apply COP17 pipeline in the amount of \$1,878,287 of an approved total amount of \$2,300,000 and has now exhausted all pipeline. This CODB increase is required to right-size their planning level with rising costs in country and account for living allowance increases, LCP increases, and inflation for Volunteers that are tied to previous year COPs. Each COP funds 27 months of that year's volunteer intake, so this increased level will contribute to restoring the pipeline needed to fund out-year liabilities. The remainder is being identified through cost efficiencies and reductions in the scope of programming.

DoD's CODB went up by 3%, also due to increases in ICASS and LES LCP, and the State Department's CODB (PEPFAR Coordination Office) decreased by \$12,500 from the previous year.

*COP15 ART Coverage estimates utilize the following age/sex bands; <15 male, <15 female, 15-24 male, 15-24 female, 25+ male, 25+ female. The coverage estimates are repeated across the relevant age/sex bands.

^ After a preliminary PEPFAR-supported data quality assessment in 6 sites during COP18 planning, the National ART coverage (HAART Update) numbers were reduced by 20% at the Regional Management Meeting in February, 2018. This reduction was applied to National ART Program estimates for FY17 and carried through all projections into FY18 and FY19. FY16 estimates were not retrospectively reduced.

‡ Sustained with micro-epidemic programming.

Sustained with TB/HIV programming.

+ Sustained with Key Population programming.

Table A.2 ART Targets by Prioritization for Epidemic Control

Prioritization Area	Total PLHIV*	Expected current on ART (APR FY18) ^Ω	Additional patients required for 80% ART coverage	Target current on ART (APR FY19) TX_CURR	Newly initiated (APR FY19) TX_NEW	ART Coverage (APR FY19) ^β
Attained	NA	None	None	None	None	None
Scale-Up Saturation	192,887	124,830	29,479	137,533	35,644	79.4%
Scale-Up Aggressive	NA	NA	NA	NA	NA	NA
Sustained [^] : Micro-epidemic	95,397	72,390	3,928	59,870	3,349	74.2%
Sustained [#] : Key Pops & TB/HIV	38,562	30,758	92	263 [‡]	103 [‡]	78.1%
Central Support	58,083	52,065	0	NA	NA	92.3%
Commodities (if not included in previous categories)	NA	NA	NA	NA	NA	NA
Total	384,929	280,043	27,890	197,506	39,256	80%

NA = not applicable

*Estimated total PLHIV 2018; UNAIDS 2017

^Ω After a preliminary PEPFAR-supported data quality assessment in 6 sites during COP18 planning, the National ART coverage (HAART Update) numbers were reduced by 20% at the Regional Management Meeting in February, 2018. This reduction was applied to National ART Program estimates for FY17 and carried through all projections into FY18 and FY19. This 20% reduction is accounted for in these estimates.

^β Utilizes total PLHIV estimates for 2019 to calculate coverage; UNAIDS 2017

[^] Includes two sustained SNUs with micro-epidemic programming (Greater Francistown and Serowe/Palapye).

[#] Includes four sustained SNUs with Key Population programming (Chobe, Ngamiland, Selibe-Phikwe) and TB/HIV programming (Ghanzi/Charleshill)

[‡] Includes only targets assigned to districts with Key Population programming; no TX_NEW or TX_CURR targets are assigned to the SNU with TB/HIV programming.

APPENDIX B – Budget Profile and Resource Projections

B1. COP18 Planned Spending

Table B.1.1 COP18 Budget by Approach and Program Area

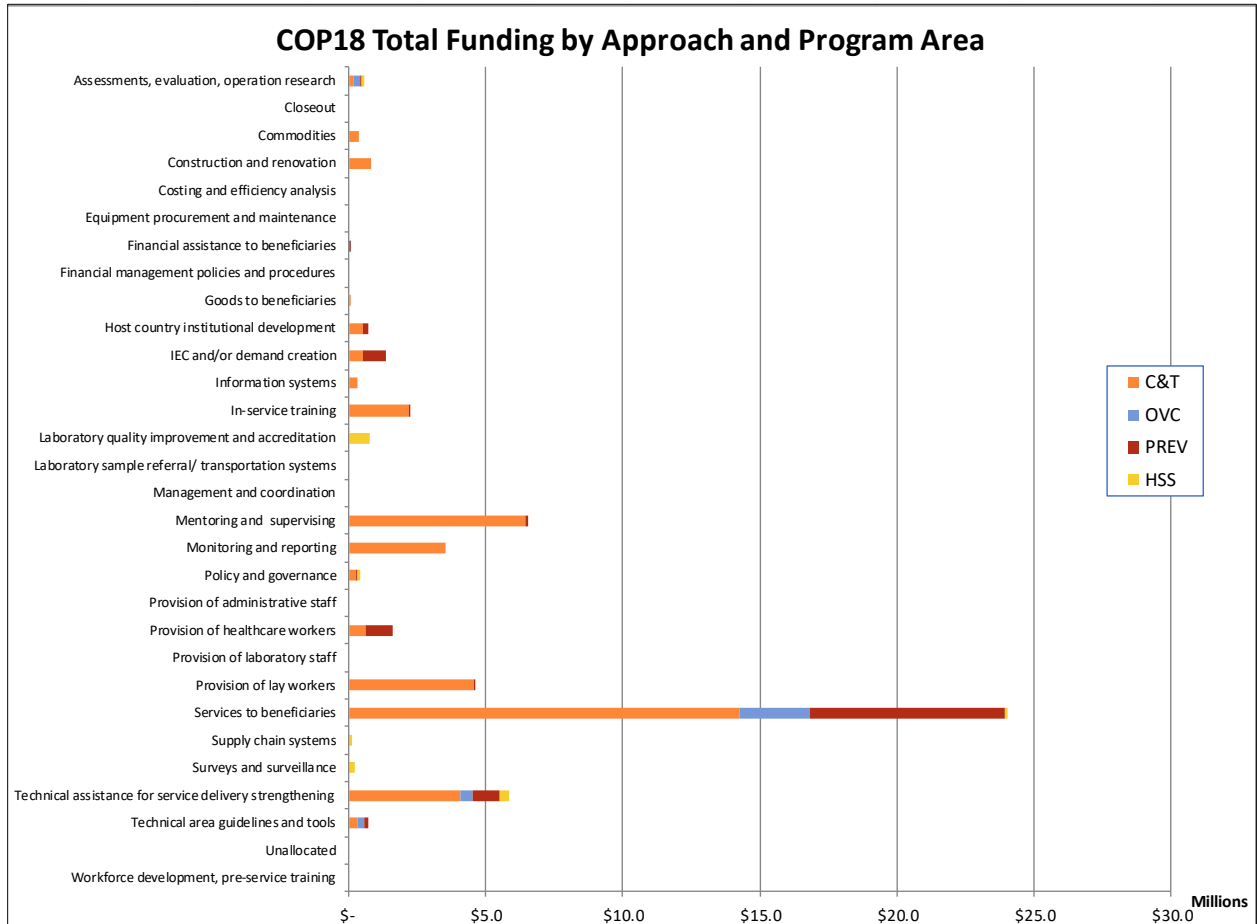


Table B.1.2 COP18 Total Planning Level		
Applied Pipeline	New Funding	Total Spend
\$3,279,499	\$66,959,751	\$70,239,250

*Data included in Table B.1.2 should match FACTS Info records, and can be double-checked by running the “Summary of Planned Funding by Agency” report.

Table B.1.3 Resource Allocation by PEPFAR Budget Code (new funds only)

PEPFAR Budget Code	Budget Code Description	Amount Allocated
MTCT	Mother to Child Transmission	\$ 864,483
HVAB/Y	Abstinence/Be Faithful Prevention/Youth	\$ 1,429,625
HVOP	Other Sexual Prevention	\$ 3,956,768
IDUP	Injecting and Non-Injecting Drug Use	\$ 0
HMBL	Blood Safety	\$ 0
HMIN	Injection Safety	\$ 0
CIRC	Male Circumcision	\$ 4,335,618
HVCT	Counseling and Testing	\$ 10,134,424
HBHC	Adult Care and Support	\$ 11,043,260
PDCS	Pediatric Care and Support	\$ 1,398,885
HKID	Orphans and Vulnerable Children	\$ 3,413,910
HTXS	Adult Treatment	\$15,177,163
HTXD	ARV Drugs	\$512,543
PDTX	Pediatric Treatment	\$ 965,059
HVTB	TB/HIV Care	\$ 4,801,264
HLAB	Lab	\$ 167,000
HVSI	Strategic Information	\$474,845
OHSS	Health Systems Strengthening	\$301,242
HVMS	Management and Operations	\$ 7,983,660
TOTAL		\$66,959,749

*Data included in Table B.2.2 should match FACTS Info records, and can be double-checked by running the “Summary of Planned Funding by Budget Code” report

B.2 Resource Projections

The budgeting approach for COP18 is a refinement of lessons learned from prior years, defining strategic objectives, identifying program gaps and resource needs and considering adjustments from COP17. Using the Funding Allocation to Strategy Tool (FAST) for the first time was a challenge for the PEPFAR/B team, but forced a new way of thinking about the budget from a strategic objective and approach level. We have also maintained comprehensive descriptions of all activities within each SO/Approach in separate spreadsheets which will be invaluable in work plan development.

As in the past, PEPFAR/B worked closely with partners through the end of 2017 to collect accurate expenditure data for the Expenditure Analysis (EA) initiative. While EA and unit expenditure (UE) analysis was limited during the COP18 process, it was still considered as a starting point for real program costs and estimating required resources for FY19, especially for HTS.

As part of the EA initiative, Botswana requested that all partners who did testing activities in FY17 also report on the HTS modality expenditures in order to calculate the costs of tests per positive for each facility and community modality. This was not a global requirement of EA, but program managers from PEPFAR/B believed that having this additional information would help decide which modalities to scale over others. When HTS program managers began building their budgets, they used this analysis as a basis for building and adjusting.

Resource projections and earmarks required from the COP18 Funding Letter (Jan. 18, 2018) also helped guide program decision making and budgeting process. Using the FAST and OGAC guidance, the team sought to bring the budgeting process in line with best practices and to draw a clear line between funding and strategic interventions. As a first step, agencies reviewed their IM-level strategic objectives and ensured that they were aligned with actual work plans and priorities. Interagency Technical Working Groups (TWGs) created their own spreadsheets outside of FAST in order to list on-going or newly proposed activities by partner, objective and approach. If an activity was on-going, the COP17 level of funding was listed and the TWG considered incremental shifts – up or down – for the COP18 proposed funding. Targets from the COP18 data pack, to a limited degree, helped determine the resources required to achieve program deliverables for some IMs. Agencies further considered partner performance – both program and financial – from APR17 and FY18 Q1 to help decide IM resource levels and capacity for spending.

As the FAST was populated, earmarks and cross-cutting obligations were considered. During the RPM, when the budget indicated that resources would be insufficient for all desired activities not tied to targets, prioritization and ranking exercises helped PEPFAR/B team to focus on the most important activities to help Botswana achieve epidemic control. The FAST submitted at the RPM was balanced with all earmarks reached.

APPENDIX C – Acronym List

Abbreviation	Definition
ACHAP	African Comprehensive HIV/AIDS Partnership
A&E	Accident and Emergency
AGYW	Adolescent Girls and Young Women
AIDS	Acquired Immunodeficiency Syndrome
ALT	Agency Leads Team
APC	Advancing Partnerships in Communities (FHI360)
APR	Annual Performance Review
ART	Anti-Retroviral Therapy
ARV	Anti-Retroviral Drugs
BAIS	Botswana AIDS Impact Survey
BAIS - TB	Botswana AIDS Impact and Tuberculosis Prevalence Survey
BBSS	Behavioral and Biological Surveillance Survey
BCC	Behavioral Change Communication
BCPP	Botswana Combination Prevention Program
BDF	Botswana Defense Force
BNQAL	Botswana National Quality Assurance Laboratory
BNTB	Botswana National Tuberculosis Program
BUMMHI	Botswana University of Maryland Medical Health Initiative
BUP	Botswana University of Pennsylvania
BYRBSS	Botswana Youth Risk Behavior Surveillance Survey
CAG	Community ART Group
CATCH	Community Acting Together to Control HIV
CCM	Country Coordinating Mechanism
CDC	Center for Disease Control
CEE	Core Essential Element
CHW	Community Health Worker
CLHIV	Child Living with HIV
CMS	Central Medical Stores
Co-Ag	Cooperative Agreement
CODB	Cost of Doing Business
COP	Country Operational Plan
CPT	Cotrimoxazole Preventative Therapy
CQI	Continuous Quality Improvement
CSO	Civil Society Organization
CTBC	Community TB Care
CTS	Community Treatment Supporters
CWC	Child Welfare Clinics
DIC	Drop In Center
DHAPC	Department of HIV/AIDS Prevention And Care
DHIS	District Health Information System
DHMT	District Health Management Teams
DoD	Department of Defense
DOT	Directly Observed Therapy
DQA	Data Quality Assessment
DQI	Data Quality Improvement
DSD	Direct Service Delivery

DTBE	CDC/Division of Tuberculosis Elimination
DTG	Dolutegravir
EA	Expenditure Analysis
ECD	Early Child Development
EID	Early Infant Diagnosis
EIMC	Early Infant Male Circumcision
EMR	Electronic Medical Record
EMTCT	Elimination of Mother-to-Child-Transmission of HIV
EPOA	Enhanced Peer Outreach Approach
EQA	External Quality Assurance
EU	European Union
FAST	Funding Allocation to Strategy Tool
FBMI	Facility based mobile outreach ART initiation
FOA	Funding Opportunities Applications
FP	Family Planning
FSW	Female Sex Worker
FY	Fiscal Year
GBV	Gender-Based Violence
GDN	Government Data Network
GF	Global Fund
GFATM	Global Fund for AIDS, TB and Malaria
GIS	Geographical Information System
GNI	Gross National Income
GoB	Government of Botswana
HAART	Highly Active Antiretroviral Therapy
HCA	Health Care Auxiliary (Worker)
HCW	Health Care Worker
HEA	Health Education Assistant
HEI	HIV Exposed Infant
HEW	Health Education Worker
HFG	Health Financing and Governance
HFS	Health Financing Strategy
HFTWG	Health Financing Technical Working Group
HISP	Health Information Systems Plan
HIV	Human Immunodeficiency Virus
HIVST	HIV Self Testing
HRH	Human Resources For Health
HTC	HIV Testing And Counseling
HTS	HIV Testing Services
HWG	Health Working Group
ICPT	Index Client Partner Testing
ICS	Integrated Country Strategy
IDCC	Infectious Disease Control Centers
IEC	Information, Education and Communication
IHSP	Integrated Health Service Plan
IP	Implementing Partner
IPBS	Integrated Planning and Budgeting System
IPMS	Integrated Patient Monitoring System
IPT	Isoniazid Preventive Therapy

IQC	Internal Quality Control
IT	Information Technology
KP	Key Populations
LCI	Local Capacity Initiative
LMIS	Logistics Management Information System
LMU	Logistics Management Unit
LTC	Linkage to Care
LTFU	Loss-To-Follow-Up
M&E	Monitoring and Evaluation
MCH	Maternal and Child Health
MDR	Multi-Drug Resistant
MFDP	Ministry of Finance and Development Planning
MIP	Mother-Infant Pairs
MLGRD	Ministry of Local Government and Rural Development
MMD	Multi-month Dispensing
MNIGA	Ministry of Nationality, Immigration, and Gender Affairs
MoBE	Ministry of Basic Education
MoHW	Ministry of Health and Wellness
MoTE	Ministry of Tertiary Education
MSM	Men Who Have Sex With Men
NACA	National AIDS Coordinating Agency
NASA	National AIDS Spending Assessment
NCD	Non-communicable Disease
NGO	Nongovernmental Organization
NIH	National Institutes of Health
NPD	Nurse Prescriber and Dispenser
NSF	National Strategic Framework
NTRL	National Tuberculosis Reference Library
OGAC	Office of the Global AIDS Coordinator
ODK	Open Data Kit
OI	Opportunistic Infection
OMRS	Open Medical Record Systems
OPD	Out-Patient Department
OSC	Office of Security and Cooperation
OU	Outcome Unit
OVC	Orphans and Vulnerable Children
PC	Peace Corps
PCI	Project Concern International
PCO	PEPFAR Coordination Office
PCR	Polymerase Chain Reaction
PCT	PEPFAR Country Team
PCV	Peace Corps Volunteer
PEP	Post Exposure Prophylaxis
PEPFAR	President's Emergency Plan For AIDS Relief
PEPFAR/B	PEPFAR Botswana
PFM	Public Financial Management
PHDP	Positive Health, Dignity, and Prevention
PIMS	Patient Information Management System
PITC	Provider Initiated Testing and Counselling

PLHIV	People Living With HIV
PMT	PEPFAR Management Team
PMTCT	Prevention of Mother-to-Child HIV Transmission
POART	PEPFAR Oversight and Accountability Results Team
POC	Point of Contact
PP	Priority Population
PPADB	Public Procurement and Asset Disposal Board
PR	Principal Recipient
PrEP	Pre-Exposure Prophylaxis
PRRR	Pink Ribbon Red Ribbon
PS	Permanent Secretary
PT	Proficiency Testing
PTB	Pulmonary TB
Q1	Quarter One
QI	Quality Improvement
QM	Quality Management
RDQA	Routine Data Quality Analysis
RFA	Request for Application
RHT	Routine HIV Testing
RITA	Recent Infection Testing Algorithm
RMNCH	Reproductive, Maternal, Neonatal, and Child Health
RPM	Regional Planning Meeting
RTK	Rapid Test Kits
RTR	Real-Time Reporting
SABERS	Sero-prevalence and Behavioral Epidemiology Risk Survey
SCM	Supply Chain Management
SCMS	Supply Chain Management System
SI	Strategic Information
SID	Sustainability Index and Dashboard
SIDA	Swedish International Development Cooperation Agency
SIMS	Site Improvement Monitoring System
SLIPTA	Stepwise Laboratory Improvement Towards Accreditation
SLMTA	Strengthening Laboratory Management Towards Accreditation
SMC	Safe Medical Circumcision
SMS	Short Message System
SNU	Sub-National Unit
SOP	Standard Operating Procedures
SRE	Surveillance/Surveys, Evaluations and Operations Research
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infection
T&S	Test and Start
TA	Technical Assistance
TAP	Treatment as Prevention
TAT	Turn-Around-Time
TB	Tuberculosis
TLD	Tenofovir/Lamivudine/Dolutegravir ARV,
TPT	TB Preventative Therapy
TWG	Technical Working Group
UN	United Nations

UNAIDS	United Nations Programme on HIV/AIDS
USAID	United States Agency for International Development
USD	United States Dollars
USG	United States Government
VCT	Voluntary Counseling and Testing
VL	Viral Load
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organization
YFC	Youth Friendly Clinic
YFS	Youth Friendly Service

APPENDIX D – Supply Chain Update [REDACTED]

[REDACTED]

APPENDIX E – PEPFAR Botswana Stakeholders

Government of Botswana

- Ministry of Health and Wellness
- Ministry of Local Government and Rural Development (Department of Social Protection and Department of Community Development)
- Ministry of Basic Education
- Ministry of Tertiary Education
- Ministry of Nationality, Immigration and Gender
- Ministry of Youth, Empowerment and Cultural Development
- Ministry of Finance and Development Planning
- Ministry of Nationality, Immigration and Gender Affairs
- National AIDS Coordinating Agency

Implementing Partners

- African Comprehensive HIV/AIDS Partnership (ACHAP)
- Botswana Harvard Partnership
- Botswana Univ. of Maryland School of Medicine Health Initiative (BUMMHI)/Care and Treatment
- BUMMHI/Community
- Botswana-UPenn Partnership
- Catholic Relief Services
- FHI 360/APC
- FHI 360/LINKAGES
- Univ. of Washington Intl. Training and Education Center for Health (ITECH)
- JHPIEGO
- KNCV Foundation/ Challenge TB
- Measure Evaluation
- Project Concern International
- Chemonics/HRH 2030
- Chemonics/Global Health Supply Chain

Local Implementing Partners

- Botswana Retired Nurses Society (BORNUS)

- Botswana Baylor Children’s Centre of Clinical Excellence
- Botswana Christian AIDS Intervention Program (BOCAIP)
- Botswana Institute of Clinical Laboratory Professionals
- Botswana Family Welfare Association (BOFWA)
- Botswana Network for HIV/AIDS, Ethics and Law (BONELA)
- Botswana Network of People Living with HIV/AIDS (BONEPWA+)
- Hope World Wide Botswana
- Humana People to People
- Lesbians, Gays, and Bisexuals of Botswana (LeGaBiBo)
- Matsheng Community Development Association Trust
- Men for Health and Gender Justice
- Mothers Union
- Nkaikela Youth Group
- Silence Kills Support Group
- SISONKE
- Stepping Stones International
- Tebelopele Voluntary Testing and Counseling Centre

Multilateral Organizations

- European Union
- Global Fund CCM
- IOM
- UN Women
- UNAIDS
- UNDP
- UNESCO
- UNFPA
- UNICEF
- WHO

Civil Society Organizations

- Bakgatla Bolokang Matshelo
- Bomme Isago Organization
- Bona Naledi Society
- Botswana Association for Psychosocial Rehabilitation
- Botswana Business Coalition for HIV/AIDS
- Botswana Council of NGOs
- Botswana Scouts Association
- Botswana YALI Network
- Centre for Youth of Hope

- Ditshwanelo Centre for Human Rights
- Family of Hope Services
- Gender Links Botswana
- Human Network International
- Kagisano Society Women's Shelter
- Light and Courage Centre Trust
- Machaneng Achievers Association
- Marang Child Care Network
- Men and Boys for Gender Equality
- Molao Matters
- Ngamiland Council of NGOs
- Positive Moments Support Group
- Queen Esther Foundation
- Rainbow Identity
- Sentebale
- Sisonke
- Skill Share International
- THC Foundation
- Thusang Bana Centre
- WoMen Against Rape
- Ultimate Youth of Destiny
- University of Botswana
- Young Love (Young love)

APPENDIX F – MoHW Master Health Facility List (Excerpt)



- Republic of Botswana

FOREWORD

The national health care delivery system in Botswana has six levels structurally: national Referral Hospitals, District Hospitals, Primary Hospitals, Clinics, Health Posts and Mobile Stops. The growth of the health infrastructure has been extensive in that Botswana's health service system successfully developed from a small and narrow Hospital based services serving a minority at independence to a broad based decentralized primary health care system where most of the population is now within 8km radius of the nearest health facility.

The Ministry of Health runs **ALL HEALTH FACILITIES** in Botswana. This Master Health Facility List shows the number and distribution of health facilities throughout the country. There are **3** national Referral Hospitals, **15** District Hospitals, **17** Primary Hospitals, **311** Clinics, **351** Health Posts and **931** Mobile Stops.

This **2014** edition will be in effect until March **2016**.

G. BAIKEPI

Ag. Director of Health Policy, Development, Monitoring and Evaluation

Ministry Of Health

BACKGROUND

Botswana is a landlocked country sharing boundaries with the Republic Of South Africa, Namibia, Zambia and Zimbabwe. It covers a total land area of 582,000 square meters. Botswana has a population of 2,024,904 with an annual growth rate of 1.9% according to **2011 Population and Housing Census**. The health of a country's citizens is one of the most important resources needed by the nation for the pursuit of national Health objectives.

HEALTH PROBLEMS

Botswana is going through a health transition, which indicates a decline in childhood immunisable diseases and an increase in non-communicable diseases. However, infectious diseases still remain the most important causes of illness and death in Botswana. Non-communicable diseases, associated with changes in lifestyle from an agricultural economy to a cash economy, are related mainly to a change in diet, to a more sedentary life and to a longer life expectancy.

HEALTH SYSTEM

Health care in Botswana is delivered through a decentralized mode with primary health care being the pillar of the delivery system. Botswana has an extensive network of health facilities (hospitals, clinics, health posts, mobile stops) which are clustered in the 27 health districts.

Health services are under the management of the Ministry of Health (**MOH**) which oversees **ALL HEALTH FACILITIES** (referral, districts, primary hospitals, clinics, health posts and mobile stops).

MASTER HEALTH FACILITY LIST FOR 2014

This master Health facility list has been prepared by Health Information Management System division of the department of **HPDME**, Ministry of Health 'Botswana'. The information is supplied by Public Health Specialists and other Public Health Administration for the Annual Health Statistics Report. Facilities are grouped into 27 districts following the relocation of Tonota and Tlokweng Sub districts to Greater Francistown and Greater Gaborone respectively.

The table on the next page gives a summary of all health facilities by type and district and also the total number of Health facilities in Botswana. Each facility is assigned a unique five – digit identification code. The first two digits designate the district, the second digits designate the type of facility, and the last two digits represent each specific facility arrangement within a district.

HEALTH FACILITIES BY TYPE AND DISTRICT - 2014											
District	Referral	General	Primary	Clinics		Total	Health Posts		Total	Total	Mobile
	Hospital	Hospital	Hospital	with beds	with no beds		clinics	with nurse			
Ngamitland	-	1	-	5	15	20	19	-	19	40	97
North-east	-	-	1	5	6	11	25	-	25	37	12
Palapye	-	-	1	2	11	13	20	-	20	34	24
Bobirwa	-	-	2	6	3	9	13	-	13	24	22
Kweneng-East	-	2	1	4	13	17	22	-	22	42	45
Southern(Kanye)	-	1	-	1	6	7	6	4	10	18	-
Gantsi	-	-	1	1	3	4	10	-	10	15	352
Mahalapye	-	1	1	5	10	15	28	-	28	45	27
Kgatleg	-	1	-	5	11	16	13	2	15	32	33
Chobe	-	-	1	2	1	3	12	-	12	16	2
Kgalagadi-South	-	-	1	5	1	6	16	-	16	23	14
Tutume	-	-	2	7	6	13	19	-	19	34	21
Boteti	-	1	2	2	10	12	12	-	12	27	66
Okavango	-	-	1	7	5	12	18	-	18	31	30
Gaborone	1	1	-	7	32	39	5	-	5	46	13
Francistown	1	1	-	9	24	33	16	-	16	51	19
South East	-	1	-	2	5	7	2	-	2	10	36
Lobatse	1	1	-	3	7	10	1	-	1	13	4
S/Phikwe	-	2	-	3	8	11	-	-	-	13	-
Kweneng West	-	-	1	3	4	7	14	-	14	22	26
Mabutsane	-	-	-	2	2	4	5	-	5	9	3
Jwaneng	-	1	-	2	5	7	5	-	5	13	12
Good Hope	-	-	1	4	6	10	25	-	25	36	14
Kgalagadi North	-	-	1	2	1	3	15	-	15	19	9
Moshupa Sub	-	-	-	4	2	6	10	-	10	16	13
Charles hill	-	-	-	3	2	5	4	1	5	10	10
Serowe	-	1	-	4	7	11	9	-	9	21	29
Grand Total	3	15	17	105	206	311	344	7	351	697	931

Table 6 Attachment

Row	Funding Agency	Implementing Mechanism Name	Program Area	COP18 Strategic Objective	Approach	COP18 Activity	Key Systems Barrier
1	HHS/CDC	<Placeholder - 70004 Botswana HHS/CDC>	HSS	Strengthen laboratory quality management system by utilizing local and international partnerships	Laboratory quality improvement and accreditation	To support the Acquired Drug Resistance Survey (ADRS) among adults on ART through TA provision to facility staff to obtain specimens, transport of these specimens to the National Reference Laboratory and the procurement of laboratory reagents and supplies.	Lack of capacity of the host government to monitor changes in HIV drug resistance
2	DOD	<Placeholder - 70000 Botswana DOD>	HSS	Strengthen the BDF laboratory capacity	Laboratory quality improvement and accreditation	Roll out Strengthening Laboratory Management Towards Accreditation (SLMTA) process, and conduct external quality assurance (EQA) and proficiency testing (PT) in VL, TB, and EID Labs; Mentor and build capacity in local auditors to carry out accreditation	The BDF has no accredited labs and receives no other support
3	DOD	<Placeholder - 70001 Botswana DOD>	HSS	Conduct a sero-prevalence survey of the BDF to have recent data on their prevalence, incidence and risk factors.	Surveys and surveillance	Conduct a SABERS to understand the current HIV epidemic in the BDF to strategically target higher risk camps and populations	Lack of current data to effectively target high risk populations and garrisons
4	HHS/CDC	<Placeholder - 70003 Botswana HHS/CDC>	C&T	Support the government of Botswana to adopt normative guidance related to HIV and HIV/TB	Policy and governance	a) TA to support adaptation and implementation of normative guidance on efficient patient centered approach b) TA for convening DP and MoHW to dialogue on HIV response and HRH challenges	Need to enhance TREAT ALL guidelines implementation and strengthening advocacy, leadership and coordination between GoB & WHO

Row	Related SID 3.0 Element	SID 3.0 Element Score	Expected Outcome	Expected Timeline for Achievement of Outcome	Relevant Indicator or Measurement Tool	COP18 Baseline Data
1	9. Quality Management 10. Laboratory	6.14 - Yellow; 5.58 - Yellow	Completed survey with report, which will provide the baseline level of drug resistance among PLHIV	1 year	Status of the report	Completed survey, pending final report
2	10. Laboratory	5.58 - Yellow	All BDF labs	2 years	% of PEPFAR-supported labs by SLIPTA rating (LAB_PTCQI)	No data
3	13. Epidemiological and Health Data	4.76 - Yellow	A completed SABERS report, which will enable more efficient and effective programing to decrease HIV prevalence in the BDF	1 year	Status of the report	No report
4	1. Planning and Coordination	7.50 - Green	Effective adaptation and implementation of WHO policy recommendations and normative guidelines; Successful advocacy to strategically address systems challenges with HRH at national, district and site level	1 year	Status of stakeholder meetings	No coordination; high need for HRH

Row	Year One (COP18) Annual Benchmark (Planned)	Note: FY19 Q2 and Q4 results will be recorded here for monitoring.	Year Two (COP/ROP19) Annual Benchmark	Note: FY20 Q2 and Q4 results will be recorded here for monitoring.	Year Three (COP/ROP20) Annual Benchmark	Note: FY21 Q2 and Q4 results will be recorded here for monitoring.
1	ADRS report disseminated		N/A		N/A	
2	25% of labs at > 2 star SLIPTA rating		60% of labs at > 2 star SLIPTA rating		N/A	
3	Completed SABERS		N/A		N/A	
4	Effective adaptation and implementation of WHO policy recommendations and normative guidelines; Successful advocacy to strategically address systems challenges with HRH at national, district and site level		N/A		N/A	

Row	Funding Agency	Implementing Mechanism Name	Program Area	COP18 Strategic Objective	Approach	COP18 Activity	Key Systems Barrier
5	HHS/CDC	Development of Lab Network & Society	HSS	Strengthen laboratory quality management system by utilizing local and international partnerships	Laboratory quality improvement and accreditation	Roll out Strengthening Laboratory Management Towards Accreditation (SLMTA) process, and conduct external quality assurance (EQA) and proficiency testing (PT) in VL, TB, and EID Labs; Mentor and build capacity in local auditors to carry out accreditation	Only 17% of PEPFAR-supported labs conducting viral load tests for PLHIV are accredited (5 star)
6	HHS/CDC	Capacity Building and Training	C&T	Scaling up and strengthening service delivery and improving uptake and quality of HIV Services	Policy and governance	Advocate and support the development and implementation of a national policy to allow for the provision of ART to all non-citizens	Inability to provide services to non-citizens impedes epidemic control
7	HHS/CDC	Capacity Building through Training and Mentoring for TB/HIV	C&T	Support the MOHW through technical assistance, to achieve HIV epidemic control by capacitating health care workers and providing technical assistance in TB/HIV related activities at the national, district, and health facility levels	Technical area guidelines and tools	TA to support tuberculosis preventive therapy policy and guideline development	No policy and guidelines to prevention of opportunistic infections such as TB among PLHIV

Row	Related SID 3.0 Element	SID 3.0 Element Score	Expected Outcome	Expected Timeline for Achievement of Outcome	Relevant Indicator or Measurement Tool	COP18 Baseline Data
5	9. Quality Management 10. Laboratory	6.14 - Yellow; 5.58 - Yellow	60% of PEPFAR supported labs having attained 3 star rating on the SLIPTA checklist	3 years	% of PEPFAR-supported labs by SLIPTA rating (LAB_PTCQI)	46% at ≥ 2 star
6	2. Policies and Governance	7.06 - Green	Full implementation of ART provision to all non-citizens living with HIV	1 year	Non-citizens eligible for national ART program	No national policy
7	2. Policies and Governance	7.06 - Green	Implementation of national TPT policy and guidelines	2 years	SIMS 3.1 CEEs related to TPT	No policy or guidelines

Row	Year One (COP18) Annual Benchmark (Planned)	Note: FY19 Q2 and Q4 results will be recorded here for monitoring.	Year Two (COP/ROP19) Annual Benchmark	Note: FY20 Q2 and Q4 results will be recorded here for monitoring.	Year Three (COP/ROP20) Annual Benchmark	Note: FY21 Q2 and Q4 results will be recorded here for monitoring.
5	70% of labs at ≥ 2 star SLIPTA rating		40% at 3 star		60% at 3 star	
6	Full implementation of ART provision to all non-citizens living with HIV		N/A		N/A	
7	Policy and guidelines developed and disseminated		Full implementation of the TPT guidelines nationally		N/A	

Row	Funding Agency	Implementing Mechanism Name	Program Area	COP18 Strategic Objective	Approach	COP18 Activity	Key Systems Barrier
8	HHS/CDC	Quality HIV/AIDS Services through Government of Botswana	PREV	Support the GOB to improve and strengthen national policies and delivery of HIV services for adults, infants, adolescent girls and young women, and refugees, by supporting ART, VMMC and laboratory programs	Policy and governance	Support GOB dissemination and operationalization of the policy guidelines for Point of Care Testing (POCT) and the development of the Laboratory Strategic Plan; include results from stakeholder engagement workshop	Lack of POCT policy and the laboratory strategic plan ends in 2019
9	HHS/CDC	Quality HIV/AIDS Services through Government of Botswana	PREV	Scaling-up and strengthening service delivery and improving quality and uptake of HIV services for HIV-Exposed Infants (HEI) to improve progress towards eMTCT	Host country institutional development	Support the National PMTCT M&E Officer to improve analysis and reporting and troubleshooting of PMTCT data to improve progress towards eMTCT	Insufficient capacity to collect, manage and use routine program data in a timely manner
10	HHS/CDC	Capacity Building and Training	C&T	Hospital Admissions and Mortality in HIV-Infected Individuals initiating an Efavirenz-versus a Dolutegravir-Based Antiretroviral Therapy Regimen, before and after Fast Track Initiation	Assessments, evaluation, operation research	Evaluate the impact of DTG regimen on morbidity and mortality from OIs	DTG regimen has only been introduced for ART-naïve patients

Row	Related SID 3.0 Element	SID 3.0 Element Score	Expected Outcome	Expected Timeline for Achievement of Outcome	Relevant Indicator or Measurement Tool	COP18 Baseline Data
8	10. Laboratory	5.58 - Yellow	All sites with POCT will comply with national guidelines to deliver timely diagnosis and care, and a 2020-2025 laboratory strategic will be disseminated	1 year	Status of the POCT policy and 2020-2025 Lab Strategic Plan	POCT policy developed and finalized
9	15. Performance Data	6.66 - Yellow	Program data from all health districts available in DHIS and being used to inform programming	2 years	% of health districts with more than 75% of their sites reporting data into DHIS monthly for ART, PMTCT, RHT	0%
10	12. Technical and Allocative Efficiencies	6.89 - Yellow	To describe and compare 6-month initial hospitalization rates among three cohorts of patients initiated on ART in BUMMHI-supported sites: (1) on EFV-based ART, (2) on DTG-based ART prior to implementation of the Fast Track ART Initiation and (3) on DTG-based ART after implementation of the Fast Track ART Initiation.	2 years	Hospitalizations rate by prospective cohort	None; To be collected starting October 1, 2018

Row	Year One (COP18) Annual Benchmark (Planned)	Note: FY19 Q2 and Q4 results will be recorded here for monitoring.	Year Two (COP/ROP19) Annual Benchmark	Note: FY20 Q2 and Q4 results will be recorded here for monitoring.	Year Three (COP/ROP20) Annual Benchmark	Note: FY21 Q2 and Q4 results will be recorded here for monitoring.
8	Disseminated POCT policy and 2025 Lab Strategic plan; Implementation plan in place		N/A		N/A	
9	50%		100%		N/A	
10	Data collection completed; stakeholder use of the data		Complete dissemination of results/findings to program use		N/A	

Row	Funding Agency	Implementing Mechanism Name	Program Area	COP18 Strategic Objective	Approach	COP18 Activity	Key Systems Barrier
11	HHS/CDC	Quality HIV/AIDS Services through Government of Botswana	C&T	Scaling up and strengthening service delivery and improving uptake and quality of HIV Services	Assessments, evaluation, operation research	Botswana ART Coverage Amongst Children Under 16: Monitoring HIV Care for Children Under 16 Years of Age in Rural and Peri-Urban Communities in Botswana	Low uptake of and retention in HIV services by children under 16 years in rural and peri-urban communities
12	HHS/CDC	Quality HIV/AIDS Services through Government of Botswana	PREV	Support DREAMS National Coordinator	Host country institutional development	Coordination of DREAMS-like activities	Inadequate coordination of DREAMS-like activities to ensure effective targeting for both prevention and timely diagnosis and treatment of AGYW for HIV
13	USAID	<Placeholder - 70013 Botswana USAID>	C&T	Efficient and strategic financing of the health sector for sustaining HIV services	Host country institutional development	Develop policies to implement tariff framework for clinics providing HIV services	Poor allocative efficiencies
14	USAID	<Placeholder - 70015 Botswana USAID>	C&T	Uptake of Treat All increased by sensitizing key stakeholders at facility and community levels and by addressing information-related treatment barriers	Technical area guidelines and tools	Content creation, graphic design, and production of communications materials to ensure clinical staff are implementing HIV service delivery guidelines	Many clinicians still not following Treat All guidelines

Row	Related SID 3.0 Element	SID 3.0 Element Score	Expected Outcome	Expected Timeline for Achievement of Outcome	Relevant Indicator or Measurement Tool	COP18 Baseline Data
11	13. Epidemiological and Health Data	4.76 - Yellow	Increase in HTS_TST, HTS_POS, TX_NEW, TX_CURR for <15 years old	2 years	To 1) estimate the coverage of pediatric HIV diagnosis and 2) determine coverage of ART initiation, retention, and viral suppression among all HIV-infected children who have been diagnosed or treated in the 15 BCPP intervention communities before the age of 16.	70%
12	1. Planning and Coordination	7.50 - Green	Reduction in duplication of efforts, increased targeting of prevention and treatment activities to prevent and reduce HIV for AGYW	2 years	Attainment analysis for AGYW	0%
13	12. Technical and Allocative Efficiencies	6.89 - Yellow	Tariffs rationalized across facilities	3 years	# of facilities that have initiated tariffs per tariff setting framework and have systems in place to monitor efficiencies achieved	0
14	6. Service Delivery	6.90 - Yellow	Increase in % of patients initiated upon diagnosis	1 year	% of clients initiated on ARVs at diagnosis	TBD

Row	Year One (COP18) Annual Benchmark (Planned)	Note: FY19 Q2 and Q4 results will be recorded here for monitoring.	Year Two (COP/ROP19) Annual Benchmark	Note: FY20 Q2 and Q4 results will be recorded here for monitoring.	Year Three (COP/ROP20) Annual Benchmark	Note: FY21 Q2 and Q4 results will be recorded here for monitoring.
11	80%		90%		N/A	
12	50%		100%		N/A	
13	Agreement on tariff setting framework, process for implementation and monitoring system		TBD		TBD	
14	90%		N/A		N/A	

Row	Funding Agency	Implementing Mechanism Name	Program Area	COP18 Strategic Objective	Approach	COP18 Activity	Key Systems Barrier
15	USAID	<Placeholder - 70015 Botswana USAID>	C&T	Demand creation for HIV care and treatment services to reach 95-95-95	IEC and/or demand creation	Content/campaigns produced and distributed, which may include: radio campaigns; multi-media TV commercials; medium-length video product; thematic and issue-specific clips for social media for demand creation for HIV services	Linkage to care still lower than 90% target,
16	USAID	<Placeholder - 70016 Botswana USAID>	PREV	Demand for comprehensive prevention, care, and support and treatment (CST) services among key populations enhanced and sustained	IEC and/or demand creation	Policy that prevent procurement of essential drugs and commodities for KP changed	Government does not support services and procurements for KP
17	USAID	<Placeholder - 70016 Botswana USAID>	C&T	Strengthened systems for planning, monitoring, evaluation, and assuring the quality of program for key populations	Information systems	Dissemination of key population BBSS, support MOHW to integrate KP data capture and reporting tools in MOHW systems.	MOHW tools for HTC & treatment do not disaggregate data by KP
18	USAID	Linkages Across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES) Project	PREV	Demand for comprehensive prevention, care, and support and treatment (CST) services among key populations enhanced and sustained	IEC and/or demand creation	Policy that prevent procurement of essential drugs and commodities for KP changed	Government does not support services and procurements for KP

Row	Related SID 3.0 Element	SID 3.0 Element Score	Expected Outcome	Expected Timeline for Achievement of Outcome	Relevant Indicator or Measurement Tool	COP18 Baseline Data
15	5. Public Access to Information	6.00 - Yellow	Increased knowledge of Treat All/Increased linkage from positive test to treatment/Increased VL literacy	2 years	Linkage to treatment at PEPFAR clinics	From APR
16	6. Service Delivery	6.9; 6.79	KP will have easy access to essential HIV commodities and drugs	2 years	water-based lubricant packets available in government facilities	0
17	13. Epidemiological and Health Data	4.76 - Yellow	KP disaggregates to be included in all HMIS tools	2 years	# of HMIS tools include KP disaggregates	0
18	6. Service Delivery	6.9; 6.79	KP will have easy access to essential HIV commodities and drugs	2 years	water-based lubricant packets available in government facilities	0

Row	Year One (COP18) Annual Benchmark (Planned)	Note: FY19 Q2 and Q4 results will be recorded here for monitoring.	Year Two (COP/ROP19) Annual Benchmark	Note: FY20 Q2 and Q4 results will be recorded here for monitoring.	Year Three (COP/ROP20) Annual Benchmark	Note: FY21 Q2 and Q4 results will be recorded here for monitoring.
15	90% of clients tested positive at PEPFAR sites receive same day ART initiation		98% of clients tested positive at PEPFAR sites receive same day ART initiation; 90% of eligible for VL received results		N/A	
16	policy developed		water-based lubricants available in all government facilities in PEPFAR district		N/A	
17	HIV testing register, DREAMS data capture tools		PrEP register, Treatment register		N/A	
18	policy developed		water-based lubricants available in all government facilities in PEPFAR district		N/A	

Row	Funding Agency	Implementing Mechanism Name	Program Area	COP18 Strategic Objective	Approach	COP18 Activity	Key Systems Barrier
19	USAID	Linkages Across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES) Project	C&T	Strengthened systems for planning, monitoring, evaluation, and assuring the quality of program for key populations	Information systems	Dissemination of key population BBSS, support MOHW to integrate KP data capture and reporting tools in MOHW systems.	MOHW tools for HTC & treatment do not disaggregate data by KP
20	USAID	Global Health Supply Chain Program	HSS	Improve enabling environment to increase supply chain performance	Assessments, evaluation, operation research	Conduct a comprehensive National Supply Chain Assessment, including assessment of environment for MMD	Lack of current analysis to identify gaps and weaknesses in the supply chain system
21	USAID	Global Health Supply Chain Program	HSS	Improve enabling environment to increase supply chain performance	Policy and governance	Advocacy to Government of Botswana for policy formulation on multi-month dispensing (MMD) and provide TA for implementation	Lack of buy in from MoHW to change policy
22	USAID	Global Health Supply Chain Program	HSS	Improve enabling environment to increase supply chain performance	Supply chain systems	Provide HIV technical advisor to work alongside current staff to focus on both TLD transition and MMD	Inadequate capacity to properly forecast national needs
23	USAID	Global Health Supply Chain Program	HSS	Improve enabling environment to increase supply chain performance	Supply chain systems	Provide short term technical assistance to work with the in-country team to help quantify lab needs and train staff in the use of FORLAB quantification tool and lab system optimization	Inadequate capacity to properly forecast national needs

Row	Related SID 3.0 Element	SID 3.0 Element Score	Expected Outcome	Expected Timeline for Achievement of Outcome	Relevant Indicator or Measurement Tool	COP18 Baseline Data
19	13. Epidemiological and Health Data	4.76 - Yellow	KP disaggregates to be included in all HMIS tools	2 years	# of HMIS tools include KP disaggregates	0
20	8. Commodity Security and Supply Chain	6.79 - Yellow	Identify gaps and weaknesses in the current supply chain system and recommend solutions	1 year	Date of assessment completion	Last assessment conducted >5 yrs ago
21	2. Policies and Governance	7.06 - Green (however, this policy has not been operationalized)	Implementation of robust MMD (3-6 months) policy	2 years	# of districts implementing 3-month MMD policy	Current MoHW policy is 2 months dispensing but implemented on an ad hoc basis
22	8. Commodity Security and Supply Chain	6.79 - Yellow; 5.58 - Yellow	CMS will have capacity to adequately forecast to meet national commodities need and effectively manage warehousing and distribution contract	2 years	Stock-out rate; Forecast accuracy	DTG single dose regimen and TEE used as First Line Regimen; Current ARV dispensing policy prescribe one month supply
23	8. Commodity Security and Supply Chain	6.79 - Yellow; 5.58 - Yellow	CMS will have capacity to adequately forecast to meet national commodities need and effectively manage warehousing and distribution contract	2 years	Stock-out rate; Forecast accuracy	DTG single dose regimen and TEE used as First Line Regimen; Current ARV dispensing policy prescribe one month supply

Row	Year One (COP18) Annual Benchmark (Planned)	Note: FY19 Q2 and Q4 results will be recorded here for monitoring.	Year Two (COP/ROP19) Annual Benchmark	Note: FY20 Q2 and Q4 results will be recorded here for monitoring.	Year Three (COP/ROP20) Annual Benchmark	Note: FY21 Q2 and Q4 results will be recorded here for monitoring.
19	HIV testing register, DREAMS data capture tools		PrEP register, Treatment register		N/A	
20	Completed assessment and recommendations provided to relevant stakeholders		N/A		N/A	
21	MOHW policy and guidelines on MMD updated		all districts implement 3-month MMD policy		N/A	
22	HIV-related commodities accurately forecasted with no stock outs		HIV-related commodities continue to be accurately forecasted with no stock outs		N/A.	
23	HIV-related commodities accurately forecasted with no stock outs		HIV-related commodities continue to be accurately forecasted with no stock outs		N/A	

Row	Funding Agency	Implementing Mechanism Name	Program Area	COP18 Strategic Objective	Approach	COP18 Activity	Key Systems Barrier
24	USAID	Global Health Supply Chain Program	HSS	Improve enabling environment to increase supply chain performance	Supply chain systems	Provide technical assistance to CMS for contract management and supplier management, to ensure incorporation of best practices in contracting and managing a subcontracted logistics provider	Inadequate capacity to properly forecast national needs
25	USAID	Challenge TB	C&T	Support to improve TB data collection and use	Host country institutional development	Monitoring and evaluation support, including mentorship on data entry, data cleaning and accuracy, quality assurance and data analysis	Long delays and inaccuracy data entry hinder understanding of TB in Botswana
26	USAID	Challenge TB	C&T	Support to improve TB data collection and use	Host country institutional development	Technical support to GoB to strengthen capacity to implement combined TB/HIV prevalence survey, particularly on TB-related aspects	Lack of accurate measure of national burden of TB and TB/HIV disease relies on models for estimates
27	USAID	Challenge TB	C&T	Support to improve TB data collection and use	Information systems	GxAlert support (on-going) including system interface with data warehouse (new)	Limited interface between laboratory diagnostics and other HIS
28	USAID	Challenge TB	C&T	Strengthen implementation of National TB program and laboratory (through targeted technical assistance)	Host country institutional development	Technical advising to BNTP, including implementation of Global Fund TB/HIV grant	Limited capacity of BNTP to support technical needs

Row	Related SID 3.0 Element	SID 3.0 Element Score	Expected Outcome	Expected Timeline for Achievement of Outcome	Relevant Indicator or Measurement Tool	COP18 Baseline Data
24	8. Commodity Security and Supply Chain	6.79 - Yellow; 5.58 - Yellow	CMS will have capacity to adequately forecast to meet national commodities need and effectively manage warehousing and distribution contract	2 years	Stock-out rate; Forecast accuracy	DTG single dose regimen and TEE used as First Line Regimen; Current ARV dispensing policy prescribe one month supply
25	13. Epidemiological and Health Data	4.76 - Yellow	Improve timely and accurate data collection, input, and analyses to ensure understanding of the epidemiology of TB in Botswana and inform programmatic direction	3 years	Number of records input into MRS database	Inaccurate data
26	13. Epidemiological and Health Data	4.76 - Yellow	Accurate and timely measure of TB and TB/HIV prevalence, and of health seeking behaviors in symptomatic persons with TB/HIV	1 year	National prevalence of TB and TB/HIV	Protocol developed, data collected
27	15. Performance Data	6.66 - Yellow	Improved national surveillance of persons with TB and TB/HIV disease	2 years	100% of TB patients diagnosed with lab results in Open-MRS	GeneXpert down due to technical and procurement challenges
28	7. Human Resources for Health	6.23 - Yellow	Increased capacity of staff to manage BNTP	3 years	Strengthened capacity of BNTP/NTRL to implement activities/programs	Inadequate capacity

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24	HIV-related commodities accurately forecasted with no stock outs		HIV-related commodities continue to be accurately forecasted with no stock outs		N/A	
25	2017 TB/HIV data entry complete/DQA done		Previous year data entry complete, Training on data management		data entry up to date	
26	combined TB/HIV survey completed and results made available		N/A		N/A	
27	GxAlert/Genexpert running optimally, capacity built		Real-time data transfer between GXAlert and Open-MRS in 100% of sites with GeneXpert		N/A	
28	Skills to manage GF transferred to BNTP/NTRP, GF proposal funded		GF well managed by BNTP/NTRL staff/Transition plan for transferring full responsibility developed		Transition complete	

Row	Funding Agency	Implementing Mechanism Name	Program Area	COP18 Strategic Objective	Approach	COP18 Activity	Key Systems Barrier
29	USAID	Challenge TB	C&T	Strengthen implementation of National TB program and laboratory (through targeted technical assistance)	Host country institutional development	Support national pharmacovigilance committee and strengthen pharmacovigilance system (in collaboration with clinical and community partners)	Weak pharmacovigilance system makes it difficult to monitor adverse drug events and to understand the magnitude of the problem
30	USAID	Challenge TB	C&T	Strategies and policies needed to improve implementation of the national TB program and laboratory implemented	Technical area guidelines and tools	Develop national active TB/HIV case finding strategy	No strategy or related guidance in place
31	USAID	Botswana Comprehensive Care and Support for Orphans and Vulnerable Children Project (former OVC TBD)	OVC	Improve policy Implementation for Delivery of Coordination Quality Social Services	Technical area guidelines and tools	Technical support to develop formal partnership framework, including processes for GOB funding of civil society organizations	Lack of partnership framework between GoB and CSOs
32	USAID	Botswana Comprehensive Care and Support for Orphans and Vulnerable Children Project (former OVC TBD)	PREV	Improve policy Implementation for Delivery of Coordination Quality Social Services	Technical area guidelines and tools	Technical support in the areas of OVC, child protection systems and social welfare strengthening	Review criteria for assessing and enrolling beneficiaries into OVC programs

Row	Related SID 3.0 Element	SID 3.0 Element Score	Expected Outcome	Expected Timeline for Achievement of Outcome	Relevant Indicator or Measurement Tool	COP18 Baseline Data
29	8. Commodity Security and Supply Chain	6.79 - Yellow; 5.58 - Yellow	Identification, management, and prevention of adverse drug events and drug-drug interactions	2 years	Guidelines and SOPs available in all districts/# of DHMTs with staff trained in pharmacovigilance	Pharmacovigilance system inadequate
30	13. Epidemiological and Health Data	4.76 - Yellow	Develop and disseminate national strategy, guidelines and SOPs	2 years	Strategy and guidelines institutionalized	No current case finding strategy in place
31	3. Civil Society Engagement	6.88 - Yellow	Funding from GOB to civil society increased	2 years	Contracting \$ received by CSOs from GOB	TBD
32	6. Service Delivery	6.90 - Yellow	Act on recommendations to improve social protection system by improving system for enrolling beneficiaries into OVC programs	2 years	% of PEPFAR OVC sites using improved OVC assessment and enrollment criteria	0

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29	Pharmacovigilance system guidelines and SOPs developed		Guidelines distributed to all districts/ All DHMTs with at least one staff member trained in pharmacovigilance		N/A	
30	Strategy and guidelines developed		TOT completed with all districts		N/A	
31	Completed partnership framework		\$ received		N/A	
32	Recommendations for improvement with timeline agreed upon		100%		N/A	

Row	Funding Agency	Implementing Mechanism Name	Program Area	COP18 Strategic Objective	Approach	COP18 Activity	Key Systems Barrier
33	USAID	MEASURE Evaluation Phase IV	OVC	Quantitatively determine whether orphaned and vulnerable youth beneficiaries who have participated in at least 1-2 years of OVC services from both USG (specifically, the BCCSOVC project) and GOB have better education, economic, and health outcomes compared to orphaned and vulnerable GOB-only youth beneficiaries	Assessments, evaluation, operation research	Support development of OVC logic model and graduation benchmarks	No benchmarks
34	USAID	MEASURE Evaluation Phase IV	OVC	Qualitatively examine how factors at the personal, family, school, community, and service delivery levels, including OVC services, have influenced the education, economic and health trajectories and outcomes of orphaned and vulnerable youth beneficiaries.	Assessments, evaluation, operation research	Evaluation of outcomes of OVC services	No data available to show outcomes for graduated OVCs and other adolescents
35	USAID	MEASURE Evaluation Phase IV	C&T	To better understand the use of health and social services by young women and men through mapping the provider's referral network and use of services by young people	Assessments, evaluation, operation research	Mapping providers and referral of services for DREAMS	Unclear referral networks for AGYW

Row	Related SID 3.0 Element	SID 3.0 Element Score	Expected Outcome	Expected Timeline for Achievement of Outcome	Relevant Indicator or Measurement Tool	COP18 Baseline Data
33	13. Epidemiological and Health Data	4.76 - Yellow	Logic model and benchmarks completed	1 year	Benchmarks used to measure graduation readiness	0
34	13. Epidemiological and Health Data	4.76 - Yellow	Ability to better target programs for OVC and DREAMS	1 year	Outcome data available for use in OVC and DREAMS programs	no data
35	13. Epidemiological and Health Data	4.76 - Yellow	Operational referral network	1 year	Referral network fully operational in DREAMS districts	no network

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33	Benchmarks used to measure graduation readiness		N/A		N/A	
34	Available data		N/A		N/A	
35	Referral network operational in 100% of sites		N/A		N/A	

Row	Funding Agency	Implementing Mechanism Name	Program Area	COP18 Strategic Objective	Approach	COP18 Activity	Key Systems Barrier
36	USAID	MEASURE Evaluation Phase IV	PREV	To better understand the use of health and social services by young women and men through mapping the provider's referral network and use of services by young people	Assessments, evaluation, operation research	Mapping providers and referral of services for DREAMS	Unclear referral networks for AGYW
37	USAID	<Placeholder - 70014 Botswana USAID>	C&T	Community systems strengthening towards Sustainability	Host Country Institutional Development	Assessment of potential domestic resources for CSOs (including viability of increased GoB funding)	Domestic funding for CSOs to support HIV service delivery is limited
38	USAID	<Placeholder - 70014 Botswana USAID>	C&T	Community systems strengthening towards Sustainability	Host Country Institutional Development	Capacity strengthening of CSOs to expand HIV service delivery	Scope of CSO service delivery has been limited in geography
39	State/AF	Public Affairs/Public Diplomacy (PA/PD) Outreach	PREV	Public Affairs/Public Diplomacy (PA/PD) Outreach	IEC and/or demand creation	PA/PD Grants assist small, innovative projects that further the communications goals of PEPFAR Botswana.	Linkage to care still lower than 90% target

Row	Related SID 3.0 Element	SID 3.0 Element Score	Expected Outcome	Expected Timeline for Achievement of Outcome	Relevant Indicator or Measurement Tool	COP18 Baseline Data
36	13. Epidemiological and Health Data	4.76 - Yellow	Operational referral network	1 year	Referral network fully operational in DREAMS districts	no network
37	11. Domestic Resource Mobilization	7.10 - Green	Funding to CSOs from domestic resources increased	3 years	\$ received by CSOs from domestic resources	TBD
38	6. Service Delivery	6.90 - Yellow	Funding to CSOs from domestic resources increased	2 years	HTS_POS, SIMS assessment	Final COP17 MER Indicators and SIMS results
39	5. Public Access to Information	6.00 - Yellow	Increased knowledge of Treat All/Increased linkage from positive test to treatment/Increased VL literacy	1 year	Linkage to treatment at PEPFAR clinics	From APR

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36	Referral network operational in 100% of sites		N/A		N/A	
37	Assessment of potential domestic resources for CSOs completed		CSOs supported by this mechanism trained in resource mobilization, 25% increase form baseline in domestic funding received by CSOs supported by this mechanism		100% increase from baseline in domestic funding received by CSOs supported by this mechanism	
38	50% increase in HTS_TST_POS from COP17 with at least maintenance of quality as measured by SIMS		25% increase in HTS_TST_POS from COP18 with at least maintenance of quality as measured by SIMS		N/A	
39	90% of clients tested positive at PEPFAR sites receive same day ART initiation		N/A		N/A	