Swaziland Country Operational Plan (COP) 2016

Strategic Direction Summary

April 20, 2016

Acronym and Word List

AE	Adverse Event
AGYW	Adolescent Girls and Young Women
ALHIV	Adolescents Living with HIV
ARV	Antiretroviral
ART	Antiretroviral Therapy
CANGO	Coordinating Assembly of Non-Governmental Organizations
CIHTC	Community-Initiated HIV Testing and Counseling
CMIS	Client Management Information System
CMS	Central Medical Stores
CoAg	Cooperative Agreement
CQI	Continuous Quality Improvement
CS	Civil Society
CSO	Central Statistical Office
E	Swazi Emalangeni (1 lilangeni equals 1 rand)
EID	Early Infant Diagnosis
eNSF	extended National Multi-Sectoral Strategic Framework for HIV & AIDS
EPI	Expanded Program of Immunization
EQA	External Quality Assessment
DMPPT	Decision Makers Program Planning Toolkit
FDI	Foreign Direct Investment
FP	Family Planning
FSW	Female Sex Workers
GKoS	Government of the Kingdom of Swaziland
GF	Global Fund
HCW	Health Care Worker
HR	Human Resources
HRH	Human Resources for Health
HRIS	Human Resources Information System
HTC	HIV Testing and Counseling
HTS	HIV Testing Services
IM	Implementing Mechanism
KP	Key Population
LES	Locally Employed Staff
LTFU	Loss to Follow Up
MCH	Maternal and Child Health
MBP	Mother-Baby-Pair
MER	Monitoring, Evaluation and Reporting
MICS	Multi Indicator Cluster Survey
MNCH	Maternal Newborn and Child Health
MOF	Ministry of Finance
MOH	Ministry of Health
MSF	Médecins Sans Frontières
MSM	Men who have sex with men

NACS	Nutritional Assessment, Counseling, Support
NARTIS	Nurse-led ART initiation in Swaziland
NERCHA	National Emergency Response Council on HIV and AIDS
NCP	Neighborhood Care Points
ODA	Overseas Development Assistance
OVC	Orphans and Vulnerable Children
PEP	Post Exposure Prophylaxis
PEPFAR/S	Presidents Emergency Plan for AIDS Relief/Swaziland
PFSCM/SCMS	Partnership for Supply Chain Management/Supply Chain Management System
PHC	Primary Health Care
PIHTC	Provider Initiated Testing and Counseling
PLHIV	People Living with HIV
PMTCT	Preventing Mother-to-Child Transmission
POART	PEPFAR Oversight and Accountability Response Teams
POC	Point of Care
PP	Priority Populations
PPP	Public Private Partnership
PrEP	Pre-exposure Prophylaxis
QA	Quality Assurance
QI	Quality Improvement
QM	Quality Management
QMS	Quality Management System
RHM	Rural Health Motivator
RHMT	Regional Health Management Team
RTK	Rapid Test Kit
SAPR	Semi-Annual Program Report
SGBV	Sexual and Gender Based Violence
SI	Strategic Information
SIAPS	Systems for Improved Access to Pharmaceuticals and Services
SID	Sustainability Index Dashboard
SOP	Standard Operating Procedures
SNU	Sub-National Unit
SRH	Sexual and Reproductive Health
SWABCHA	Swaziland Business Coalition on HIV/AIDS
SWAGAA	Swaziland Action Group Against Abuse
SWAMMIWA	Swaziland Migrant Mineworkers Association
Tinkhundla	Chiefdom (SiSwati word)
TWG	Technical Working Group
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Emergency Fund
VL	Viral Load
VMMC	Voluntary Medical Male Circumcision
WB	World Bank
WHO	World Health Organization

Table of Contents

Appendix A: Core, Near-core, Non-Core Matrix

Appendix B: Budget Profile and Resource Projections

Appendix C: Systems Investments for Section 6.0

Appendix D: Models of ART Service Delivery in Swaziland

Appendix E: Progress on Implementing Optimized Service Delivery Model for Swaziland

Goal Statement

The overarching goal of the PEPFAR/Swaziland (PEPFAR/S) program is to support the Government of the Kingdom of Swaziland (GoKS) to control the HIV epidemic and reverse its impact per the extended National Multi Sectoral Strategic Framework for HIV and AIDS (eNSF) 2014-2018 through:

1. Averting 15% of deaths amongst people living with HIV (PLHIV), particularly those with HIV/TB co-infection;
2. Alleviating socio-economic impacts of HIV/AIDS among vulnerable populations;
3. Improving efficiency and effectiveness of the national response.

PEPFAR/S will work with GoKS to intensify implementation in all regions of this small, homogenously high-prevalence country with a substantial mobile population. The aggressive timeline is to reach 90-90-90 by the end of COP16 through support for testing an additional 52,941 PLHIV; providing antiretroviral therapy (ART) for an additional 39,393 PLHIV; and suppressing viral load (VL) for an additional 42,674 PLHIV (Figure 1.2). All four regions are classified as scale-up-to-saturation where, in keeping with the GoKS strategy, PEPFAR/S will prioritize high volume hubs and their spokes in order to decongest facilities and increase access to ART refills through innovative mobile and community models. In collaboration with the MoH and NERCHA, PEPFAR/S has identified priority population (PP) and key population (KP) segments based on epidemiological and contextual factors particularly focusing on adult males, whose testing and treatment rates are lower than females.

The program will implement efficient and innovative approaches to achieve these goals. In keeping with the MoH phased approach implementing WHO's latest guidance, PEPFAR/S will expand Test and Start (T&S) services in all regions, while simultaneously providing technical support to GoKS to improve service delivery models. Innovative approaches to testing will be scaled up and monitored weekly. PPs and KPs will have access to and increase use of efficient packages of health services. Demand for and provision of innovative voluntary medical male circumcision (VMMC) for 15-29 years-olds will be scaled-up, with monthly results monitoring. Orphans and vulnerable children (OVC) will have access to HIV services, including testing and treatment. In collaboration with the MoH and GF, PEPFAR/S will add support to the national expansion of viral load (VL) testing to monitor adherence.

The program will also introduce three innovative game changers:

- Intensify engagement with traditional chiefdom structures through performance-based grants to increase HIV service uptake among men, decrease stigma, and reduce sexual and gender-based violence (SGBV);
- Scale up mobile "CommLink" services nationally to improve linkages for early enrollment in HIV treatment, especially targeting men; and

- Expand unique personal identifiers to track clients from time of diagnosis to sustained treatment and viral suppression.

Key performance and cost indicators have guided the identification of priority sites and approaches. Innovations will be closely monitored and scaled-up or adjusted when needed. Expenditure analyses identified some cost increases associated with transition to regionalization; however, expenditures will decline as regionalization is institutionalized. Provision of comprehensive HIV services to hard-to-reach populations may entail additional expense. Potential impacts of the severe drought and economic slowdown on performance will be closely monitored.

PEPFAR/S believe the goal is achievable in this timeframe and are motivated to assist the GoKS to control the HIV epidemic and achieve an AIDS-free generation in this small country so unduly burdened.

1.0 Epidemic, Response, and Program Context

1.1 Summary statistics, disease burden and country or regional profile

Swaziland's population is 1,132,657 in 2016; 37% are <15 years old, and 76% live in rural settings. The GDP at market prices was $4.413 billion in 2014. GNI per capita is $3,550,[1] and the Gini coefficient is 0.51, indicating high inequality. About 24% of children aged 0-17 years are orphans, and 45% are either orphans or vulnerable.[2] Swaziland is fully committed to Sustainable Goal 3 – promoting healthy lives for all.

HIV prevalence for children aged 2-14 years is 4%[4]; 28% for adults aged 15-49 years (men: 22%; women: 33%),[3] and 14% for adults 50+ years.[4] Among men, 35-39 year-olds have the highest prevalence (47%), while 30-34 year-olds have the highest prevalence among women (54%).[5] This is a generalized epidemic affecting all subnational units (SNU = regions). Overall HIV prevalence in 2016 is 27% in Hhohho, 30% in Manzini, 28% in Shiselweni, and 30% in Lubombo.[3] Among 5,582 TB patients in 2014, 3,904 (71%) were co-infected with HIV.[6] Reliable HIV prevalence data are available at the regional and national levels.

HIV incidence among adults 15-49 years old is 1.9/100 person-years (men: 1.6; women: 2.2).[3] The age groups with highest incidence are men aged 30-34 years (3.1) and women aged 20-24 years

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[1] http://data.worldbank.org/country/swaziland#cp_wdi
[2] NERCHA (2010). Swaziland Multiple Indicator Cluster Survey
[3] NERCHA (2015). Swaziland HIV Estimates and Projections Report 2015
[4] Central Statistical Office (2008). Swaziland Demographic and Health Survey 2006-2007
[5] Ministry of Health (2011). Swaziland HIV Incidence Measurement Survey (SHIMS)
[6] Ministry of Health (2014). National TB Report 2014

(4.2) and 35-39 years (4.1).[5] Modeled estimates from Spectrum suggest incidence is declining from 2.2 in 2013 to 1.9 in 2016 to 1.6 in 2020.[3] (Figure 1.1)

Ministry of Health (MOH) changed the national treatment eligibility guidelines from CD4 count <200 cells/mm^3 to <350 cells/mm^3 to <500 cells/mm^3 in 2014. Nationwide implementation of test and start will take place in October 2016.

Major challenges to achieve epidemic control through T&S include:

1. Loss to follow up (LTFU) of patients starting ART at CD4>500 and PMTCT B+ women (CD4>350 and WHO stage I/II);
2. Deeply engrained socio-cultural and gender norms preventing uptake of services, especially among men;
3. Compromised supply chain and facility-level warehousing for treatment scale up;
4. Limited physical space for scale-up at high-volume facilities;
5. HR shortages, especially at high-volume facilities and among technical (e.g., lab technicians) and lay cadres;
6. Limited coordination and effective use of strategic information for program improvement and policy decision-making;
7. Challenges reaching remaining hard-to-reach HIV-positive clients;
8. Inability to track linkage to care/treatment due to limited use of unique patient identifier; and
9. Shift from facility-focused HIV response to diversified service delivery models, including at community level.

Figure 1.1: Trends in estimated HIV incidence in adults 15-49, Swaziland (2013 – 2020)

Trends in estimated HIV incidence in adults 15-49, Swaziland (2013 – 2020)

	2013	2014	2015	2016	2017	2018	2019	2020
Total	2.23	2.11	1.94	1.85	1.79	1.72	1.66	1.58
Male	1.89	1.79	1.64	1.57	1.52	1.46	1.41	1.34
Female	2.60	2.46	2.27	2.17	2.09	2.01	1.94	1.85

Y-axis: Incidence (case/100 person-year)
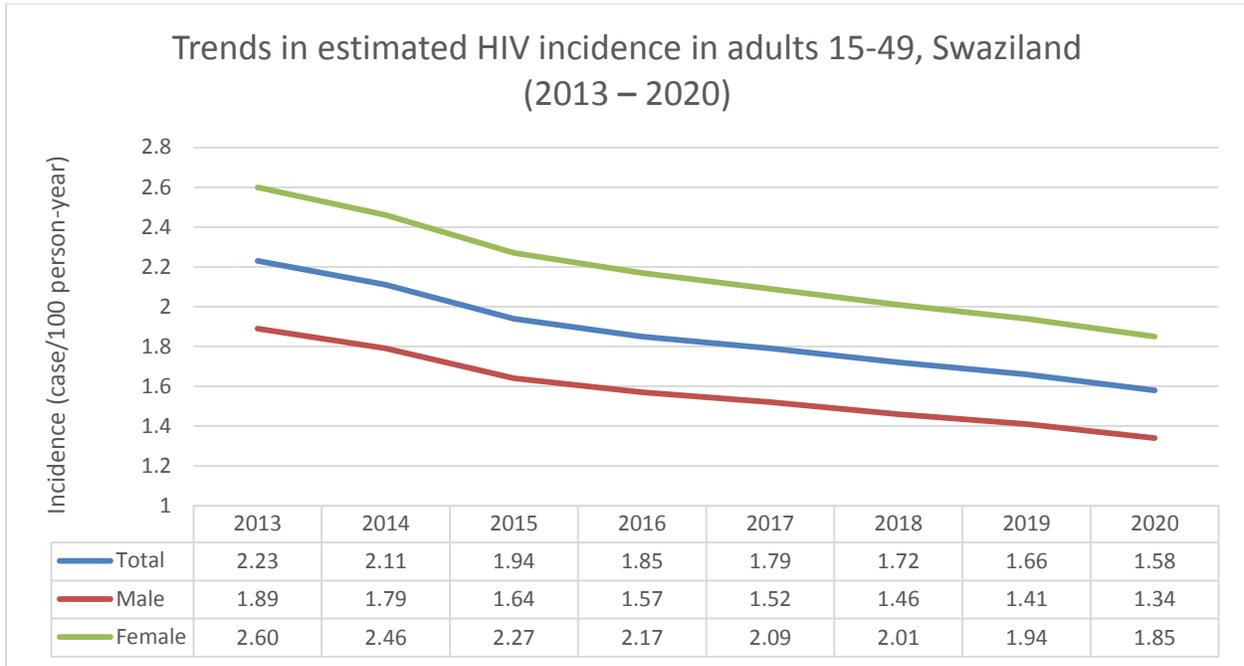
Figure 1.2: Swaziland National Clinical Cascade and Unmet Need, 2016

Pecentages of all PLHIV (N=226,920)
Remaining percentage for saturation

- PLHIV: 226,920 (100.0%)
- PLHIV with Known Status: 204,228 (90%), 52,941 (23%), 151,287 (67%)
- Current on ART: 183,805 (81%), 39,393 (17%), 144,412 (64%)
- Viral Load Supressed: 165,425 (73%), 42,674 (19%), 122,750 (54%)

Y-axis: Number of People

Legend: Current National Status | Current National Gap | 90-90-90
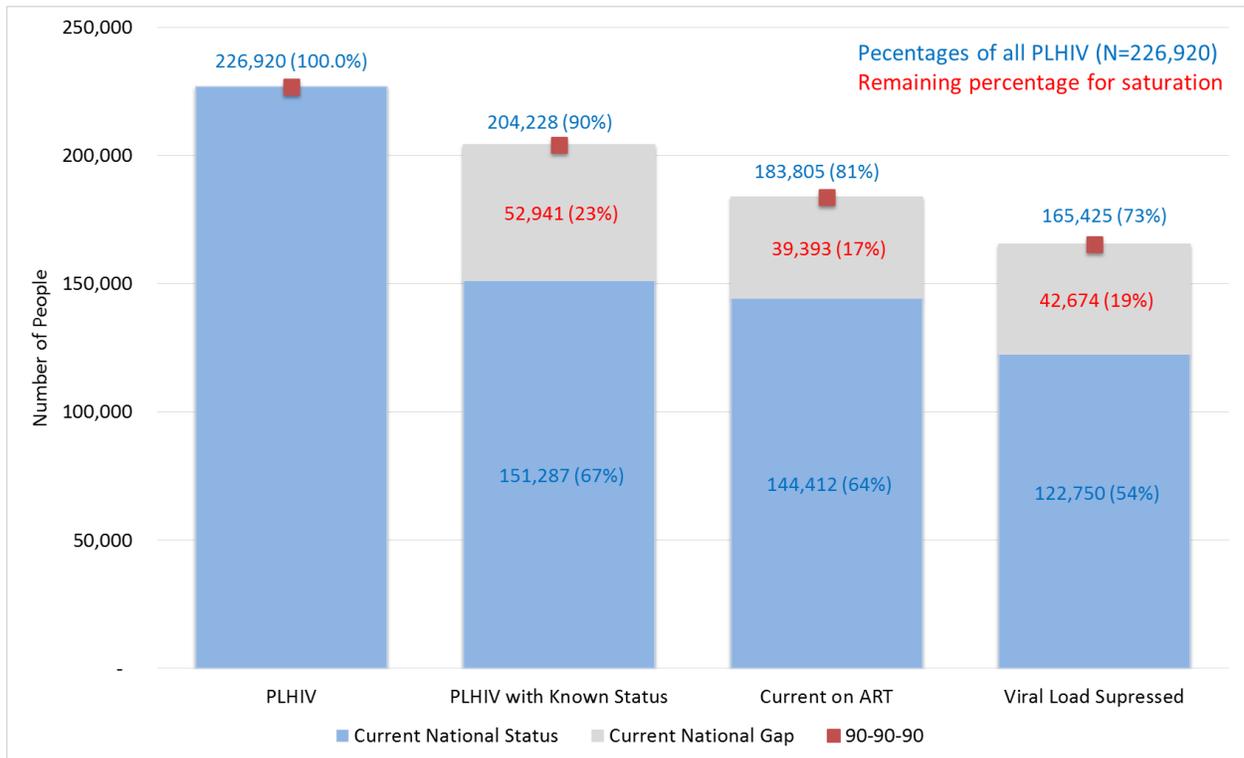
Figure 1.3: Swaziland National Clinical Cascade and Unmet Need by Sex, 2016

Figure 1.4: Swaziland National Clinical Cascade and Unmet Need by Age, 2016
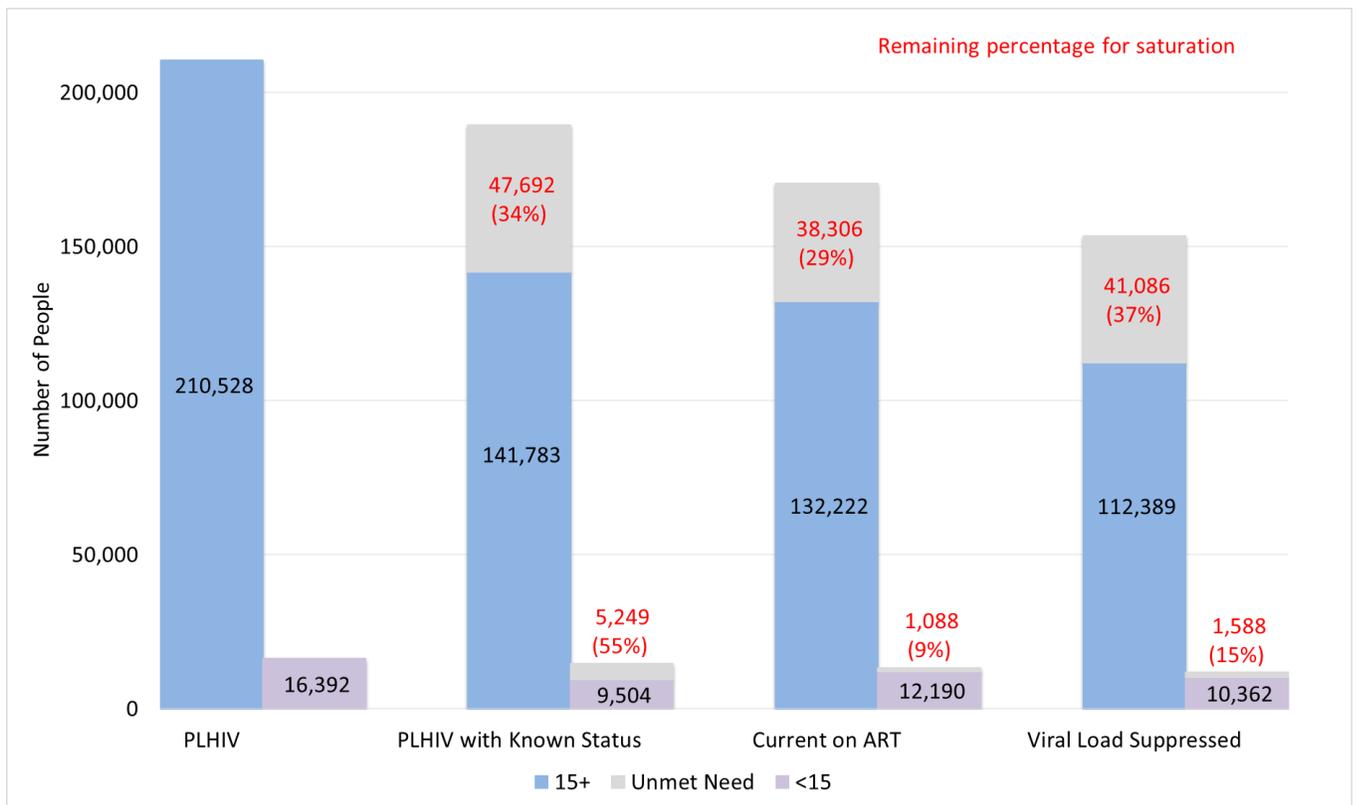
**Figure 1.5: Swaziland National Clinical Cascade and Unmet, MSM, 2016**

Remaining percentage for saturation

	PLHIV	PLHIV with Known Status	Current on ART	Viral Load Supressed
Unmet Need		262 (30%)	665 (84%)	601 (85%)
Current National Status	972	612	122	108

Number of People

■ Current National Status   ■ Unmet Need
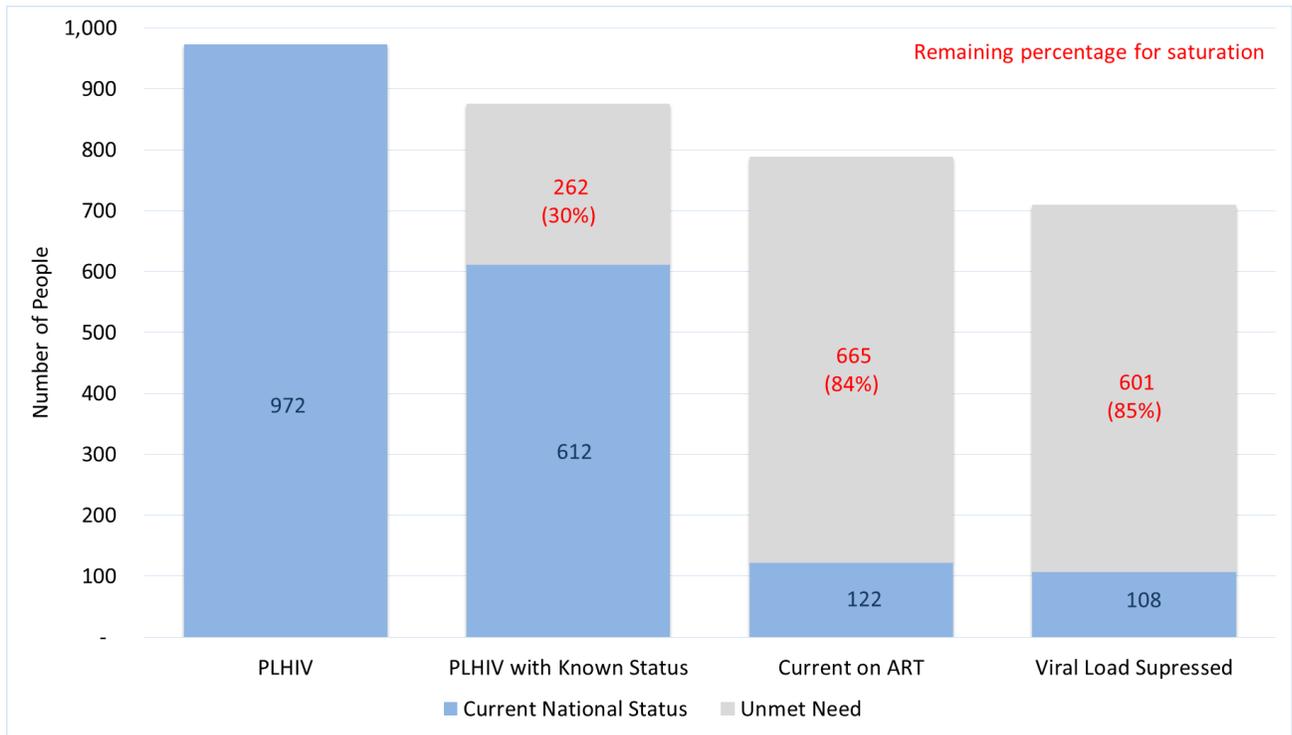
Figure 1.6: Swaziland National Clinical Cascade and Unmet, FSW, 2016

Remaining percentage for saturation

	PLHIV	PLHIV with Known Status	Current on ART	Viral Load Supressed
Unmet Need		2,320 (30%)	5,887 (84%)	5,311 (85%)
Current National Status	8,592	5,413	1,083	953

Number of People

■ Current National Status   ■ Unmet Need
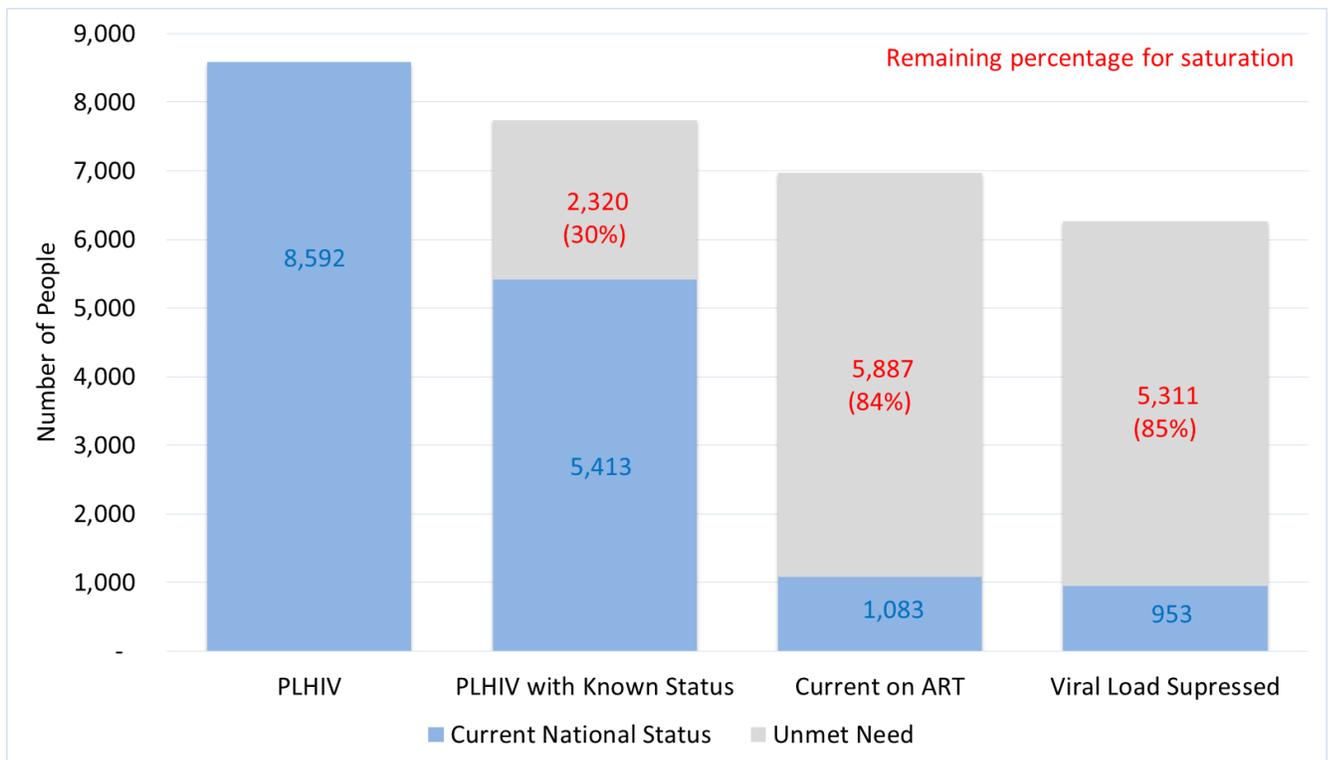
Table 1.1.1: Key National Demographic and Epidemiological Data

	Total		<15				15+				Source, Year
			Female		Male		Female		Male		
	N	%	N	%	N	%	N	%	N	%	
Total Population	1,132,657	100	203,450	18	210,551	19	390,933	35	327,723	29	A, 2007
HIV Prevalence (%)		28		3.7*		4.0*		33.3		22.4	B, 2015 *C, 2007
AIDS Deaths (per year)	3034		232		238		1224		1340		B, 2015
# PLHIV	226,920		8,140		8,253		125,065		85,463		B, 2015
Incidence Rate (Yr)		2.4		-		-		3.1		1.7	D, 2011 (18-49)
New Infections (Yr)	9,442		272		279		4,898		3,993		B, 2015
Annual births	34,724	100	17,105		17,619						A, 2007
% of Pregnant Women with at least one ANC visit	29,835	100	-	-			29,835	100			E ,2013
Pregnant women needing ARVs	10,816	100									B, 2015
Orphans (maternal, paternal, double)	75,389										A, 2007 G, 2010
Notified TB cases (Yr)	5,582		-		-		-		-		H, 2014
% of TB cases that are HIV infected	3,972	71	-	-	-	-	-	-	-	-	H, 2014
% of Males Circumcised	79,638	27									I, 2015
Est. Pop. Size of MSM*	5,719	100									F, 2015
MSM HIV Prevalence	972	17									J, 2012
Est. Pop. Size of FSW	12,274	100									G, 2015
FSW HIV Prevalence	8,592	70									J, 2012
Est. Pop. Size of PWID											
PWID HIV Prevalence											
Est. Size of PPs: AGYW	126,686	100									A, 2007
Est. Size of PPs: Male 20-34	145,456	100									A, 2007
Est Size of PPs: OVC 10-17	92,208	100	29,282	32	28,630	31	16,990	18	17,306	19	A, 2007 G, 2010
Estimated Size of PPs Prevalence: Military	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

A: Swaziland Population Projections 2007-2030

B: Swaziland HIV Estimates and Projections 2015

C: Swaziland Demographic and Health Survey 2007

D: Swaziland HIV Incidence Survey 2011

F: Swaziland KP Size Estimate Study, 2015

E: National Sexual and Reproductive Health Report 2014

G: Swaziland Multiple Indicators Survey 2010

H: National TB Program Report 2014

I: MOH and HMIS data 2015

J: Swaziland Behavioral Surveillance Survey 2012

Table 1.1.2: 90-90-90 Cascade: HIV diagnosis, Treatment and Viral suppression (12 months)

	Total Population Size Estimate (#)	HIV Prevalence (%)	Total PLHIV[2] (#)	On ART[3] (#)	Retained on ART 12 Months[7] (#)	Viral Suppression 12 Months[6]	Tested for HIV (#)	Diagnosed HIV Positive (#)	Initiated on ART (#)
				HIV Treatment and Viral Suppression			**HIV Testing and Linkage to ART**		
Total population	1,132,657[1]	28[2]	226,920	144,412	131,412	122,750	214,046	27,256	21,083
Population less than 15 years	414,001[1]	4[2]	16,392	12,190	11,093	10,362	24,277	578	1071
Pregnant Women	30,288	38	10,816	8,468	7,706	6,568	53,032	16,554	3,600
Key Population									
MSM	5,719[4]	17[5]	972	122	n/a	108	n/a	n/a	n/a
FSW	12,274[4]	70[5]	8,592	5,413	n/a	953	n/a	n/a	n/a
PWID	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Priority Population									
AGYW 15-24 year	126,686[1]	22	27,871	n/a	n/a	n/a	42,911	2,473	3,540
Male 20-34	145,456[1]	19	27,637	n/a	n/a	n/a	19,893	1,840	2,322
OVC (10-17)	92,208	5	4,610	n/a	n/a	n/a	n/a	n/a	n/a
Military	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

1 Swaziland Population Projections 2007-2030
2 Swaziland HIV Estimates and Projections 2015
3 MOH, HMIS
4. KP Size Estimate Study 2015
5. Swaziland Bio-Behavioral Surveillance Survey 2012
6. SHIMS 2011; Viral Load Suppression of 85%
7. Estimate: Based on retention rate of 91%

1.2 Investment Profile

Funding Landscape: Despite Swaziland's classification as a lower middle-income country, indicators reflect a low-income country status, such as a weak business climate and low foreign direct investment inflows. High HIV prevalence and uneven distribution of resources remain major health and social concerns. Sixty-three percent of Swaziland's population live below the poverty line.

Swaziland received approximately US$507 million (Swazi Emalangeni 4.7 billion) in Overseas Development Assistance between 2011/12 and 2014/15, averaging US$127 million (E1.2 billion) annually. The health sector has been the largest beneficiary of external assistance with the HIV/AIDS and TB epidemics attracting a significant response from development partners.

Economic growth slowed down recently, and a 20% devaluation of the South African rand, to which the Swazi lilangeni is tied, has resulted in price increases for products imported from outside the currency zone. As a consequence, GKoS has frozen unfilled government positions for an unspecified amount of time. The 2015-2016 regional drought severely affected Swaziland with long-term ramifications; in response, GKoS has reallocated funding for drought relief.

How response is funded:
In COP15, PEPFAR is the highest contributor to the response at 39%, followed by GKoS (34%), Global Fund (GF) (10%), and Medecins Sans Frontieres (MSF) (5%). Since 2009, GKoS committed to funding 100% of ARVs and most HIV test kits. Donors support critical areas in care and treatment, such as technical assistance and HR. Viral load scale-up also requires additional donor support. At GKoS's request last year, PEPFAR/S agreed to supply all condoms for three years. PEPFAR/S is the main supporter of VMMC. The National VMMC Strategic and Operation Plan (2014-2018) aims to achieve 70% VMMC among 10-49 year olds, costed at $4,900,000 per year.

Table 1.2.1 Investment Profile by Program Area - FY 15											
Program Area	Total Expenditure	% PEPFAR [2]	% Global Fund [3]	% UNDP [1]	% UNFPA [1]	% UNICEF [1]	%World Bank [4]	MSF [1]	CHAI [4]	% Govt [4,6]	% Other Donors [1]
Clinical care, treatment and support	$41,664,064	23.4%	10.5%	0.0%	0.0%	0.0%	1.1%	5.4%	2.9%	50.4%	6.2%
Community-based care	$5,117,481	76.1%	16.4%	0.0%	0.8%	0.0%	0.0%	5.0%	0.6%	0.8%	0.3%
PMTCT	$8,052,691	71.7%	7.7%	0.0%	0.0%	0.0%	0.0%	3.8%	12.9%	0.0%	0.0%
HTC	$5,648,752	86.8%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	3.1%	2.0%
VMMC	$3,944,606	99.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%
Priority population prevention (prisons)	$3,507,041	99.8%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Key population prevention	$960,938	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Risk Reduction for Vulnerable populations	$3,022,173	0.0%	25.3%	0.0%	36.9%	0.0%	19.0%	0.0%	0.1%	5.5%	8.8%
OVC	$18,633,702	19.7%	9.9%	0.0%	0.0%	1.9%	0.0%	0.0%	0.0%	64.0%	4.6%
Lab and blood safety	$7,285,529	35.7%	8.9%	0.0%	0.0%	0.0%	0.0%	15.3%	0.0%	40.1%	0.0%
SI, Surveys and Surveillance	$3,055,490	80.8%	17.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%
HSS	$5,575,298	4.3%	6.0%	3.0%	0.0%	3.6%	1.7%	19.7%	7.5%	4.5%	12.0%
Total	$106,467,765	39.2%	9.6%	0.2%	1.1%	0.5%	1.1%	4.7%	2.8%	34.3%	4.3%

Data sources

1. NASA

2. Expenditure Analysis FY15

3. Global Fund Disbursment Report- HIV Round 7

4.Resource Mapping

5. NASA Report

6. Government Budget estimates

Other donors include : JICA , EU

Table 1.2.2 Procurement Profile for Key Commodities- FY 13

Program Area	Total Expenditure	% PEPFAR [2]	% Global Fund [3]	% UNDP [1]	% UNFPA [1]	% UNICEF [1]	%World Bank [4]	MSF [1]	CHAI [4]	% Govt [4, 6]	% Other Donors [1]
ARVs	$16,067,371	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	94.8%	0.2%
Rapid test kits	$90,809	73.5%	0.0%	0.0%	0.0%	0.0%	0.0%	26.5%	0.0%	0.0%	0.0%
Other drugs	$1,986,019	0.0%	0.0%	1.0%	0.0%	0.0%	0.2%	10.5%	0.0%	87.0%	1.3%
Lab reagents	$7,073,509	1.1%	49.6%	0.0%	0.0%	0.0%	0.0%	4.1%	0.0%	30.3%	15.0%
Condoms	$384,582	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
VMMC kits	$646,897	98.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	1.5%
Viral Load commodities	$1,110,469	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MAT	$0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other commodities	$6,438,469	24.0%	54.6%	0.0%	0.6%	7.4%	0.4%	1.3%	0.0%	0.0%	11.7%
Total	**$33,798,125**	**13.9%**	**21.5%**	**0.1%**	**0.1%**	**1.5%**	**0.1%**	**2.1%**	**0.0%**	**58.5%**	**5.6%**

Data sources

1. NASA

2. Expenditure Analysis FY15

3. Global Fund Disbursment Report- HIV Round 7

4.Resource Mapping

5. NASA Report

6. Government Budget estimates

Other donors include : JICA , EU

Table 1.2.3: USG Non-PEPFAR Funded Investments and Integration

Funding Source	Total USG Non-PEPFAR Resources	Non-PEPFAR Resources Co-Funding PEPFAR IMs	# Co-Funded IMs	PEPFAR COP Co-Funding Contribution	Objectives
USAID MCH	$0	$0	0	$0	N/A
USAID TB	$0	$0	0	$0	N/A
USAID Malaria	$0	$0	0	$0	N/A
Family Planning	$0	$0	0	$0	N/A
NIH	$0	$0	0	$0	N/A
CDC NCD	$0	$0	0	$0	N/A
Peace Corps	$573,550	$0	0	$0	volunteers
DOD Ebola	$0	$0	0	$0	N/A
MCC	$0	$0	0	$0	N/A
Total	$573,550	$0	0	$0	N/A

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

Funding Source	Total PEPFAR Non-COP Resources	Total Non-PEPFAR Resources	Total Non-COP Co-funding PEPFAR IMs	# Co-Funded IMs	PEPFAR COP Co-Funding Contribution	Objectives
ACT	$0	$0	$0	0	$0	
DREAMS	$5,009,696	$0	$5,009,696	11	$4,110,579	DREAMS will target 19 of a total of 55 Tinkhundla that align with COP16 priorities and closely complement COP-funded activities. DREAMS will focus on adolescent girls (AG) aged 15-19 in 14 Tinkhundla with a high burden of out of school AG and OVC. Integrated prevention and OVC services for AG aged 10-14 are implemented under COP in 11 of the DREAMS Tinkhundla, with the balance of 3 Tinkhundla planned for under DREAMS. To address young women (YW) aged 20-24 and men 20-34, DREAMS will focus on 17 Tinkhundla that attract rural, mobile, young adults. These include the Mbabane-Manzini corridor and other areas where young men and women migrate in search of jobs (plantations, sugar belt, pulp industry, etc.) In 12 Tinkhundla, DREAMS will address both AG and YW.
DREAMS Innovation		$0		0	$0	
DREAMS Test & Start-Men	$3,000,000		$0	1	$539,556	These funds will support the CommLink model of mobile testing and clinical services focusing of areas where men congregate. Two additional mobile clinics will be procured and the program will include a 14-day supply of ARVs in addition to CTX.
VMMC	$0	$0	$0	0	$0	
Viral Load	$3,278,066	$1,431,951	$3,278,066	1	$1,110,469	To support viral load scale up in Swaziland

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
Other PEPFAR Central Initiatives	$200,000	$0	$200,000	1	$0	In COP 16, HC3 will continue to provide support to KP for better consistency in approach. HC3 provides TA to MOH; comprehensive HIV outreach and mobile clinic services to KP in 15 hotspot areas; improved access to static KP friendly services; strengthen networks among KP; and establish supportive environment for KP with the police and municipalities
	$1,812,500	$0	$1,812,500	1	$0	OVC Special Initiative (ECD implementation and research): The OVC Special Initiative Funds focuses on the youngest of OVC through an integrated evaluation of whether there are differences in HIV-related health outcomes for children whose mothers have participated in parent education program compared with children whose mothers have not. These initiatives complement COP FY2014 HKID investments that are geared towards strategic integrated programming across ages and stages
Other Public Private Partnership	$3,500,000	$2,000,000	$3,500,000	1	$1,500,000	The objective is to reach 70% of the vulnerable adult population in Matsapha with high impact interventions to improve their health and productivity. The project seeks to increase access to critical prevention, treatment and care services, provide effective information and support for behavior change to reduce risk and vulnerability to HIV/TB; and effectively engage other private sector companies in the HIV response and to increase access to critical prevention, treatment and care services
Total	**$14,025,261**	**$3,431,951**	**$13,800,261**	**16**	**$7,260,604**	

Source

1. Swaziland Routine Viral Load Monitoring Costing 20150410
2. PEPFAR Swaziland Viral Load Budget

3. DREAMS Planning Tool
4. PEPFAR Swaziland PBAS

1.3 National Sustainability Profile

PEPFAR/S collaboratively completed the Sustainability Index Dashboard (SID) with external stakeholders. PEPFAR/S met with the MOH and National Emergency Response Council on HIV and AIDS (NERCHA) to plan the SID process prior to the stakeholders' meeting in February. UNAIDS, MOH, NERCHA, and PEPFAR/S co-convened the stakeholder meeting with participants from the MOH, Global Fund, civil society, PLHIV and private sector representatives, bilateral and multilateral stakeholders, and other development partners. Participants broke into four domain subgroups, discussed, and completed the SID questionnaire based on the pre-populated data. PEPFAR/S team members facilitated each subgroup. Groups agreed on responses, recorded data sources, and documented points of clarification and context. The full group reconvened at the end of the day, reviewed the completed tool, discussed the findings, and identified priorities.

The following were identified as strengths:

1. **Planning and Coordination (9.50, dark green):** NERCHA and MOH effectively lead the HIV response in Swaziland. Nonetheless, participants agreed that additional efforts are needed to address duplication and gaps among partners. Coordination of the multi-sectoral response could also be strengthened.

2. **Domestic Resource Mobilization (8.57, dark green):** The GoKS has been explicit with the amount of funding (both domestic and external resources) going toward the HIV/AIDS response; MOH and NERCHA involved in the budgeting and implementation.

Table 1.3.1: PP SID elements identified as sustainability vulnerabilities					
No.	**Domain**	**Score**	**PP**	**Description**	**Other donors**
1.	Epidemiological and Health Data	5.0, **yellow**	High	Additional capacity needed for epidemiologic and M&E activities Presently, lack of reporting for viral load testing at clinics	PEPFAR GF
2.	Laboratory	5.74, **yellow**	High	Lab strategies are not operational at all levels of the system Monitoring of point of care testing QA/QI needs improvement, particularly community-based testing	PEPFAR GF CHAI
3.	Human Resources for Health	5.33, **yellow**	High	The skills and education mix from pre-service and numbers of HCW are not adequate HRIS Report identifies vacancies	PEPFAR GF CHAI
4.	Commodity Security and Supply Chain	6.33, **yellow**	High	Central Medical Store has SOPs but not used at the facility level and communication between CMS and facilities is needed by PEPFAR this year. Condoms are only funded by PEPFAR. Decision making by GoKS is supported by PEPFAR	PEPFAR GF CHAI

	2013	2014	2015	2016 (Projected)	Source
Table 1.3.2: PEPFAR and other donor investment in SID elements					
Partner Gov't	33,155,125	36,587,574	40,246,331	43,466,038	A
PEPFAR	32,362,551	36,591,662	41,700,046	48,800,000	B
Global Fund	5,640,475	7,072,338	6,259,132	5,586,594	A
Other Donors	1,713,889	17,547,321	17,253,663	15,405,094	A
Private Sector	5,640,475	7,072,338	6,259,132	5,586,594	A
Out of Pocket	n/a	n/a	n/a	n/a	

A: Financial Gap Analysis for GF proposal
B: PEPFAR Expenditure Analysis

1.4 Alignment of PEPFAR investments geographically to disease burden

Figure 1.7: 2015 PEPFAR Expenditure per PLHIV and Percent of PLHIV by SNU
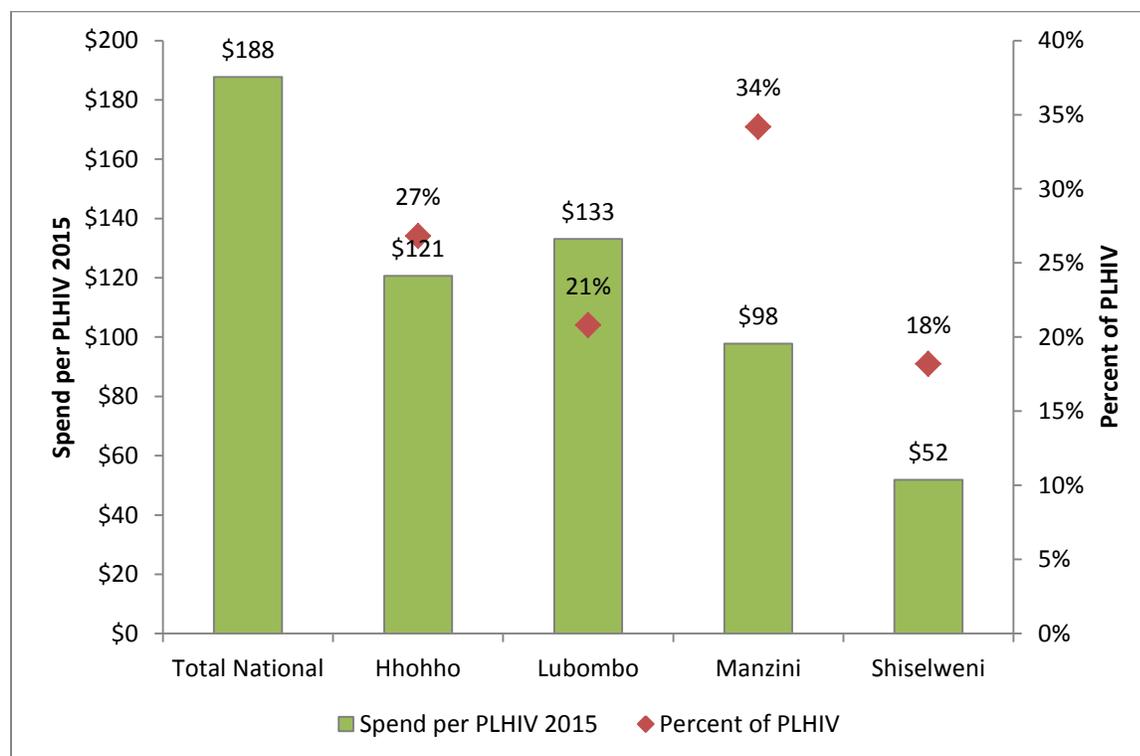
All SNUs in Swaziland have a high burden of disease. Manzini has the highest proportion of PLHIV (34%), and Shiselweni has the lowest (18%). Lubombo has the highest amount per PLHIV spent ($133), but it ranks third in proportion of PLHIV because the region is rural with difficult access compared to other regions, resulting in added transport and personnel cost. Lubombo is severely impacted by the drought with 46% of the population food insecure. Conversely, Manzini region has relatively lower cost per PLHIV ($98) despite having the highest burden. This region is densely populated, resulting in efficiencies from providing services to more PLHIV at a lower unit cost. Spending per PLHIV is lower in Shiselweni because MSF partially supports the HIV/TB services.

In accord with the National Plan, PEPFAR/S focuses on facilities with high volume and supports the MOH decentralization strategy. In COP16, mobile clinics will be deployed to areas where PPs work and live. Combination prevention, other prevention, and OVC services will focus on locations identified for DREAMS where there are higher densities of the PPs, including in urban, peri-urban, and labor magnet areas (farming, mining, wood pulp).

Last year, in accordance with the national plan, PEPFAR/S transitioned its clinical services from a vertical approach (one partner provided support in one technical area) to a regional approach (one partner supports comprehensive HIV/TB clinical services in a region while providing

national level TA in one technical area). Expenditure analysis found the transition to regionalization was associated with higher unit costs in four crosscutting areas: in-service training, above-site management, on-site personnel, and travel and transportation. An explanation for the increase was the one-time phase-down of ending implementing mechanisms (IM) and start-up of new IMs. COP16 addresses this and other factors in order to reduce expenditures where appropriate. For instance, to reduce the unit cost, in-service training will be held in GKoS facilities instead of rented venues. Not all the cost increases marked inefficiency. For instance, the cost of in-site personnel increased – a positive change given severe understaffing at facilities.

Nine outliers were identified through the expenditure analysis in three programs areas: PMTCT, HTC, and adult ART. Factors explaining these outliers include: low volume, incorrect reporting, non-targeted programming, and high expenditure for demand creation/mobilization. PEPFAR/S met with IMs to discuss each outlier and developed measures to reduce future costs. PEPFAR/S will continue to carefully monitor unit expenditures. In some cases, weekly reporting has been instituted to monitor program performance.

1.5 Stakeholder Engagement

Host country government: PEPFAR/S holds monthly meetings with the MOH and NERCHA and presented the POART results and datapack with targets and program priorities, geographic focus, and program shifts in COP15 in line with T&S, viral load, mobile health services, and DREAMS. For T&S, MOH has developed a concept paper to inform the development of guidelines. PEPFAR/S met with MOH and NERCHA technical leads to discuss and agree on PEPFAR-supported targets.

GF and other external donors: Swaziland HIV and TB grants were signed October 2015. PEPFAR/S was involved in concept note development and is engaged with GF to address potential duplication. Consultations with the Fund Portfolio Manager are on-going. PEPFAR/S also continuously shares financial and programmatic information with the GF and CCM members. CHAI, MSF and the UN family are also key partners. UNAIDS assisted in convening the SID stakeholders meeting with all HIV stakeholders and facilitating feedback meetings on COP with the UN.

Civil Society (CS): PEPFAR/S convened several meetings with CS and KPs to provide updates on POART and gather input for COP16.

2.0 Core, Near-Core and Non-Core Activities

PEPFAR/S participated in an extensive interagency review of COP15 to develop and accurately classify COP16 core, near-core, and non-core program activities. Key factors included the COP15

gap analysis, activities essential for epidemic control, increased targets toward 90-90-90 goals, and implementation of T&S. Details are included in Appendices A.1-3.

3.0 Geographic and Population Prioritization

Geographic Prioritization

No geographic prioritization changes will occur in COP16. PEPFAR/S estimated the regional HIV burdens using 2015 UNAIDS prevalence projections and Central Statistical Office population projection estimates for 2016 and prioritized all regions for scale up. The estimates of new regional PLHIV for 2016 are 78,175 in Manzini; 60,478, in Hhohho; 47,303 in Lubombo; and 40,964 in Shiselweni.

The concentration of PLHIV receiving ART in high-volume urban clinics is partly a consequence of the initial GKoS policy that required physicians to provide ART; stable clients continued to seek services where they were initiated, leading to congestion at these facilities. In 2007 GKoS initiated nurse-led ART in Swaziland (NARTIS) and decentralization using a hub-and-spoke model to decongest high-volume facilities and increase treatment access. In this model, central ART initiation facilities (hubs) are linked with surrounding primary healthcare clinics (PHC) (spokes).

According to national guidelines for decentralization, stable ART patients at the hub can be down-referred to a nurse-managed PHC (spoke) closer to the patient's home, where PHC nurses can initiate new ART-eligible patients on ART. An evaluation of the hub and spoke model showed increased retention at spoke sites.[7]

PEPFAR/S will support the MoH to scale up treatment coverage in all four regions, prioritizing high volume hubs and their spokes. The level of support in Shiselweni region differs due to the presence of MSF. PEPFAR/S and MSF have agreed to restructure HIV/TB support in the Shiselweni region to allow for comprehensive support by each respective organization. In COP16, PEPFAR/S will provide comprehensive clinical support to all facilities in the Hlatikhulu and Matsanjeni clusters while MSF will support all the facilities in the Hlangano cluster, where they have a T&S pilot. In addition, PEPFAR/S will discontinue support for community-initiated HTC (CIHTC) and PMTCT in the Hlangano cluster and will support two hub and 17 spoke facilities, which are currently serving 64% of ART clients in the Shiselweni region.

Site/Clinic Prioritization

To decongest patient loads at hubs, PEPFAR/S analyzed facility data to determine spokes' capability to absorb additional clients while maintaining quality of care. The review found that 34

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[7] Auld A, *et al*. Evaluation of Swaziland's Hub-and-Spoke Model for Decentralizing Access to Antiretroviral Therapy Services. *J Acquir Immune Defic Syndr*. 69:1 (2015).

health facilities (mostly hubs) were seeing 71% of clients; these were classified as **sustained sites**. Sixty- seven clinics (mostly spokes) served 29% of clients and could absorb additional clients from congested hub sites as **scale-up sites**. Thirteen sites were determined to be **centrally-supported** (Figure 3.3).

Figure 3.1: Prioritization of Facility Sites for ART and PIHTC
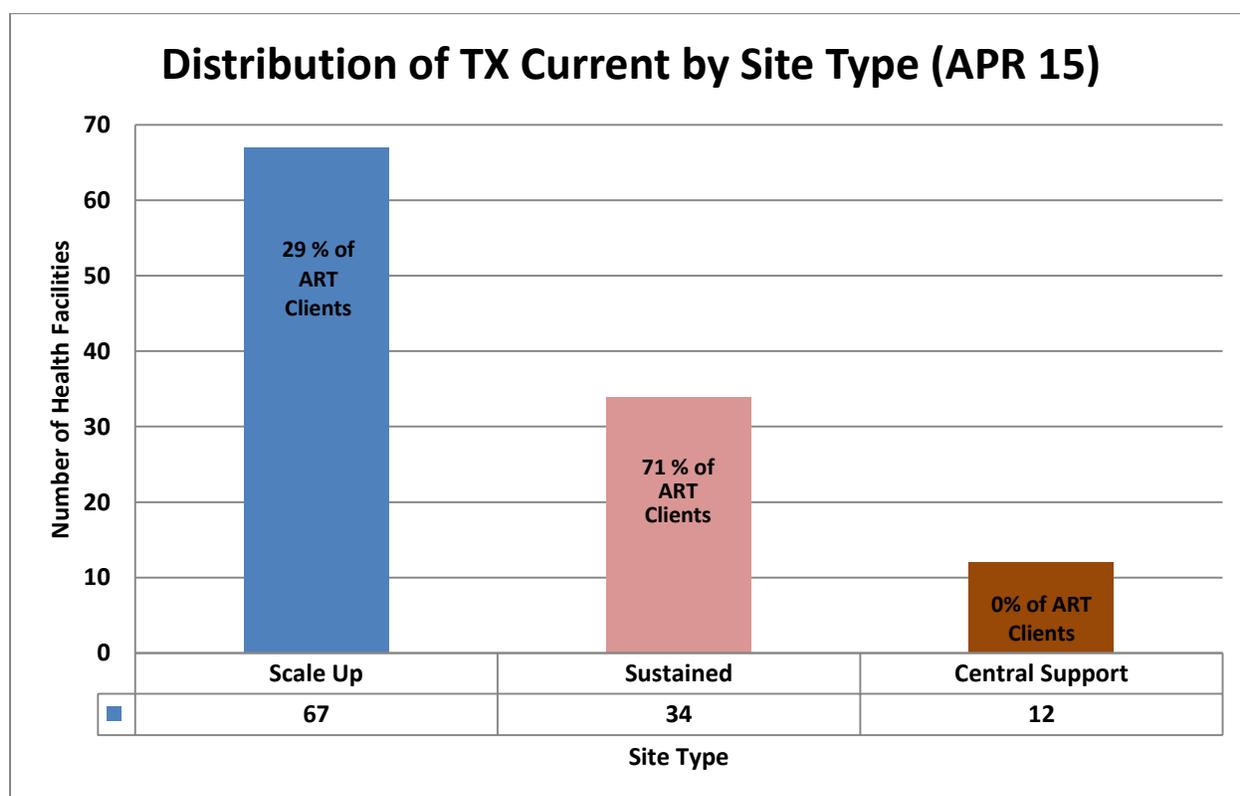
PEPFAR/S will assist the GoKS to support mobile outreach approaches to serve PP and KPs in locations where they work and live. In support of the MoH CommART program, some of the mobile services will be used for ART initiation and community refills. The approach will rapidly increase uptake of HTC and enrollment in care for PLHIV and linkages to prevention services for HIV-negative individuals in select geographic locations.

APR15 yield analysis showed 38.2% of sites (60/157) contributed 80% of PLHIV identified (13,181/16,394) (Figure 3.4), while 42% of sites (60/143) contributed 80% of HIV positive pregnant women identified (6,761) (Figure 3.5). Average community-initiated HTC (CIHTC) yield was 10%; PMTCT HTC yield was 36%. At least 75% of PLHIV were identified through provider initiated HIV testing (PIHTC). Manzini region had higher HTC yield at 12%. Nine HTC sites had ≤ four positives for APR15 and will not be supported in COP15.

Figure 3.2: HTC Yield by Site and Cumulative Number of Positives Identified, COP14
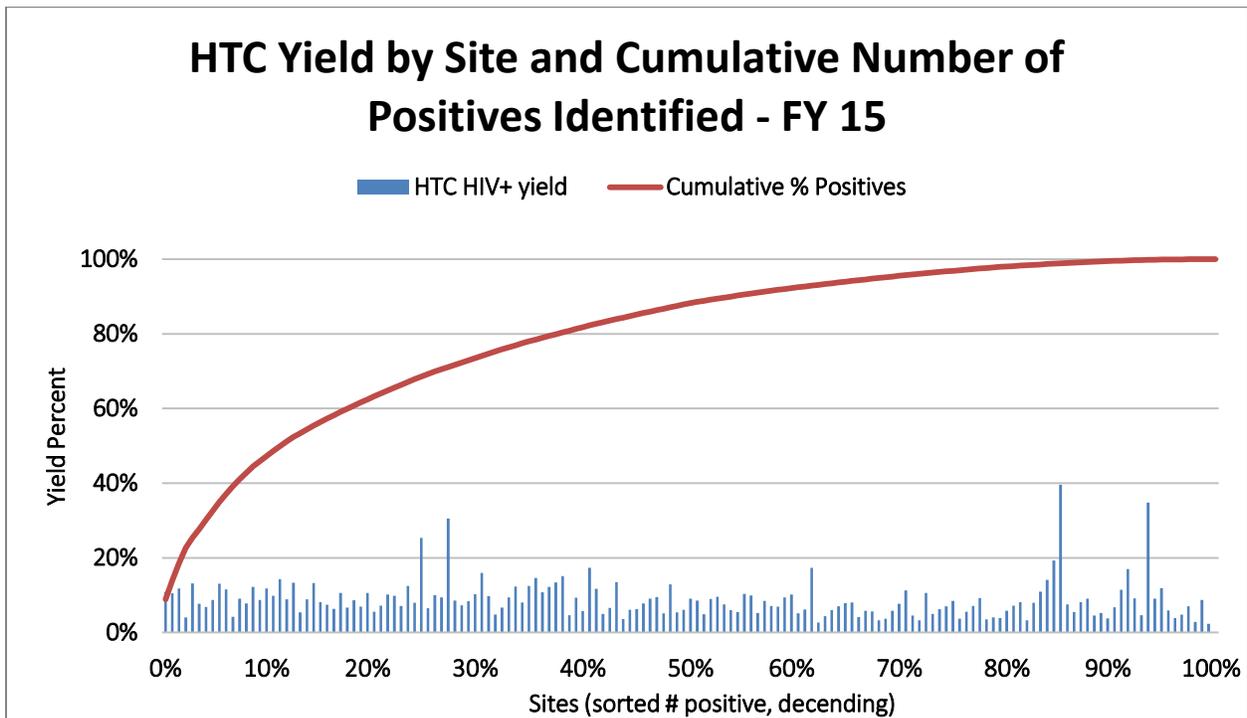
Figure 3.3: PMTCT Yield by Site and Cumulative Number of Positive Pregnant Women Identified, COP14
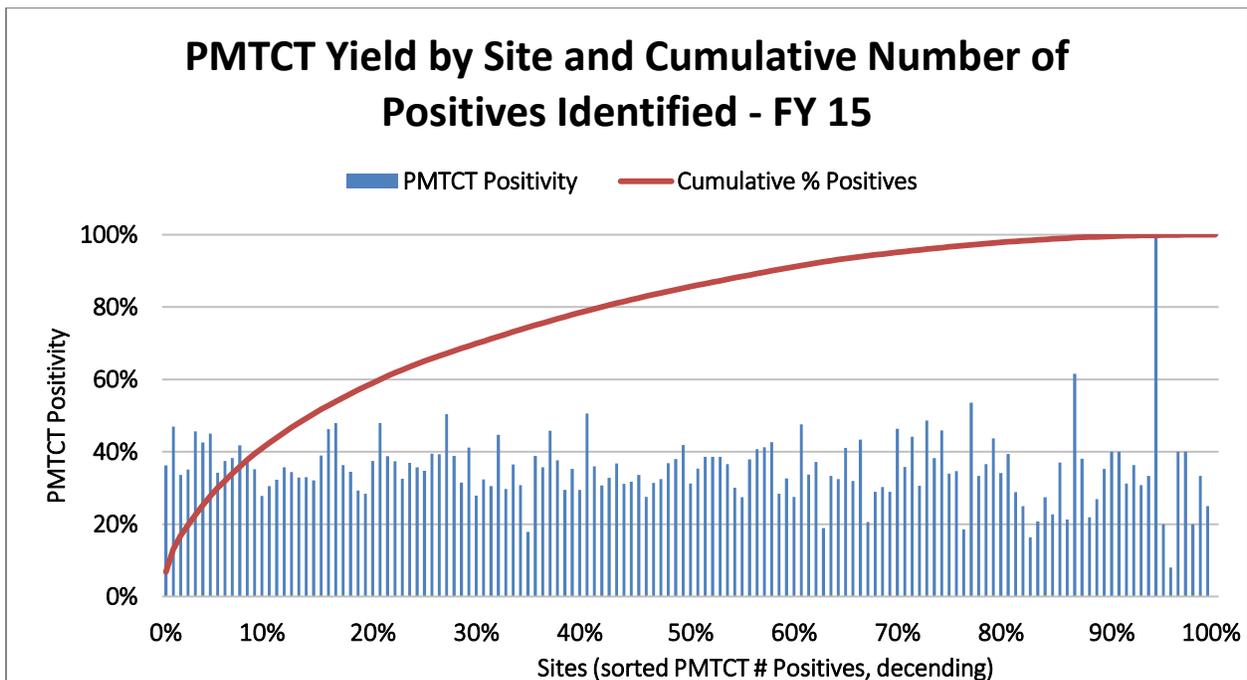
COP14 volume analysis indicated that 30% of the sites (31/ 102) contributed 80% of clients currently on ART (90,140/112,481) (Figure 3.6). In COP14, 22% of the sites contributed 80% of clients currently on ART, suggesting client movement from sustained, congested sites to scale-up facilities.

Figure 3.4: ART Volume by Site and Cumulative Number of Patients on ART, COP14
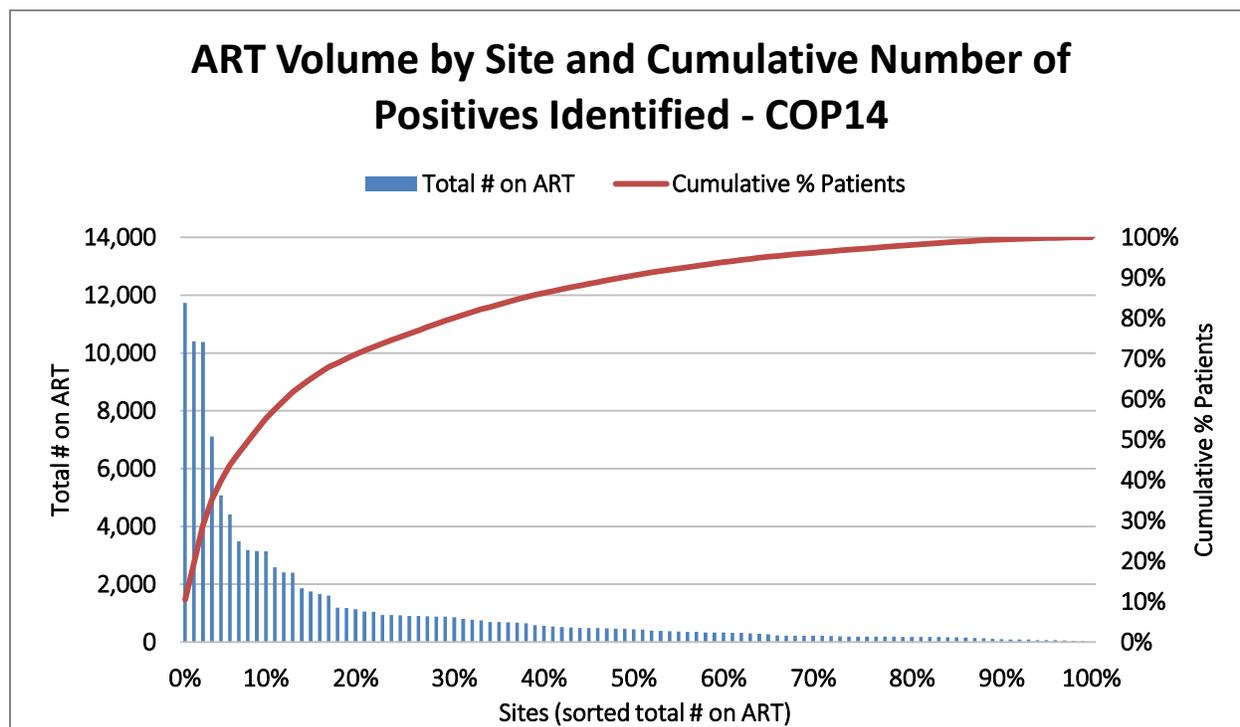
Population Prioritization

In addition to PLHIV, PEPFAR/S, in accordance with MoH analyses, ,identified adolescent girls and young women (AGYW) (15-24 years), men (20-49 years), OVCs, and the military as PP based on epidemiologic and contextual factors including:

- High HIV prevalence among women 20-24 at 30%[8];
- High incidence: men aged 30-34 years (3/100 p-y) and women aged 20-24 years (4/100 p-y);
- 50% of HIV-positive men unaware of their HIV status and have high viral load[9];
- High prevalence of SGBV - 38% of women aged 18-24 years experienced sexual violence;
- 15% of young women aged 18-19 years are living with HIV compared to less than 5% of their male peers[9];
- AGYW report having unprotected sexual relations with men 5-10 years older than them[2].

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[8] SHIMS 2011

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

4.1 Targets for scale-up locations and populations

Swaziland prioritized all regions (SNU) as scale-up-to-saturation by COP16; hence, all targets are classified as scale-up-to-saturation. We used the official datapack to set targets and modified it to reflect country context where appropriate. Based on updated Spectrum estimates, 226,920 people are living with HIV for calendar year 2016.[9]

In COP15, PEPFAR/S supports 84% of the 159,349 clients on ART nationally. By the end of COP15, 24,456 PLHIV will need ART initiation in order to reach 80% coverage in all four regions.

In COP16, PEPFAR/S supports MoH programs that provide support to 152,566 clients on ART. This is 67% coverage of the 90-90-90 targets for MoH sites with PEPFAR-support and with the remaining clients being supported by MSF and private facilities. To achieve 80% saturation, these stakeholders will support 16%, 6%, 1%, and 30% in Manzini, Hhohho, Lubombo, and Shiselweni, respectively. In COP16, ART clients with PEPFAR support will increase by 35% compared to COP14.

In COP16, PEPFAR/S will assist the MoH to support the initiation of 30,452 new ART clients (from 15,099 in COP14 and 21,317 in COP15). This constitutes an increased level of effort required to achieve 80% saturation by COP16.

Table 4.1.1: ART Targets in Scale-up Sub-national Units for Epidemic Control

SNU	Total PLHIV	Expected current on ART (PEPFAR - APR16)	Additional patients required for 80% National ART coverage (as of FY 16)	PEPFAR Newly initiated (APR FY 17) *TX_NEW*	PEPFAR Target current on ART (APR COP16) *TX_CURR*	PEPFAR ART Coverage (APR 17)	National ART Coverage (APR 17)
Manzini	78,175	47,064	4,885	7,670	49,778	64%	80%
Hhohho	60,478	39,043	6,537	9,544	45,023	74%	80%
Lubombo	47,303	32,490	5,691	7,379	37,270	79%	80%
Shiselweni	40,964	15,719	7,343	5,859	20,495	50%	80%
Total	**226,920**	**134,316**	**24,456**	**30,452**	**152,566**	**67%**	**80%**

The number of pre-ART clients will progressively shrink as all sites adopt T&S. Based on the pre-ART data, 3,602 adults and 230 children will be on pre-ART, with 90% initiated on ART in COP16.

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[9] NERCHA (2015). Swaziland HIV Estimates and Projections 2015

PEPFAR/S will continue to assist the MoH to support TB/HIV services in all regions. In COP16, 1,388 new TB clients are expected to be tested for HIV, and 227 of them are expected to be newly identified as HIV positive (16% yield). An additional 204 HIV-positive patients will be initiated on ART through the TB clinics.

Swaziland has been implementing Option B+ since COP14, and PMTCT will continue to be an ART entry point. Ninety-five percent of pregnant mothers will be tested for HIV in all four regions, and 95% of PMTCT clients who are HIV positive (newly identified or previously identified but not on ART) will initiate ART, resulting in the initiation of an additional 5,068 patients. HIV Testing Services (HTS) will be offered in VMMC settings to 13,663 males, 489 of which are expected to be HIV positive (4% yield). PEPFAR/S will support ART enrollment of 440 males linked from VMMC sites. In addition, 6,957 KP will be tested for HIV, and 572 will be enrolled on ART through this entry point.

The remaining patients required to meet the target for new ART initiations will be identified and linked through other PIHTC, other CIHTC (17,220), and pediatrics (3,705). Ten percent yield and 90% linkage-to-care rates have been assumed for other PIHTC and other CIHTC. In the military catchment, 2,637 will be tested for HIV, resulting in 632 being initiated on ART. The HTS level of effort will decrease by 25% from COP14 results (Table 4.1.2).

Table 4.1.2 Entry Streams for Adults and Pediatrics Newly Initiating ART Patients in Scale-Up Districts

Entry Streams for ART Enrollment	Tested for HIV (APR COP16)	Identified Positive (APR COP16)	Newly initiated (TX_NEW) (APR COP16
Adults			
Clinical care patients not on ART		3,602	3,242
HIV+ TB Patients not on ART	1,388	227	204
HIV positive Pregnant Women	21,942	6,793	5,068
VMMC	13,663	489	440
KP	6,957	636	572
Other PP and KPs	108,348	17,101	17,220
Pediatrics			
Clinical care pediatrics not on ART		230	207
HIV Exposed Infants	9,552	171	162
Provider Initiated Testing	74,131	3,707	3,336
Total	**237,130**	**32,955**	**30,452**

In COP15, PEPFAR/S intensified support to MOH to roll out the CMIS and use of a national unique identifier to monitor the clinical cascade. These efforts will be consolidated in COP16, and health facilities that contribute 80% of the ART clients will have a functional CMIS system. PEPFAR/S will continue to support data clerks in all high-volume and scale-up sites to ensure timely and accurate data collection and entry for all clinical programs. PEPFAR/S will also support

MOH to conduct Routine Data Quality Assessments to ensure data quality issues are identified and rectified in a timely manner.

The National VMMC Strategic Plan (2014-18) established national and tinkhundla targets for 10-34 year-old males to achieve the most immediate and greatest magnitude of impact at the lowest cost. PEPFAR/S will continue to support the national VMMC program, particularly focusing on increasing demand and services for ages 15-29. With current circumcision coverage of 23%, it is estimated that there are 157,006 eligible uncircumcised males.

In COP16, PEPFAR/S will assist the national strategy for VMMC by supporting a target of 18,616 males for VMMC, including 13,110 15-29 year olds. The coverage in the 15-29 year age group will be increased from 34% in FY 16 to 42% in COP16. PEPFAR/S will focus its demand creation and services around the scale-up sites and locations where there is a high density of men in the population. To increase demand among males 15-29 years, PEPFAR/S will continue to create active linkages with male-friendly HTC services, work with private sector providers offering attractive, confidential services for men, and engage with workplaces and the uniformed services. The VMMC level of effort will increase by53% compared to COP14 results (Table 4.1.3).

Table 4.1.3: VMMC Coverage and Targets by Age Bracket in Scale-up Districts

Target Populations	Population Size Estimate (SNUs)	Current Coverage (COP15)	VMMC_CIRC (COP16)	Expected Coverage (COP16)
10-14 Years	64,021	30%	4,656	44%
15-29 Years	155,686	34%	13,110	42%
30 Years +	63,492	9%	850	10%
Total/Average	**283,198**		**18,616**	

In DREAMS locations, PEPFAR/S will target 58,159 AGYW (15-24 years) and 30,534 males (20-34 years) with an intensified combination prevention package, representing 94% and 43% coverage of these PPs in the targeted areas, respectively. The OVC program will target 12,562 with prevention services focusing on females 10-14 years, covering 44% of that PP. The military is also identified as a PP, with 6,300 people targeted in COP16 for prevention services. Size estimates for the military are not documented due to the sensitive nature of the data.

There are approximately 5,719 MSMs and 12,274 FSWs in Swaziland.[10] In COP16, PEPFAR/S will support the MoH program to target 3,000 MSMs (52% coverage) and 4,900 FSWs (40% coverage).

The targets represent activities to be supported through COP16 and DREAMS funding. The prevention level of effort in COP16 will increase by 30% compared to COP14 results but will decrease by 5% compared to COP15 (Table 4.1.4).

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[10] Swaziland KP Size Estimation Study (2015)

Table 4.1.4: Target Populations for Prevention Interventions to Facilitate Epidemic Control

Target Populations	Population Size Estimate (Scale-Up SNUs)	Coverage (COP16)	COP16 Target
Females 15-24 years	61,967	94%	58,159
Males 20-34 years	70,382	43%	30,534
KP (FSW)	12,274	40%	4,900
KP (MSM)	5,719	52%	3,000
Females 10 -14 years	28,630	44%	12,562
Military	*		6,300
Total	**179,422**		**115,455**

There are an estimated 218,519 children who are classified as OVC in Swaziland. PEPFAR/S will support 57,338 OVC in COP16, representing a coverage of 26%. HIV-positive children identified will be actively linked to ART services. The OVC level of effort in COP16 will increase by 61% compared to COP14 results and 26% when compared to COP15 (Table 4.1.5).

Table 4.1.5: Target Populations for Prevention Interventions to Facilitate Epidemic Control

SNU	Estimated # of Orphans and Vulnerable Children	Target # of active OVC (COP16 Target) OVC_SERV	Target # of active beneficiaries receiving support from PEPFAR OVC programs whose HIV status is known in program files (COP16 Target) OVC_KNOWNSTAT*
Manzini	66,600	11,152	NA
Hhohho	50,295	13,087	NA
Lubombo	53,837	18,145	NA
Shiselweni	47,787	14,954	NA
TOTAL	**218,519**	**57,338**	NA

Period/ Change	TX_NEW	TX_CURR	HTC_TST	HTC_TST_POS	HTC Yield	Minimum Prevention Package	VMMC	OVC
FY 15 Results	15,099	112,912	310,945	21,559	7%	82,906	12,156	35,635
FY 16 Target	21,317	134,316	294,831	32,103	11%	113,118	15,300	45,491
FY 17 Target	30,452	152,566	237,130	23,749	12%	107,555	18,616	57,338
% Change COP14/COP15	41%	19%	-5%	49%	4%	36%	26%	28%
% Change COP15/COP16	43%	14%	-20%	-26%	2%	-5%	22%	26%
% Change COP14/COP16	102%	35%	-24%	10%	6%	30%	53%	61%

4.2 PP Prevention

PEPFAR/S strategy for averting new infections supports the GoKS strategy to use the community platform to reinforce bi-directional linkages with facilities across the continuum of care. In COP16, in alignment with the GoKS's strategy, PEPFAR/S will intensify the focus on PP and KPs in targeted geographic locations. This focus will increase the uptake of core services, including HTS, ART, PMTCT, VMMC, SRH, and condoms and will reduce vulnerability and increase resilience. All prevention activities are core.

Under NERCHA's leadership, PEPFAR/S supported development of national quality standards for evidence-informed prevention interventions, based on the PEPFAR MER guidelines. PEPFAR/S partners use these guidelines to reduce HIV transmission and acquisition, reduce SGBV, and increase the use of core HIV services and condoms. In addition to using the new community engagement guidelines, PEPFAR partners will support chiefdom-led HIV responses.

The PEPFAR/S gender analysis informs the COP16 prevention strategy. The analysis highlights the high level of unmet need for HIV services among men compared to women. The analysis and stakeholder consultations suggest the need for innovative approaches to reach men, including involving chiefdom structures and authorities to reduce stigma, promote normative change, and promote VMMC, testing, treatment, and adherence. Under this "game changer," PEPFAR/S will, after further consultation with the Ministry of Tinkundla, NERCHA and MoH, award performance-based grants to chiefdoms with the aim of increasing the uptake of core services among men by involving traditional leadership. Complementary DREAMS interventions will provide T&S for men and address the most vulnerable group, AGYW, through provision of a comprehensive package of services including economic empowerment, safe spaces, and SRH and HIV services. Community and religious leaders will be engaged to address SGBV, a pervasive problem. PEPFAR/S will strengthen capacity of gender champions, such as CANGO and SWAGAA, to advocate for key legislation, including the Sexual Offences and Domestic Violence Bill. DREAMS will create demand for and increase access to and use of SGBV services and conduct a rapid assessment of facility-based SGBV care, including PEP.

Where possible, PEPFAR/S leverages other initiatives. Through DREAMS, community leaders will be given skills and tools to address social, cultural and gender norms, effectively address barriers to the uptake of core services, support disclosure and adherence, and create a supportive safe environment for AGYW. DREAMS is scaling up a comprehensive, community-based services model in Swaziland's industrial hub, implemented under a PPP with Coca-Cola and the Matsapha Town Council. PEPFAR/S worked closely with GF to assure that AGYW and KP programs are complementary.

In COP16, PEPFAR/S will increase its support to GoKS to support programs for FSW and MSM through new and enhanced activities designed to create and maintain environments that protect human rights and promote uptake of HIV services. PEPFAR/S will ramp up and strengthen "KP-friendly" clinical and psycho-social services through mobile outreach in the public sector with the

help of "KP Navigators" to oversee the roll-out of KP T&S in hotspots. PEPFAR/S will combine the best practices and lessons learned in Swaziland and neighboring countries, using both epidemic control and dynamic and diversified KP community engagement models carried out under the leadership of the MOH KP office and local community leaders. PEPFAR/S will also contribute to sustainability by identifying and training a core group of master KP clinical experts and creating more KP-friendly integrated sites with the full range of the HIV service cascade. Under DREAMS, an important new prevention tool under discussion is the provision of PrEP for HIV-negative FSW. PEPFAR/S will work with CS and authorities, including police, to reduce human rights violations.

The Umbutfo Swaziland Defence Force (USDF) implements community-based activities among soldiers, their sexual partners, and surrounding communities to promote safer sexual behaviors and practices. In COP16, the USDF will use key prevention strategies including peer education and interpersonal communication (including drama/edutainment) to address social and gender norms, SGBV, STIs, alcohol and drug abuse; and promotion of condom use and HTS, including partner testing.

At the GKoS's request, PEPFAR/S is supplying all condoms for three years while strengthening GKoS procurement mechanisms. PEPFAR/S anticipates distributing over 11 million condoms in COP16. Condom promotion and distribution focus on improving access to and correct and consistent use of condoms. In COP16, PEPFAR will work with the GoKS to continue the condom campaign for young adults (*got-it, get it)* and the promotion of specialty condoms and lubricants for KP.

4.3 Voluntary Medical Male Circumcision (VMMC)

PEPFAR/S will continue to support the National VMMC Strategy and Operation Plan (2014-2018) that was informed by a robust age- and location-disaggregated VMMC database, used to analyze yield from different service delivery modalities and approaches, and the VMMC Decision Makers Program Planning Toolkit (DMPPT) 2.0 model, which defines the most immediate and greatest magnitude of impact at the lowest cost by segmenting 10-49 year old males.

VMMC activities will be prioritized in all four regions because all are designated as scale-up-to-saturation. The VMMC service delivery model consists primarily of outreach and mobile sites, with very few static sites; thus, accurate yield data requires more complex analysis than facility yield. The program maintains a high-quality database with age-, location-, and service delivery approach (mobile, outreach, and static)-disaggregated data. This data will be reviewed monthly with MOH and implementing partners to inform and improve programming. Furthermore, demand creation approaches will be closely monitored on a monthly basis and adjusted as necessary.

COP15 pivots resulted in an increase in the proportion of males aged 15-29 seeking VMMC services, a priority age group under-represented in COP14. PEPFAR/S continues to implement and

document innovative strategies aimed at increasing VMMC uptake among males aged 15-29. One COP16 innovative "game-changer" is a performance-based grants program designed to engage traditional leaders to promote VMMC uptake. In COP16, PEPFAR/S will analyze data at a granular level with the aim of expanding other successful models and scaling down activities that do not yield the desired results. To date, private practitioners and a focus on out-of-school youth have proven to be successful tactics to attract older men. Initial results also indicate that engaging men at the work place and through soccer group incentive schemes are promising models. In addition, a number of innovative approaches are planned, including: focus on secondary and tertiary students; "test and circ" initiative (systematically linking HIV negative males to VMMC services using a mobile application); collaborating with local NGOs that provide mentorship and support to older men such as Kwakha Indvodza and Khulisa; establishing male-friendly clinics; and engaging the uniformed forces. The program will also leverage CIHTC efforts to ensure referrals of HIV negative males to VMMC.

The current PEPFAR/S VMMC award is performance-based, and the local partner has established cost-saving models aimed at reducing the VMMC unit expenditure. These approaches are expected to show positive results during the COP15 expenditure analysis.

In COP16, PEPFAR/S will work with GoKS to assure quality standards are in place by building both external quality assessments (EQA) and continuous quality improvement (CQI) activities within the program. PEPFAR/S will ensure implementation of all PEPFAR, national, and WHO standards, guidelines, and policies. PEPFAR/S will ensure that all clients accessing VMMC services receive comprehensive instructions on recommended post-procedure wound care, particularly to reduce the risk of tetanus infection. In addition, PEPFAR/S will continue to support the national program to implement adverse event (AE) reporting recommendations as espoused by the WHO and the 2015 PEPFAR Reporting Protocol for VMMC Client Death and notifiable AE.

By the end of the APR15 reporting period, most VMMC sites were performing well in the areas of voluntarism, informed consent, and clinical follow-up. However, some sites did not have adequate systems to prevent and manage AE. To address this concern, PEPFAR/S worked with headquarters to undertake an EQA in October 2015. Through this exercise, the VMMC program addressed gaps identified during the SIMS assessments and put in place a CQI system to ensure client safety at all times.

4.4 Prevention of Mother-to-Child Transmission (PMTCT)

In October 2015, the Swaziland national PMTCT program completed the roll out of Option B+ to all health facilities. In COP16, PEPFAR/S will focus on ensuring that all health facilities implement comprehensive and quality PMTCT services in all four regions, prioritizing support to scale-up and sustained facilities, including support for lay cadres and laboratory services. Current HIV guidelines recommend commencing newly-diagnosed HIV-positive pregnant women on ART

without CD4 count with VL monitoring every six months for lactating women until the baby is weaned and annually thereafter.

PEPFAR/S will review the performance of facilities regularly using volume analysis, yield, and quality of service delivery to determine their status within site categorization.

PEPFAR/S will support the GoKS in the development of new national PMTCT standards and guidelines, and enhance the capacity of HCWs through NARTIS trainings, comprehensive clinical mentoring, supportive supervision, and on-site trainings. PEPFAR/S adheres to the WHO PMTCT four-pronged approach and will use PMTCT as an entry point to support the broader maternal newborn and child health (MNCH) platform, including family planning. This platform also provides the opportunity to reach partners and family members with HTS and linkages to care. PEPFAR/S will continue supporting nutritional assessment, counseling, and referrals of MNCH clients for food by prescription services. PEPFAR/S will provide limited therapeutic food support for under-five malnourished HIV exposed and infected children.

PEPFAR/S will continue to support mentor mothers at high-volume sustained sites and scale-up sites to provide HTS, adherence counseling, nutritional counseling, disclosure support, SGBV screening, partner testing, and client follow-up. PEPFAR/S also supports mentor mothers in surrounding communities to ensure strong bi-directional client referrals and increase retention of mother-baby pairs in care. The mentor mother program will establish and strengthen community-based mother support groups to enhance retention in care and treatment adherence. PEPFAR/S will collaborate with GF as it expands the community mentor mother model to more communities. This model will address high LTFU among PMTCT B+ clients and improve retention in care. PEPFAR/S will assess the effectiveness of this model.

PEPFAR/S will continue collaborating with the GoKS, UN agencies and other stakeholders in providing national level TA for HIV/FP integration efforts, HIV/TB services, and supply chain management to leverage competencies and resources to ensure the delivery of a robust national PMTCT program through Technical Working Group (TWG) participation and joint planning. The PMTCT program experiences intermittent ARV shortages and supply gaps.

SIMS assessments found that most sites have met or surpassed national standards. However, some common issues were observed across sites, including failure to document nutritional assessment results for pregnant mothers and children. The program has performed below standard across sites for documenting facility-community referrals. This is because the national registers do not capture these data. PEPFAR/S is working with the national program and partners to ensure resolution.

Communities are critical for creating demand, uptake, and retention of PMTCT services. PEPFAR/S will work closely with communities to establish a strong bi-directional referral system that will ensure that retention in care and community activities are closely linked to facilities.

4.5 HIV testing services (HTS)

In the 2011 SHIMS study, 62.4% of PLHIV reported being aware of their HIV status. Since then, PEPFAR/S has scaled up HTS through PIHTC and CIHTC initiatives. Although Swaziland has an HIV prevalence of 26% among adults >15 years (DHS 2007), the adjusted expected HIV yield for undiagnosed positives is 7.7% (Table 4.5.1). This means that Swaziland is close to reaching the first 90%. However, identifying the remaining undiagnosed positives will require significant efforts and improved linkage to care. To reach the first 90% by end of COP16, an estimated 52,941 currently undiagnosed PLHIV will need to be identified through the HTS program.

Table 4.5.1: Undiagnosed HIV Positive People by Region and Age

PLHIV	FY16 PLHIV	FY16 PLHIV <15	FY16 PLHIV 15+	FY16 PLHIV Female	FY16 PLHIV Male
Manzini	78,175	5,647	72,528	46,050	32,125
Hhohho	60,478	4,369	56,109	35,625	24,853
Lubombo	47,303	3,417	43,886	27,864	19,439
Shiselweni	40,964	2,959	38,005	24,130	16,834
Total	**226,920**	**16,392**	**210,528**	**133,670**	**93,250**
POPULATION	POP	POP <15	POP 15+	POP Female	POP Male
Manzini	370,049	126,472	243,577	197,230	172,819
Hhohho	323,219	118,516	204,703	166,957	156,262
Lubombo	229,338	90,336	139,002	118,481	110,856
Shiselweni	210,051	78,673	131,378	111,715	98,336
Total	**1,132,657**	**413,997**	**718,660**	**594,383**	**538,274**
National on Treatment 2015	All	<15	15+	Female	Male
Manzini	52,026	3,758	48,268	30,540	21,486
Hhohho	40,249	2,907	37,341	23,626	16,622
Lubombo	31,481	2,274	29,207	18,479	13,001
Shiselweni	27,262	1,969	25,293	16,003	11,259
Total	**151,017**	**10,909**	**140,108**	**88,648**	**62,369**
% Undiagnosed PLHIV	All	<15	15+	Female	Male
Manzini	8.2%	1.5%	12.4%	9.3%	7.0%
Hhohho	7.1%	1.3%	11.2%	8.4%	5.9%
Lubombo	8.0%	1.3%	13.4%	9.4%	6.6%
Shiselweni	7.5%	1.3%	12.0%	8.5%	6.4%
Total (National)	**7.7%**	**1.4%**	**12.2%**	**8.8%**	**6.6%**

GKoS adopted the WHO 2013 integrated HIV management guidelines in 2014 and is adopting the new WHO T&S guidelines. There is universal testing of all children at 9, 18, and 24 months. The

age for consent is 12 years. These measures assist in early identification of pediatric HIV cases and early linkage to care and treatment. There is also an emphasis on ensuring correct HTC results and connection/linkage to appropriate prevention (e.g. VMMC), care, and treatment services. Lay counselors perform testing, and expert clients provide linkages to treatment and prevention services.

The gender analysis revealed high levels of stigma and that men are afraid to know their status. Systemic issues, such as long queues/inconvenient clinic hours, especially affect men. Negative provider attitudes and lack of confidentiality also impact youth and KP.

Decentralization, from hubs to spokes, is working and the number of facilities that provide 80% of newly identified positives has increased from 34 to 38. A greater number of persons aged 20 to 49 are now identified through CIHTC than PIHTC, especially true for men. An analysis of entry points (Figures 4.5.2, 4.5.3) reveals that outpatient departments and mobile HTS were particularly successful.

Figure 4.5.2: Facility and Community Yield

FY 16 Q1 Facility Vs Community Yield

Age Group	< 1 yr	1-4 yr	5-9 yr	10-14 yr	15-19 yr	20-24 yr	25-49 yr	50+
Community yield	0.0%	1.6%	1.9%	1.6%	2.8%	9.0%	15.7%	4.4%
Facility yield	1.6%	1.6%	4.0%	2.8%	4.0%	6.0%	10.2%	4.4%
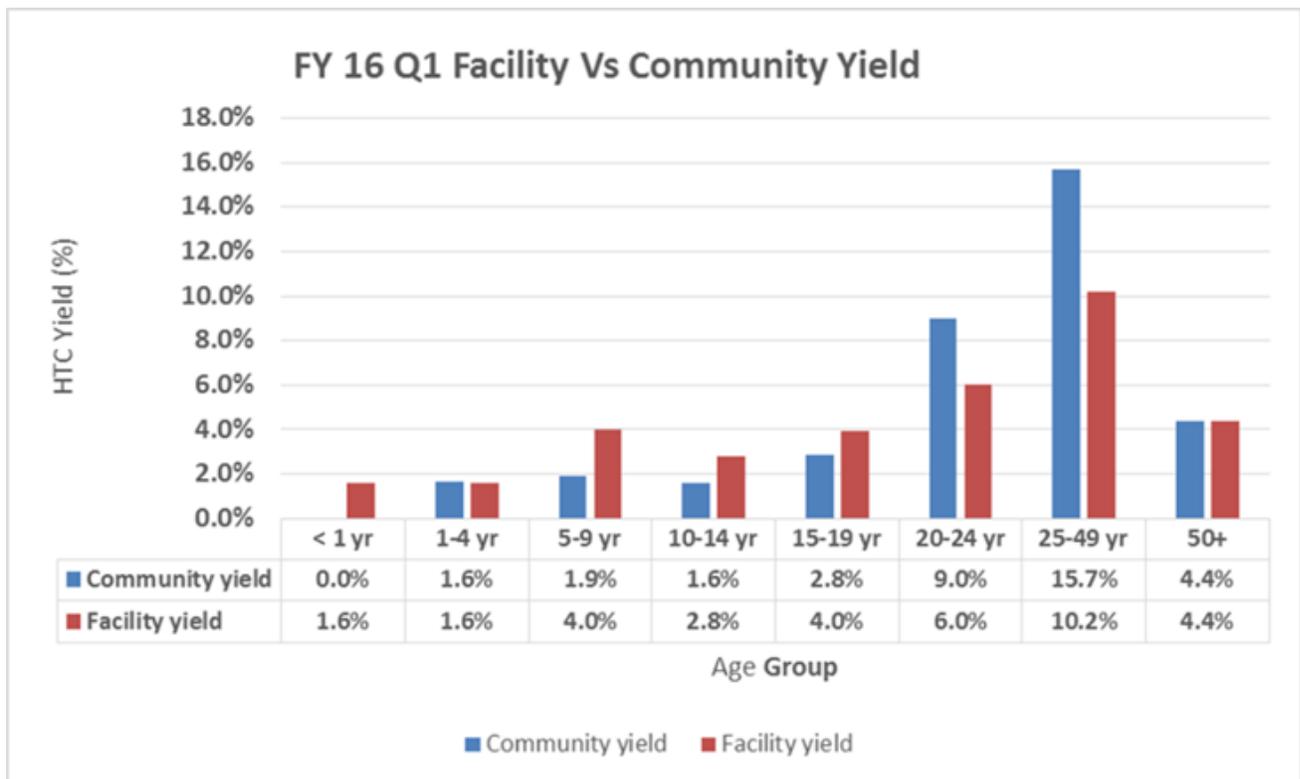
Table 4.5.3: Analysis to identify successful HIV testing strategies

Entry Point	APR 15		Q1 FY16	
	HTC Yield	Proportion of total positives	HTC Yield	Proportion of total positives
Antenatal Clinic	8.1%	7%	6.0%	10%
Home-based Testing	3.4%	20%	3.1%	3%
Inpatient Ward	11.6%	1%	8.5%	1%
Labor & Delivery Ward	7.9%	0%	6.4%	0%
Maternal and Child Health Clinic	2.8%	7%	3.3%	9%
Mobile HTC	4.7%	16%	8.2%	17%
Voluntary Counseling & Testing co-located	12.5%	4%	11.9%	6%
Outpatient Department	10.3%	25%	8.6%	26%
Sexually Transmitted Infections	43.2%	0%	10.0%	0%
Tuberculosis Clinic	16.4%	0%	9.4%	1%
Under 5 Clinic	2.5%	7%	0.9%	11%
Voluntary Counseling & Testing Stand-alone	14.5%	5%	12.9%	9%
Voluntary Medical Male Circumcision	4.2%	4%	3.1%	4%

Target populations include men, KPs, and partners and families of PLHIV. In COP16, PEPFAR/S will also scale up HTS within OVC programs and target AGYW aged 15 to 24 years in DREAMS Tinkhundla. PEPFAR/S will also leverage DREAMS funding for T&S for men in 17 Tinkhundla. Funding will support mobile clinics that will offer comprehensive HTC/HIV/SRH services, including six mobile outreach clinics provided to the MOH PHUs for preventative care, including HTS, early initiation, and community ARV refills.

In June 2015, PEPFAR/S with CDC-Atlanta started a Community Linkages (CommLink) Intervention, which is aimed at facilitating linkages to care from community to facility. CommLink includes point-of-care CD4, accompaniment to health facility by an Expert Client, Index Client testing, STI screening, hypertension and diabetes screening, and a seven-day course of cotrimoxazole (CTX) for all HIV-positive clients. Two mobile units are strategically placed in communities and act as a central point for receiving pre-ART care immediately following a positive HIV test; preliminary findings of CommLink are as follows:

Mobile Clinic Services:
82.9% received a CD4 test
- Median CD4 was 388 (IQR 277 – 606)

Enrollment in HIV Care:
93.0% clients visited a care and treatment center (CTC) at least once
88.6% clients were escorted to or met at a CTC by a CommLink Expert Client
- Median time from diagnosis to first clinic visit was 6 days (IQR 3 – 12)
- 94.6% of those that visited a facility were self-reportedly still in care at the time of case closure

Disclosure & Partner-Family HTC:
96.2% clients completed a linkage session on disclosure and partner/family member testing
- 86 partners/family members were provided HTC through the program;
- 13 (15.1%) of those 86 tested HIV positive.

The CommLink program is currently operating in Hhohho and is being expanded to Manzini. In COP16, the CommLink program will be rolled out nation-wide. Two additional mobile clinics will be procured for CommLink that will include a 14-day supply of ARVs in addition to CTX. Innovative strategies and weekly monitoring increased yield from 3.6% to 17.1% at SAPR. The number of individuals testing is going down significantly through screening and identifying positives. A total of 3,348 clients tested positive during SAPR16. Of those, 3,228 were newly diagnosed and 120 were repeat testers.

In COP14, PEPFAR/S improved CIHTC targeting, decreased re-testing and optimized and documented linkages to care. The program made a successful pivot this year through weekly results review, use of a screening tool, targeting men in high-burden areas with mobile testing and multi-disease prevention, and implementation of the CommLink program.

Figure 4.5.2: PSI CIHTC Yield by Month at SAPR2015

PSI CIHTC Yield by Month (SAPR15 = 17.1%)

	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Yield	7.6%	9.9%	23.7%	22.9%	20.0%	23.1%
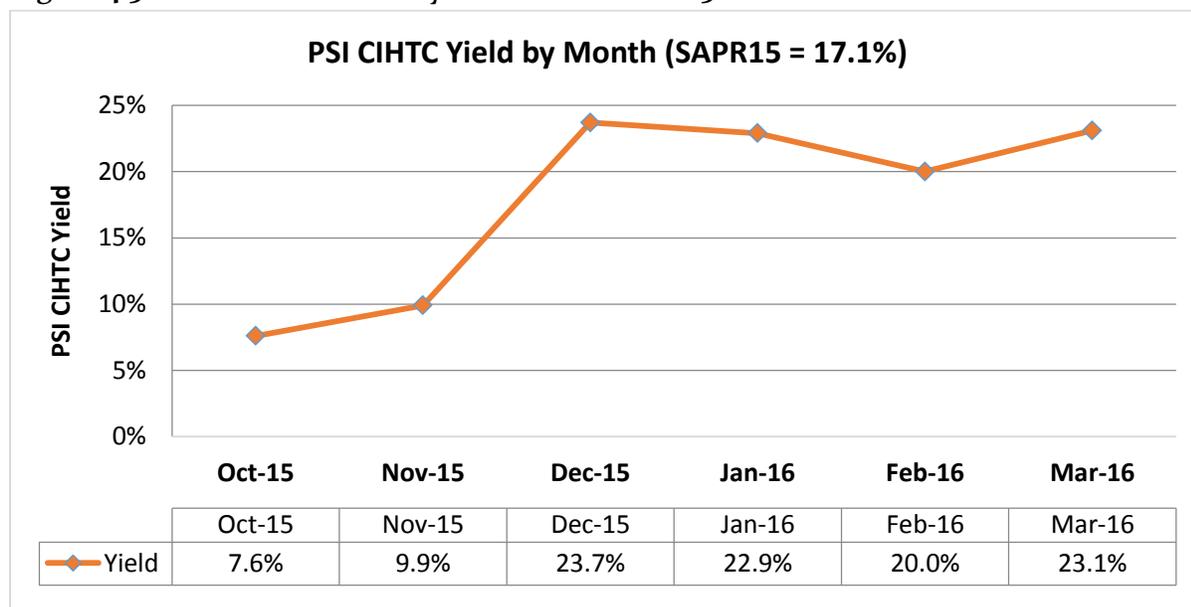
Figure 4.5.3: PSI CIHTC Trends in Testing and Yield at SAPR2015

PSI Trends in Testing and Yield FY 12 - FY16

	COP12	COP13	COP14	COP15 at SAPR
Total Tested	69,851	108,706	91,451	18,865
Yield	8%	5%	3.6%	17%
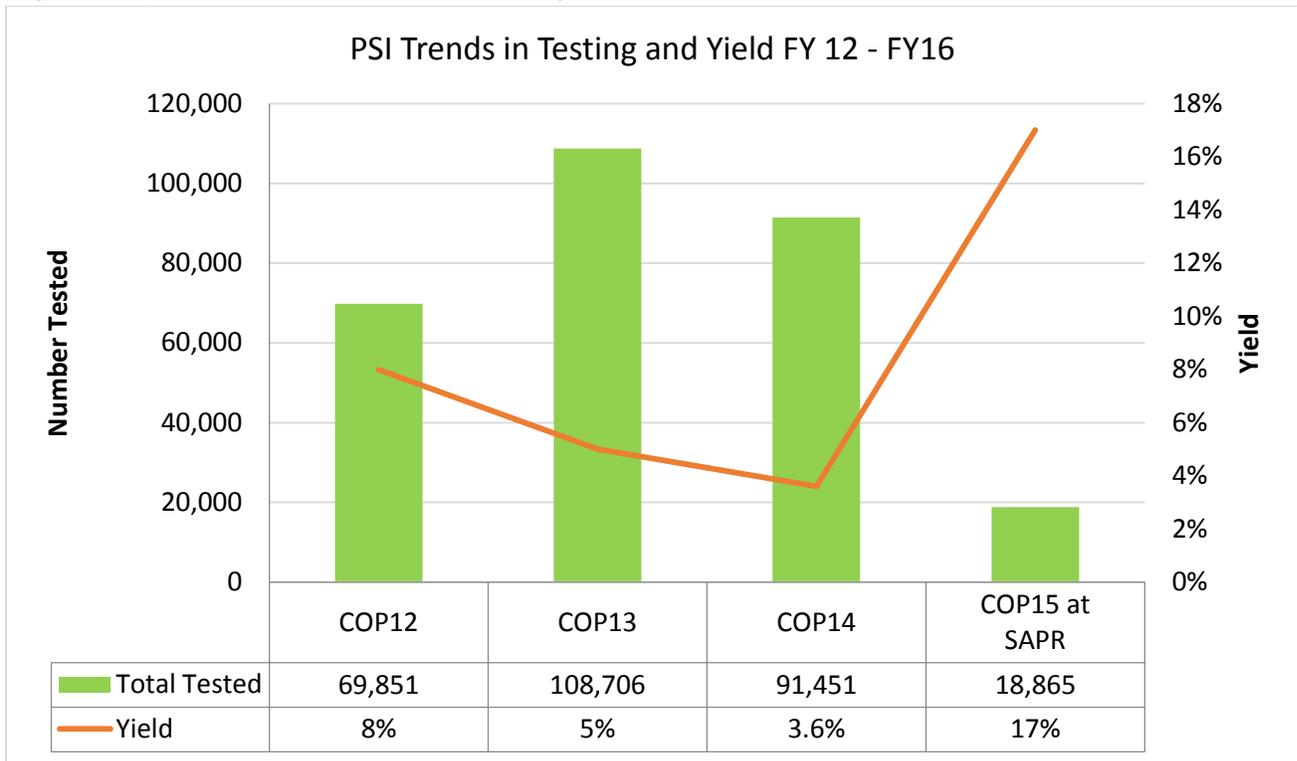
In COP16, the CIHTC partner will:
(1) Increase the supply of CIHTC with improved targeting;
(2) Increase informed demand for CIHTC and reduce stigma;
(3) Improve linkages to HIV care and treatment for individuals who test positive and linkages to VMMC for men who test negative;
(4) Improve national monitoring and evaluation systems for HTC; and
(5) Develop a sustainable Swazi-owned program.

The HTC program will engage community leaders to mobilize PPs and communities with low HTC uptake (identified through GIS mapping), especially targeting men. A game changer in COP16 will be the engagement of chiefdoms, through a performance-based grant that will mobilize communities, especially men, to T&S.

Figure 4.5.4: PSI CIHTC Comparison of COP14 and COP15 Yield for Men at SAPR2015

Reaching Men - SAPR 15 vs SAPR 16

	Males <15 Tested	Males 15+ Tested	Total Males Tested	Positive Males
■ SAPR COP14 Yield=3.4%)	9,588	14,783	24,371	818
■ SAPR COP15 (Yield = 13.8%)	409	11,495	11,904	1,645
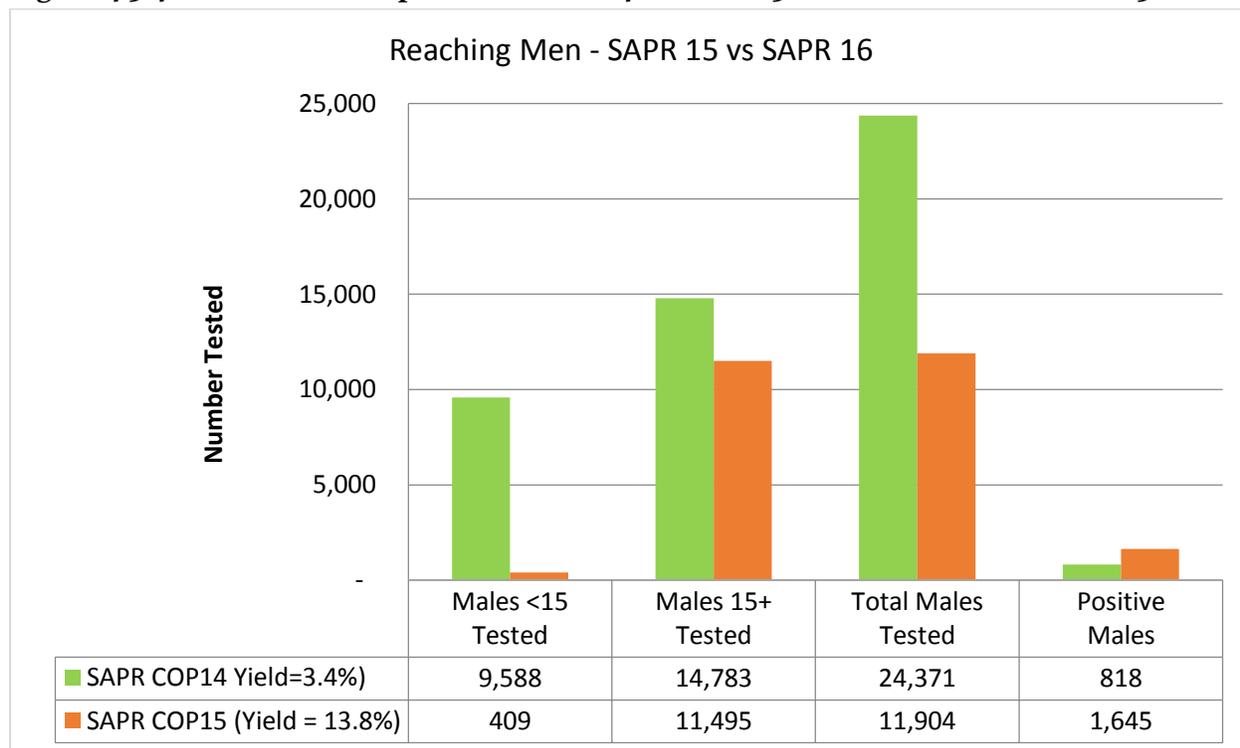
Figure 4.5.5: PSI CIHTC Yield by age at SAPR2015

PSI CIHTC Yield by Age

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+
■ Tested (Total=18,865)	175	255	385	2,095	3,720	4,038	3,081	2,019	1,126	972	999
— Yield by Age (Overall=17%)	6%	5%	5%	6%	11%	18%	24%	27%	25%	21%	13%
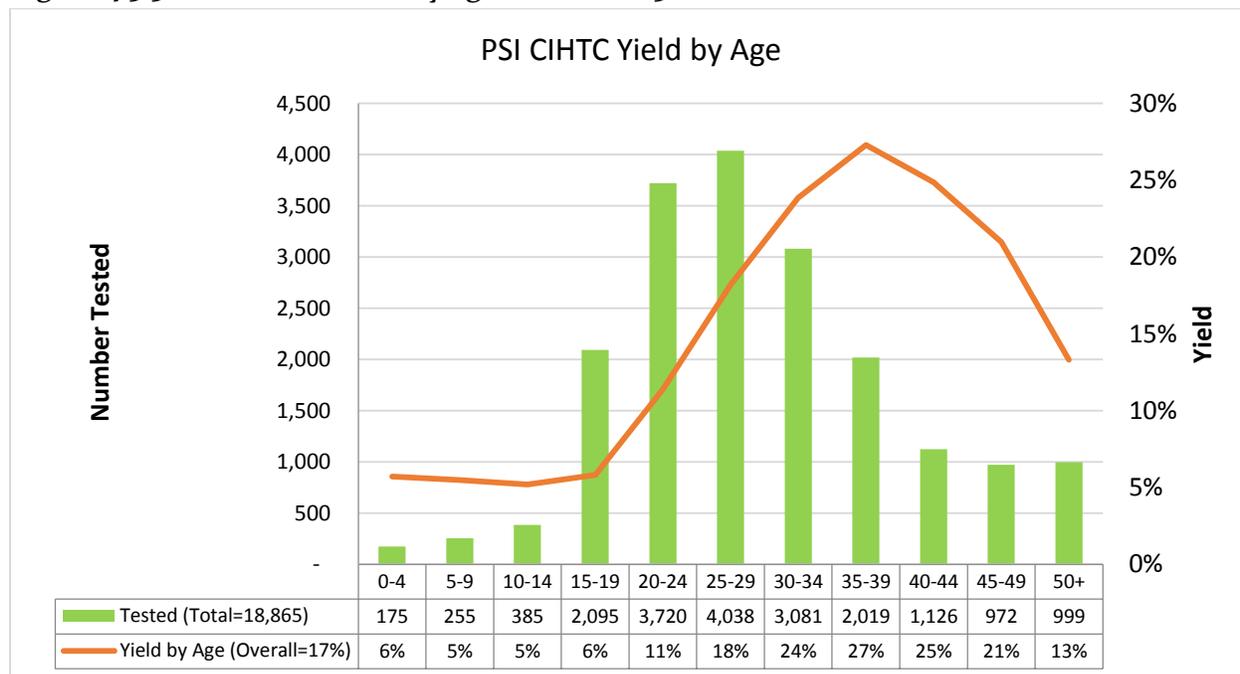
Figure 4.5.6: PSI CIHTC Yield by Entry Point at SAPR2015

PSI CIHTC Yield by Entry Point

	HBHTC	Targeted Outreach	VCT Standalone Site	Total
Total Tested	2145	12591	4129	18865
Yield	3%	18%	23%	17%
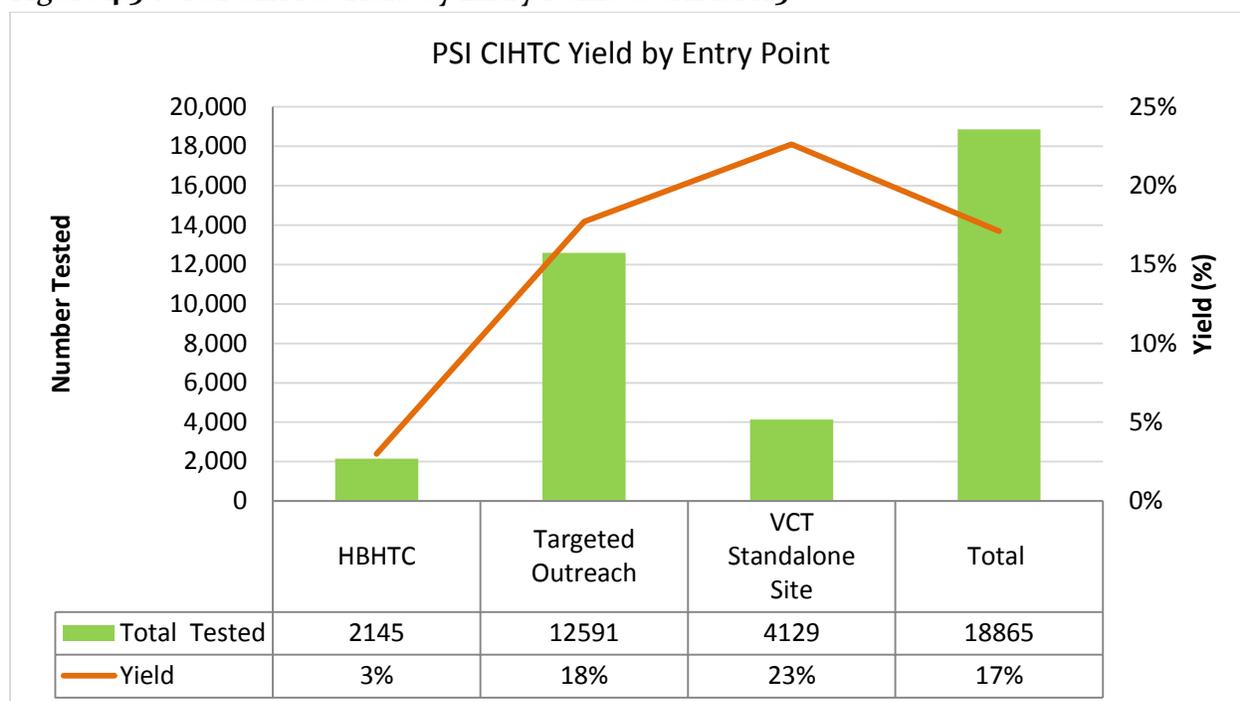
To reach couples and partners of clients: Efforts to increase the number of couples testing will continue. Reaching non-committed couples continues to be a major challenge. This year, PEPFAR/S supported a mass-media campaign on casual couples to motivate people having casual sexual encounters to test together.

After-hours promotions: PEPFAR/S will continue to reach people who have work commitments and reside in busy locations through after-hours promotions. Counselors are placed in the late afternoon and evening at crossroads and busy bus terminals to reach clients with HTS.

Workplace: PEPFAR/S, in collaboration with SWABCHA, SWAMMIWA, and other partners, targets male-dominated workplaces (construction companies, plantations, lumber companies, and mines). In COP16, PEPFAR/S will accelerate mapping and target miners, ex-miners, and their families through SWAMMIWA.

HBHTS: In COP16, Home-Based HTS will continue to reach partner(s), family members, and neighbors of index clients. It can also be used as a mop-up strategy in areas where HIV transmission is likely to take place, e.g., homesteads near bus terminals, truck stops, FSW hotspots, mines, informal border crossings, and factory workers' residences.

Stand-Alone Site: PEPFAR/S will continue to operate seven stand-alone sites under the New Start brand in Swaziland. The IP is refurbishing the main Matsapha New Start site to offer HIV treatment and care for clients.

PEPFAR/S tested 18,865 individuals. Similar to COP14 results, the number of men testing for HIV was higher (63%) as compared to females (37%).

Increase the number of HIV infected people receiving Comprehensive Care Services (CCS)
PEPFAR/S will continue to actively follow-up on all referred clients to ensure that they link to care and prevention services. The referrals and linkages program has continuously improved through the upgrading of the database and expansion of the network of providers. Confirmed linkages rate for people testing positive for the reporting period is 72%. The introduction of Expert Clients has since improved the linkage rate for this period with major improvements expected in the next quarter.

Figure 4.5.7: HIV Care Linkages cascade including TB referrals – PSI refers all HIV positive clients for HIV care and TB diagnosis
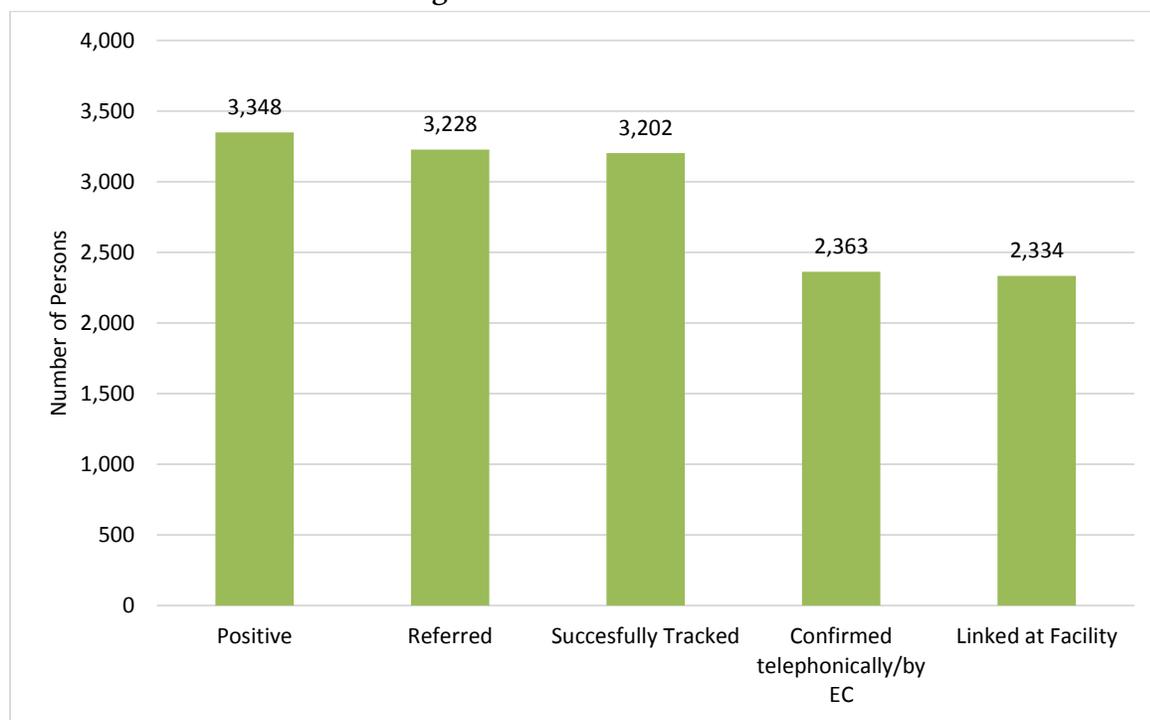
Figure 4.5.8: HIV Care Linkages by Sex

	males	females
■ positive	2017	1331
■ referred	1939	1289
■ linked	1401	933
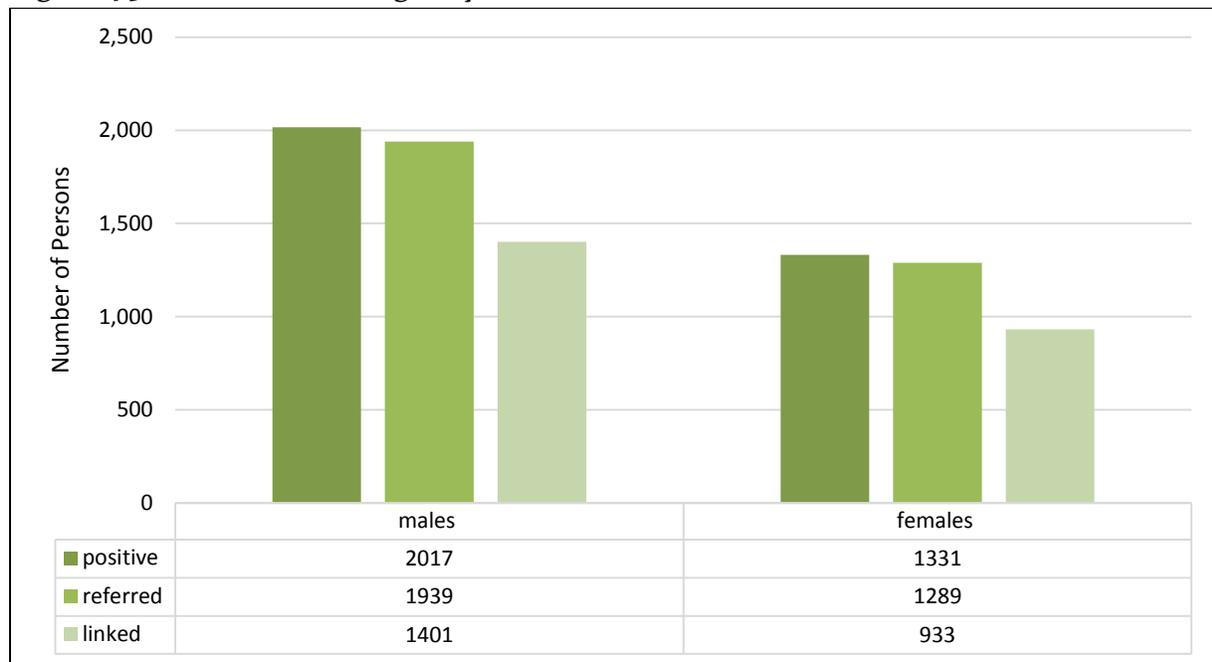
In COP16, mobile clinics for preventive care, including HTS and early initiation as in the CommLink model, will be provided to the MOH six Public Health Units for outreach and also for community ARV refills.

Testing for KPs and PPs

In KP hotspots, MSM and FSW will be targeted with a package of HTC, condoms, lubricants, SRH services, and enrollment and linkage to care and treatment services. A youth-focused package of these services will be offered to adolescent girls in the DREAMS Tinkhundla.

Core Activities

All HTC activities are identified as core, with a focus on targeted programming to identify positives.

SIMS Results

For PIHTC, a review of SIMS results showed high scores in the domains for infection safety, condom availability, and supply chain reliability of rapid test kits (RTK). However, for the last three months, Swaziland is experiencing difficulty procuring RTK as a result of the declining value of its currency against the dollar. As a result, as of April 8, 2016 there is a six-week supply of RTKs in the country (both at central medical stores and at the facilities). A request to S/GAC to utilize the Emergency Commodity Fund for RTKs is approved and an order placed with SCMS. Low scoring domains include waste management, site-level proficiency testing, QMS, and results and information management. Remediation plans are developed for each facility. One of the main

issues identified across facilities, in all regions, is inappropriate retesting of clients who test negative and weaknesses in quality control. The issue of retesting is addressed in the new guidelines and trainings. Efforts are ongoing to step up mentoring and supervision for HTC QA.

In COP16, achievement of the first 90 target will be accomplished by:

- Home-based testing using index case approach
- After-hour testing to target men
- Targeted mobile testing
- Performance-based grants to chiefdoms
- Weekly data review with partners
- Granular data review to prioritize testing activities.

4.6 Facility- and Community-Based Care and Support

With adoption of new treatment guidelines, an estimated 3,832 of pre-ART patients will immediately become eligible for ART. This will impact the ability of health facilities to cope with increased volume of clients.

The care package includes direct service delivery for psychosocial and adherence support, and TA support for patient monitoring, FP integration, clinical services for SGBV and PEP and QA/QI. PEPFAR/S works with MOH-funded Rural Health Motivators (RHM), community partners, mentor mothers, and Expert Clients to provide care and support services at the community level. This will be expanded to support community-based ART refills where possible. CIHTC partners will enroll all new HIV-positive clients into care at the point of diagnosis using mobile services with integrated HTC and care services (enrollment into care, baseline CD4, and two-week CTX and ART) and referral. Regional clinical partners will strengthen pain management for terminally ill HIV-positive patients.

PEPFAR/S supports cervical cancer screening for HIV-positive women (Visual Inspection with Acetic Acid (VIA) and cryotherapy) at three high volume sites. Positive Health Dignity and Prevention (PHDP) activities will be strengthened by introducing activities to provide immediate ART for the HIV-positive partner in a discordant relationship. Efforts are currently ongoing to strengthen NACS. PEPFAR/S will adapt the Engender Health Stigma/Discrimination Reduction and Infection Prevention and Control Training manual for use in training all health facilities, starting with high-volume sites to help address issues of stigma around HIV and discrimination of KPs.

All care and support services were classified as either core or near-core.

SIMS visits revealed weaknesses in NACS. PEPFAR/S is working with partners to strengthen NACS, with significant improvement. Facilities were supplied with instruments for measuring

weight and height and job aides for calculating BMI. Site mentoring and QI projects are also ongoing.

4.7

TB/HIV

Swaziland has the highest HIV prevalence, highest rate of TB incidence (733 cases/100,000),[11] and highest TB/HIV coinfection rate (71% of TB patients are co-infected); and 4.2% of TB patients have MDR TB. Progress has been made: 97% of notified TB patients had a known HIV status; 79% of co-infected patients started ART (adjusted to 53% of estimated actual number of HIV+ incident TB cases). Case notification rate is 900/100,000; and the TB treatment success rate of TB-infected PLHIV is 71%.

As ART coverage increases, there has been a decline in TB cases.

Figure 4.7.1: TB cases decline as ART Coverage Increases[12]

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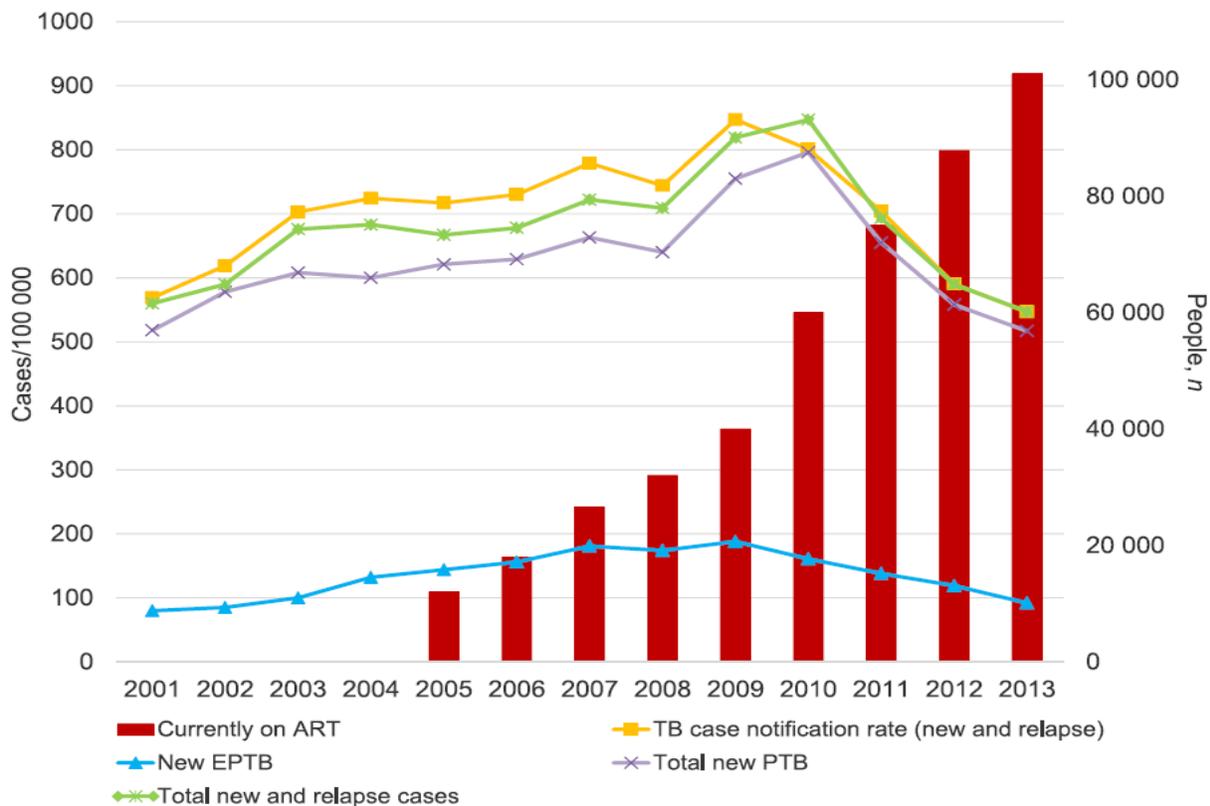
[11] WHO World TB Report, 2015

[12] Haumba, *et al*. Declining tuberculosis notification trend associated with strengthened TB and expanded HIV care in Swaziland. *Pubic Health Action*. 5:2 (2015).

The revised national TB/HIV policy states that all TB treatment facilities should provide HTC, care, and treatment to ensure early enrollment of co-infected patients in ART. In January 2016, a study to characterize TB/HIV activities was completed in collaboration with MOH, PEPFAR/S, and CDC-Atlanta. The objectives of the study were to evaluate the ICF cascades in HIV care and treatment settings; to evaluate the provision of ART for HIV-positive TB patients; and to evaluate TB infection control measures. For the ICF cascade, the study found that overall screening was excellent (97%). Of those screened, one-fourth had a positive screen. However, of those with a positive screen, only half had a reported diagnostic evaluation. This was the single greatest point of loss from the cascade. It is unclear if the drop is due to tests not ordered, specimens not received in the lab, results not received by clinicians, or results not reported. Gene Xpert was used for diagnosis in 87% of cases. Of those with a TB evaluation, 65% received a positive diagnosis. All patients with a TB diagnosis received TB treatment. IPT uptake was universally low at 7.3%. Higher levels of IPT use in some facilities indicate that programmatic conditions for IPT use exist. Approximately 90% of PLHIV not already on ART initiated within eight weeks of TB treatment initiation. Infection control practices showed clear deficits. There is a need for site-specific IC plans and accountable persons/committees, HCW training, consistent use and availability of N-95 masks, and confidential HIV and TB testing for HCWs with services, treatment, and reassignment offered if positive.

Swaziland uses the WHO four symptom screen questionnaire at all out-patient departments, in-patient wards, and HIV clinics. In COP16, PEPFAR/S classified TB screening among the general population as non-core, and that assistance has been transitioned to GF and GKoS. SIMS visits show that over 97% of HIV+ clients are normally screened for TB. Sputum from all TB suspects (both TB and HIV sides) is analyzed using Gene X-pert as the first line of diagnosis. SIMS visits identified gaps in IPC and IPT (100% of facilities scored either red or yellow in IPT). Many facilities have neither an IPC focal person nor plan, and very few are implementing IPT. Efforts are currently ongoing to remedy this gap. Mentoring activities for IPT have been intensified and QI projects have been instituted.

The PEPFAR/S CIHTC partners collaborate with the national TB partner to integrate TB screening for newly-diagnosed HIV-positive clients into HTC services at the community level. Likewise, the KP partner integrates TB screening with their mobile services.

Figure 4.7.2 TB/HIV Cascade from TB Clinics
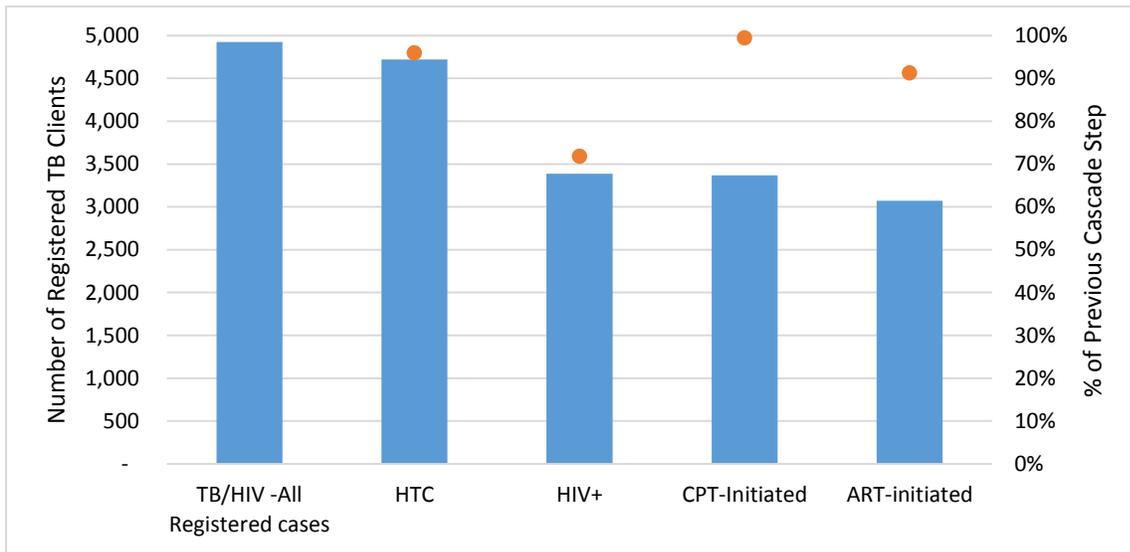
Figure 4.7.3 TB/HIV Cascade from HIV Clinics
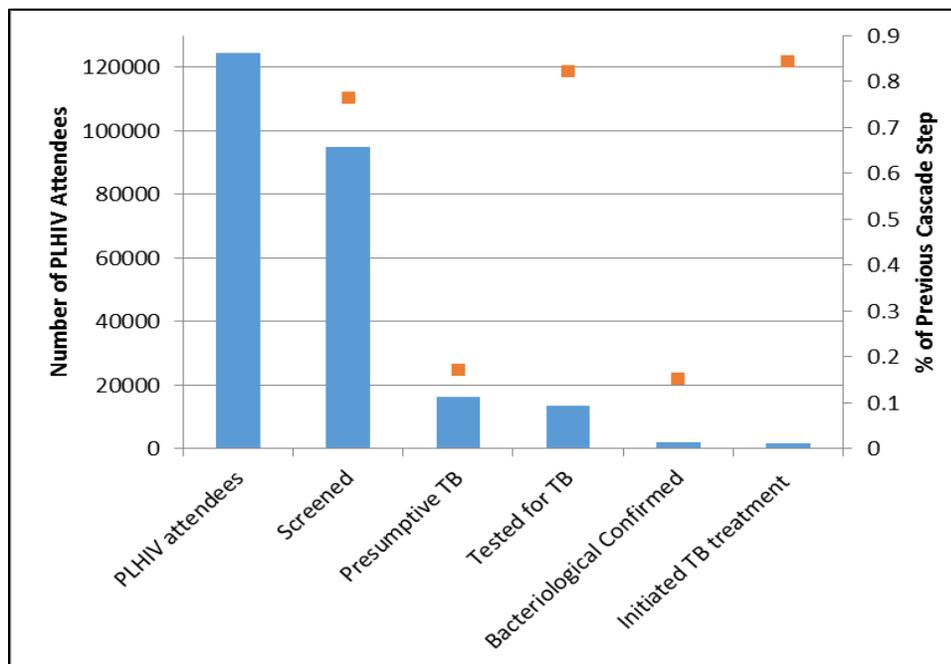
As noted, IPT coverage is low. In COP16, PEPFAR/S will expand IPT to all facilities and strengthen TB infection prevention and control (IPC). PEPFAR/S also plans to introduce POC chemistry tests to improve monitoring of patients on MDR-TB treatment. The use of Bedaquiline, and other WHO-approved drugs for MDR-TB patients will be continued through a compassionate donation from USAID.

Pediatric TB diagnosis and management will be improved by introducing better diagnostic tools, management algorithms, and clinical mentoring. Community-based support services for TB screening, contact tracing, and compliance with TB treatment will be expanded. Active case finding among pregnant women will be strengthened using evidence from the PMTCT/ART integration-funded TB screening tool evaluation. PEPFAR/S will collaborate with the WB and GF to strengthen TB diagnosis and treatment for miners and ex-miners.

Nationally, PEPFAR/S will support a TB/HIV point person at SNAP. Regionally, TB/HIV coordinating bodies will be revitalized and capacitated to help in planning and coordinating joint TB/HIV activities. The national TB hospital will become a center of excellence.

TB/HIV activities are part of the integrated clinical package for the regional partners. The regional partners will support all public facilities for decentralized TB/HIV services using DSD.

Swaziland TB/HIV activities align with core activities for reducing HIV related mortality. This year, Swaziland experienced challenges maintaining adequate stock of TB commodities. PEPFAR/S and MSF supported emergency supplies of TB drugs, and PEPFAR/S continues to support improvements in supply chain management.

4.8 Adult Treatment

At the end of December 2015 there were 147,274 patients active on treatment in Swaziland. Nearly 80% of those clients were in PEPFAR/S supported facilities. Partial- (patients start ART at central hospitals and are down-referred to PHCs when stable) and full- (patients start and continue ART at PHCs) decentralization models were initiated in 2007, using the hub-and-spoke system. Auld et al in Swaziland showed that down-referral and spoke-initiation were protective against both LTFU and overall attrition. Currently, there is more new ART enrollment in spoke facilities than hub facilities (Figure 4.8.1). There is evidence that the decentralization model is working: in APR14, 22% of the sites had 80% of the patients, whereas in APR15, 30% of the sites had 80% of the patients. Given the uniformly high HIV burden in the country, PEPFAR/S anticipates increased enrollment at spokes if decentralization and NARTIS guidelines are followed. Through task-shifting and decentralization, Swaziland reached universal ART coverage (93%) at CD≤350. In COP16, PEPFAR/S will focus on scaling-up ART coverage in line with new guidelines through strengthening decentralization of integrated clinical services, scaling up community-based ARV delivery, and improving linkages to care. For Swaziland to halve its incidence by 2018 and reach epidemic control, modeling shows that a "test-and-start" approach must be implemented. This approach was approved by GKoS and will be implemented nationally by October 2016; pilots are ongoing in 23 facilities, in two regions.

A key to epidemic control is engaging men. Early HIV testing, linkage, and retention programs targeting men (Section 4.5) could significantly improve the impact of Swaziland's ART program on HIV incidence and HIV-related mortality. With Option B+ and routine HTC for all pregnant women, the ratio of female-to-male ART enrollees will continue widening unless a similar gateway to testing and early ART for men is found. Without increased ART enrollment for HIV-

infected men, HIV incidence among young females (15-24) will not decline as fast as anticipated. If VMMC is the intervention to protect young HIV-negative men, then early HIV testing, linkage, and retention is the package for HIV-positive men—both for their own health, as well as a protective intervention for AGYW.

In COP14, PEPFAR/S rationalized its clinical support with only one partner per region providing integrated comprehensive clinical services (PIHTC, care, treatment, TB/HIV and PMTCT). The regional partners support all public facilities in the region. This approach ensures consolidation of comprehensive services in all PEPFAR/S-supported facilities while maximizing efficiencies through program synergies, combined trainings, mentoring, and QI activities. PEPFAR/S will facilitate close linkages between DREAMS partners and regional clinical partners to ensure PPs access to early ART as part of a complete package of combination prevention.

Achieving the Second 90:

It is estimated that there are 226,920 PLHIV in Swaziland: 65% of these are currently on treatment. To reach the second 90%, PEPFAR/S will need to enroll 30,452 people on treatment in COP16. The expected TX_CURRENT for COP16 is 152,566 patients, this covers 67% of all PLHIV and should translate to 80% coverage of all PLHIV across the country (the remaining 13% is a contribution from MSF and the private sector). To achieve this, increased level of efforts are needed in Manzini and Lubombo regions; enrollment of new patients in Lubombo has been level for the last three quarters. Notably new initiations of men in Lubombo and Manzini have also not increased over the last three quarters. An additional concern is the impact of the drought; 43% of the population in the Lubombo region is defined as food insecure by a recent WFP and UNICEF assessment, which could impact negatively on new initiations and treatment adherence.

Service delivery:

The GKoS provides the infrastructure/space and most HR, while PEPFAR/S provides TA for program implementation, lay cadres HCWs, strategic information (SI), and evaluation capacity. In COP16, PEPFAR/S will introduce community-based ART initiations and scale up community ART refills to help decongest health facilities. Community-based ARV delivery strategies, currently being piloted, will be scaled up and regional clinical partners will collaborate with community partners to strengthen linkages and facilitate early ART enrollment (see Appendix D for ART delivery models). In 2011, to help document and improve early enrollment and retention in HIV care, GKoS implemented a new set of standard operating procedures on linkage and retention. Evaluation of these systems, with over 1000 clients, found that less than 40% of those testing positive and referred to clinical care were enrolled in HIV care within two years of their diagnosis. Of those enrolled, 94.4% were initiated on ART, and 85.5% were retained in care two years post initiation. Of the few clients who enrolled in pre-ART, 35.1% were retained in pre-ART care two years after enrollment. The findings from this retrospective study informed the COP16 focus on assessing and improving services for linkages, early enrollment, and retention in HIV care.

Swaziland is already implementing an efficient package of services as per WHO guidelines (Appendix E).

Laboratory monitoring and Viral Load Scale Up (The third 90):

Patient monitoring will shift from CD4 to routine VL monitoring for process and cost efficiencies. In addition the use of chemistry and full blood count for clinical management of patients will be streamlined. Swaziland received central funding for VL scale-up. These funds will strengthen VL monitoring by supporting testing (procurement of an instrument and support for lab technologists), sample transportation, lab information systems, and early return of lab results through SMS. It also provides support for training nurses and communities in VL literacy and training laboratory technicians. In COP16, PEPFAR/S will support sample transportation for scale-up of VL, while GF will supply VL reagents and additional lab technologists. PEPFAR/S and GKoS developed SOPs and algorithms to guide clinicians on the use of VL. These SOPs also outline strategies for step-up adherence and when to switch to second or third-line ART.

SIMS assessment showed the following problems in the facilities; testing interruptions in 83%; lack of SOPs in 50%; insufficient quality testing monitoring in 50%; poor results and information management in 67%; absence of a quality management system in 67% and lack of quality assurance in POCT in 60% of facilities. These finding are shared with the IPs and MoH, and intensive partner support is required to address these issues in the facilities.

Procurement and Supply Chain Management:

PEPFAR/S will also support GKoS health product procurement and contract management, while collaborating with GF to ensure adequate supply of ARVs. Currently, GKoS pays for adult ARVs for the proportion of patients with a CD4 count <350. GF supports drugs for the proportion of patients with a CD4 between 350 and 500, and PEPFAR/S will support drugs for the proportion of patients with a CD4 greater than 500. At present, GKoS supports second-line drugs; however, given current economic pressures, GKoS may request PEPFAR/S assistance with second-line drugs. PEPFAR/S supports the procurement of all pediatric ARVs. Swaziland is rolling out T&S with expectations of nation-wide coverage by October 2016.

Adherence and Retention in Care:

Swaziland relies on community Expert Clients and Regional Health Motivators (RHM) to support patient tracking, which will be strengthened and scaled up. PEPFAR/S partners will provide lay CHWs to support PIHTC, adherence counseling, and support services to scale up identification of positives and ART enrollment. As part of the QM program (described in Section 6), PEPFAR/S will build the capacity of Regional Health Management Teams (RHMT) to improve site management leadership and governance. Regional partners will work with the RHMTs to establish systems for mentoring, supervision, and ensuring QM is institutionalized at the RHMT level.

4.9 Pediatric Treatment

Swaziland adopted the WHO 2013 Pediatric ART guidelines recommending ART for all children under five. The national program adopted universal testing for all children at nine months, 18 months, and 24 months.

Currently, children above five are initiated on ART if CD4 <500; however, with the T&S initiative, the national program will prioritize early ART initiation for all children under 15, regardless of their immunological status. Children under 15 will also be monitored for viral suppression at six and 12 months after ART initiation and annually thereafter. The program will ensure a high-coverage and quality EID program by supporting the national sample transportation system, training and mentoring HCWs, and CQI activities.

In response to the high LTFU of HIV-exposed children at 18 months, the program will begin implementing the Mother-Baby-Pair (MBP) initiative. The main aim of the initiative is to encourage women and their children to visit health facilities as a pair and more frequently through provision of a package of services for both the mother and the baby.

Implementation of universal testing for children will identify more HIV-positive children for treatment. In addition, PEPFAR/S will strengthen active case-finding of children whose family members are diagnosed HIV-positive. The program will also strengthen HIV testing in high-yield entry points, such as in-patient departments, out-patient departments, nutrition corners, and TB units through placement of HTS counselors and training and mentorship of health care workers. The program will also work closely with the OVC program to expand HIV testing among OVC.

Key program directions include: strengthening collaboration with the Expanded Program of Immunizations (EPI) to link HTC and vaccinations; strengthening diagnosis and management systems for treatment-experienced children; and improving follow-up and tracking of exposed infants to ensure they are linked to treatment without delay. Lay providers will assist in adherence preparation of caregivers for ART initiation, adherence monitoring, counseling and support, and patient tracking to improve retention. At the facility level, PEPFAR/S will support on-site training of nurses, clinical systems mentoring, and ongoing QI activities.

All pediatric treatment activities were defined as core. PEPFAR/S will procure all pediatric ARVs through the central GHSC-PSM mechanism.

SIMS visits revealed significant gaps in nutritional assessments, counseling, and referrals using appropriate tools. PEPFAR/S, working with the national program and IPs, has now assured that MUAC tapes, weighing scales, and stadiometers are available at all sites, and on-site trainings and mentoring are ongoing, especially in light of drought-exacerbated food insecurity in the region.

Swaziland relies on community expert clients and rural health motivators (RHMs) to support patient tracking. Under COP16, PEPFAR/S will strengthen and scale up this approach and support

community-led programs, such as partnerships with neighborhood care points (NCP) and support for the mobile outreach from the PHUs to ensure early diagnosis of pediatric HIV, enrollment on treatment, and retention in care.

4.10 Orphans and Vulnerable Children (OVC)

According to Swaziland's most recent projections[13,] a total of 75,389 children aged 0-14 (18% of the total child population of this age group) is orphaned, showing a slow decline of 4% since 2007. The number of AIDS orphans is almost double the number of non-AIDS orphans. In the absence of recent size estimations for vulnerable children[14], PEPFAR/S uses as denominator the 2010 Multi-indicator Cluster Survey (MICS) which found 45% of all children aged 0-17 to be either orphaned or vulnerable. The Lubombo and Shiselweni regions showed the highest rates of OVC (50%), with adolescents aged 15-17 the most-affected age group at 57%.

WB and EU are supporting a pilot cash transfer project to mitigate child vulnerability. Planned in four tinkhundla - one in each region - the project is set to commence shortly, and development partners are closely observing GKoS commitment to sustain and roll out this promising intervention. Another resoundingly positive development is the GKoS' decision to recruit an additional 57 social workers, which will more than double the HR of the Department of Social Development – a success that the Department attributes to PEPFAR/S's engagement on social welfare workforce strengthening.

Overall, however, national-level leadership and coordination on children's issues remain weak. There has been no tangible progress towards establishment of the Children's Department in the Deputy Prime Minister's office, intended to replace the National Children's Coordination Unit which was dissolved in 2014. Neither government nor civil society has made an effort to initiate a new action framework to replace the country's five-year National Action Plan, which ended in 2015.

PEPFAR/S investments to respond to sexual violence against children, especially the establishment of a child-friendly court in Lubombo in 2014, led to improvements in expeditious prosecution and sentencing of sexual offenders, as well as services to survivors. However, a recent policy change revising judicial practice puts this investment at risk. The directive mandates that that most cases involving sexual violence against minors must be tried in the country's only High Court, not in the local magistrate's courts. This might result in stricter sentences, but will also result in long delays due to court overload. Further, travel to the High Court in Mbabane will not be feasible for many children and caregivers.

The OVC program works across all four regions in alignment with the pediatric and prevention programs and in 14 tinkhundla where the DREAMS initiative targets adolescent girls.

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[13] Swaziland HIV Estimates and Projections Report 2015
[14] Unlike the previous MICS survey, MICS 2014 does not capture vulnerability as an indicator (only orphanhood).

All interventions are deemed core or near-core. An intervention for economic strengthening through value chains was deemed non-core and is transitioning during COP15, with 7,000 beneficiaries (caregivers and children) graduating as planned at the end of the five-year life of the project.

In COP15, the OVC portfolio is shifting to a more integrated and HIV-focused approach, which will be maintained in COP16. Emphasis will be on direct service delivery, with all IPs using case management for regular assessments and referrals. The adolescent program, with special focus on girls where DREAMS leverages COP OVC and prevention resources, conducts door-to-door recruitment and comprehensive enrollment assessment, which forms the base of individual care plans. OVC services and case management is also extended to adolescents living with HIV (ALHIV), including psycho-social support through home visiting and needs-based support to ensure ALHIV stay in school.

A model for phased graduation of adolescents has been developed. In COP16, children will not age out from the adolescent program as enrollment started very recently (COP15). The OVC program will continue to provide services to specific categories of OVC aged 18-19 based on specific vulnerabilities, including ALHIV and OVC in school to ensure they complete their education.

Case management will include a component to ensure that the child's HIV status is known and will emphasize referrals to HIV testing for at-risk OVC, especially HIV-exposed infants and young children, sexually-active adolescent girls, school drop-outs, survivors of SGBV, and children who show signs of illness who are not in medical care.

Based on PEPFAR/S technical assistance provided to strengthen systems and service delivery of social workers in the Lubombo region, additional investments are planned for Lubombo and Shiselweni to develop tools and operational modalities that ensure stakeholders have agreed-upon roles and responsibilities for active case finding and responding to children who are at risk of/are survivors of SGBV and other forms of violence. This TA will involve NGO service providers, community cadres (child protection volunteers, community police), social workers, HCWs, and law enforcement agency workers.

In line with recommendations of the PEPFAR/S gender analysis, the OVC program will further seek to address SGBV by strengthening advocacy through NGO structures to ensure legislative gaps are addressed, including the above-mentioned policy directive on jurisdiction of magistrate's courts for child rape and the roll-out of the One-Stop-Centre initiative, for which non-PEPFAR/S resources are being leveraged (Full Participation Fund).

Peace Corps-Swaziland (PC/Swaziland) contributes to the PEPFAR/S OVC program through two frameworks: community health and youth development, which both address HIV prevention and impact mitigation. Their services include psycho-social care and support activities, establishment of OVC community gardens to improve food security and nutritional status, income-generating

activities to improve their economic status; and capacity-building for OVC caregivers. PC/Swaziland also places a strong emphasis on health through life skills and SRH.

The program leverages the OVC Special Initiative, focusing on Early Childhood Development and linkages to PMTCT and pediatric HIV services. In COP16, siblings of HIV-exposed infants and other vulnerable children in the households of Special Initiative beneficiaries will receive targeted OVC services.

Swaziland's first MER 1.5 Outcomes Survey is currently underway; it is integrated with the baseline assessment for the adolescents' program.

5.0 Program Activities in Sustained Support Locations and Populations

5.1 Package of services in sustained support locations and populations

N/A

5.2 Transition plans for redirecting PEPFAR support to scale-up locations and populations

N/A

6.0 Program Support Necessary to Achieve Sustained Epidemic Control

Swaziland has the world's most severe HIV/AIDS epidemic, with an adult prevalence of 26.3%. In the last decade, Swaziland has made solid progress in reducing HIV incidence. The Government of the Kingdom of Swaziland (GKoS) has demonstrated strong leadership in crafting a national HIV/AIDS strategy and coordinating the response. However, there remain systems barriers to fully implement the GKoS and PEPFAR's shared vision of an AIDS free generation. Further complicating efforts to address the epidemic and achieve an AIDS free generation include the devaluation of the South Africa Rand and environmental factors. The devaluation of the rand—which the Swazi lilangeni is tied to—has impacted the purchase power of key commodities and supplies. Secondly, currently there is a severe water shortage and drought impacting the Southern Africa Region that will likely threaten treatment adherence and retention, and care and support for vulnerable populations, especially children and pregnant women in food insecure areas and households.

6.1 Critical Systems Investments for Achieving Key Programmatic Gaps

In a collaborative interagency process, the PEFPAR Swaziland Team identified key programmatic gaps and system challenges that must be addressed in order to achieve 90-90-90. The priority program gaps affecting both community and clinical services are:

1. Quality of service delivery

2. Commodity procurement and supply chain

3. Human resources for health

4. Health management information system.

Evidence of barriers within the system were determined, activities were identified to address the gaps, and measurable milestones were established to ensure progress in addressing the gaps. The PEPFAR team reviewed the findings and plan of action to ensure they were aligned with the overall National Strategic Plan for Swaziland.

Programmatic Gap #1: Inadequate Quality Assurance (QA), Quality Improvement (QI), and Quality Monitoring (QM) processes in place within the laboratory and at Point-of-Care sites

There are deficiencies in the observed quality of facility service delivery in key areas. Notably, proficiency testing of HIV testing and counseling at point-of-care sites and in the laboratories do not meet the required standard. Site Improvement Monitoring Systems (SIMS) assessments also indicate that quality assurance (QA), quality improvement (QI), and quality management (QM) are the

weakest-scoring core essential elements (CEEs). The proportion of CEEs scoring red and yellow are: HIV QM/QI system: 52%; POCT QA: 60%; Lab: QMS 67%, results and information management 67% testing interruptions 87%; HTC: Site-Level Proficiency Testing 43% (red), HIV testing QA: 61%; assessment and utilization of data: 65%, and Data QA 76%.

It is essential to close the gap to prevent identification of false positives, to ensure continuity of services and reduction in testing interruptions, and to allow for appropriate and timely intervention through developed systems. Efforts are ongoing to increase mentoring and supervision for HTC QA.

The program will continue to support national program's implementation of quality assurance for HIV point of care testing to ensure the accuracy and reliability of testing. PEPFAR implementing partners will provide support to all testing sites (facility, community, mobile testing) within the scale-up sites and will align to recently released WHO Consolidated Guidelines on HTS and the national HIV testing and counseling guidelines. The laboratory program will facilitate implementation of quality assurance for HIV rapid test and strengthening of analytical phases.

Programmatic Gap #2: Inadequate and irregular supplies of drugs, reagents, and test kits

Commodity availability is critical for achievement of each of the three 90's. USAID is the largest bilateral donor to the GKoS in the area of supply chain. Three other donors Global Fund (GF), the World Bank (WB)/European Union (EU) and the Clinton Health Access Initiative (CHAI) also provide support in the area of supply chain.

The Global Fund is financing three supply chain elements:

1) Renovation of the Central Medical Store's Main Warehouse in Mbabane with capacity to hold all medication and essential supplies for HIV/AIDS, TB and RH commodities and contraceptives and other essential drugs. The existing CMS warehouse will be used as office space for CMS.

2) The selection, design, installation, staff training and maintenance at the central and regional levels for a warehouse management information system (WMIS); and

3) Studying and scoping out the possibility of GF financing for a new Electronic Logistics Information System (E-LMIS) that is compatible with the WMIS and replaces the RX solutions platform. CMS is now in the process of developing a costed business

plan for Global Fund financing for the WMIS. At this stage the CMS is leaning towards a GF grant purchase of the Microsoft Dynamics Platform called NAV.   It is not yet clear if this round of the GF grant can cover a new E-LMIS, nor the timing for the roll-out of these new platforms.

The World Bank and the European Union $42 million project (50% loan, 50% grant) has several supply chain strengthening components:

1) Certificate-level purchasing and supply management training for four staff in the UK and short courses on procurement contract management. WB interns posted to the procurement division for six months.

2) In-country technical assistance to the CMS Office of Procurement for purchasing.

3) Renovation of SANU and Good Shepherd nursing schools; designed and is building and equipping four prototype integrated primary care clinics in each of the four regions. These new clinics include model pharmacies and integrated HIV and TB services. All of the services at these new model sites are designed to include non-stigmatizing "one-stop" shops for people living with HIV and TB and other primary care services for the general public.

CHAI, funded through a grant from DFID that runs until the end of 2017, has following activities:

1) Strengthened the data management unit at the CMS to interface with the LMIS with a goal of end to end stock management. A shared MOH, CHAI and USG goal is to reduce the amount of fragmented supply chain data.

2) CHAI has supported improved price negotiation for ARVs in the region. CHAI has identified bottlenecks across the supply chain, imbedding technical assistance for short periods of performance such as a one year imbedded technical advisor in the department of procurement.

3) CHAI also provides TA to SADAC for procurement and hosts annual buyer/supply meetings which include all of the countries in the Southern Africa region to disseminate market intelligence about pricing. These "intelligence sharing" meetings now include both ARV and TB pharmaceuticals and diagnostics. CHAI also works closely with the national laboratory supply system. CHAI's assistance has been tied to GKoS commitments to hire and absorb new procurement and laboratory staff.

Historically the MOH has provided funding for drugs and reagents and has been reluctant for partners to step in. However, last year the GKoS made a formal request to PEPFAR and GF to support HIV drug and laboratory commodity procurement. This request was precipitated in part by a significant depreciation (20%) of the rand to the dollar. Additional challenges in the availability of commodities is the onerous tendering processes, gaps in communication between MOH, MOF, and suppliers result in difficulties in

timely follow-up of orders, supplier payments and deliveries. Bottlenecks in procurement of commodities exist at both the MOF and supplier levels. An appropriate budget and stock visibility are constrained by the absence of an accounting system. An inefficient distribution of drug supplies adversely affects patient adherence. These challenges and uncertainties regarding drugs, test kits, and laboratory supplies have contributed to GKoS's earlier hesitation to aggressively roll out Test and Start (T&S).

The 2015 SIAPS Annual Report states that the number of facilities that report meeting the minimum-maximum stock levels varied from 18% to 56% within a given quarter. The CMS reports identify frequent reports of delayed or partial delivery of stock items. For example, in March 2016, delays in delivery of test kits resulted in dangerously low supply of test kits with less than a two-month supply. The CMS is expected to keep a minimum stock of six to seven months. The media also frequently feature stories on NGO, client, and clinical staff complaints about the unavailability of drugs and laboratory services.

Programmatic Gap #3: Inadequate number and skills mix of human resources (HR) which impacts the quality and the continuity of services

Swaziland has an inadequate number and skills mix of human resources (HR), which impacts the quality and the continuity of services. The Staffing Norms document (2016) indicate that clinics in the country are currently operating at 37% and health centers at 70% of their staffing requirement. There is a low HCW-to-population ratio for most medical and allied service cadres (WHO standard and regional benchmarks). There is a dependency on donor HRH support to accomplish 90-90-90. HRH is one of the three weakareas identified in the SID. SIMS data show that 83% of facilities had laboratory testing interruptions due to insufficient staffing, and 67% had no QM system because the staff were too extended to address QA/QI issues.

Achieving 90-90-90 depends on adequate staff in different cadres at different levels of care. Critical staffing requirements for scaling up include: lay counselors, community outreach and engagement staff for the first 90; expert clients, peer navigators, and NARTIS-trained nurses for the second 90; and laboratory and pharmacy technicians and phlebotomists for the third 90.

Poor staff planning and rotation leads to worker stress, staff burnout, and a loss of staff to private sector or international organizations, resulting in inequitable access to quality health and HIV/TB services, especially in the rural populations. This has an implication on the number of HCWs who need to be trained to effectively implement T&S.

Programmatic Gap #4: Limited capacity to track patients along the clinical cascade

The MoH currently uses a combination of paper based and electronic databases to track and report on services provided to clients in the various program areas. Some of the data is patient level data whilst most of the data is aggregated data. The current HIV Information Systems (HIS) lacks a robust and modular patient-based database system that efficiently capture, store, and retrieve clean

data sets for all health programs. The number of data collection tools applies a heavy burden on clinicians and other data handlers at health facilities.

PEPFAR and Global Fund have supported the MOH in developing an integrated modular data system named Client Management Information System (CMIS) which builds on an electronic medical record system. Global Fund is supporting the hardware (computer, local networking, and wide networking). Expected procurement and deployment for all hardware is planned to be on a rolling basis. PEFPAR support will focus on development and deployment of the software in all facilities. Additionally, PEPFAR will support the training of facility staff and sensitization of facilities, mentoring on how to use the system, and HR support to MOH for surge staff to focus on roll out of CMIS at facilities. By the end of FY16, 23 facilities will be prioritized to have a full functioning CMIS.. Thus, by the end of FY17, 141 ART delivery sites will be utilizing CMIS to track and report on services provided to clients in the various program areas, specifically for ART patients' health outcomes, adherence, and retention. Also of note is that by the end of FY18, MOH will absorb eight staff PEPFAR previously supported in the roll out of CMIS (data clerks, IT, etc.).

Swaziland has also adopted the use of the national personal identity number (PIN) as the unique identifier for individuals accessing health services. The use of unique identifier however has not been consistent across the HIV programs and health services. The roll out of unique identifier use will be supported together with the scale up of Client Management Information System (CMIS) in COP16.

Scale up of the CMIS and use of unique identifier is critical for tracking patients along the HIV clinical cascade. The CMIS will facilitate tracking of clients moving between facilities, improve documentation of program data and its quality. This scale up is line with Swaziland e-government policy and is fully owned by the line ministries.

SIMS visits observe that national PIN number is sometimes collected in registers, but not in client file forms used for data entry.

Table 6.1.1: Key Programmatic Gap #1: Significant deficiencies in the observed quality of service delivery within certain areas within facilities (HTC/Lab/POCT)

Key Systems Barrier	Outcomes expected after 3 years of investment	Milestones	Proposed COP16 activities	Budget Code	Activity Budget Amount	Associated Implementing Mechanism ID	Relevant SID Element and Score (if applicable)
Inadequate QA/QI/QM processes in place within the laboratory and at Point of Care sites	• Remaining 13 of 22 labs have Improved Laboratory Quality Management Systems and two labs receive accreditation by FY 18	1. 5 of 13 labs received SLIPTA audits and attained 3-star rating by FY 16; 10 of by FY 17 and 13 of 13 by FY18	1.1. Conduct internal SLIPTA audits. 1.2 Conduct QC Method Validation Training and Implementation FY17	HLAB	$35,000 (applied pipeline)	ICAP Lab	9. Quality Management (7.76)
		2. Two of 13 labs receive SADCAS accreditation by FY 18	2.1. Conduct external Laboratory Audits	HLAB	$30,000 (applied pipeline)	ICAP Lab	9. Quality Management (7.76)
	• Improved level of Proficiency Testing (PT) and HIV testing QA by all staff conducting HTS in 162 PEPFAR supported sites by FY 18 • All labs and mini-labs	3. All staff in 80 PEPFAR supported facilities achieve 95% pass rate in PT by FY 17 and all staff in 162 testing sites achieve 95% pass mark in PT by FY 18	3.1. Develop system for PT panel development, distribution and assessment FY16. 3.2 Conduct PT training for all PEPFAR supported sites by FY17 3.3 Do PT competency	HLAB	$35,000 (applied pipeline FY16)	ICAP Lab	9. Quality Management (7.76)

(67) have less than 7 days of testing interruptions per year by FY 18		assessments from FY16.				
	4.1 Twenty labs have adequate staffing and reagents in FY 17 and the rest by FY 18. 4.2 Reduce equipment down time due to failure by 50% by FY 17.	4.1 Implement staffing norms by FY16. 4.2 Do quarterly equipment maintenance audits by FY16	HLAB	$35,000 (applied pipeline FY16)	ICAP lab	9. Quality Management (7.76)
Lack of personnel with the technical capacity to implement QA/QM/QI	• 162 Health Facilities have established HIV QM/QI systems by FY 18 • All PEPFAR supported facilities improve utilization of QA data by at least 15% • All PEPFAR supported facilities increased number of QI initiatives by 50% by FY18	1. Implement Quality management systems in 80 facilities in FY17 and the rest in FY 18	1.1. Recruit Regional technical staff by FY16. 1.2. Launch the implement of QMS in 20 facilities by FY17. 1.3. Develop QMS manual by FY17 4. Train 80% of facility staff in 20 facilities on the QMS awareness and implementation requirements.	HTXS OHSS	$50 000	MOH CoAg /Regional Partner	9. Quality Management (7.76)
		2. Improved utilization of QA data in 80 of 162 facilities by FY 17 and all facilities by FY 18	2.1. Train facility staff in 20 to do DQA by FY16. 2. Follow up DQA at REHSAR quarterly by FY16	HTXS OHSS	$25 000	MOH CoAg /Regional Partner	9. Quality Management (7.76)

| | | 3. Increase the establishment and follow-up of QI projects in 80 of 162 facilities by FY 17 and all facilities by FY 18 | 3.1. Train and mentor 80 facility staff on development, write up and monitoring of QI projects by FY17. 3.2. Award best projects at Annual Quality Forums by FY16. | HTXS OHSS | $50 000 | MOH CoAg /Regional Partner | 9. Quality Management (7.76) |

Table 6.1.2: Key Programmatic Gap #2: Inadequate and irregular supplies of drugs, reagents and test kits							
Key Systems Barrier	Outcomes expected after 3 years of investment	Milestones	Proposed COP16 activities	Budget Code	Activity Budget Amount	Associated Implementing Mechanism ID	Relevant SID Element and Score (if applicable)

[REDACTED]	*[REDACTED]*	1.1. *[REDACTED]*	1.1. *[REDACTED]*	*[REDACTED]*	*[REDACTED]*	*[REDACTED]*	*[REDACTED]*
		[REDACTED]	*[REDACTED]*	*[REDACTED]*	*[REDACTED]*	*[REDACTED]*	*[REDACTED]*
		[REDACTED]	*[REDACTED]*	*[REDACTED]*	*[REDACTED]*	*[REDACTED]*	*[REDACTED]*
Inadequate IT and management systems to track drug orders usage and distribution.	• Improved quantification and notification at central level about stock-outs and expired drugs by FY 17. • Improved tracking of commodities in 162 PEPFAR supported facilities by FY 17	1.1. Purchase and install a warehouse management information system (WMIS) by FY 16. 1.2. Train all staff and optimize utilization of the WMIS by Q2 of FY 17.	1.1. Train all regional WMIS supervisors by Q2 FY17. 1.2. Support accreditation of 20 facilities to the WMIS by fy17. 1.3. Conduct quarterly stock audits at the national warehouse and at the facilities by Q2 FY17.	HTXS OHSS	(Global Fund support)		6. Commodity Security and Supply Chain (6.75)

Table 6.1.3: Key Programmatic Gap #3: Inadequate number and skills mix of human resources which impacts the quality and the continuity of services

Key Systems Barrier	Outcomes expected after 3 years of investment	Milestones	Proposed COP16 activities	Budget Code	Activity Budget Amount	Associated Implementing Mechanism ID	Relevant SID Element and Score (if applicable)
Imbalanced staffing levels at some facilities	• Needs based deployment of staff according to staffing the norms report by FY 17	1. Optimal staffing levels in 80 of 162 facilities achieved by FY 17 and the rest by FY 18.	1.1. Staffing norms implemented in 80 facilities by FY 17 and the rest by FY 18.	OHSS	$150,000	ICAP/URC/AFA Community Partners	7. Human Resources for Health (6.33)
		2. Match skills in HIV/AIDS to service needs at site level in 80 facilities by FY 17 and the rest by FY 18.	2.1. Do skills assessment in high volume /scale up facilities by FY16 2.2. Identify and deploy required staff to support T&S by Q2FY17.	OHSS	$150,000	ICAP/URC/AFA Community Partners	7. Human Resources for Health (6.33)

Table 6.1.4: Key Programmatic Gap #4: No unique patient identifier in consistent use for quality and the continuity of services

Key Systems Barrier	Outcomes expected after 3 years of investment	Milestones	Proposed COP16 activities	Budget Code(s)	Activity Budget Amount	Associated Implementing Mechanism ID	Relevant SID Element and Score (if applicable)
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
		[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

6.2 Critical Systems Investments for Achieving Priority Policies

The GKoS should address number of systems barriers in order to have a successful implementation of Test and Start (T&S).

First, domestic resources required to implement test and start are vulnerable due to decreasing Rand value and potential emergency funds required for drought relief.

Second, there is limited physical space for storage, lab, and clinical service at facilities- restraining their ability to implement T&S. Afro-Geo Service Availability Mapping report (2014) indicates that there is a need for upgrades in many facilities. Some SIMS visits (e.g. Siphofaneni) show inadequate space, shelving, and air conditioning. Facilities also have inadequate space for HIV consultations; many facilities are using the MCH wards and offices, leaving MCH services displaced or not offered.

Third, there are a variety of strategies that can be employed to reach more clients with ART. Decentralization and increased number of spoke sites providing ART services is planned as well as community sites (CommART). Timely commodity distributions and elimination of facility-level stock-outs in all PEPFAR/S-supported facilities are also essential. One step to avoid stock-outs is ensuring that supported facilities have adequate storage to support provision of 3-6 months of drugs to patients. Scale-up of mobile clinical facilities providing ART services in communities with low access, including provision of after-hour testing and initiation, could help reach historically hard-to-reach individuals.

Lastly, there is inadequate coverage of patient-level information systems. To address this, the program needs to establish patient-level information system (CMIS) with unique identifiers in all PEPFAR-supported hub and scale-up facilities to monitor the clinical cascade status, both at patient level and population level. Functional computer systems are planned for these facilities.

Table 6.2.1: Test and Start (T&S)							
Key Systems Barrier	Outcomes expected after 3 years of investment	Milestones	Proposed COP16 activities	Budget Code(s)	Activity Budget Amount	Associated Implementing Mechanism ID	Relevant SID Element and Score (if applicable)

Insufficient funds for implementation and long term sustainability of T&S	•Develop a needs based budgeting of domestic and donor resources by FY16	MOH and MOF cooperate to develop a needs based budgeting process by FY16.	2.1. Building the capacity of regions to improve budget execution by FY16. 2.2. Support MOH to advocate with the MOF for additional resources to sustain the HIV/AIDS investment by FY17.	OHSS	$100,000	ICAP Manzini/URC Lubombo/EGPAF Hhohho and Shiselweni	14. Financial/Expenditure Data (5.42)
		Develop a resource mobilization strategy by FY16.	3.1. Resource mobilization strategy developed by FY17	OHSS	$50,000	ICAP Manzini/URC Lubombo/EGPAF Hhohho and Shiselweni	12. Technical and Allocative Efficiencies (8.57)
Infrastructure barriers (limited physical space for storage, lab and clinical service).	• Increased proportion of patients accessing HIV/TB services at scale-up sites and alternative service delivery points to 40% by FY 18. • All 162 PEPFAR supported facilities store 3 months' buffer stock of ARVs by	1. 10% increase in number of clients accessing services at alternative service delivery points by FY 17. 2. 80 PEPFAR supported facilities store 3 months' buffer stock of ARVs by FY 17, 162 by	1.1. Support ART Accreditation of 5 additional sites by FY17. 1.2. Support active down referral of 10% stable patients from sustained sites to scale up sites by FY17. 1.3. Develop adequate storage space in 80 PEPFAR supported	HTXS	$100,000	ICAP Manzini/URC Lubombo/EGPAF Hhohho and Shiselweni	6. Service Delivery (6.53)

	FY 17. • Improve space utilization and optimize client flow to improve service delivery in all PEPFAR supported facilities by FY 17.	FY 18.	facilities by FY 17, 162 by FY 18.				
		4. Scale up differentiated care models (community ART service delivery models) by FY17	4.1. Support MOH to roll out new differentiated models of HIV service delivery, including the training of HCW and clinicians on the new adherence guidelines in 4 regions by FY17.	HTXS OHSS	$250,000	ICAP Manzini/ URC Lubombo/ EGPAF Hhohho and Shiselweni/ PSI	6. Service Delivery (6.53)

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

Systems Category* (only complete for categories relevant to country context)	Activity	1) First 90; 2) Second 90; 3) Third 90; or 4) Sustained Epi Control. (Teams may select more than one.)	Outcomes expected after 3 years of investment	Budget Code(s)	Activity Budget Amount	Associated Implementing Mechanism ID	Relevant SID Element and Score (if applicable)
Governance							
Increase facility quality management	Establish regular QMS management reviews at facility, regional and National level by FY17.	1) First 90; 2) Second 90; 3) Third 90	Non conformances to quality standards addressed at all facility level.	OHSS	$50,000	Mechanism 17462 MOH CoAg	9. Quality Management (7.76)
HRH norms	Development written roles and responsibilities for managers at National, Regional and facility level by FY17.	1) First 90; 2) Second 90; 3) Third 90	Managers have job descriptions that are appraised annually.	OHSS	$30,000	Mechanism 18250 WHO	7. Human Resources for Health (6.33)
Strategic Information							
Strengthening MOH Strategic Information and Monitoring and Evaluation	Support to MOH Epidemiology & Surveillance Unit	1) First 90; 2) Second 90; 3) Third 90	Outcomes expected after 3 years of investment: Functional Integrated Disease Surveillance &	HVSI	$100,000	Mechanism 17458 ICAP EPI Research TA	7. Human Resources for Health (6.33)

Systems			Response system				
			Milestone at Sept 2017:				
			• Baseline assessment completed and disseminated				
			• Training completed for at least 15 surveillance officers				
			• Key documents: strategic plan, roles and responsibilities, case definitions developed or updated				
			• Core SOPs and template for weekly epidemiological newsletter developed and approved				
			Milestones at Sept 2018:				
			• At least 75% of facilities reporting				

			into IDSR				
			• At least two IDSR Epi- bulletin per month				
			• At least quarterly IDSR data analysis and dissemination				
			• E-surveillance implementation plan developed and approved				
			Milestones at Sept 2019:				
			• At least 10% of facilities implementing E-surveillance pilot projects				
Strengthening MOH Research Capacity	Support to MOH Research Unit	1) First 90; 2) Second 90; 3) Third 90	Outcomes expected after 3 years of investment: Strengthened capacity of Scientific Ethics	HVSI	$100,000	Mechanism 17458 ICAP EPI Research TA	7. Human Resources for Health (6.33)

			Committee (national IRB) Milestone at Sept 2017: • Baseline assessment completed and disseminated • Approved guideline documents, licensing and training for online electronic system for NHHRB protocol submission and review • Approved training materials and SOPS to review a broad spectrum of clinical trials • Approved guideline documents for field monitoring of research activities approved by NHRRB • Approved					

			guideline documents for establishment and harmonization of institutional review boards (IRBs) within training institutions • Research Resource Centre established • TA for national health research conference • At least 9 Cohort 4 fellows trained for Health Research Training Program (HRTP) • At least 6 HRTP Cohort 3 fellows conduct analysis • At least 3 HRTP Cohort 1-2 publications Milestone at Sept 2018: • At least 5 clinical				

			trials review completed by NHHRB				
			• At least 1 field monitoring visit per month for implemented research				
			• At least 1 IRB meeting per month				
			• At least 9 HRTP Cohort 5 fellows trained				
			• At least 6 Cohort 4 fellows conduct analysis				
			• At least 5 Cohort 1-3 publications				
			• Certification of HRTP with UNISWA or SADC university				
			Milestone at Sept 2019:				
			• Research resource center upgraded				

			• National health research conference successfully implemented • Two semi-annual research dissemination for a conducted • National research agenda reviewed, revised, and approved. • At least 9 HRTP Cohort 6 fellows trained • At least 6 Cohort 5 fellows conduct analysis • At least 7 Cohort 1-4 publications • Successful transition of program to MoH or UNISWA				
[REDACTED]	*[REDACTED]*	*[REDACTED]*	*[REDACTED]*	*[REDACTED]*	*[REDACTED]*	*[REDACTED]*	*[REDACTED]*

Strengthening MOH use and analysis of SI and M&E data	Support to Central Statistical Office	1) First 90; 2) Second 90; 3) Third 90	Milestone at Sept 2017: • Complete baseline assessment • Complete guidance documents and SOPS for National Data Coordinating Center (NDCC) • Furnished and functional NDCC with server, hardware and software • Establish access to SHIMS 2 data in NDCC • At least 100 health care workers trained on ICD-10 Milestone at Sept	HVSI	$150,000	Mechanism 17458 ICAP EPI Research TA	7. Human Resources for Health (6.33)

			2018: • Successful expansion of NDCC to include at least 80% of other health surveys • Analysis and dissemination of CRVS and ICD10 data Milestone at Sept 2019: • Successful expand NDCC to include other health data • Sustainability plan for maintaining quality reports on vital statistics approved and disseminated • Analysis and dissemination of CRVS and ICD10 data				

Systems Development

Case management for child protection	• Develop guidelines and SOPS for the management of cases of child abuse by FY 17 • Establish case conferencing structures in 5 chiefdoms by FY 17 • Train community cadres and local line ministry staff on their roles to identify, refer and track abused children by FY 17 • Review and revise case recording system for the Directorate of social welfare	1) First 90; 2) Second 90; 4) Sustained Epidemic Control	• Children at risk of abuse and survivors of abuse are identified and receive social and HIV services through functional referrals • Child placements outside of families are reduced • Longer term community systems are established and sustained	HKID	$440,000	Mechanism 17965 4 Children (CRS)	6. Service Delivery (6.53)

7.0 Staffing Plan

PEPFAR/S has a small footprint, given the national disease burden and the ambitious targets to achieve 90-90-90 by the end of 2017. We held interagency discussions to review 2015 staffing data analysis from OGAC to analyze technical or administrative gaps, identify duplication, and address any requirement changes. We identified seven new positions for COP16. We agreed all existing positions are critical, and none were eliminated. This staffing plan will allow PEPFAR/S to maintain an effective balance between interagency business process coverage and intra–agency partner management and technical roles. SIMS requirements can be met using local and international CDC staff and local and regional (Pretoria) USAID staff.

These positions have been vacant for more than six months:

USAID:

- LES program and financial analyst approved in COP14 is now in recruitment.
- US/TCN PSC Senior Strategic Information and HSS Advisor approved in COP 14 is currently in recruitment with a candidate identified.
- USAID Deputy Director initial recruitment did not provide candidates with adequate field/management experience. The position description was re-worked and reposted. Recruitment is in process.

CDC:

- LES TB/HIV Specialist was approved in COP14. The position was on hold due to limited desk space at Kent Rock.
- LES HTS Specialist was approved in COP15. Hiring for this position will be prioritized. PD has been completed and is being forwarded for MClass.

State:

- State/W is recruiting a PEPFAR Coordinator. This position, a top priority, has been vacant since December 2015.

PEPFAR/S agreed that the proposed new positions for COP16 are justified and critical for effective achievement of 90-90-90. Four Regional Liaisons (LES) will serve as points of contact with local authorities and enhance information sharing, especially important given the new regionalization, local data use for programming, and implementation of game changers. They will be State Department employees. An LES Community Engagement and KP Advisor will focus on the new and expanded activities in both these areas. S/he will be a USAID employee. Two administrative support staff will work on administrative tasks, freeing up time for agency management and technical staff to focus on technical/programmatic issues. USAID and CDC will each employ one assistant.

The cost of doing business will increase for all agencies because of theses personnel factors:

- COP15 under-budgeted USDH costs;
- LES salaries increased in 2015; and
- Cost of personal service contracts will rise in COP16.

APPENDIX A

Table A.1: Program Core, Near-Core, and Non-Core Activities for COP16

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
Site level	• The provision of HIV testing and counseling across the range of community and facility settings • Linking HTC-users to the appropriate services and tracking those linkages • HIV testing among priority populations and locations • Direct service provision as well as direct technical support to the site, including VL • Service delivery for option B+, including support for clinic personnel • Sample transport and results return for pediatric specimens at the site level (CD4/VL) • HIV care and treatment, drug delivery, and distribution to facility level. • Services related to prevention and treatment of OIs (excluding TB) and other HIV/AIDS-related complications • Nutritional assessment, counseling, and referral for HIV+ women and men • All PHDP activities for HIV+ individuals • All TB screening for HIV infected individuals • INH prophylaxis for all HIV+ populations -(TA only no drugs) • Exams, clinical monitoring, related laboratory services, treatment and prevention of TB • Screening of TB clinic clients for HIV testing and clinical care, targeting key pops • Facility based services for HIV exposed infants • Early infant diagnosis services implemented at the site level • Activities that will increase bi-directional linkages to the community/facility • Adherence to improve overall retention on treatment and establish functional bi-directional linkages between facilities and the communities to reduce loss to follow up • Activities promoting case finding and integration of pediatric HIV treatment services into MCH platforms	• In-service lab training, mentoring, and supervision • LMIS/forecasting systems	• All TB screening for general population • Ensuring appropriate clinical use of blood • Transfusion procedures and hemovigilance • Lab commodities and consumables (except reagents for the support of CD4, EID, and VL)

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
	• Strengthen community structures and linkages to core services (increase demand and access) • Strengthen delivery of comprehensive combination prevention interventions and services • Services related to the procurement, promotion, and distribution of male and female condoms and condom-compatible lubricants • Sexual prevention programs targeted for key populations (peer outreach, group-based prevention activities, strengthen networks for an enabling environment) • PrEP for HIV negative FSWs (DREAMS) • Strengthening access to and provision of PEP and referrals to comprehensive care for survivors of sexual assault. (DREAMS) • Provide a comprehensive package of support to empower AGYW and access their access to SRH services (DREAMS) • Assessing child, adolescent, and family socio-economic status and risk • Identification of adolescents and children made vulnerable by or to HIV/AIDS • Developing case management plans for children and families with monitoring of referral completion • Promotion of HIV testing of OVC program participants • Integrating ART adherence, assessment, counseling, and support into routine household support for family members with HIV • Positive parenting skills (incl. discipline, communication on adolescent risk, and HIV disclosure) • Facilitating group-based Household Economic Strengthening activities (savings groups, financial literacy) • Providing subsidies to most at need adolescents to ensure retention in secondary school (e.g. school uniforms etc.) • Supporting early childhood development (ECD) – in coordination with PMTCT and pediatric care • Support the implementation of VMMC- This includes the minimum package of clinical and		

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
	prevention services which MUST be included at every VMMC delivery point • Linkages to treatment/ Care services for men who test HIV+ • Lab equipment (except GeneXpert) • Development and implementation of policy, advocacy, guidelines and tools (broad-based) • Site level quality management support		
Sub-national level	• Support the needs of adolescents with HIV (ALHIV) • Activities to address psychosocial support of children and adolescents • Supporting community and national level child protection, GBV prevention, and response activities	• Support referral for screening and treatment to prevent cervical cancer in HIV-infected women • Direct support of regional HR officers to coordinate all HRH activities at site level • Regional level quality management support	• Lab research training program
National level	• Procurement of HIV+ monitoring commodities including procurement of VL commodities • All ARVs, including PEP, ARVs for adult and pediatric treatment, and PMTCT • Activities that will increase bi-directional linkages to the community/facility • Activities that support HTC to widen the access, utilization, and uptake by families • Support to the government to roll out updated pediatric treatment guidelines • Costs associated with providing clinical services to HIV+ children • Costs associated with community support to HIV+ children • In-service training for clinicians and other providers to provide pediatric care • Clinical and laboratory monitoring of children and adolescents on treatment (CD4/VL reagents) • Building capacity to monitor, supervise, and implement uninterrupted HIV treatment services from infancy to adolescents (including transition to adult services) • Activities promoting case finding and integration of pediatric HIV treatment services into MCH platforms • Supporting community and national level child protection, GBV prevention, and response activities	• Training, monitoring, oversight/mentoring on cotrimoxazole prophylaxis • CTX prophylaxis (commodities) • Blood bank accreditation TA • Blood safety QA • Program specific M&E, evaluations • HIVDR surveillance • Capacity strengthening in epi and research (HRTP) • Technical assistance to improve system-level financial management systems • Pre-service training and curriculum development • Support to Global Fund programs, activities, and donor coordination • National level quality management support • TA to HR Unit and regional/national decision makers to establish strategic staffing plan based on scale up	• Activities supporting a nationally-coordinated blood safety program to ensure accessible, safe, and adequate blood supply • Infrastructure and policy • Donor-recruitment • Blood collection and blood testing (transfusion-transmissible infections) • Storage and distribution • Blood safety reagents • Technical support for HRIS • National systems planning and coordination for in-service training

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
	• Circumcision supplies and commodities • Training (in-service, safety, curriculum creation) • Support for the national health information system planning and development. • HIV Impact Survey (HIA) • In service training for clinical and other personnel supporting HIV activities (i.e., lay counselors, M2M, data clerks) • Development and implementation of policy, advocacy, guidelines, and tools (broad-based) • Support for supply chain at above-site level • Engage government to develop new health care cadres, required standards, and transition plan		

Table A.2: Program Area Specific Core, Near-core, and Non-core Activities for COP16

	Core Activities	Near-core Activities	Non-core Activities
HTS	- The provision of HIV testing and counseling across the range of community and facility settings - Supply, provision, and distribution of RTKs - Mobilization to support HTC and testing demand creation - Linking HTC-users to the appropriate services and tracking those linkages - Activities that support HTC to widen the access, utilization, and uptake by families - HIV testing among PPs and locations		
Care and Treatment	<u>Adult Treatment</u> - Direct service provision and technical support to the site, including VL - Service delivery for option B+, including support for clinic personnel - Sample transport and results return for pediatric specimens at the site level (CD4/VL) - HIV care, treatment, drug delivery, and distribution at facility level. <u>Pediatric Treatment</u> - Support the government to roll out updated pediatric treatment guidelines - Costs associated with providing clinical services to HIV+ children - Costs associated with community support to HIV+ children - In-service training for clinicians and other providers of pediatric care - Clinical and laboratory monitoring of children and adolescents on treatment (CD4/VL reagents) - Building capacity to monitor, supervise, and implement uninterrupted HIV treatment services from infancy to adolescents (including transition to adult services) - Adherence to improve overall retention on treatment and establish functional bi-directional linkages between facilities and communities to reduce loss to follow up - Activities promoting case finding and integration of pediatric HIV treatment services into MCH platforms <u>Adult Care</u> - Services related to prevention and treatment of OIs (excluding TB) and	- Training, monitoring, oversight/mentoring on cotrimoxazole prophylaxis - Support referral for screening and treatment to prevent cervical cancer in HIV-infected women	

	Core Activities	Near-core Activities	Non-core Activities
	other HIV/AIDS-related complications • Nutritional assessment, counseling, and referral for HIV+ women and men • Procurement of HIV+ monitoring commodities including procurement of VL commodities • All PHDP activities for HIV+ individuals Pediatric Care • Facility based services for HIV exposed infants • Early infant diagnosis services implemented at the site level • CTX prophylaxis (commodities) • Support the needs of adolescents with HIV (ALHIV) • Activities to address psychosocial support of children and adolescents • Activities that will increase bi-directional linkages to the community/facility • Activities that support HTC to widen the access, utilization, and uptake by families		
Prevention	• Strengthen community structures and linkages to core services (increase demand and access) • Strengthen delivery of comprehensive combination prevention interventions and services • Services related to the procurement, promotion, and distribution of male and female condoms and condom-compatible lubricants • Sexual prevention programs targeted for KPs (peer outreach, group-based prevention activities, strengthen networks for an enabling environment) • PrEP for HIV negative FSWs (DREAMS) • Strengthening access to and provision of PEP and referrals to comprehensive care for survivors of sexual assault. (DREAMS) • Provide a comprehensive package of support to empower AGYW and access their access to SRH services (DREAMS)		
OVC Program/system support	• Assessing child, adolescent, and family socio-economic status and risk • Identification of adolescents and children made vulnerable by or to HIV/AIDS • Developing case management plans for children and families with monitoring of referral completion	• Strengthening government case management systems to prevent and respond to child abuse and support family placement	

Core Activities	Near-core Activities	Non-core Activities
- Promotion of HIV testing of OVC program participants - Integrating ART adherence assessment, counseling, and support into routine household support for family members with HIV - Supporting community and national level child protection, GBV prevention, and response activities - Positive parenting skills (incl. discipline, communication on adolescent risk, HIV disclosure) - Facilitating group-based Household Economic Strengthening activities (savings groups, financial literacy) - Providing subsidies to most at need adolescents to ensure retention in secondary school (e.g. school uniforms) - Supporting early childhood development (ECD) – in coordination with PMTCT and pediatric care		

Table A.3: Transition Plans for Non-Core Activities

Transitioning Activities	Type of Transition	Funding in COP16	Estimated Funding in COP17	# of IMs	Transition End date	Notes
Transfusion procedures and hemovigilance	To GKoS	No	No	n/a	Transitioned as of COP14	Detailed SOPs developed and circulated. Transfusion committees established. Demand utilization spreadsheet of blood monitored at national level
Storage and distribution of blood products	To GKoS. WB support	No	No	n/a	Transitioned as of COP14	Regional vehicles procured for blood collection and distribution. Adequate storage equipment nationally and in transfusing facilities
Activities supporting a nationally-coordinated blood safety program to ensure accessible, safe and adequate blood supply	To GKoS. WB and GF support.	No	No	n/a	Transitioned as of COP14	National strategy and policy developed and implemented
Blood safety Infrastructure and policy	To GKoS. WB and GF support.	No	No	n/a	Transitioned as of COP14	procured equipment for national and satellite functioning well at state of art facility
Blood Donor-recruitment	To GKoS. WB and GF support.	No	No	n/a	Already transitioned, GKOS, WB, GF	best practice blood donor policies in place
Blood collection and blood testing (transfusion-transmissible infections)	To GKoS. WB and GF support.	No	No	n/a	Transitioned as of COP14	Well established blood screen and testing policies in place
All TB screening for general population	To GKoS			n/a	Transitioned as of COP14	National program responsibility
Lab research training program	To GKoS	No	No	n/a		One-off program. Research completed.
Blood safety reagents		No	No	n/a		
Lab commodities/consumables (except reagents for the support of CD4, EID and VL)	To GKoS	No	No			In 2015, transferred to GKoS. In COP16, MOH has asked PEPFAR support for testing kits in order to aggressively 90-90-90.

Transitioning Activities	Type of Transition	Funding in COP16	Estimated Funding in COP17	# of IMs	Transition End date	Notes
Household economic strengthening – IGA	Project completed	No	Yes	1	Transitioned in COP14	IGAs were a small component of some sub grantees working with OVC in an umbrella grant. Activities ended according to plan during COP14.
Household economic strengthening - Value chains	Project completed	No	No	1	Transitioning in FY 16	Value chain activities end as planned after 5 year engagement with completion of capacity development activities during FY 16.
Technical support for HRIS		No	No		Transitioned as of COP14	
National systems planning and coordination for in-service training		No	No		Transitioned as of COP14	

APPENDIX B

B.1 Planned Spending in 2016

Table B.1.1: Total Funding Level

Applied Pipeline	New Funding	Total Spend
$US3,098,130	$US50,701,870	$US53,800,000

Table B.1.2 Resource Allocation by PEPFAR Budget Code

PEPFAR Budget Code	Budget Code Description	Amount Allocated
MTCT	Mother to Child Transmission	$1,477,221
HVAB	Abstinence/Be Faithful Prevention	$38,610
HVOP	Other Sexual Prevention	$2,757,637
IDUP	Injecting and Non-Injecting Drug Use	
HMBL	Blood Safety	$2,314
HMIN	Injection Safety	
CIRC	Male Circumcision	$3,691,791
HVCT	Counseling and Testing	$3,318,766
HBHC	Adult Care and Support	$6,747,133
PDCS	Pediatric Care and Support	$416,430
HKID	Orphans and Vulnerable Children	$4,652,274
HTXS	Adult Treatment	$12,757,199
HTXD	ARV Drugs	$6,128,711
PDTX	Pediatric Treatment	$1,006,106
HVTB	TB/HIV Care	$2,637,515
HLAB	Lab	$44,921
HVSI	Strategic Information	$1,431,425
OHSS	Health Systems Strengthening	$797,731
HVMS	Management and Operations	$2,796,086
TOTAL		**$50,701,870**

B.2 Resource Projections

The PEPFAR Budget Allocation Calculator was used to calculate the budget and allocate to budget codes.

APPENDIX C

Systems Investments for Section 6.0

Included Activities	Excluded Activities
Human Resources for Health (HRH): Systems/Institutional Investments	
Pre-service training; in-service training systems support and institutionalization; HRH performance support/quality; HRH policy planning and management; HR assessments and information systems; other HRH activities not classified as above	N/A
Human Resources for Health (HRH): Personnel Costs for Service Delivery	
In-service training; all HRH support at sites and community across all program areas and national level support for recruitment and performance	Other site-level investments such as purchase of vehicles, equipment and furniture, construction and renovation, and site-level recurrent categories such as ARVs, non-ARVs drugs and reagents, HIV test kits, condoms, travel and transport, building rental and utilities (Direct site costs)
Governance	
Technical area-specific guidelines, tools, and policy; general policy and other governance; other governance activities not classified as above	N/A
Finance	
Expenditure tracking; efficiency analysis and measurement; health financing; costing/cost modeling; other health financing activities not classified as above	N/A
Systems Development	
Supply chain systems; health information systems (HIS); laboratory strengthening; other systems development activities not classified above	ARVs, non-ARVs drugs and reagents, HIV test kits, condoms, travel and transport, freight for transport of commodities to sites and other supply chain costs incurred at the site-level
Institutional and Organizational Development	
Civil society and non-governmental organizations (NGOs); government institutions; social welfare systems strengthening; other institutional and organizational activities not classified above. CMIS expansion	N/A
Strategic Information	
Monitoring and evaluation; surveys; operations research; geographic mapping, spatial data, and geospatial tools; surveillance; other strategic information activities not classified above	N/A
Laboratory	
Quality management and biosafety systems; implementation and evaluation of diagnostics (POC and VL monitoring); laboratory information and data management systems; laboratory workforce; quality management system; sample referral systems; accreditations; technical assistance to assure or improve quality of laboratory services	Vehicles, equipment and furniture, construction and renovation for site labs, and recurrent categories from site labs such as lab reagents an supplies, travel and transport, building rental and utilities will not be included

APPENDIX D

Models of ART Service Delivery in Swaziland

Usual Care	Mainstream Care	For clients who require more clinical attention and support from the health care system. These clients include: newly initiated (within 6 months), young children, those with challenges in adherence, special clinical needs, etc.
New ART Delivery Approaches	Fast-Track Model	Stable ART clients are fast tracked to receive their refills by skipping the consultation step and also creating fast flow system to expedite the dispensing of drugs. Skipping the consultation step does not mean skipping collection of visit details of the patient. All patients seen under the fast track model will have their data updated in the electronic systems and appointment registers as outlined in the SOPs.
	Facility-Based Treatment Groups	General TGs: ART patients undergo rapid group clinical assessments and collect their ART medicines at facilities as groups with clear provision and guidance for patients to undergo individual clinical assessment through an open door policy only if indicated. Prepacking of the drugs is required to enable dispensing at the ART clinic. Teen Clubs: Similar to the treatment groups but is specially designed to cater for the age-appropriate needs of adolescents and teenagers.
	Community-Based ART Groups (CAGs)	These are groups of 2-6 clients who take turns to visit the facility to get refills on behalf of the other group members. The group will conduct meetings in their communities for collection of booklets (prior to clinic visit) and distribution of drugs and return of booklets (after the clinic visit).
	ART Outreach Model	Mobile teams from facilities take the available services to the community. As many services as possible should be provided in the most appropriate manner in this model.

APPENDIX E

Progress on Implementing Optimized Service Delivery Model for Swaziland. <mark>Highlighted items are in process</mark>. All other steps have been implemented.

COP 16 Target Approach (Technical Considerations)
Initiating ART • Adopt Test and Start • Same day ART initiation, Optional CD4 at Baseline • TB screening and pregnancy test at baseline
Stable on ART • Visits every 6-12 months for stable patients • Use non-physician clinicians • Pharmacy pick up every 3-6 months • <mark>Standardize and scale up community based models</mark>
Laboratory testing • <mark>Annual VL and eliminate CD4 for routine monitoring</mark> • Annual Creatinine for TDF patients • Annual Hemoglobin for zidovudine patients • Eliminate other non-routine, non-evidence based lab tests • <mark>Ensure lab results reach patients and clinicians and unnecessary repeat testing</mark>
Other cost drivers • National quantification and coordination for ARV and other procurement