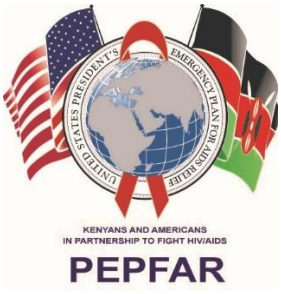


KENYA

Country Operational Plan 2022

Strategic Direction Summary

July 18, 2022

PEPFAR
U.S. President's Emergency Plan for AIDS Relief

Contents

ACRONYMS

ABYM	Adolescent boys and young men
AGYW	Adolescent girls and young women
AHD	Advanced HIV disease
ANC	Antenatal care
ART	Antiretroviral treatment
ARV	Antiretroviral drugs
AYP	Adolescent youth program
C/ALHIV	Children & adolescents living with HIV
CAD	Computer aided detection
CARG	Community ART Group
CBO	Community based organization
CCC	Comprehensive care clinic
CDC	Centers for Disease Control
CDDP	Community drug distribution point
CHMT	County Health Management Team
CLHIV	Children living with HIV
CLM	Community Led Monitoring
COG	Council of Governors
COP	Country Operational Plan
CSO	Civil society organization
DOD	Department of Defence
DSD	Differentiated service delivery
DTG	Dolutegravir
EBI	Evidence based intervention
EID	Early infant diagnosis
EMR	Electronic medical record
eMTCT	Elimination of mother to child transmission
FBO	Faith based organization
FSN	Foreign service national
FSW	Female sex worker
FY	Fiscal year
G2G	Government to Government
GBV	Gender based violence
GFTAM	Global Fund for HIV, TB and Malaria
GOK	Government of Kenya
HCW	Health care worker
HEI	HIV exposed infants
HIV	Human immunodeficiency virus

HIVST	HIV self test
HOT	Heat of transmission
HRH	Human Resources for Health
HTS	HIV testing services
IBBS	integrated bio-behavioral survey
IIT	Interruption in treatment
IP	Implementing partner
IPC	Infection prevention control
IPV	Intimate partner violence
KASF II	Kenya AIDS Strategic Framework II
KFY	Kenya fiscal year
KP	Key populations
M&O	Management and operations
M2M	Mother to mothers
MAT	Medically assisted therapy
MMD	Multimonth dispensing
MNCH	Maternal newborn and child health
MOH	Ministry of Health
MOU	Memorandum of Understanding
MSM	Men who have sex with men
MTCT	Mother to the child transmission
MTP	Medium Term Plan
NACC	National AIDS Control Council
NASCOP	National AIDS and STI Control Program
NCCP	National Cancer Control program
NCD	Non-communicable disease
NDW	National data warehouse
NEPHAK	National Empowerment Network of People Living with HIV in Kenya
NHIF	National Hospital Insurance Fund
OI	Opportunistic infection
OPD	Outpatient department
OTZ	Operation Triple Zero
OVC	Orphans and vulnerable children
PBFW	Pregnant and breast feeding women
PEP	Post exposure prophylaxis
PHDP	Positive Health, Dignity and Prevention
PITC	Provider initiated testing and counselling
PLHIV	People living with HIV
PLL	Program Planning Letter
PMTCT	Prevention of mother to child transmission
PNC	Postnatal care

POC	Point of Care
PrEP	Pre-exposure prophylaxis
PWID	People who inject drugs
QA	Quality assurance
RM	Responsibility Matrix
ROC	Recipients of care
RTK	Rapid test kit
S/GAC	Office of the Global AIDS Coordinator
SAPR	Semi-annual program results
SGBV	Sexual gender based violence
SID	Sustainability Index and Dashboard
SNS	Social Network strategy
STI	Sexually transmitted infection
TA	Technical assistance
TAT	Turnaround time
TB	Tuberculosis
TG	Transgender
TPT	TB preventive therapy
TWG	Technical Working Group
U=U	Undetectable = untransmissible
UHC	Universal Health Coverage
UPI	Unique Patient Identifier
USAID	United States Agency for International Development
USDH	US Director Hire
USPC	US personal contractor
VL	Viral load
VLC	Viral load coverage
VLS	Viral load suppression
VMMC	Voluntary medical male circumcision
WHO	World Health Organization

1.0 Vision and Goal Statement

The 2022 Kenya Country Operational Plan (COP) comes at a pivotal moment. As the achievements to date are consolidated and the country moves closer and closer to achieving 95-95-95 targets, there is a need to re-direct PEPFAR's support to best reflect Kenya's current situation. There has been a transition in the pattern of the epidemic requiring shifts in program focus towards a more proactive approach to identify the networks within populations of people living with HIV who have, as yet, not been identified, as well as ensuring continuity of treatment and viral suppression among all that are on antiretroviral therapy (ART), in order to reduce the HIV transmission, morbidity and mortality. These shifts must support equitable health services and solutions and continue to support essential health systems. In order to achieve this, PEPFAR/Kenya has adopted a person-centered lens looking across the continuum of prevention, care and treatment towards viral suppression. By doing this, the program can identify and develop targeted responses to specific program gaps. Furthermore, there has also been a need to look outwards from health facilities to find those clients that have fallen through the cracks, build on the rich existing community resources, and ensure that there are strong bi-directional linkages between communities and health facilities. The four population groups that have been considered are: children < 15 years, adolescent girls and young women (AGYW) as well as adolescent boys and young men (ABYM), adults above 25 years in the general populations, and key and priority populations.

The ultimate sustainability and maintenance of epidemic control relies on lasting partnerships and effective use of resources. The development of this COP is built on broad stakeholder participation and inputs including robust participation from Government of Kenya (GOK) at national and county levels, civil society, the private sector and multilateral donors. COP22 acknowledges the leadership and increased contribution of resources committed by the GOK towards ensuring essential HIV commodities, especially life-saving antiretroviral drugs (ARVs). It also acknowledges the bold move that the GOK has made to introduce a Unique Patient Identifier (UPI) by using the National Identification Card for adults, and the birth certificate for children <18 years. The roll out of the UPI now being undertaken in conjunction with an antiretroviral therapy (ART) census, will provide a validation of the actual number of people on ART and provide essential information for the quantification of ARVs, lab reagents and other essential commodities. Moving forwards, it will allow tracking of patients to determine whether they are moving between facilities or have dropped out of care and need follow-up. Prior to this, it is thought that people living with HIV (PLHIV) on treatment might have been silently transferring between facilities either in search of adequate supplies of ARVs or because of dissatisfaction with services offered, in addition to transfers out due to population movement. This made it difficult to properly quantify the resources needed to support PLHIV in Kenya.

Kenya, over the past year, was plagued with severe and multiple stockouts of essential HIV commodities from testing kits to ARVs, EID and viral load reagents. PEPFAR/Kenya, during the development of this COP, has had multiple meetings with the National AIDS and STI Control Program (NASCOP) and other key stakeholders to better understand the true gap in these commodities and to jointly, with the Global Fund for HIV, TB and Malaria (GFATM) and NASCOP, come to a consensus on the relative contributions of each party towards making sure that all essential HIV commodities are available. The supply chain system, however, continues to be fragile, so it is essential that all parties fulfill agreed upon commitments. In order to continue to monitor the supply chain, mutual transparency in procurements, deliveries and distribution is therefore required. It is also the role of the civil society to actively monitor and ensure that all commitments made by all parties are executed.

The Kenya Program Planning Level Letter (PLL) identified several priorities which have been further developed into key approaches for results within the COP22. There is a need to increase the efficiency of HIV testing and high yielding testing modalities through better targeted HIV testing within health facilities and focused outreach into communities to identify people often left behind, including HIV positive men, AGYW, children, and key and priority populations. The early mortality in patients who start ART but then interrupt treatment highlights the need for better tailored support. Additionally, some PLHIV are still diagnosed too late in disease progression resulting in worse health outcomes. This underscores the need to adapt strategies towards finding PLHIV that have been missed.. COP22 will also, use software applications (machine learning) to identify patient characteristics that point to higher likelihood of early treatment interruption and implement strategies to improve retention.

Children, in general, are not being identified early enough, have poorer linkages to treatment and lower levels of viral suppression. The significant stock out of early infant diagnosis (EID) reagents over the past year has meant that HIV exposed infants have not been identified in a timely manner, contributing towards the unconscionably high mortality among HIV+ children <4 years. In order to achieve an AIDS-free generation, specific strategies to promote a more rapid decline in mother to the child transmission (MTCT) rate are outlined for COP22. With two-thirds of pregnant and breast-feeding women (PBFW) already on ART before their current pregnancy, targeted efforts to ensure timely identification for the remaining one-third of HIV positive PBFW during pregnancy or during breastfeeding are essential. In addition, the program will ensure continuity of treatment and sustained maternal viral load suppression. For at risk, HIV negative PBFW, there will be increased access to HIV prevention services, including pre-exposure prophylaxis (PrEP). Referrals to orphans and vulnerable children (OVC) programs and DREAMS will continue to be strengthened, building on the community linkages which form a key focus of this COP. COP22 identifies specific areas of service improvement required to achieve better outcomes, including a strengthened supply chain for HIV essential commodities.

Another area of focus addresses the aging population - those on ART or who exhibit high risk behaviors. As a result of the long-term survival of patients, there are metabolic complications resulting from lifestyle

changes, drug interactions and age-related risks that lead to increased risk for non-AIDS morbidity and mortality among older PLHIV. In addition, stigma issues still impede uptake of HIV prevention and treatment services for this population. To address these challenges, COP22 proposes adapted models of service delivery, which include comprehensive, integrated clinics with non-communicable disease support together with age-appropriate peer support.

Through the re-engineering of the key populations (KP) program that begun in 2019, Kenya has made great progress in expanding the reach to KP, especially the previously underserved men who have sex with men (MSM) and transgender populations. However, KP continue to show high HIV prevalence and difficulties in accessing treatment because of structural barriers, stigma and discrimination. Furthermore, there are KP subgroups that remain hard to reach and hidden within communities, including young KP. In COP22, Kenya will carry out a long overdue integrated bio-behavioral survey (IBBS) which will help establish baseline estimates and measure impact of HIV programming among KP. In addition, COP22 will strengthen peer community outreach activities to identify new HIV infections and provide KP-competent, person-centered, non-discriminatory, ethical, comprehensive services in drop-in centers and health facilities.

With Kenya approaching epidemic control, the GOK, multilateral agencies and PEPFAR/Kenya have acknowledged the need to move from aggregate data to case-based data systems. COP22 plans to expand recency testing across all 40 of the PEPFAR supported counties. Expansion of recency testing will help identify hotspots of new infections to guide a public health response. Support will be given at national level to consolidate multiple program data dashboards in a more unified “data lake” which will provide stakeholders at all levels better visibility of information on the status of their programs and gaps for remediation. County level case-based surveillance reports provide an overview of county performance and the ability to identify patients by health facility, who for example, are not linked to treatment, have interrupted treatment or are not virally suppressed. This allows for outreach to these people to link them back into treatment or address changes in treatment services for those not virally suppressed.

COP22 also sees significant progress in moving forward with community-led monitoring (CLM) efforts. Stakeholder meetings are currently being held which will further identify a clear multi-stakeholder coordination plan. PEPFAR/Kenya will work under the leadership of the GOK to jointly develop a framework for this engagement aligned with government policy. PEPFAR will grant new awards to civil society organizations (CSOs) and community-based organizations (CBOs) to implement CLM activities within COP21, leading to important client feedback of service quality for COP22.

Moving forward, COP22 also lays the foundation for improved sustainability. During discussions to develop the Medium-Term Plan IV covering 2023-2027, the GOK has included a new flagship program addressing graduated transition from donor support to the GOK for key health sector programs,

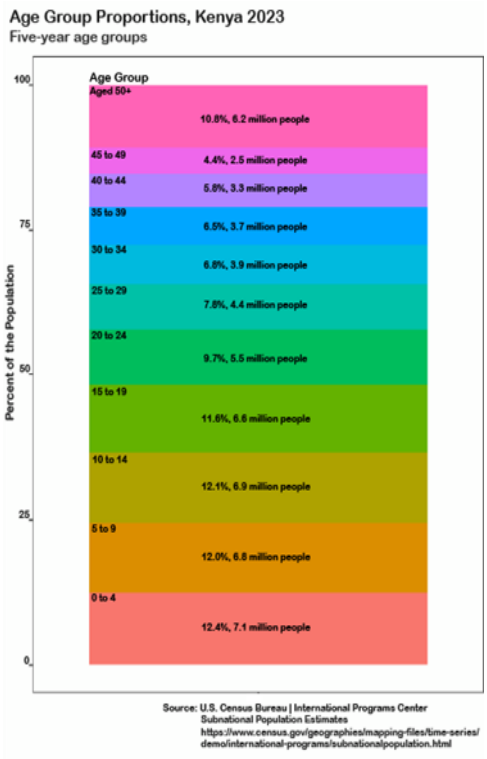
including HIV (see section 2.3). This includes not only increased domestic resource mobilization but also acknowledges the need to gradually transition PEPFAR/Kenya supported health workers to national and county level payrolls. COP22 also identifies transitions to direct financing for several counties, with an explicit expectation of incremental county government allocation of resources towards HIV response. Moving forward, further meetings to develop a road map on gradual transition of key services to the GOK and other players will take place. This transition plan will reflect on-going PEPFAR/Kenya support and define shared roles and responsibilities of other players. COP22 will also see discussions and identification of opportunities for a greater role for the vibrant Kenyan private sector towards increasing their contribution for HIV services.

To reach all the above milestones, PEPFAR/Kenya has worked closely with the GOK, civil society and other stakeholders to reach a consensus on the COP22 approach and is committed to engage with the GOK in regular high-level meetings to review progress, identify gaps and find solutions to emerging problems.

2.0 Epidemic, Response and Program Context

2.1 Summary statistics, disease burden and country profile

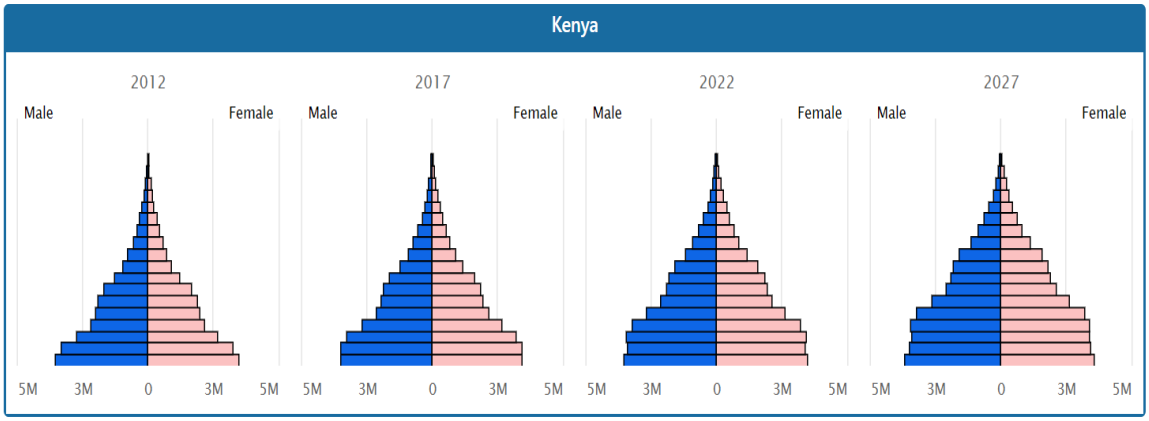
Fig 2.1 Age group proportions Kenya 2023



Kenya has an estimated population of 50.2 million[1] with an annual population growth rate of 2.3%. Kenya is no longer in the earliest stages of a youth population boom and population structure is shifting as the population begins to age (See Figure 2.1.). By 2023, 58% of the population will be below 24 years, of which 20% will be between 15 and 24 years; 10.6% of the population will be aged above 50 years, an increase from 9.5% in 2017[2]. Critical health indicators show a decrease in the infant mortality rate from 54 per 1000 live births in 2009 to 36 per 1000 live births in 2019, and a decrease in the under-five mortality rate from 79 per 1000 live births to 43 per 1000 live births over the same period. Life expectancy is 66.1 years[3]. The estimated maternal mortality ratio is 342 per 100,000 live births.

[1] Kenya National Bureau off Statistics 2022
[2] U. S. Census Bureau, International Program Center, Subnational population estimates https://www.census.gov/geographies/mapping -files/time-series/demon/international programs/sunationalpopulkation.html
[3] Kenya Population and Housing Census 2019

Figure 2.1.2: Kenya population pyramid



Kenya has an estimated 1.437 million PLHIV of whom 83,000 are children aged <15 years[3]. Adult HIV prevalence is 4.3%. ed (95% CI 0.48 - 1.09)[4]. However, national figures hide the heterogeneity of the HIV epidemic with county prevalence ranging from 0.1% in Wajir County to 14.4% in Homa Bay. Counties surrounding Lake Victoria continue to show the highest HIV prevalence (see Fig 3.2.). Kenya is moving closer to achieving epidemic control with 1,121,344 people >15 years on ART, 94% aware of their HIV status and of those 85% taking antiretroviral treatment. Due to low viral load coverage in 2021 because of stock out of lab reagents, estimates have been withheld for 2021, but PEPFAR program results indicate a viral suppression rate of 95%. These national ART coverage figures also mask ART coverage rates ranging from 89.7% in Homa Bay to 36.8% in Marsabit. Across the cascade, children <15 perform poorly, with 69% aware of their status and 85% of these on ART. PEPFAR program data indicate that 86% are virally suppressed. In 2021, there were an estimated 35,000 new infections among all ages, representing an adult HIV incidence of 0.73 per 1,000 (95% CI 0.48 - 1.09) compared to 1.4 in 2018 [5]. Similar to other countries in sub-Saharan Africa, females are disproportionately affected, with a prevalence more than double that of men, at 5.4% versus 2.6%, respectively, for ages 15-49. Forty-two percent of adult new infections are found among the age band 15-24 years, with AGYW aged 15-24 years contributing 47% of all new infections among women aged 15 years+, reinforcing the need to actively prevent new infections by strengthening programs which decrease AGYW vulnerability. Annual incidence among AGYW is 0.2% or 9,500 new infections, nearly four times that of their male counterparts at 0.05%. HIV-associated mortality continues to decline, albeit slowly, with an estimated 22,000 deaths due to HIV in 2021[5]. Although both annual deaths among PLHIV and new HIV infections are decreasing, the incidence-mortality ratio is still >1 with greater new infections than deaths due to all causes annually among PLHIV (Figure 2.1.4).

[4] UNAIDS data 2021 https://www.unaids.org/en/resources/documents/2021/2021_unaids_data
[5] UNAIDS data 2021 https://www.unaids.org/en/resources/documents/2021/2021_unaids_data

Table 2.1.1 Host Country Government Results

	Total		<15				15-24				25+				*Source, Year*
			Female		Male		Female		Male		Female		Male		
	.	%	N	%	N	%	N	%	N	%	N	%	N	%	
Total Population	49,963,352		9,589,474		9,656,671		5,036,993		4,986,715		10,524,413		10,169,265		2021_HIV Estimates
HIV Prevalence (%)		4.3						2.1		1.2					2021_HIV Estimates
All Deaths in PLHIV (per year)	22,373		1,555		1,583		1,100		1,132		7,849		9,122		2021_HIV Estimates
# PLHIV	1,437,267		41,575		41,921		104,274		59,990		783,684		411,237		2021_HIV Estimates
Incidence Rate ()Yr.								0.2		0.05					2021_HIV Estimates
New Infections ()Yr.	34,540														2021_HIV Estimates
Annual births	1,453,837														
% of Pregnant Women with at least one ANC visit		97.%													KENPHIA 2018-19
Pregnant women needing ARVs	58,000														
Orphans (maternal, paternal, double)	695,260														
Notified TB cases (2021)	75,450		3,440		3,810		5,084		7,153		17,182		38,781		TIBU

% of TB cases that are HIV infected	17,689	23%	391	11%	451	12%	684	13%	529	7%	6,677	39%	8,957	23%	TIBU
% of Males Circumcised		56.9% (15-49)								63.2%				52.5% (25-49)	KENPHIA 2018 (medical circumcision)
Estimated Population Size of MSM*	61,650 [38,917 – 51,100]														*KP size estimates round 1 (2017/18) and 2 (2020)*
MSM HIV Prevalence		18%													*KP BBS 2010/11 (Nairobi)*
Estimated Population Size of FSW	197,096 [152,970 – 240,270]														*KP size estimates round 1 (2017/18) and 2 (2020)*
FSW HIV Prevalence		29%													*KP BBS 2010/11 (Nairobi)*
Estimated Population Size of PWID	26,673														*KP size estimates round*

															1 (2017 /18) and 2 (2020)
PWID HIV Prevalence		18. 3%													*KP BBS 2010/ 11 (Nairo bi)*
Estimated Size of Priority Populations (specify) Fisher Folk	268,5 17														KPSE1
Estimated Size of Priority Populations Prevalence (specify)															
	**If presenting size estimate data would compromise the safety of this population, please do not enter it in this table. Cite sources*														

*Source: Epidemiologic and program performance data from Kenya UNAIDS Estimates 2021, Key population data extracted from APR21 from DATIM

For the first time since the adoption of the Sustainable Development Goals (SDGs) in 2015, the global average SDG Index score for 2020 has decreased from the previous year, a decline driven to a large extent by increased poverty rates and unemployment following the COVID-19 pandemic. The pandemic has also underlined the need to accelerate progress towards universal health coverage and the use of digital technologies. Kenya ranks 118 of 165[6.] . Kenya's economic performance remains difficult to predict with any certainty as the effects of the ongoing COVID-19 pandemic and climate change, as well as the current war in Ukraine, remain uncertain variables. Kenya is a lower middle-income country with a gross national income (GNI) per capita of $1,840.[7]. The World Bank report estimated a 4.9% year on year increase in gross domestic product (GDP) over 2022-23 based on anticipated normal rates with agricultural output predicted to decrease by 0.5%. This may well be optimistic based on the current drought conditions. Because of the decentralization of budget to counties, true figures of the total percentage of GDP allocated to health are difficult to assess, although this was estimated to be 8.3% of total government expenditure in 2019. The World Bank report, published in December 2021, noted that the country had shown resilience to the COVID-19 pandemic with only a decrease of 0.3% in GDP in 2020.

[6] Sustainable Development Goal Report 2021

[7] World Bank classification 2020

COVID-19 vaccination started in March 2021 and had reached 31% coverage by end of May 2022 but vaccination demand has been decreasing[8] .

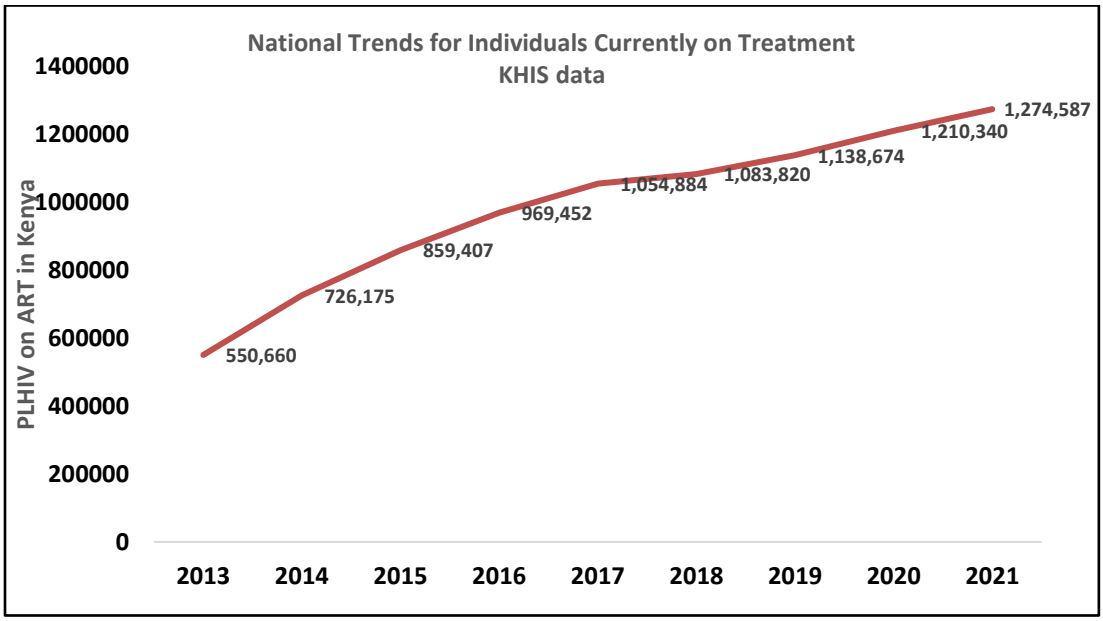
Table 2.1.2 95-95-95 cascade: HIV diagnosis, treatment and viral suppression*

	Epidemiologic Data				HIV Treatment and Viral Suppression			HIV Testing and Linkage to ART Within the Last Year		
	Total Population Size Estimate (#)	HIV Prevalence (%)	Estimated Total PLHIV (#)	PLHIV diagnosed (#)	On ART (#)	ART Coverage (%)	Viral Suppression (%)	Tested for HIV (#)	Diagnosed HIV Positive (#)	Initiated on ART (#)
Total population	49,963,352	4.03	1,437,267	1,327,755	1,121,334	78%	95%	4,333,534	117,215	109,323
Population <15 years	19,246,145		82,879	83,000	62,854	76%	90%	234,889	4,634	4,798
Men 15-24 years	4,986,715	1.2	59,990		38,366	64%	91%	456,331	3,522	2,697
Men 25+ years	10,169,265		411,237		303,648	74%	96%	1,122,210	38,563	32,470
Women 15-24 years	5,036,993	2.1	104,274		59,779	58%	92%	949,496	13,097	14,571
Women 25+ years	10,524,413		783,684		656,685	84%	96%	1,587,369	56,938	54,993
MSM	61,650 [38,917 – 51,100]	18%			2,599		95%	69,697	1,075	980
FSW	197,096 [152,970 – 240,270]	29%			10,978		96%	160,815	2,904	2,826
PWID	26,673	18.3%			240		64%	8188	67	67
Priority Pop (Fisherfolk)	268,517	31.1 (28.8 - 33.5) (fisherfolk BBS, 2020)								

*Source: Epidemiologic and program performance data from Kenya UNAIDS Estimates 2021, Key population data extracted from APR21 from DATIM

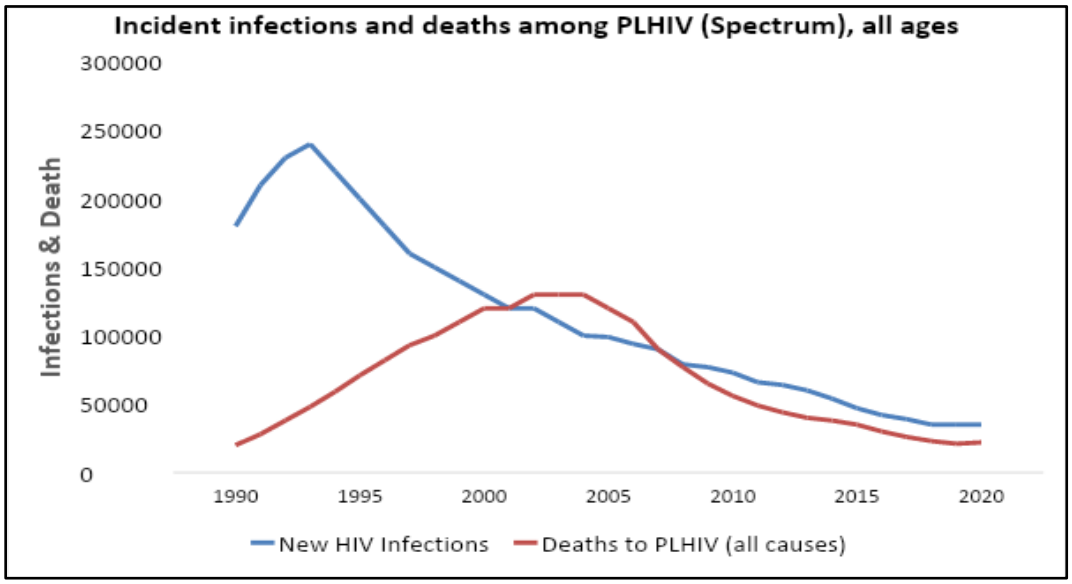
[8] MOH SitRep June 22.2022

Figure 2.1.3 Updated national and PEPFAR trends for individuals currently on treatment



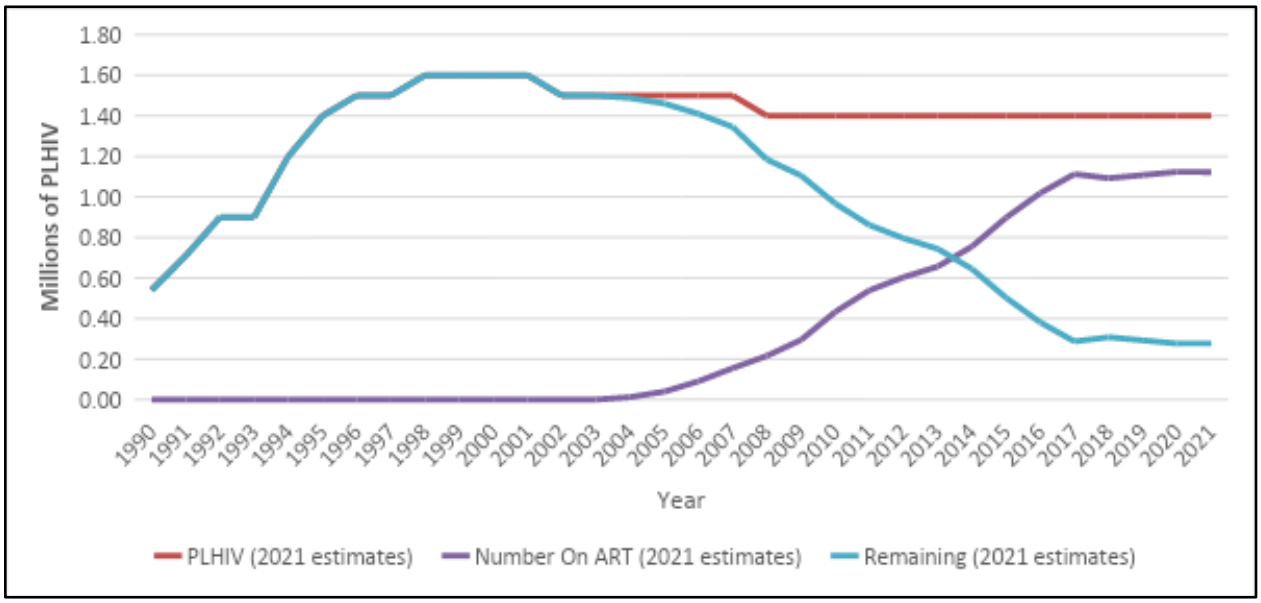
Source: KHIS and DATIM FY21 data

Fig 2.1.4 Updated trend of new infections and all-cause mortality among PLHIV



Source: Spectrum 2021 Estimates

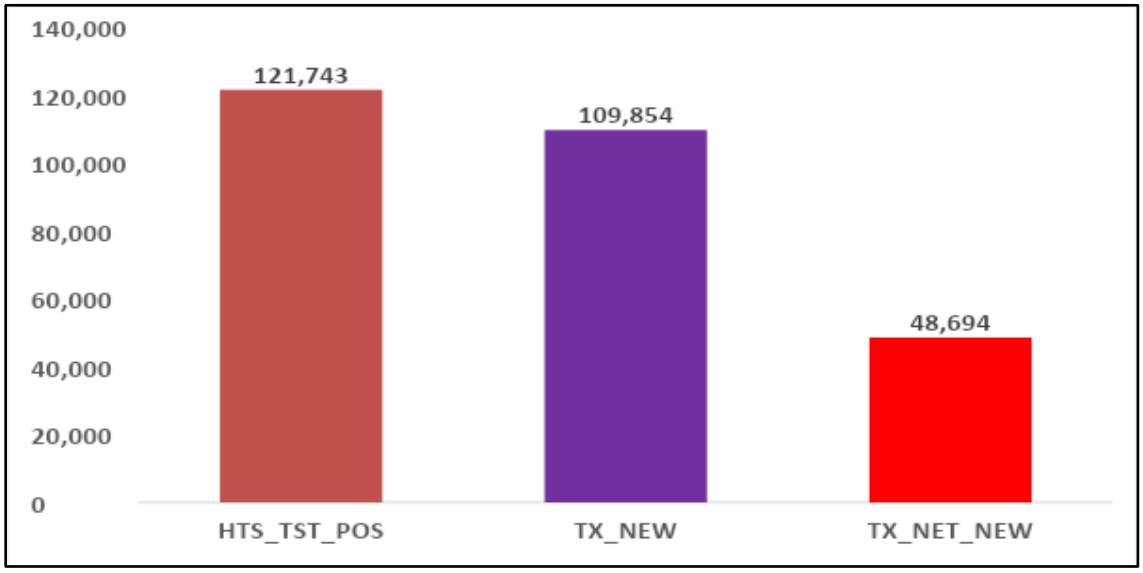
Figure 2.1.5 Epidemiologic trends and program response in Kenya



Source: Spectrum,2021 Estimates

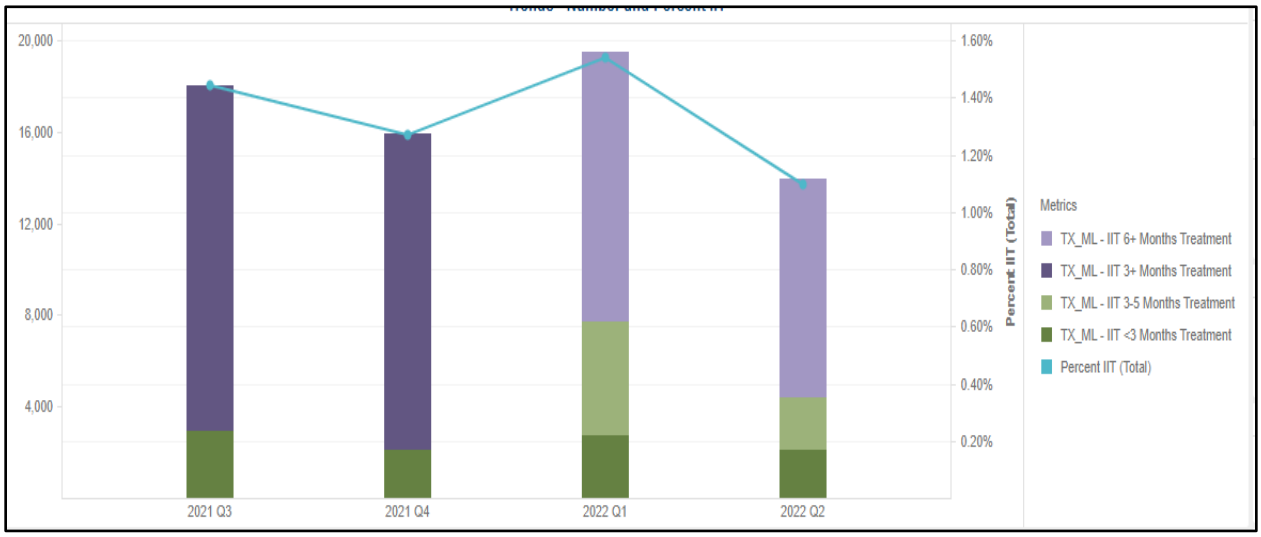
Figure 2.1.6. provides an assessment of program growth in FY21 with a treatment net new (TX_NET_NEW) of 48,694. From trend data, the difference in treatment new (TX_NEW) and TX_NET_NEW raises important questions on those testing positive and patient loss. The difference between those counted as new positives and the program's net gain of clients could be attributed to several reasons: a) interruption in treatment among the new and established cohort of patients; b) all-cause mortality of these recipients of care; c) clients re-enrolling as new patients; d) unattributed losses as a result of data quality issues including misclassification; and e) minor proportion of individuals who stop medication. While the program continues to address all potential factors, a significant proportion of those who disappear from a facility are individuals who present themselves for retesting and subsequently register themselves as new patients. A further updated analysis showing gains and losses updated for FY21Q2 is shown in Figure 2.1.7. There has been an improvement in early treatment loss. Figure 2.1.8 shows losses across the patient pyramid with higher percentages among men aged 20-34 but greater absolute number among women. Figure 2.1.9 shows the net change in HIV treatment; note net change is highest among the 50+ population.

Figure 2.1.6 Assessment of ART program growth in FY21



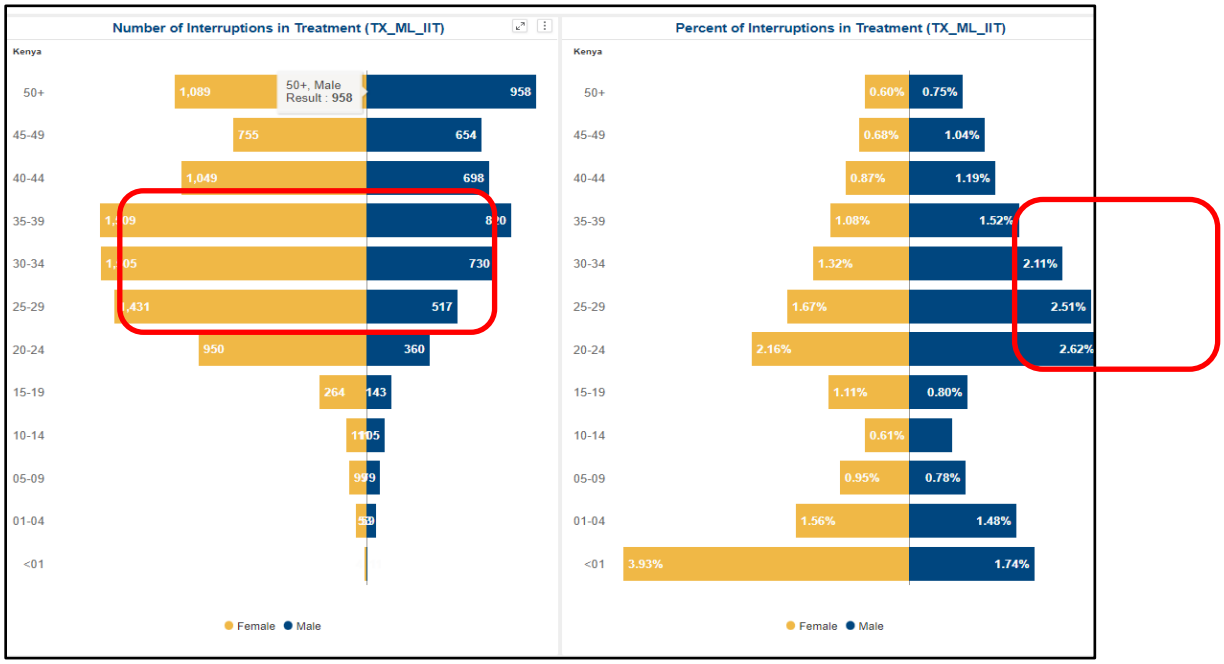
Source: Panorama data pull, June 2022

Figure 2.1.7 Clients gained/lost from ART by age/sex, FY22 Q2



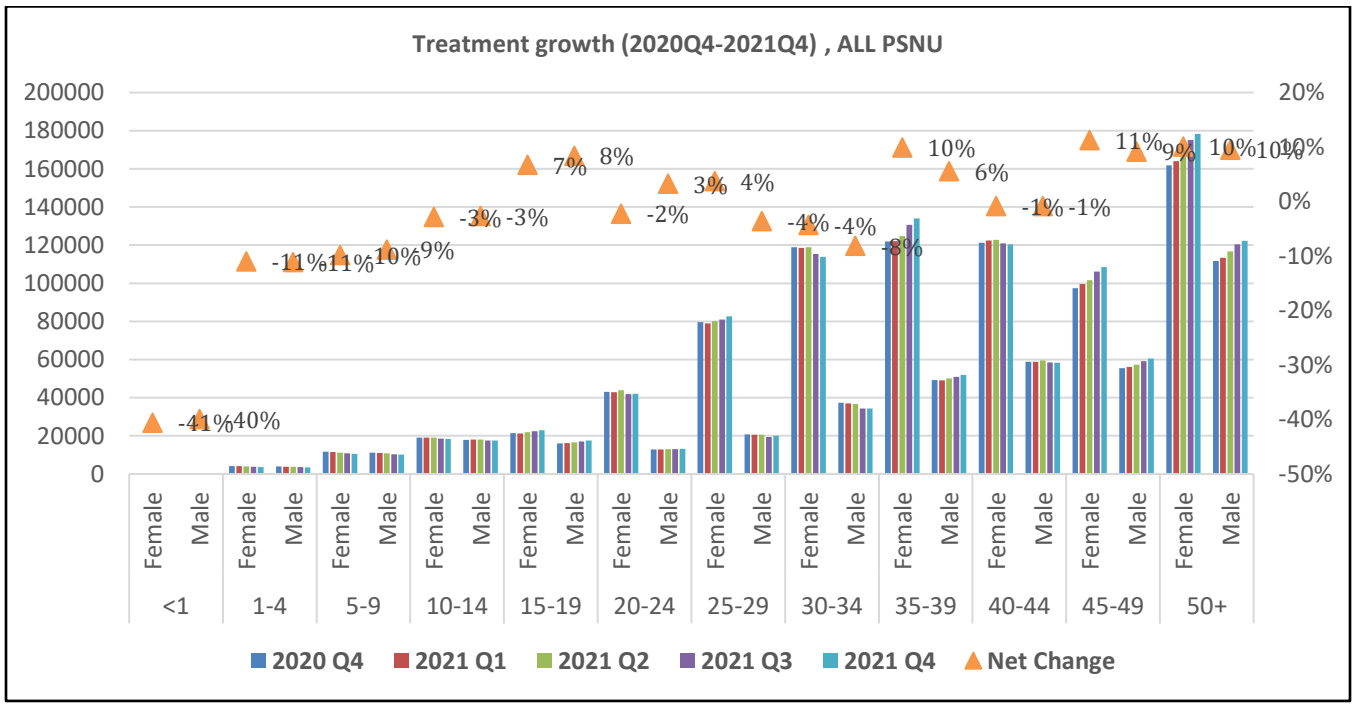
Source: Panorama data pull, June 2022

Figure 2.1.8 Clients gained/lost from ART by age/sex, FY22 Q2



Source: Panorama data pull, June 2022

Figure 2.1.9 Net change in HIV treatment by sex and age bands 2020 Q4 to 2021 Q4



Source: DATIM

2.2 New activities and areas of focus for COP22, including focus on client ART continuity

Fig 2.2.1 summarizes the overall strategic direction COP22 will take. As Kenya reaches closer to achieving epidemic control, key to sustaining this will be to actively identify new cases of HIV infections, prevent new infections through high impact prevention measures (e.g. PReP and VMMC), decrease interruptions to treatment, ensure durable viral suppression, and prevent and treat tuberculosis and other comorbidities. Fig 2.2.2 outlines the overall framework to increase the number of new infections identified and link them to treatment or if HIV negative, refer to high impact prevention services based on their risk profiles. PEPFAR Kenya will implement strategies responsive to the needs of the recipients of care with a focus on seamless interaction between facility and community level interventions to ensure treatment continuity. With the recent introduction by the GOK of UPI in the form of the national identification card for adults and birth certificate for children, across all health services, it now becomes possible to use individual data to inform responsive programming.

Fig 2.2.1 Summary of COP22 strategic direction

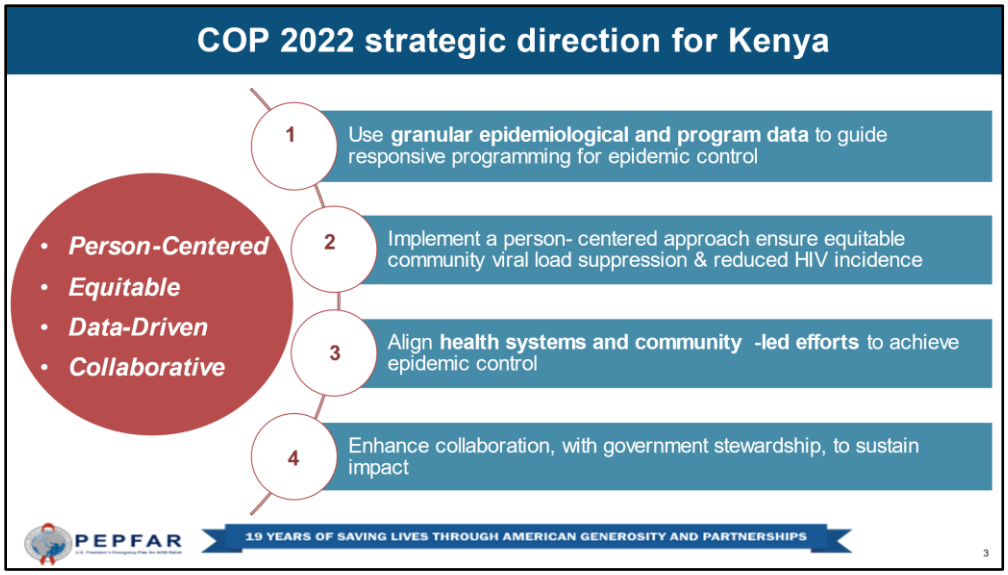
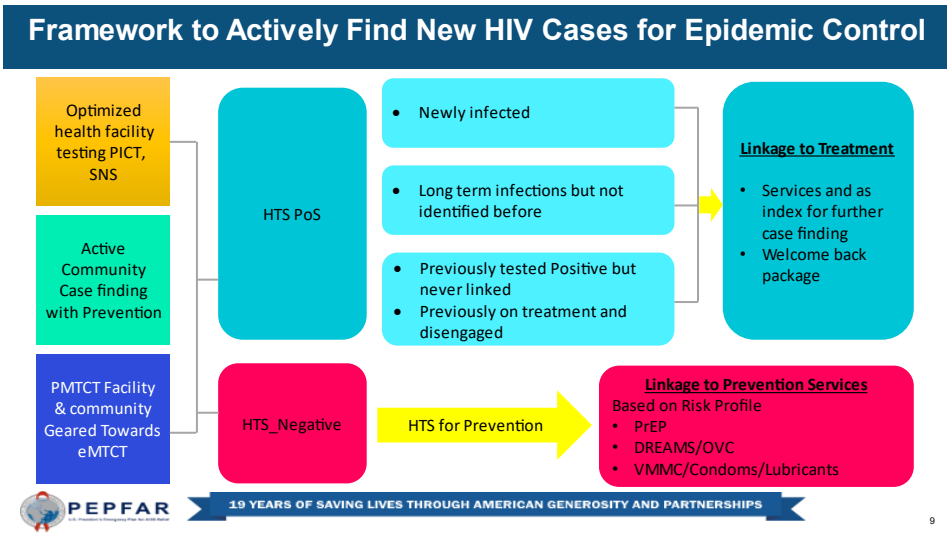
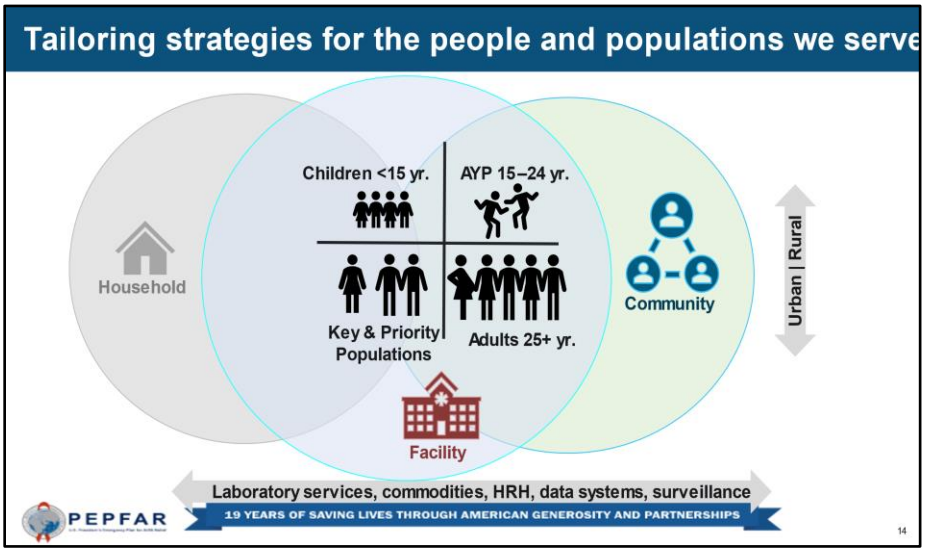


Figure 2.2.2 HIV testing services (HTS) framework to increase identification of HIV infection



Through a person-centered lens (Fig 2.2.3) addressing four population groups: children<15 years, adults=>25years, adolescent girls and women and adolescent boys and young men, and key and vulnerable populations, COP22 will develop tailored strategies to address the individual needs of these groups to achieve better program outcomes. In order to find unreached populations in communities and also improve program outcomes, COP22 will also strengthen community programs and community-facility bidirectional linkages in both urban and rural settings. Underpinning COP22, key health systems interventions address laboratory networks, commodity security, human resources for health and data systems that are essential to reaching and sustaining HIV epidemic control.

Figure 2.2.3 Person-centered approach



As such within these population groups, the following summarize COP22 strategic shifts, to be further expanded under section 3.

Table 2.2.1: Summary of Key strategic shifts for COP22 by population group

Children < 15 years	• Reduce maternal incident infections among PBWF
	  ○ Risk assessment of all PBFW with PrEP offered to those at higher risk
	  ○ Close gaps in post antenatal care (ANC) 1 retesting
	• Improve retention (>95%) and viral load suppression (>95%) among PBFW
	  ○ Enhanced package for high-risk PBFW: case management, dedicated clinic days, mHealth, home visits
	• Optimize care for HIV exposed infants
	  ○ 100% early infant detection (EID) and ARV prophylaxis - Tracking ANC-postnatal care (PNC) transition, utilization of immunization platform and commodity security
	• Close gaps in identification and treatment of HIV-infected children including optimizing TB case finding and management as well as prevention
	• Optimization of index testing, eligibility screening for PITC, DTG to 100% for all children living with HIV (CLHIV)
	• The national program is currently reviewing the sequencing options for 2nd line regimens and has not planned for 2nd line transition in the current FY.2nd line pediatric regimens will be client specific
	• Adherence support, such as video directly observed therapy for viremic children living with (CLHIV)
	• Link to OVC support in OVC supported counties

AGYW and ABYM	• Attain saturation in all DREAMS-focus age-groups in all targeted wards, optimize service layering, and support integration and cross-referrals between DREAMS and other programs such as PMTCT, HTS, OVC and Treatment • Scale-up PrEP[9] through appropriate targeting and integration in prevention and treatment services at facility and community settings. Adopt new products such as long-acting cabotegravir and new approaches such as event driven PrEP

[9] Kenya National Guidelines provide the ability to provide PReP for those AGYW <18 years who are either married or sexually active

	• Enhanced Gender-based violence (GBV) prevention and response through community sensitization, referrals & linkages, post-violence care, forensic and legal services • Scale up index testing, Social Network Strategy (SNS) and HIV Self Testing (HIVST) at facility and community settings to close gaps in treatment and prevention • Enhanced package for HIV+ AYP and especially young PBFW to improve retention and viral suppression and reduce MTCT and TB incidence • Expansion of differentiated service delivery (DSD) models beyond multi-month dispensing (MMD) including high risk categorization and follow up, community DSD, Community ART Groups, and Community Drug Distribution Points • Optimize uptake of HIV prevention for ABYM, including PrEP and VMMC
Adults =>25 years	• Optimize uptake of HIV prevention interventions such as PrEP and VMMC • Active HIV case finding in community & facility with SNS and index testing as primary testing modalities • Strengthen patient education and leverage technology improve continuity of treatment through electronic medical record (EMR) utilization, mHealth solutions, one-on-one and group literacy activities. • Roll out package of care for advanced HIV Disease[10] • Strengthen active TB case finding including integration of HIV and TB case finding, optimization of Xpert utilization, chest X Ray (CXR) and Computer Aided Detection (CAD), TB LAM • TB treatment and prevention, focusing on national scale up of 3HP and implementation of , TB and TB Preventive Treatment (TPT) DSD models • Integrate HIV care into chronic disease clinics and optimize cervical cancer screening among women living with HIV
Key and Vulnerable Populations	• Increase reach for hidden KPs using peer educators, virtual networks • Improve outcomes of KPLHIV via o Innovative case finding: SNS, HIVST and risk-based screening and testing o Treatment support: ART optimization, DSD, MMD, U=U, client centered integrated TB-HIV services

[10] Diagnosis of AHD includes a CD4 measurement. The MOH is in the process of reviewing the availability of CD4 machines; GOK will also procure CD4 reagents

	• Integrated KP-competent, person-centered, non-discriminatory, ethical, comprehensive services in the community and facility • Recency surveillance guided outreaches through real time recency data analysis, scale-up of daily oral PrEP, introduction of event-driven PrEP, DVR, CAB-LA • Removal of structural barriers and risk mitigation to ensure KP safety • Conduct IBBS and triangulate data with KPSE and program

2.3 Investment Profile

The GOK remains committed to ending AIDS by 2030, making strategic investments in health to maximize impact while increasing domestic resources to sustain the national HIV/AIDS response. The GOK's prioritization of affordable healthcare for all under the universal health coverage (UHC) agenda will advance progress to ensure equitable and affordable access to quality essential health services, particularly for the disadvantaged, vulnerable, and poor in Kenya, including people living with or affected by HIV.

The current health financing landscape indicates an improvement in government financing for the health sector. The proportion of total government budget allocation for health both at national and county levels has started showing improvement at 11.1% in Kenya fiscal year (KFY) 20/21, after decreasing significantly from 7.8% before devolution in 2012/13. However, households direct out-of-pocket spending still remains a large source of health financing accounting for about 27% of current health expenditures in KFY2018/19, placing vulnerable households at greater risk of incurring catastrophic health expenditures (estimated at 4.9% in 2018 down from 6.3% in 2013)[11.]

Funding to the health sector remains limited. The large proportion of government revenue used to finance debts and wages, coupled with slow economic growth and demand from other competing sectors, limits the expansion of the resource envelope for health. This is also inflated further by the ballooning public wage in the health sector accounting for about 70% of the total health budget leaving fewer resources for other critical inputs such as medical supplies.

The HIV/AIDS sector remains heavily donor funded at 63.5% in 2021/2022. PEPFAR remains the largest donor to HIV programs, contributing 37% of annual total investments across all HIV programs (Table 2.3.1). Kenya's contribution as part of Global Fund counterpart financing has decreased from $26 million in KFY 2019/20 to approximately $19 million in KFY2022/23, as shown by the approved budget estimates for the National Treasury and Ministry of Health. Donors continue to fund the majority of ARVs (82% in

[11] Kenya Household Health Expenditure Utilization Survey, World Bank,2018

KFY 2022/23), 61% of rapid test kits and PEPFAR procuring 96% of all viral and EID laboratory reagents. (Table 2.3.2)

On average county governments increased the proportion of their total budgets allocated to health from 13% in KFY 2013/14 to about 28% in KFY 2021/22 reflecting the extent to which county governments prioritize health investments over other sectors, although, there are variations between counties. Tracking budget execution for health and HIV remains a challenge in many counties because of weak systems which affect the budgetary space available for health. Current efforts to rationalize staff and clean up payroll will help contain the wage bill, currently at 76.8% of county allocations in KFY 2019/20 The allocation of Health budgets has traditionally been done along budget vote lines, but this may not be sufficient to address the funding required for service delivery. There is an urgent need to determine the full cost of health service delivery and efficiencies in service delivery so that appropriate funding is allocated for domestic resources.

Significantly greater domestic financing for health, HIV and TB is needed to reduce donor dependency and sustain progress made in controlling the HIV epidemic. The GOK recognizes the need to increase local ownership of the HIV response and has already identified transitioning of donor supported programs as a flagship project, including HIV commodities and human resources for health (HRH) in the Medium-Term Plan (MTP) IV for the health sector. In COP22, PEPFAR will deepen engagements with the GOK towards local ownership of PEPFAR supported programs starting with HIV commodities and HRH.

Increased government budget alone is inadequate to offset uncertainties in donor support. Efforts to increase the fiscal space for health must be accompanied with measures to address inefficiencies in the use of available resources. Additional efforts to bolster sustainability and integration of epidemic control include health financing reforms that promote and advance efficiency in resource mobilization to HIV, leveraging GoK's Universal Health coverage (UHC) and National Hospital Insurance Fund (NHIF) expansion to cover HIV services and financial risk pooling for improved access to affordable, quality health services for the poor and vulnerable groups. Innovative financing such as engaging with the private sector and incentivizing government-led investments in the health sector will continue to be explored to expand the uptake of HIV and TB services, decongest the public sector by shifting clinically stable patients who are willing and able to pay for convenient private services, and ensure long term sustainability of the HIV response.

Standard Table 2.3.1 Funding for HIV services

COP22	Total	Domestic Gov't	Globa Fund	PEPFAR	Other Funders
Care and Treatment	$281,113,157	$94,133,656	$64,842,660	$93,418,099	$28,718,742
HIV Care and Clinical Services		$94,133,656		$ 30,425,277	
Laboratory Services incl. Treatment Monitoring				$ 5,555,759	
Care and Treatment (Not Disaggregated)				$ 57,437,063	
HIV Testing Services	$16,443,341	$0	$1,980,575	$ 14,462,766	$0
Facility-Based Testing				$ 3,405,331	$0
Community-Based Testing				$ -	$0
HIV Testing Services (Not-Disaggregated)				$ 11,057,435	$0
Prevention	$179,415,690	$103,482,471	$20,331,846	$ 24,030,449	$31,570,923
Community mobilization, behavior and norms cha				$ 4,052,607	$0
Voluntary Medical Male Circumcision				$ 3,711,503	$0
Pre-Exposure Prophylaxis				$ 4,496,681	$0
Condom and Lubricant Programming					$0
Opioid Substitution Therapy				$ 427,062	$0
Primary Prevention of HIV & Sexual Violence					$0
Prevention (Not Disaggregated)		$103,482,471		$ 11,342,596	
Orphans and Vulnerable Children	$47,607,898	$0	$5,536,696	$ 42,071,202	$0
Case Management				$ 4,836,571	$0
Economic Strengthening				$ 25,728,035	$0
Education Assistance				$ 9,179,403	$0
Psychosocial Support				$ -	$0
Legal, Human Rights, and Protection				$ 846,237	$0
OVC (Not Disaggregated)				$ 1,480,956	$0
Above Site Programs	$53,519,849	$29,307,562	$3,116,962	$ 17,742,341	$3,352,984
Human Resources for Health				$ 1,210,851	$0
Institutional Prevention				$ -	$0
Procurement and Supply Chain Management				$ 104,333	$0
Health Mgmt Info Systems, Surveillance, and Rese				$ 9,870,745	$0
Laboratory Systems Strengthening				$ 3,658,548	$0
Public Financial Management Strengthening				$ 357,729	$0
Policy, Planning, Coordination and Management o				$ 2,540,135	$0
Laws, Regulations and Policy Environment				$ -	$0
Above Site Programs (Not Disaggregated)		$29,307,562		$ -	
Program Management	$43,051,943	$0	$7,100,654	$ 35,951,289	$0
Implementation Level					$0
Donor Level					$0
Program Management (Not Disaggregated)					$0
Total (incl. Commodities)	$621,151,878	$226,923,689	$102,909,394	$227,676,146	$63,642,650

Table 2.3.2 Investment Profile (Funding Landscape) for HIV Commodities

COP22(BUDGETS)	Total	Domestic Government	Global Fund	PEPFAR	Other Funders	Trend
	Current Year	%	%	%	%	2018-2021
Antiretroviral Drugs	$ 88,813,960	18%	55%	27%	0%	
Condoms and Lubricants	$ 3,110,239	0%	0%	0%	0%	
Female condoms	$ -					
Male Condoms	$ -					
Other Condoms and Lubricants	$ -					
Rapid Test Kits	$ 20,121,990	39%	10%	51%	0%	
Laboratory Supplies and Reagents	$ 23,744,356	0%	0%	100%	0%	
CD4	$ -					
Viral Load	$ 21,248,861					
Other Laboratory Supplies	$ 2,495,495					
Medicines	$ 6,428,617	62%	3%	35%	0%	
Essential Medicines	$ -					
Tuberculosis Medicines	$ 2,856,516					
Other Medicines	$ -					
Consumables	$ -	0%	0%	0%	0%	
VMMC Kits and Supplies	$ -					
Other Consumables	$ -					
Health Equipment	$ -	0%	0%	0%	0%	
Health Equipment	$ -					
Service Maintenance	$ -					
PSM Costs	$ 17,201,933	17%	0%	52%	0%	
Total Commodities Only	**$ 142,219,162**	**20%**	**38%**	**43%**	**0%**	

Table 2.3.3 Other USG investments in health.

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	13,500,000	7,614,791	10	56,928,172	Supporting quality services for maternal and child health
USAID TB	7,000,000	4,577,360	4	4,755,158	Improving TB diagnosis, care and treatment
USAID Malaria	33,500,000	3,766,545	4	77,511,760	Supporting malaria prevention and treatment is select high burden counties
USAID Family Planning	20,500,000	9,497,437	11	57,621,551	Support FP services in the country
Nutrition	4,000,000	2,190,396	5	43,845,172	Support nutrition interventions in the country
ARPA	-				
DOD-NIH	-	-	-	-	Support RV 393 study a prospective, observational cohort study of 600 HIV uninfected adult men and women at risk of HIV infection in Kisumu County, Kenya
CDC (Global Health Security)	12,000,000	-	-	-	Building capacity, monitoring & detecting threats, responding to international emergencies and reconstructing health systems
DOD HIV Research	$301,980	$301,980	1	-	Support AFRICOS HIV Cohort and Pediatric Viral Load Studies
DOD Lab Support	$105,177	$105,177	1	-	Support proficiency panels for CRC Lab & Sample archiving
Quarantine	-	-	-	-	Surveillance of migrant populations and refugee camps
CDC DTRA	-	-	-	-	Disease surveillance, diagnostic of priority syndromic illnesses. Incidence and economic impact of Brucella. Non-HIV- FELTP activities
Global Disease Detection and Emergency Response	-	-	-	-	Building capacity, monitoring & detecting threats, responding to international emergencies and reconstructing health systems
Global Health Security: Program Costs	5,100,000	-	-	-	Help develop health systems that prevent avoidable epidemics, early threat detection and rapid and effective response
Global Public Health Capacity Development	-	-	-	-	Global Health Protection research to KEMRI and MOH
CDC: Improving Program Effectiveness	650,000	-	-	-	HIV AIDS clinical research
CDC: Malaria	100,000	-	-	-	Malaria research
Pandemic Influenza	3,500,000	-	-	-	Flu research
CDC OD	4,550,000	-	-	-	Management Support
ARP Funding	10,576,852				Border health, laboratory, one health, surveillance and vaccine support for the SARS CoV2 response
COVID-19 CARES Act Funding	1,790,000	-	-	-	Surveillance, case management, mortality surveillance, and

					workforce development for SARS CoV2
COVID-19 Other Funding	-	-	-	-	
Total	**$117,174,009**	**$28,053,686**	**36**	**240,661,813**	

2.4 National Sustainability Profile Update

Kenya is classified as a low-middle-income country. Over the past two years, the Ministry of Health has made efforts to increase the HIV allocations in the 2020/2021, 2021/2022 and 2022/23 budgets as noted in Section 2.3 above. At county level, through the Council of Governors and as per the County Budget Estimates, there is progress towards increased allocation of resources towards health in general. In line with this, as noted in both the Kenya AIDS Strategic Framework (KASF) II and County AIDS Plans, the GOK remains committed to ending AIDS by 2030, making for strategic investments in health to maximize impact while increasing domestic resources to sustain the national HIV/AIDS response. Further, the GOK's plan for prioritization of affordable healthcare for all Kenyans under the UHC agenda continues to advance progress towards ensuring equitable and affordable access to essential health services, particularly for the disadvantaged, vulnerable, and poor in Kenya, including PLHIV.

The 2021 Sustainability Index and Dashboard (SID) and Responsibility Matrix (RM) were completed in collaboration with UNAIDS, Global Fund and PEPFAR, with the Ministry of Health (MOH) taking the lead in the joint virtual orientation and roll-out. Key stakeholders were identified by the National AIDS Control Council (NACC), NASCOP, PEPFAR and UNAIDS with participants orientated to the tool and assigned various responsibilities. This was followed by the internal completion of the SID and RM by the different sectors where all inputs were consolidated using the government's responses as a blueprint. For the GOK, the SID and RM remain a source to inform transition to greater domestic resource mobilization. Moving forwards in 2022/2023, PEPFAR and other stakeholders will take part in GOK led discussions on the development of a roadmap aimed at developing a roadmap for transition with key benchmarks and roles and responsibilities in order to ensure that gains achieved to date are maintained. SID 2021 results captured varied progress in Kenya toward sustained epidemic control across key elements; however, the underlying issues remained the implementation and realization of both fiscal and program elements. Two elements scored dark green, but stakeholders still noted the need for further investments required in those areas (quality management and market openness). Although human resources and commodity security and supply chain scored light green, there remain major weaknesses in these, notably a high reliance on PEPFAR funding for the HIV health workforce and major disruptions in the supply chain over the past two years. Key areas noted that require prioritization in COP22 to maintain or sustain epidemic control include Performance Data, Domestic Resource Mobilization, Private Sector Engagement, Human Resources for Health/Health Workforce, Commodity

Security and Supply Chain, Technical and Allocative Efficiency and Laboratory. As with the previous SID, no elements scored red. For more details, please see attached SID and RM 2021 Results and Recommendations.

The perspectives shared during these multi-stakeholder SID discussions are likely to be varied and therefore are not intended to be binding, but they should be a critical consideration as the PEPFAR, GOK, UNAIDS and other development partners identify how best to invest their resources for greater sustainability.

County and Local Indigenous Partnerships: As part of the expansion of partnership with counties to work on a strategic, joint and coordinated HIV response, PEPFAR Kenya's Interagency Team will work with the Council of Governor's leadership (in particular, the Health and Finance Committees) to support county governments to strengthen health systems for a sustainable HIV and health response in programmatic, technical, and fiscal spaces. These efforts will include additional coordination and collaboration with the U.S. Treasury to provide technical assistance as part of a joint assessment leading toward a partnership agreement between PEPFAR, S/GAC, and counties, as well as detailed PEPFAR-specific implementing agency MOUs.

In addition, PEPFAR implementing agencies have made progress toward the global requirement of having 70% of funding and implementation be directed to local indigenous organizations. A summary of progress on the roll out of these efforts under COP19, COP20, COP21 and COP22 plans for county and local indigenous partner transitions are provided by each PEPFAR implementing agency below:

United State Agency for International Development (USAID): A key aspect of the journey to self-reliance is partnering with county governments and appropriate non-government entities to strengthen local ownership and to ensure sustainability of results. Strengthening local institutions and promoting systems changes that prioritize long-term outcomes is key. In COP 22, USAID KEA intends to implement government-to-government (G2G) agreements, subject to requisite USAID G2G requirements, with several counties to support selected activities such as, but not limited to, supporting HRH needs, supervision, and oversight of PEPFAR activities. USAID plans to strengthen institutions and accountability mechanisms as county governments prepare to receive direct G2G agreements. In addition to direct G2G, implementing partners may sub-grant to county governments to implement HIV prevention and treatment activities. USAID plans to support county governments to implement activities that sustain technical results and will leverage the commitments of county governments to increase funding for HIV from domestic resources.

The Council of Governors (COG) has a critical role to play in coordinating intra- and inter-sectoral and governmental consultations and advocacy on health sector issues on behalf of county governments. This includes existing and evolving health policies, legislation, regulations, and programs that strengthen

county government management and provision of health services. In COP22, USAID will lead a coordinated interagency engagement process with the COG with initial focus on county transition planning and assessments. Support to the COG will ensure that their capacity is built to guide and collectively support counties in addressing policy and legislative barriers to sustainable health service delivery. A key focus will continue to be domestic resource mobilization, and leading related policy and legislation dialogues with the national government so that quality and sustainable HIV services are provided to all who need them.

Centers for Disease Control (CDC): In COP22, CDC Kenya will continue to work with the Government of Kenya and partner with an additional eight counties during this implementation period, bringing to twelve the total number of counties receiving direct funding for HIV program coordination and implementation. The additional counties are: Kitui, Kiambu, Kirinyaga, Kisii, Machakos, Makueni, Murang'a and Nairobi counties, which will be added to Siaya, Homa Bay, Migori and Nyeri counties. CDC Kenya has already begun engaging with these counties to ensure that implementation goes smoothly, and technical activities are completed with fidelity. This partnership reflects PEPFAR/K's sustainability strategy and commitment to advancing sustainable implementation of high-quality HIV services in Kenya through PEPFAR funding.

Department of Defence (DOD): I n COP19, DOD initiated a stepwise process of transitioning leadership of the HIV program to four DOD supported counties in the South Rift Valley. So far DOD has signed Memoranda of Understanding (MOUs) with three of four counties. In COP22, DOD's overall strategies for continuing to support county governments include building county health systems, facilitating Human Resources for Health (HRH) transition, and facilitating G2G financing. Direct county funding has been initiated through a phased approach, beginning with partner-to-county funding, in order to demonstrate a workable framework and accountability system. DOD's program transition to indigenous partners is in progress and currently, all sub-awardees are local indigenous organizations. The Kenya Defense Forces (KDF) have shown great leadership with successful transition in areas including HRH and commodity management. DOD remains committed to being a good partner and supporting county leadership throughout the transition process.

Peace Corps: Peace Corps Kenya leverages partnerships with GoK and USG agencies USAID, CDC, DOD and their implementing partners to implement capacity building activities and support programming in HIV prevention, gender equity, Maternal Newborn and Child Health (MNCH), OVC, DREAMS and peer support. These include collaboration with health facilities and CBOs such as Pamoja CBO. The program is pursuing more partnerships in Center for Health Solutions (CHS), Coptic Hope Center (Coptic) and Catholic Medical Mission Board (CMMB) in Siaya County to expand outreach with sustainable capacity building trainings for the evidence based interventions and further outreach for AGYWs among other DREAMS layering activities.

US Treasury: US Treasury will work with the PEPFAR Interagency Technical Teams on costing, sustainable financing, commodities, and human resources for health to assess and quantify the current legal and fiscal investments by USG, as well as by GOK (including Ministry of Health, National Treasury, and the counties) and other key donors. The outcome of this technical assistance will contribute to the areas of prioritization that will inform the resource alignment profile, the responsibility matrix and fiscal appropriations by the noted donors including the GOK with the goal to move Kenya toward a fully funded and locally-managed HIV program

2.5 Stakeholder Engagement

Development of COP22 activities was built upon epidemiological and program data with inputs gained from several stakeholder meetings. The COP22 Technical Guidelines and Kenya Planning Level Letter (PLL) was shared in January 2022. Supported by Implementing Partners, the forty county governments supported by PEPFAR developed plans based on individual county needs. These plans were shared during an extensive virtual stakeholder consultation held in February 2022 with excellent participation from national and county institutions, civil society, faith-based organizations, the private sector, and bilateral and multilateral donors. Three further consultations were held in May 2022 with individual feedback from NASCOP, NACC and county governments, civil society, private sector (including Faith based organizations) and donors culminating in a final consensus meeting held in early June. The plan also took into consideration suggestions from the People's COP.

During 2021, there were multiple stockouts of essential HIV commodities, including supplies of ARVs, resulting in limited multi-month prescribing and huge backlogs both for EID and viral load tests. Thus, a pre-requisite to COP approval was the demonstration of a funded supply chain plan covering essential HIV commodities as well as an increased Government of Kenya commitment to HIV commodities. Over a period of five months, there were multiple consultations with NASCOP, the Global Fund and PEPFAR to achieve a common understanding of in-country need, stocks, and funding of the HIV commodity basket. The COP Planning Meeting was delayed twice until this assurance was received. In May 2022, the Government of Kenya committed to an increase in their contribution towards HIV essential commodities over and above their commitment through the GFATM counterpart financing requirement. This paved the way to a resumption of the COP Planning and Approval meetings.

Kenya's robust private sector, which is a major provider of health services for some segments of the population, remains underutilized and under-leveraged for HIV services relative to provision through the public sector. Studies have shown that a sizable portion of clinically stable HIV patients seeking care and treatment services in the public sector are willing and able to pay for services that better meet their needs in the private sector (McKinsey, 2015). In COP22, PEPFAR/K will work with NASCOP to improve private sector led service provision, including differentiated drug distribution through community pharmacies. These pharmacies can assist in decongesting the public health system, tapping into clients'

willingness and ability to pay (WATP), and leveraging health insurance that covers HIV treatment. In a follow-up of the stakeholder engagement during COP22 development, PEPFAR will collaborate with cross-sectoral programs in economic growth to explore and leverage opportunities for increased private sector engagement and active participation in entrepreneurial training and providing job opportunities for youth and other volunteer cadres.

2.6 Stigma and Discrimination

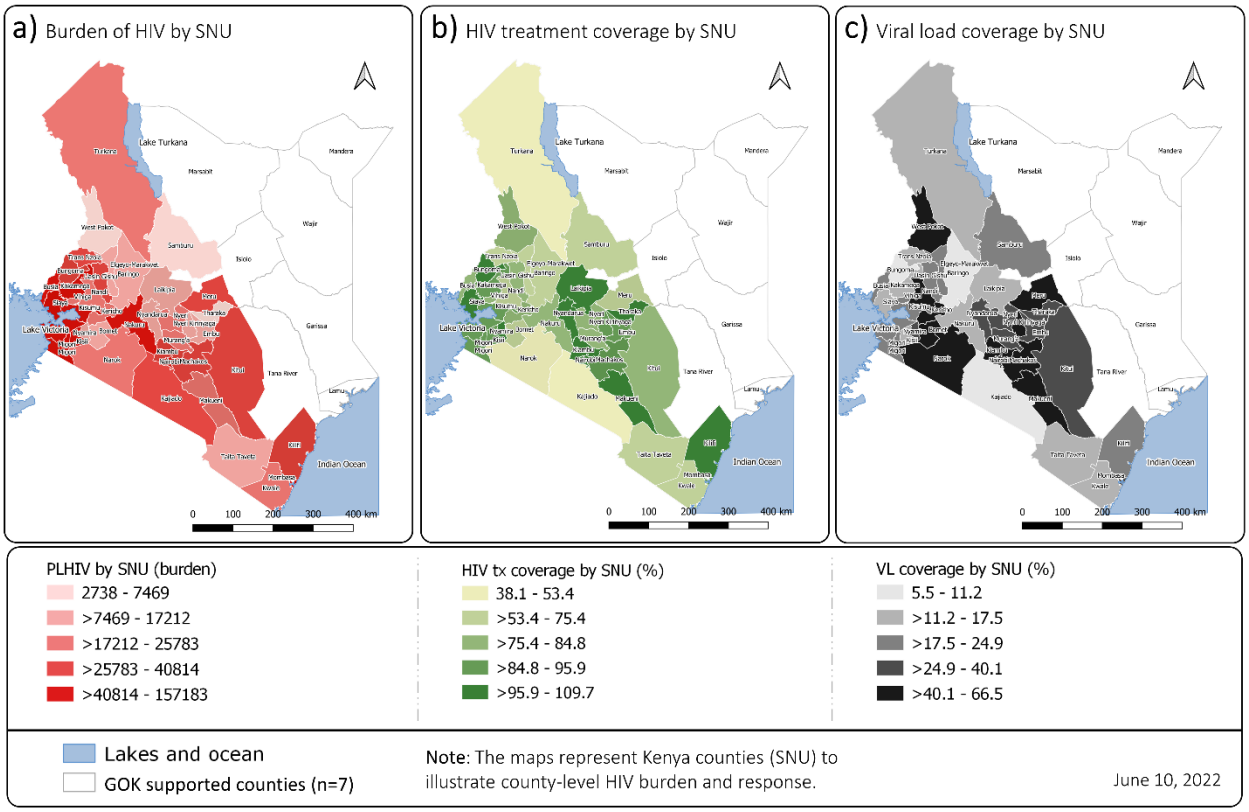
The PLHIV Stigma Index was carried out most recently in Kenya in 2021 led by the National Empowerment Network of People Living with HIV in Kenya (NEPHAK). There has been some improvement over the past 10 years since the first Stigma Index was carried out in 2011. However, among two-thirds of respondents delay in testing for HIV was attributed to fear of other people's reaction. Disclosure had to some extent become easier but levels of stigma such as discriminatory remarks still occurred in about one-fifth of PLHIV. There was also ongoing experience of stigma by health workers staff in just over 10% of respondents. Key populations face compounded stigma due to their identity as well as their HIV status. [12]

[12] The People living with HIV Stigma Index Kenya Country Assessment Report 2021

3.0 Geographic and Population Prioritization

As Kenya approaches closer to epidemic control, HIV transmission is fueled by those who are HIV infected but have not yet been identified or linked to treatment, those who interrupt treatment, and those who are not virally suppressed and therefore able to pass on HIV infection.

Figures 3.1. Alignment of PEPFAR investments geographically to disease burden; Total PLHIV by subnational unit (SNU), coverage of total PLHIV with ART, and viral load coverage by SNU.

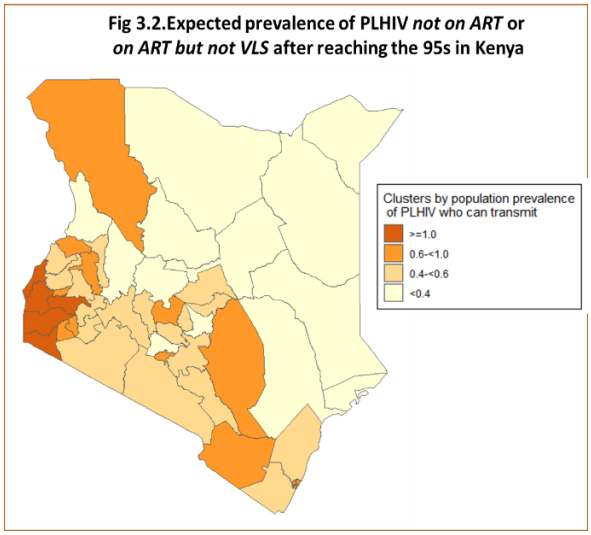


As an additional matrix for addressing county level disparities, a concept for evaluating this residual potential for ongoing HIV transmission was examined to guide programming "beyond the 95s". This approach accounts for the potential of ongoing transmission based on the estimated number and prevalence of PLHIV who may continue to transmit HIV, that is, those who are *not on ART*, and those who are *on ART but not virally suppressed (VLS)*, within the broader population at risk for HIV acquisition.

The estimated prevalence of PLHIV *not on ART*, nationally and for each county, was calculated by taking the difference of the estimated PLHIV 15+ years (Naomi 2020 files, subnational estimates viewer;

unaids.org) and the total cohort of PLHIV 15+ currently on treatment as of semi-annual program results (SAPR) 2021, over the population 15+ years at risk[13].

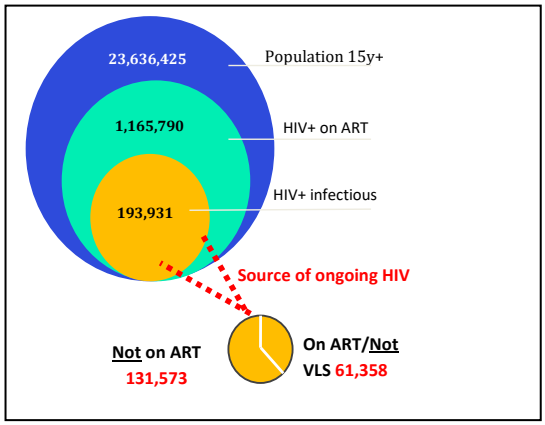
The estimated prevalence of PLHIV *on ART but not virally suppressed* was calculated by taking the difference between the PLHIV 15+ currently on treatment, and those currently on treatment who are virally suppressed, over the population 15+ years at risk[13].



This analysis, coined as the "heat of transmission," (HOT) provides an additional metric for further dividing conventional "unmet ART need" county clusters based on 95 achievement, to identify and address ongoing pockets of HIV transmission that may occur even after the 95 targets are reached (see Fig 3.2)[14]. Counties with HOT metrics *higher* than the national benchmarks—defined as the projected prevalence of PLHIV *not on ART* and *on ART but not virally suppressed* nationally in Kenya after reaching the 95-95-95 targets—need enhanced focus on case finding/linkage, and retention/adherence strategies, respectively. Further county work plans will provide tailor made programs for their unique context.

Table 3.1 . shows the allocation of Tx_New targets by counties clustered on both "unmet ART need" (i.e. 95 target achievement) and HOT categories. Overall, 65% (43,248) of the total Tx_New target (66,825) was allocated to counties with a higher HOT than the national benchmarks (i.e. prevalence *not on ART* >0.45%; prevalence *on ART but not VLS* >0.23%), 13% (8,766) was allocated to Nairobi, a county which has the nation's largest urban center and population of PLHIV, and 22% was allocated to remaining counties with a lower HOT than the national benchmarks (prevalence *not on ART* <0.45%; prevalence *on ART but not VLS* <0.23%). Of note, counties nearing the 95 targets, but which nevertheless have a *higher* HOT (Homa Bay, Kisumu, Siaya, Migori, Busia, Kisii, Mombasa) are those with a large number of PLHIV and high HIV prevalence. These counties will need to exceed the 95 targets to meet national HOT benchmarks.

Figure 3.3. Diagram to illustrate HOT



[13] 2019 KNBS census data; knbs.ke.go
[14] PLHIV estimate 2020; unaids.org

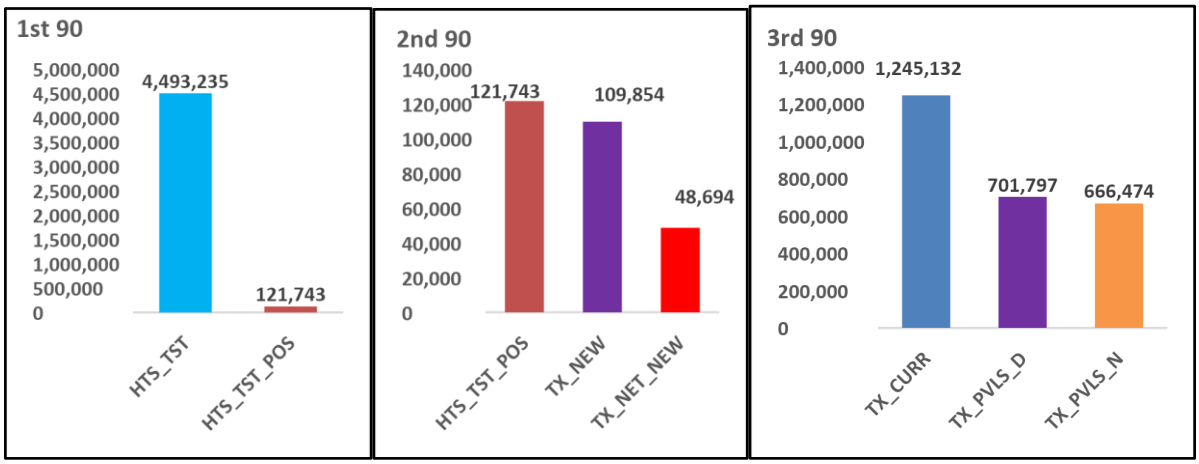
Table 3.1 . Allocation of COP22 TX_New Targets by County Clusters

Unmet need ("ART gap") category	Heat of Transmission (HOT) Category	Counties	COP22 Targets	
			TX_New	% of total TX_New
Nearing 95-95-95 targets	Lower HOT*	Embu Kiambu Kilifi Machakos Makueni Nyamira Nyandarua Tharaka-nithi	8928	13%
		Nairobi	8766	13%
	Higher HOT†	Homa Bay Kisumu Siaya Migori Busia Kisii Mombasa	25327	38%
High unmet need		Turkana Usain Gishu Kitui Nyeri Narok Kajiado Kwale Meru Murang'a Nakuru Nandi Trans Nzoia	14242	21%
Low unmet need		Taita Taveta Vihiga Baringo Bomet Elgeyo-marakwet Kericho	3679	6%
	Lower HOT*	Bungoma Kakamega Kirinyaga Laikipia Samburu West Pokot	5883	9%
		Total	66825	100%

*Estimated prevalence of potentially infectious PLHIV *lower* than national benchmarks (prevalence not on ART ≤0.45%; prevalence on ART but not VLS ≤0.23%)

†Estimated prevalence of potentially infectious PLHIV *higher* than national benchmarks (prevalence not on ART >0.45%; prevalence on ART but not VLS >0.23%)

Figure 3.4 Overview of 95/95/95 Cascade, FY21



Source: Panorama data pull, June 2022

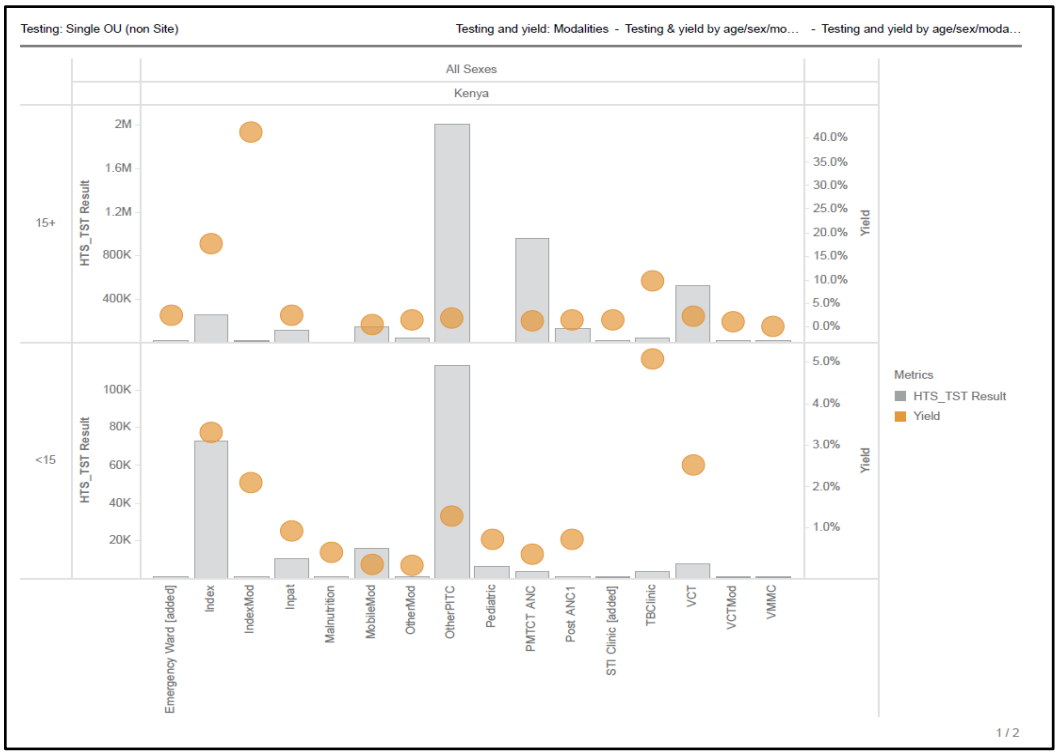
Fig 3.4 shows that of 4,493,235 HIV tests, 121,743 were positive, providing an overall yield of 2.7%. Of those, 109,854 were linked (90%) but the actual cohort growth (TX_NET_NEW) was only 48,694 (40%). This has been the pattern over the past few years (see Table 4). One likely explanation for this is a potential high number of re-testers. The reasons behind why someone who has tested HIV+ decides to take another HIV test are complex. This retesting could be a result of patients changing health facilities and registering as new patients, returning to care after interrupting treatment or testing at multiple facilities to confirm their HIV positive status. The recent bold move by the GOK to adopt the National Identification Card for adults and birth certificates for children <18 years as UPI across all health services will provide more accurate data of just how many individuals are accessing services as well as strengthening of the eHTS module within the EMR system. This will help the program to actively track the number of re-testers. Through client engagement, the program will find out reasons for retesting and initiate mitigating strategies. The ART census which is currently underway will provide an accurate count of those people on ART. Viral load coverage (VLC) in FY21 has been problematic because of repeated stock outs of viral load (VL) reagents. In FY21, the VLC was 61% with a VLS of 95%.

Table 4 Testing trends and actual cohort growth

Operating Unit	Indicator	FY16 Cum. Results	FY17 Cum. Results	FY18 Cum. Results	FY19 Cum. Results	FY20 Cum. Results	FY21 Cum. Results	FY22Q2 Cum. Results
Kenya	**HTS_TST_POS**	240,885	190,675	183,906	175,964	141,477	121,743	27,613
	TX_CURR	969,433	1,041,326	1,084,100	1,143,294	1,196,438	1,245,132	1,266,522

	TX_NET_NEW	109,136	71,893	42,774	59,194	53,144	48,694	17,194
	(HTS_TST_POS)-(TX_NET_NEW)	131,749	118,782	141,132	116,770	88,333	73,049	10,419
	%TST pos not recorded as TX_NET_NEW	54.69%	62.30%	76.74%	66.36%	62.44%	60.00%	37.77%

Figure 3.4 Testing Volume and Yield by Modality and Age/Sex, FY21:



Source: Panorama data pull, June 2022

There are a number of mHealth and surveillance opportunities which will be utilized in COP22. A Machine Learning Technical Group consisting of US agencies, technical partners and GOK will be developing a prediction model generating interruption in treatment (IIT) and non-viral suppression risk scores at patient level. This model will be based on machine learning work developed in the "data lake" by the USG team in FY22, and will be extended to consider patient characteristics as well as interaction history over time. The generated IIT Risk Scores will be linked back to source systems in the National Data Warehouse (NDW), where they can then be integrated into point of care interfaces i.e. KenyaEMR and Mhealth platforms, ultimately strengthening interventions at facilities. Although the team has preliminary insights into the determinants and causes of interruption in treatment and non-viral suppression using patient-level data, more information will be generated by integrating additional

sources. For example, deaths are not fully captured in EMRs, and IIT might be an overestimation if deaths are not properly accounted for. Integration of mortality data may shed light on why PLHIV are dying, and inform strategies to improve survival of PLHIV.

Other mHealth options include the scale of the USHAURI App for patients' appointment reminders and wellness messaging, patient survey for client interviews and MLAb for real-time VL results to be relayed back to the patient. At facility level a clinical action report will be produced that will generate a line list of clients requiring immediate action/interventions for better outcomes. At a county level, case-based surveillance public health response reports identify individual patients who may need attention such as those tested HIV-positive but not linked to treatment, those not virally suppressed after being on treatment for >12 months, or PLHIV with advanced HIV disease through CD4 measurements.

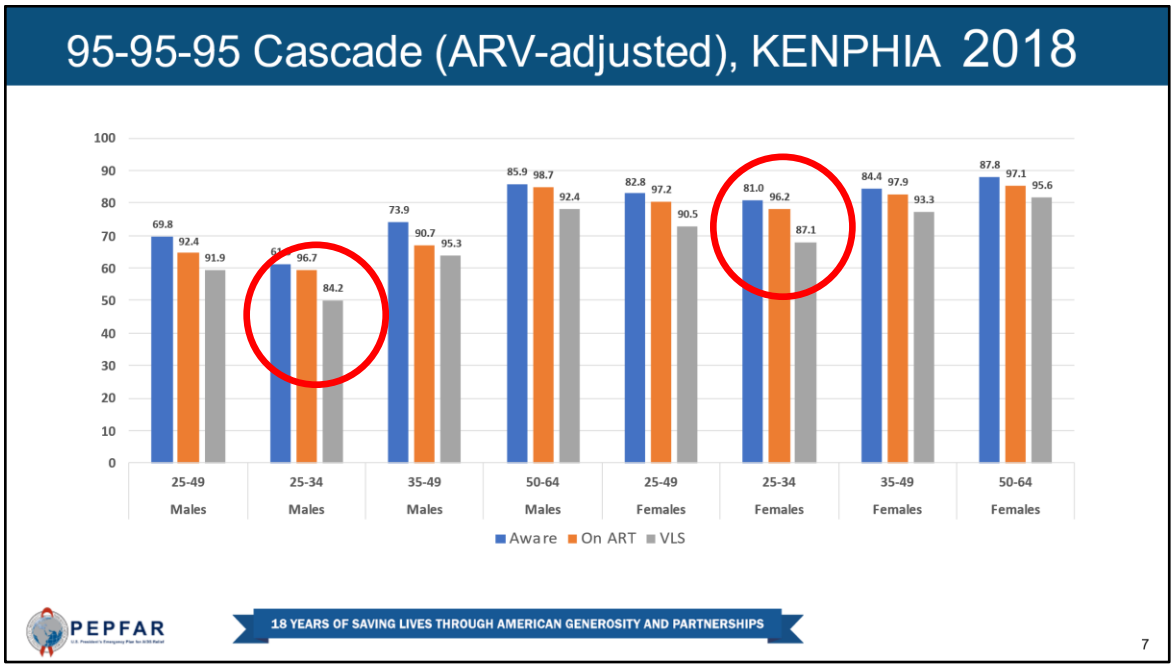
3.1 Client-Centered Program Activities for Epidemic Control

In order to further deliver highly targeted programs, the Kenya COP22 has taken a person-centered population approach as the country moves towards sustaining the gains made to date. This approach puts real meaning into programs that take into consideration different client preferences with differentiated services both at facilities and within communities. From a programmatic perspective one could also argue that the better results should be achieved by this tailored approach maximizing PEPFAR resources as measured by outcomes. As such, four population groups are considered: (a) children <15 years; (b) adolescent girls and young women and adolescent boys and young men 15-24 years; (c) adults =>25 years; and, (d) key and priority populations. Targeted programs for these population groups along the entire continuum of care from prevention to case finding, linkage to care and treatment, opportunistic infections (OI) screening and prophylaxis, and viral suppression will deliver focused public health responses. COP22 also will reach out again into communities to foster bi-directional linkages between communities and health facilities, building upon the resources available at community levels.

3.1.1 Adults= >25 years from Prevention to Viral Load Suppression

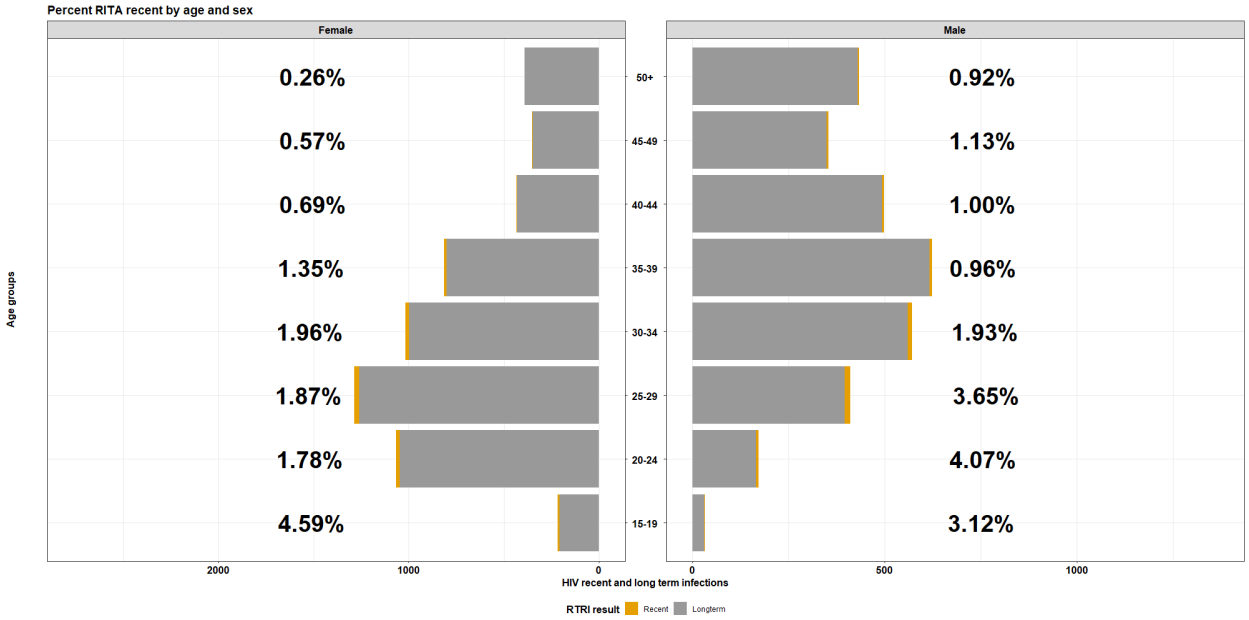
The majority of PLHIV are found in this age category. The key priorities for COP22 are 1) finding new cases; 2) finding/re-engaging patients who have disengaged from treatment services; and 3) ensuring adequate HTS resources for successful prevention programs and; 4) addressing high mortality. Across the entire cascade, men lag behind women with only 61% aged 25-34 aware of their status and sub-optimal VLS especially in the 25-34 age group. Women, in general, perform better along the whole cascade although there is poor VLS also in the 25-34 age group. (Fig3.1.1.). This age band contributes 56% of all new infections across the country.

Figure 3.1.1. Age specific cascade



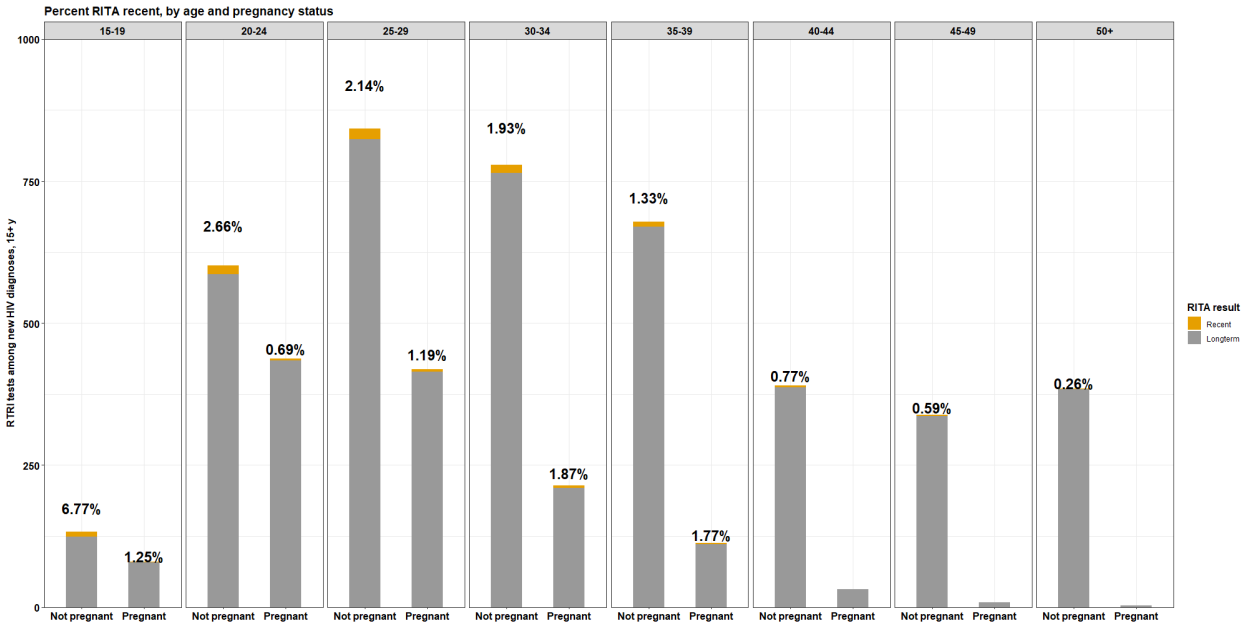
The expanding recency program will cover all 40 PEPFAR supported counties by FY22Q4 providing increasing information on areas and populations with higher recent infections. Fig 3.1.2 shows early results from recency testing inidcating 2-5% recent infections among newly identified HIV-positive females <30 years of age and 3-4% in men <30 years of age. The greatest number of recent infections was identified among non-pregnant women 25-29 (2.39% recent infection). The identification of HIV+ non-pregnant women is important in improving the MTCT rate considering that while many of these women will become pregnant, many pregnant women do not attend their first ANC until later in pregnancy.

Figure 3.1.2 Recency data by sex and age



Recency surveillance data has also shown 2-3% of newly diagnosed HIV-positive non-pregnant females <30 years of age tested as recent infections. (Fig 3.1.3).

Figure 3.1.3 Recency by age and pregnancy status

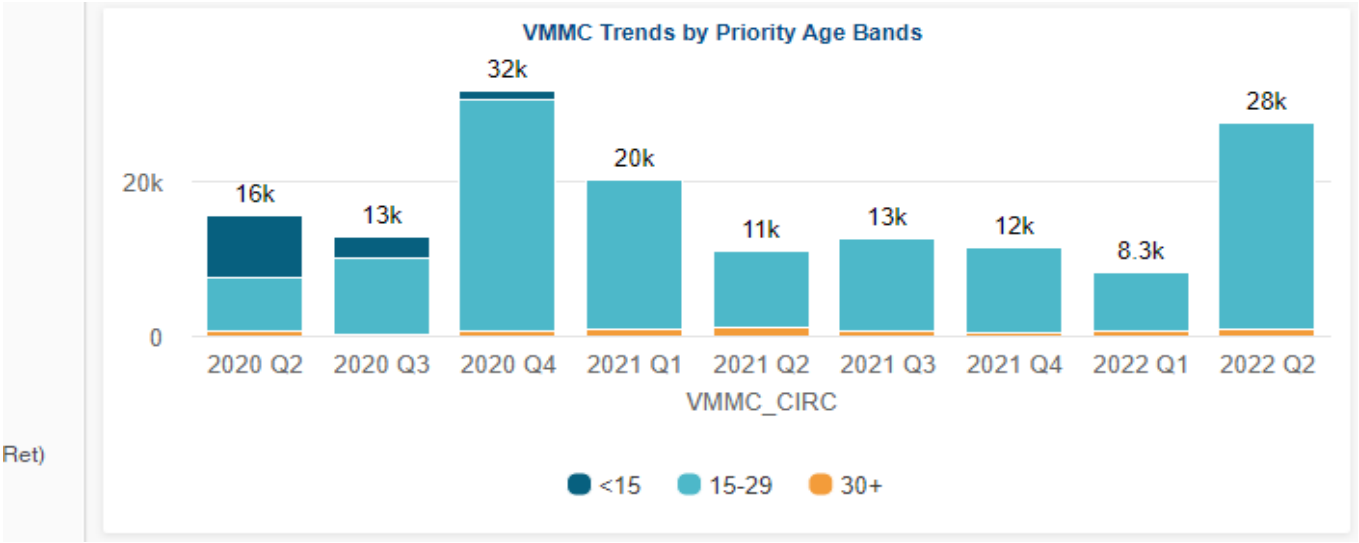


Apart from general media information on behavioral HIV prevention and condom promotion, the most critical biomedical prevention measure for men is Voluntary Male Medical Circumcision (VMMC) and PReP for those at risk.

3.1.2 VMMC

With the available evidence that conventional surgical circumcision among boys aged <15 years is associated with a higher risk of glans injuries, urethral fistula, and other adverse events, PEPFAR VMMC services are now limited to men aged ≥15 years. COP22 will continue providing direct service for men 15 years and above, with a focus on the 15-29 year old male populations. Counties of focus will include the five traditionally non-circumcising counties and two culturally circumcising counties which house large populations of migrant non-circumcising groups (Migori, Homa Bay, Kisumu, Siaya, Turkana, Nairobi, and Nandi). Above site technical assistance (TA) will be provided for three counties which were transitioned in COP20 and COP21 (Busia, Nakuru and Kericho). All other counties traditionally circumcise and have male circumcision rates >80%. After a lull in VMMC in FY22Q1, there has been good uptake in FY22Q2 with 27,690 procedures undertaken (Figure 3.1.4). Moving forward counties will be encouraged to include VMMC in their routine health services.

Figure 3.1.4 VMMC Trends by priority age bands



Source: Panorama data pull, June 2022

Table 5 VMMC Coverage and Targets by Age Bracket in Scale-up Counties

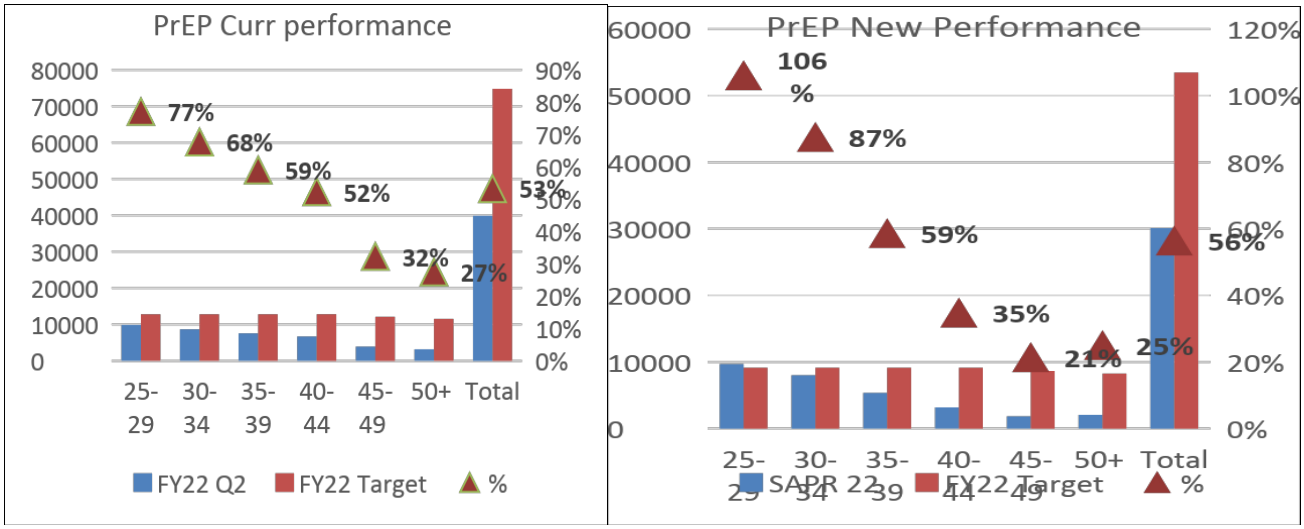
SNU	Target Populations	Population Size Estimate (2023)		Current Coverage (2022)		*VMMC_CIRC* (In FY23)	Expected Coverage (in FY23)
		15-64yrs	15-29yrs	15-64yrs	15-29		
Turkana	**15-64 yrs**	279,405	164,169	**73%**		13,200	**78%**
Kisumu	**15-64 yrs**	345,588	194,861	**60%**		12,500	**64%**
Siaya	**15-64 yrs**	263,835	147,240	**63%**		8,250	**66%**
Homa Bay	**15-64 yrs**	292,874	171,004	**67%**		8,200	**70%**
Migori	**15-64 yrs**	295,438	172,577	**67%**		6,000	**69%**
Nandi	**15-64 yrs**	269,636	138,185	**91%**		3,000	**92%**
Nairobi	**15-64 yrs**	1,530,562	551,169	**86%**		3,000	**86%**
Military	**15-64 yrs**	**N/A**	**N/A**	**N/A**		850	
	Total/Average					**55000**	

Source: COP22 Data Pack

3.1.3 PrEP

PrEP is an important component of the package of comprehensive primary prevention services that includes condom and lubricant promotion, post-exposure prophylaxis (PEP), VMMC, risk reduction education, harm reduction and other structural interventions that reduce vulnerability to HIV infection. PrEP was introduced in Kenya in 2017. Since then, considerable progress in PrEP scale up has been made. In FY22Q2 Kenya met their PrEP Current and PrEP New targets by achieving 53% and 56% respectively (see Graph 3.1.5). Although PrEP service provision should be integrated into existing services within facilities and community programs, integration remains suboptimal. In a review of program results, a number of gaps were identified: 1) low uptake especially among the older population and PBFW; 2) inadequate differentiated service delivery outlets for PrEP now mainly concentrated in the HIV comprehensive care clinics (CCC); 3) high discontinuation rates; 4) knowledge gaps, health worker attitudes and service quality gaps. From the clients' point of view, stigma issues emerged in that clients were not happy to go and get PrEP from the CCC. They also preferred different packaging for PrEP drugs, an issue which has been brought up in other countries as well.

Figure 3.1.5 PrEP uptake



In COP22, the following strategies will address the identified gaps noted above:

a) Sensitization and training of health workers on risk assessment, eligibility criteria and attitudinal change;
b) Implementation of PrEP guidelines and use of new biomedical options (event-driven oral PrEP, Dapivirine vaginal PrEP ring and long-acting injectable cabotegravir) as they become registered in Kenya;
c) The normalization of PrEP through increasing availability at all service delivery points, including out-patient departments, and where there are chronic care clinics covering other non-copmmunicable diseases (NCDs). For the latter, implementation of chronic care clinics, integrating with PrEP provision in the outpatient department, will be explored in high volume and referral facilities.
d) Demand creation for people at risk including discordant couples or those with multiple sexual partners;
e) Age-appropriate peer supporters at community levels to improve adherence and continuation of PrEP;
f) Improved service and data quality through the use of PrEP modules in EMRs
g) Referral to other services such as VMMC.

3.1.4 Finding people with undiagnosed HIV and getting them started on treatment

The current HIV case finding yield overall is 2.8%. In COP22, Kenya will make a strategic shift at implementation level to focus on identifying people not reached in the community, and minimizing missed opportunities for those that have a health facility encounter. This strategic shift to a mix of

targeted facility and community testing modalities will be based on county incidence data and recency results. Recency data will help identify geographic and population clusters for prevention and testing interventions. Based on HIV incidence, individual county HIV testing service mixes will be clearly developed through work plans involving agencies, county health management teams, implementing partners and other key stakeholders. Differentiated HIV testing approaches will be stratified by population type and county gaps towards achieving and sustaining the 95-95-95 goals.

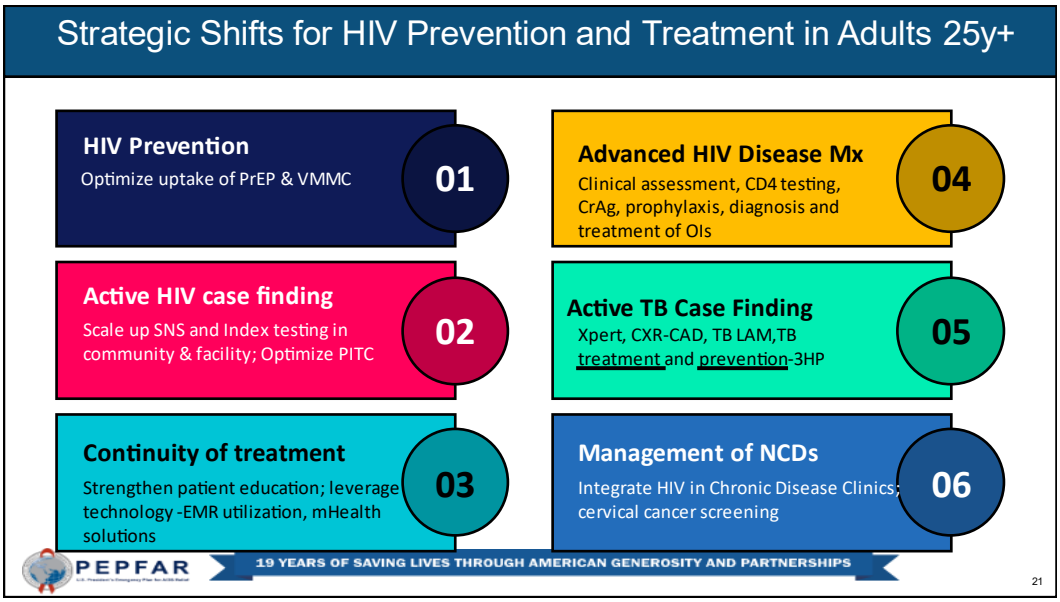
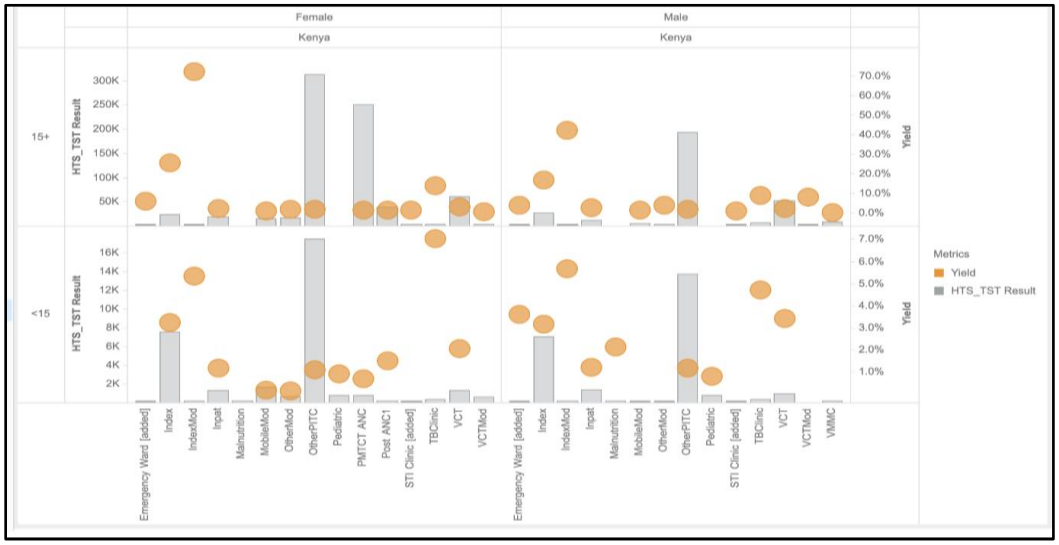


Figure 3.1.2 Testing Volume and Yield by Modality and Age/Sex, FY21



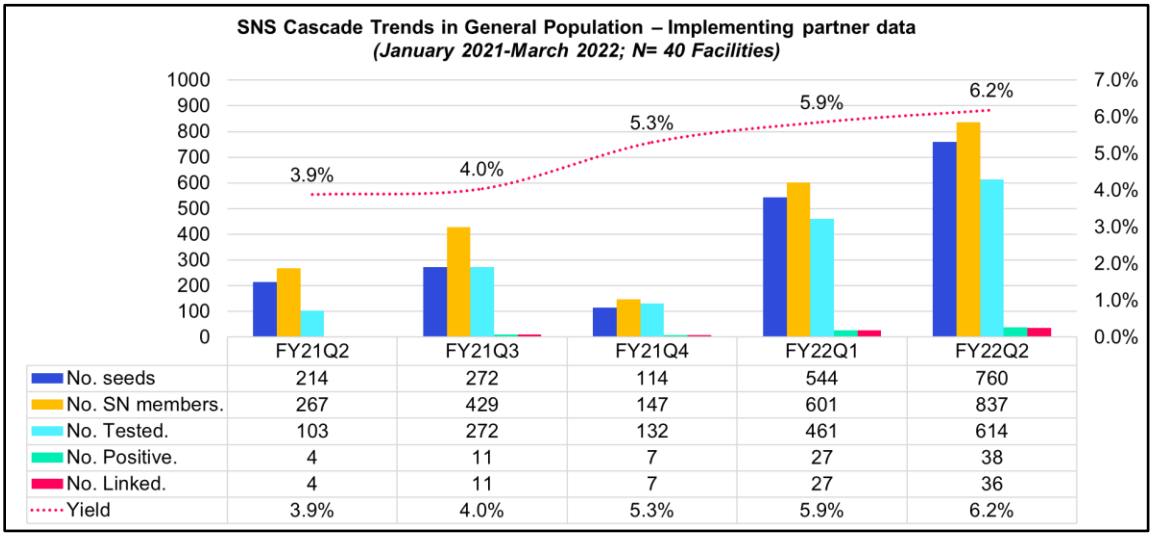
Source: Panorama data pull, June 2022

For clients who visit a health facility, every effort will be made on not missing opportunities to test for HIV, through optimized provider-initiated HIV testing and counseling (PITC) and the correct use of the Adult Risk Assessment tool, which should be routinely used at all service delivery points. In COP22 this will be further targeted by using machine learning to identify client characteristics that indicate them to be at a higher risk of acquiring HIV infection. These clients will be prioritized for HIV testing and prevention services.

For all newly diagnosed individuals or those on treatment who are not virally suppressed, index testing services will continue to be offered. Among the contacts, all new positives will be used as new index cases, to continue the cascade for index testing. All people attending TB, sexually transmitted infections (STI) and medically assisted therapy (MAT) clinics will also be offered counseling and testing. To identify new infections among pregnant women, all pregnant women attending ANC will be tested during their first ANC visit and subsequently during pregnancy and postnatal period as per the national MOH guidelines.

Social network strategy testing has been used effectively within the KP program. Early data of expanding social network strategy testing in the general population has shown promising results (see graph 3.1.3). In COP 22 PEPFAR is proposing to scale this up among social contacts of newly diagnosed individuals living with HIV.

Fig 3.1.3 Yields obtained through pilot SNS among the general population



	FY21Q2	FY21Q3	FY21Q4	FY22Q1	FY22Q2
No. seeds	214	272	114	544	760
No. SN members.	267	429	147	601	837
No. Tested.	103	272	132	461	614
No. Positive.	4	11	7	27	38
No. Linked.	4	11	7	27	36
Yield	3.9%	4.0%	5.3%	5.9%	6.2%

The roll out of a UPI as described above will be a game changer and will help identify those that come for repeat HIV testing. This will be further enhanced through the rollout of the eHTS module within the EMR.

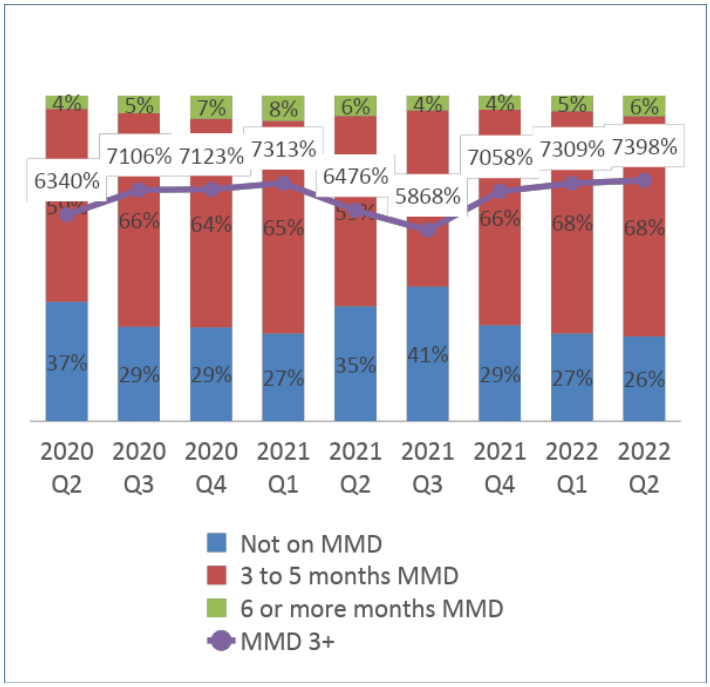
As Kenya approaches 95:95:95 greater efforts need to be made to find those people who are reticent to come forward for HIV testing. For those people, especially men and young people, who are reluctant to come to health facilities for HIV testing, COP22 will create greater availability of HIV self-test kits, as well as supporting confirmation testing and linkage to care. Channels for increasing access to HIVST will include: a) distribution through index clients, after screening for intimate partner violence (IPV) risk in order to reduce risk of IPV related to testing and disclosure; b) increased availability at community levels, possibly through community health volunteers, PLHIV or other community groups or peers; and/ or, c) workplace distribution, d) through socially marketed or subsidized private sector and/or public- private partnership approaches.

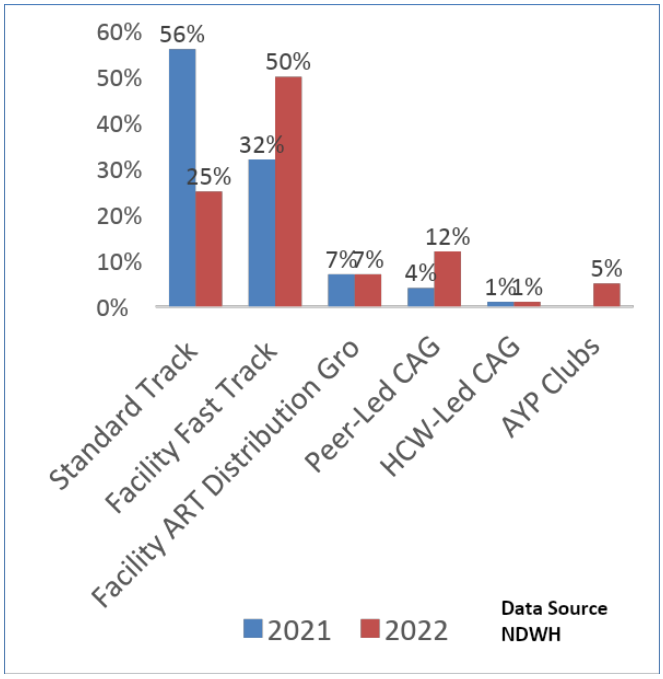
To enhance identification of unreached, undiagnosed populations, in COP 22 PEPFAR/K proposes to shift towards active case finding in the community. This will entail the program actively following networks of risk exposures within the community to identify previously undiagnosed individuals who may have not accessed HIV testing services in the facility. Key strategies that will be employed will include index testing and SNS. For index testing sexual contacts, needle sharing individuals or eligible biologic children with unknown HIV status will be followed-up for testing. For SNS, social networks who share similar HIV transmission risk profiles with index cases will also be follow-up and offered testing and prevention services. In those counties with many industries/transport corridors (such as Kisumu, Nairobi, Mombasa, Machakos, Nakuru, Kericho, Eldoret, Bungoma, Busia, Kiambu), workplace programs will provide opportunities for HIV testing, working in conjunction with the transport stakeholders to provide accessible and convenient HTS and prevention services. County health teams and implementing partners will reach out to workplace management to set up such opportunities.

3.1.5 Ensuring viral suppression and ART continuity

In FY21, Kenya experienced a number of severe supply chain interruptions both in ARVs as well as stock outs of HIV Rapid Test Kits (RTKs) and viral load reagents. Intensive discussions to strengthen the HIV commodities supply chain have included a greater commitment to additional funding by the GOK and a clearer understanding of the stock situation and planned procurements in the next year. Analysis of MMD over the past year reflects a weak supply chain (see Fig 3.1.4). While the program has made considerable progress in scaling up facility-based models of differentiated care, community models remain suboptimal but have the potential to reach and benefit the group of individuals who would otherwise interrupt treatment due to limited options. During COP22, based on individual county plans, expanded community-based services will be implemented.

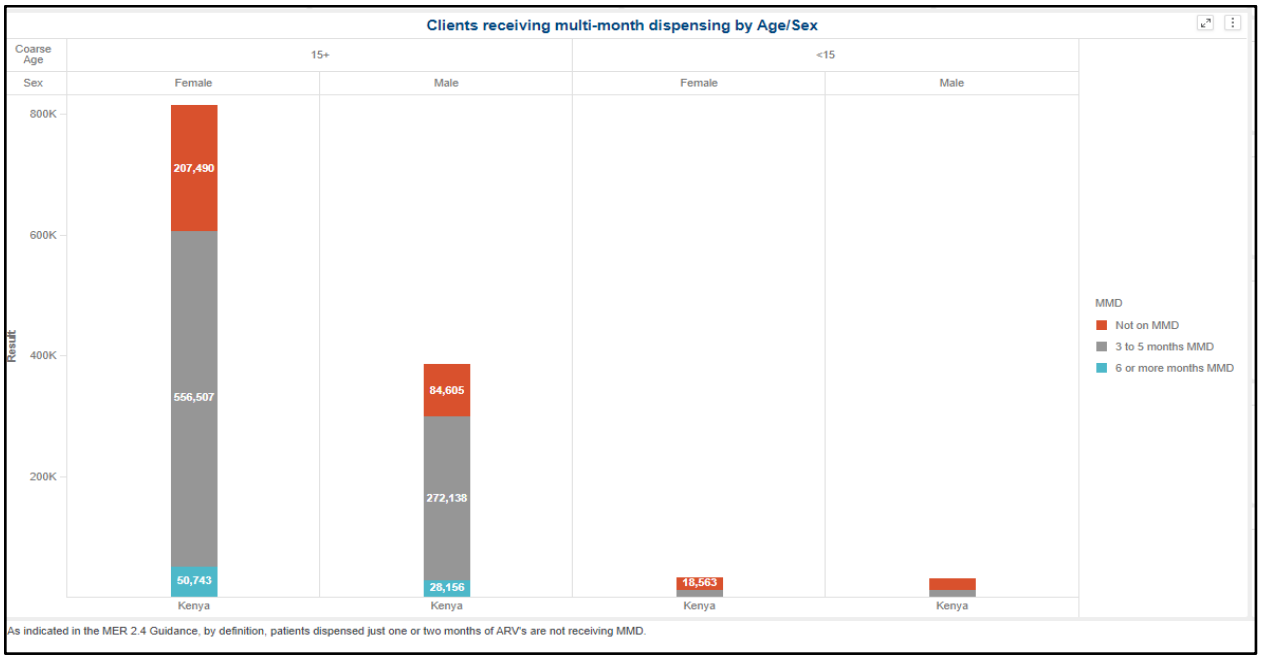
Figure 3.1.4 Trends in MMD over time and different MMD options





Source: Panorama data pull, June 2022

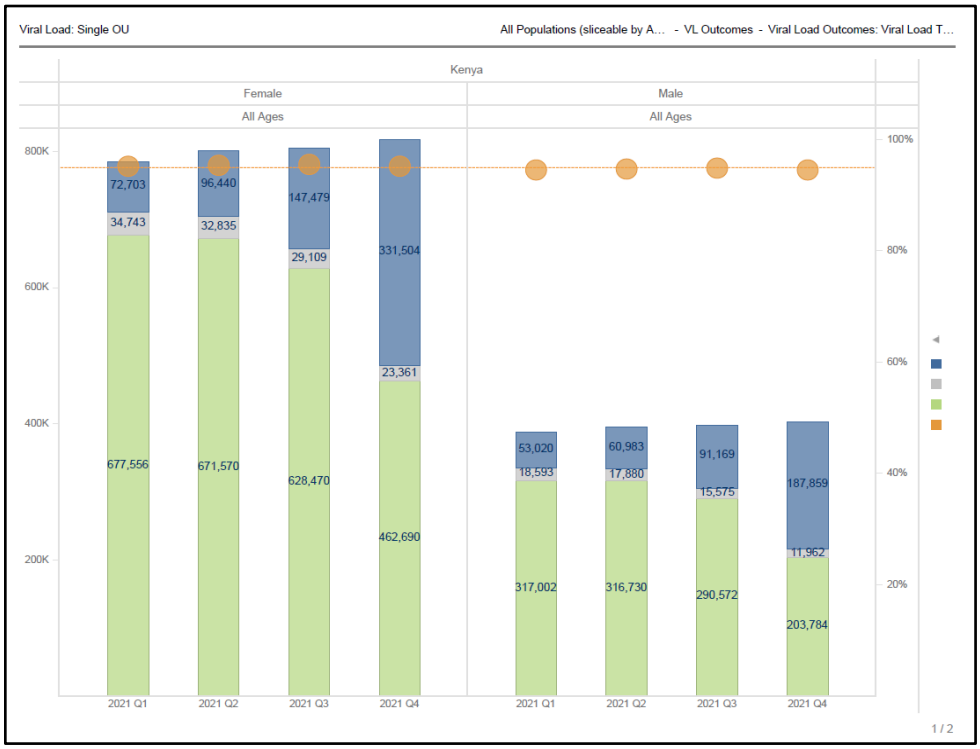
Figure 3.1.5. Number and Percent Contribution of Clients Receiving MMD by Age/Sex,



Source: Panorama data pull, June 2022

The treatment cascade indicates that once diagnosed, clients readily link to treatment and the majority remain virally suppressed.

Figure 3.1.6 Viral Load Outcomes, FY21



Source: Panorama data pull, June 2022

However, data also shows that the highest number of interruptions to treatment occur in the first six months, with 12.2% interrupting treatment within the first three months after treatment initiation and another 9.9% drop off between the 3rd and 5th month of treatment.. Older patients have higher rates of IIT. (see Figure 3.1.6.) Treatment interruptions decrease to 0.8% after six months. While men have a higher % IIT across all age bands, the actual number of IIT is greater in women (see Figures 3.1.6 and 3.1.7).

Fig 3.1.6 Interruption in Treatment by age group

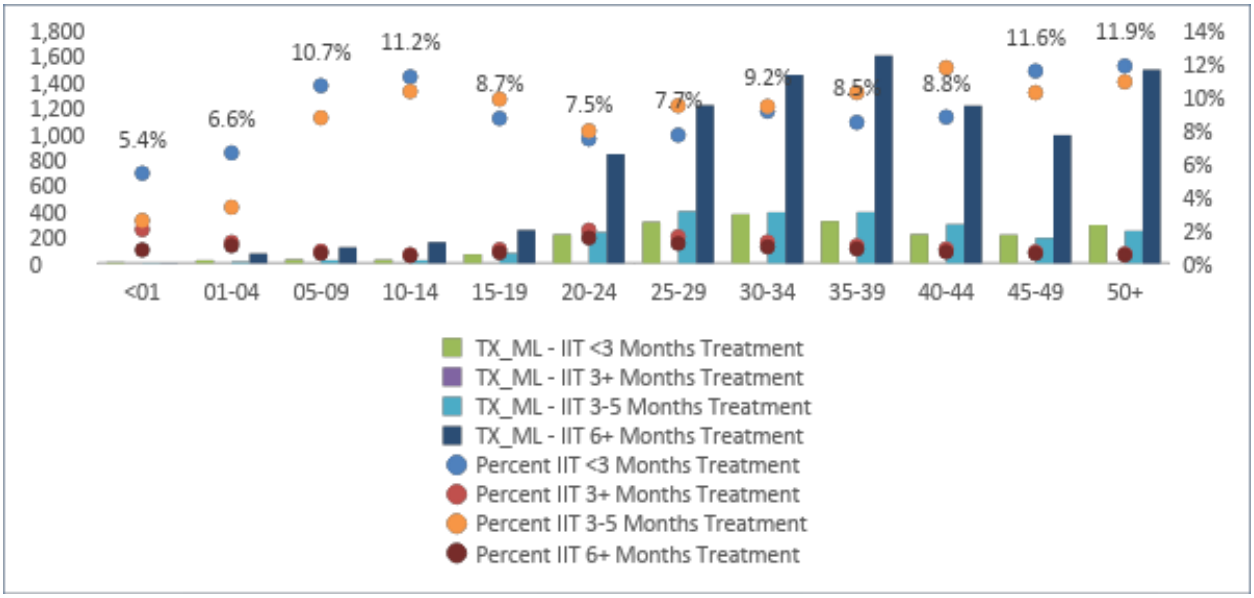
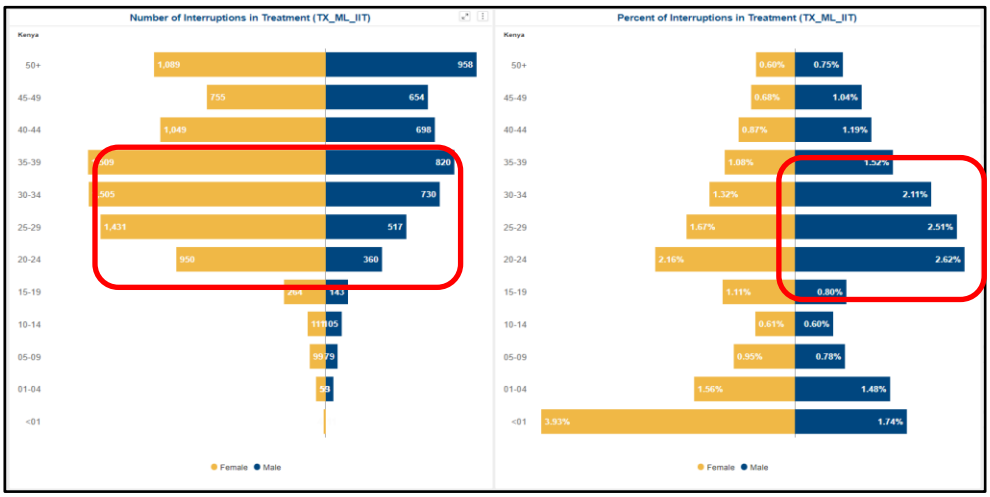


Fig 3.1.7. Number and proportion of interruptions in treatment within 3 months of starting ART



Source: Panorama data pull, June 2022

A number of gender specific strategies will be used to address those dropping off treatment. For women this will include increasing the family-centered clinics, addressing gender-based violence, providing sexual reproductive health services, better linkages between MNCH and CCC clinics, and ensuring a "screen and treat approach" for cervical cancer screening and treatment. For men, flexible clinic working hours or male specific clinics, improved adherence support through male peers, and specific messages

targeting men using the USHAURI platform will be used. The program will also strengthen psychosocial adherence support to ensure all recipients of care achieve and maintain durable viral suppression.

The highest mortality occurs (22%) within one month after enrollment. Patients are still presenting with advanced HIV disease. There are also those who have been on treatment for some time, including those with poor adherence, who develop advanced HIV disease. A package of care for advanced HIV disease (AHD) including diagnosis, TB prophylaxis, preemptive treatment for other co-morbidities and ART initiation will be employed. Mentorship for health workers on AHD will be supported in line with the Kenyan national guidelines.

As the cohort of PLHIVs on ART ages, program results show that the over 50 population requires additional support. Prevention interventions such as PrEP have not previously focused on this older age group. Older men especially are reluctant to attend public health facilities and queue up with children, often receiving care from a much younger health care provider. Screening for HIV within a non-communicable disease setting reduces this stigma. However, integration of HIV care and treatment within NCD clinics has proved much more problematic because, for example, HIV drugs are free but NCD drugs are not, or health workers are not adequately trained across the spectrum of HIV and NCD diseases. The AFRICOS[15] study, which is following a large cohort of HIV+ people on ART as well as a HIV- cohort, has found that in the 50+ cohort, 31% had hypertension, 15% has dysglycemia and 12% were obese. This underscores the need for tailored interventions and integrated care as well as addressing treatment interruption within this group as they may relocate upon retirement (see Graph 3.1.6). NCD management will be strengthened in the HIV clinics with a focus on hypertension and diabetes. This will be done through mentoring health care workers on NCDs, supporting screening of all adult recipients of care (ROC) for NCDs and integrating the management of those with NCDs in CCC. To improve access to NCD drugs, ROC will be encouraged to take up social insurance and explore other options such as community pharmacy models to avail affordable drugs. Other measures to be explored in COP22 include reviewing health insurance options upon retirement and age appropriate peer support.

3.1.6. Cervical Cancer

Despite the tremendous progress in cervical cancer screening, major gaps remain in access to treatment for those who are diagnosed. This is due to the limited number of treatment equipment in supported facilities. A vast majority of the screening services are offered in MNCH clinics. PEPFAR Kenya will continue strengthening the linkage between the HIV clinic and MNCH clinics for women referred for screening. PEPFAR Kenya, in collaboration with the National Cancer Control Program (NCCP), will continue to review facility performance, identify gaps, and offer support to improve quality of screening and treatment access.

[15] AFRICOS study is a 15 year cohort study which started in 2013 and is being undertaken in Kenya, Uganda, Tanzania and Nigeria.

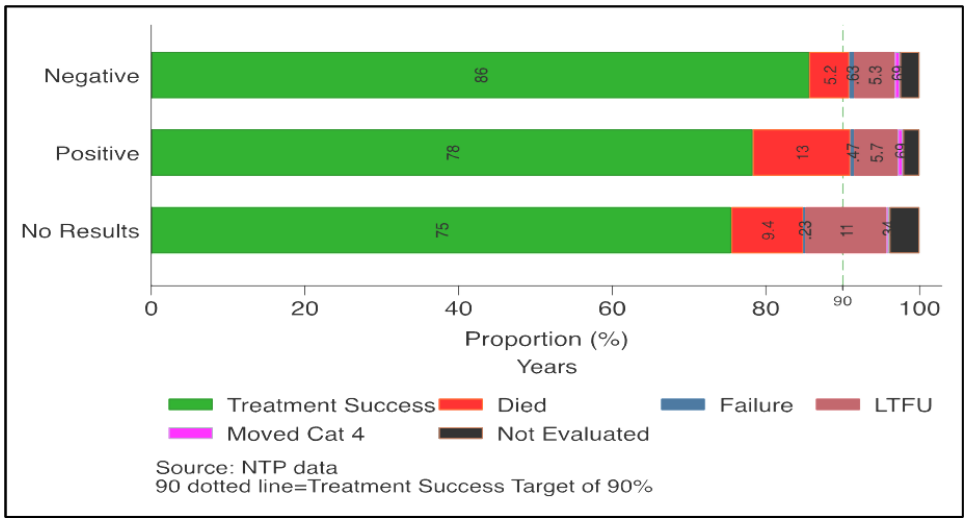
PEPFAR Kenya will also work with the NCCP to develop a treatment referral directory for ease of tracking referrals through phone calls/SMS and coordinate with referral sites to ensure linkage and timely access to treatment services. To improve the quality of screening, PEPFAR Kenya will work with NCCP and county reproductive health coordinators to provide mentorship to improve the quality of screening. Mentors will regularly monitor sites for positivity and provide support to improve screening. PEPFAR Kenya will also work with other stakeholders to advocate for adoption of HPV as the primary screening method as per the WHO guidelines.

3.1.7 TB/HIV

Tuberculosis accounts for one in three deaths among PLHIV and has the potential to impact retention in HIV treatment. There has been a 17% decline in TB case notification in Kenya from 2019 to 2021, worsened by the onset on COVID-19. Only one in two estimated HIV/TB co-infected cases are identified with a mortality three times greater in co-infected patients. Results from patient interviews in a recent evaluation of the TB program indicate a low level of suspicion, late diagnoses, limited TB prevention measures, fragmented HIV/TB service delivery and double stigma with co-infection. Twenty-six of the 40 PEPFAR supported counties have a satisfactory reporting rate, but six counties require urgent intervention. Overall, ART initiation is high (97%) with only 11 counties with less than 95% uptake. However, mainly due to commodity shortages, there was a decrease in tuberculosis preventive therapy (TPT). Through the agreed upon supply chain plan, COP22 has adequate resources for TPT and laboratory TB diagnosis. Within the program, deliberate efforts will be made to improve the timeliness and quality of TB screening among those HIV+ patients and ensure one weekly isoniazid-rifapemtine for 12 weeks (3HP) TPT roll out across all 40 supported counties. More sensitive screening and diagnostic tools such as chest x-ray+ CAD, Gene Xpert UltraMTB Rif ultra, TrueNat and assay platforms will be deployed/ strengthened, and LF-TB LAM testing scaled up in line with WHO Guidelines.[16] Differentiated person-centered TB and TPT service delivery models will be implemented as per the national guidelines. The potential for scale up of a digital remote patient monitoring solution being piloted in Nairobi will be explored to heighten patient treatment support. Opportunities to further engage communities not only to improve TB/HIV client literacy but also to support both TB treatment and TPT adherence, will be explored. Improvements in revision of guidelines to include shorter TPT regimens (1HP) and strengthening of active drug safety monitoring and management, drug resistant TB surveillance, recording and reporting, and laboratory quality assurance will be prioritized, and gains made in TB infection, prevention and control (IPC) during the COVID-19 response sustained.

[16] LF-LAM for the diagnosis of TB in HIV infected patients WHO Policy update 2019

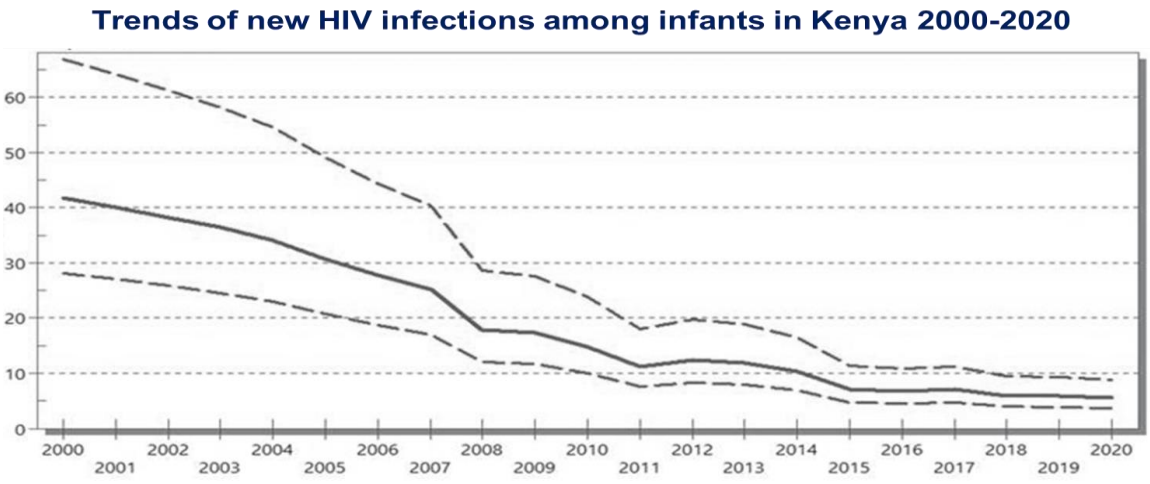
Figure 3.1.8: TB treatment outcomes among clients HIV+, HIV- and unknown status



3.1.8. Prevention of Mother to Child Transmission

It is imperative that Kenya aggressively review how to address the slowly declining MTCT rate which is currently estimated at 8.7%. (see Fig 3.1.9)

Fig 3.1.9 MTCT trends over time

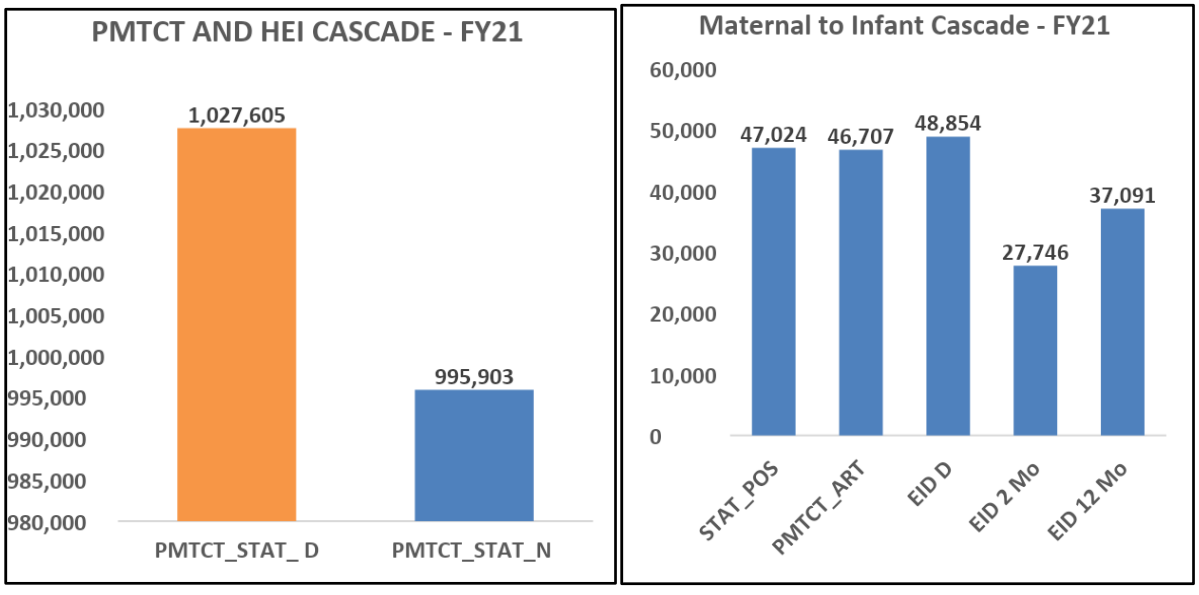


Two-thirds of HIV pregnant women started their ART prior to pregnancy. The remaining one-third of pregnant women, including those below the age of 25, either start during their first ANC or late in pregnancy, drop off ART, or get infected during pregnancy and breast feeding but are not identified. It

is estimated that of all cases of MTCT in Kenya, 47% occur in mothers who drop out of ART during pregnancy or breastfeeding, 31% occur in mothers who acquire HIV during pregnancy or breastfeeding while 20% occur in mother who start ART but do not achieve and sustain viral load suppression and only 2% occur in mothers who do not receive ART, reflective of the high ART coverage in the population. The national guidelines provide for at least one HIV test during early pregnancy with repeat testing during late pregnancy, labor and delivery, and breastfeeding. While implementation of the first test is optimal, there are many missed opportunities in follow up testing. In addition, uptake of EID is suboptimal, negatively impacting provision of HIV prevention and treatment services among HIV exposed infants. In FY22Q2 based on EID data for that quarter, 362 infants (3.6%) tested HIV positive by 12 months, bearing in mind that coverage was less than 50%. There is a remaining backlog of EID tests sampled previously when viral load reagents were unavailable.

In COP 22, these gaps will be addressed. For those PBFW who test negative, risk assessment and provision of HIV prevention services including the option of PrEP will decrease incident infections; all clients irrespective of pregnancy status will be screened for intimate partner violence and gender-based violence. To enhance continuity of treatment and sustained viral suppression, PBFW will be categorized into high and low risk groups with those in the high risk group receiving an enhanced package of care via PMTCT/OVC collaboration, greater case management support, stringent VL monitoring, and appointment reminders using the USHAURI platform. Programmatically, adherence support through strengthened Mothers to Mothers (M2M) groups and other peer support community groups will be expanded. The rollout of the PMTCT EMR module will allow for better tracking of the mother-infant dyad (see section under children <15 for more details).

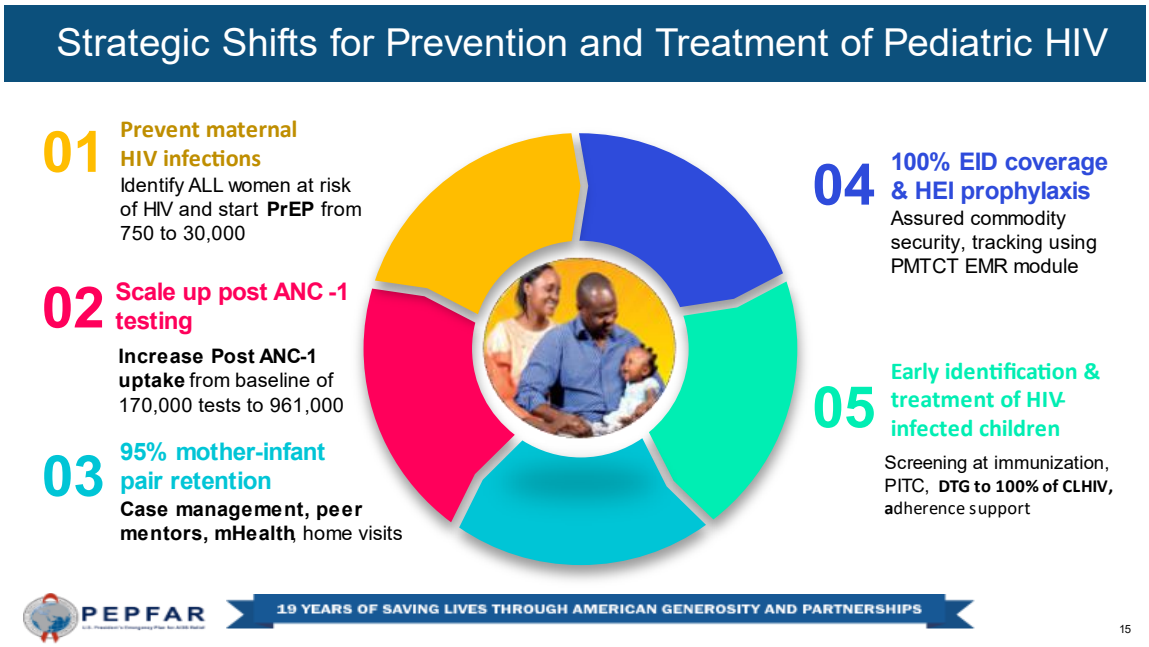
Figure 3.1.10 PMTCT Cascade FY21



Source: Panorama data pull, June 2022

3.2. Specific programmatic issues addressing children <15 years

There are an estimated 83,000 children living with HIV (CLHIV) with 45% of those living in the five high burden counties. Across the treatment cascade, results for children under the age of 15 years are poor, with an overall estimated 85% with known HIV status, 87% on treatment and 86% virally suppressed and an estimated mortality at 20% and 10% for infants <1 year and children aged 1 –4 years respectively[17]. The high mortality, indicates possible challenges along the continuum of care. With most pediatric infections due to MTCT, the overriding emphasis in order to reach an AIDS free generation must lie in improved PMTCT services. FY22Q2 results show that across the cascade, there is low pediatric case identification with an overall yield of 2.2%, a diminishing cohort growth and viral load coverage of 39% with VLS at 86%.



There are several policy barriers which impede improved outcomes for CLHIV. These include the age of consent for HTS at 15 years, the lack of a policy for caregiver assisted HIVST, inconsistent use of pediatric risk assessment screening tool at health facilities, and a delay in pediatric regimen optimization because of the requirement of a viral load test prior to a change in regimen from a protease inhibitors (PI) based regimen to DTG 10mgs for those children <20kgs. The latter is not in line with current WHO recommendations. There is also a lack of clear policies on MMD and DSD models for children.

[17] Pepfar panorama and Preliminary data from the CHAMPS study western Kenya.

Additional barriers at facility level include: a) suboptimal health worker confidence in pediatric HIV management; b) low coverage of EID as a result of last year's severe commodity resources but also delays in sample return as samples are transported to referral labs, necessitating an additional clinic visit to receive results; c) missed opportunities for index testing; and, d) difficulties in disclosure for the older children. At community level, ongoing systemic issues of poverty, orphanhood, malnutrition and stigma put children at an additional disadvantage. There is also a disturbingly high level of violence against children[18], and which, according to a recent survey, increased 42% [19] when there were lock downs and restricted movements due to the COVID-19 pandemic. With many children attending boarding schools, there is also lack of support for children on ART who are away from home, as well as stigma.

With a slow decline in the MTCT rate over the past four years, combined with severe shortage of EID reagents, there is an unacceptably high estimated 15% mortality among children < 4 years. In addition to reagent stockouts, dry blood samples have to be transported to reference labs either to high throughput machines or GenExpert; there is minimal deployment of POC machines for EID. Other machines are strategically placed in high volume and high PCR positive yield regions. In FY21 there was a 55% coverage of EID testing due to commodity stockouts and as of FY22Q2 there still remain a number of outstanding EID tests yet to be run. In FY22Q2, EID coverage is 43% with results showing 0.8% positivity from those tested <2 months whilst this increased to 2.8% for those tested between 2-12 months. This translates into 362 newly HIV positive infants. There is an urgent need to improve the identification of HIV exposed infants, start HIV prophylaxis and to put in place a mechanism for better mother-infant pair follow up. Now that EID reagents have become available, the EID dashboard will be reviewed on a weekly basis by PEPFAR together with county health management teams and IPs to track tests and the return of results with immediate recall of mothers whose infant tests positive to initiate ART. Through facility points of contact,who will have lists of HIV exposed infants, working with the linkages created in each community through mentor mother groups, peer supporters and other community resource cadres, there will be active tracing of all parents who have not brought their infants back either for EID or for treatment. Nine counties (Kitui, Nandi, Baringo, Nyamira, Nairobi, Meru, Uasin Gishu, Kajiado, Kirinyaga) accounted for 60% of infants not linked to ART. Nairobi, as a referral center, presents a special challenge in that delays in getting EID results back mean that mothers and their infants may already have left the Nairobi-based health facilities. Focused efforts to identify long turnaround times (TAT) for EID results will be undertaken. Multiple paper-based registers drive leakages in the PMTCT continuum of care. Starting in COP21 and further strengthened in COP22, the PMTCT EMR module roll out will provide a basis for longitudinal tracking of mother-baby pairs. There will be focused

[18] VACS Survey 2019

[19] Data from the national gender-based violence hotline 1195 run by Healthcare Assistance Kenya—an NGO that works with survivors of GBV in Kenya—in partnership with the Ministry of Public Service and Gender, there was a staggering 301 percent increase in calls reporting violence against women and girls in the first two weeks of the lockdown between March and April 2020.

efforts on minimizing missed opportunities for maternal HIV testing in postnatal clinics through having HTS counsellors present in MNCH clinics, and active linkages to either OVC programs or DREAMS for eligible young mothers. With a significant number of HIV infections in infants acquired during breastfeeding, MNCH clinics will also strengthen screening of HIV negative at-risk mothers for PrEP initiation. COP22 will expand mother-to-mother support groups and other community resources to ensure that both the HIV infected mother and her baby are screened for TB, receive TPT and are supported for adherence to treatment, infant diagnosis and prophylaxis and treatment when relevant. The USHAURI platform to remind patients of their clinic appointments will be universally used with the addition for adolescent and young mothers to be recruited into Operation Triple Zero (OTZ) plus programs.

In addition to improving EID, in COP22, there will be a focus on improving index case testing, which contributed 50% of the HTS_POS cases in FY21 with a yield of 7.8%. Identification in OPD and other settings is hampered by the risk assessment tool and missed testing opportunities in MNCH, malnutrition and sick child clinics. There is no current policy on caregiver assisted HIVST, though recent studies in Uganda and Zambia have shown good uptake[20]. COP22 will promote the use of caregiver assisted HIV testing in discussions with the GOK and encourage the rapid roll out of a pediatric assessment tool. Discussions with NASCOP have indicated that such a tool is being finalized. At the community level, community literacy on the importance of index testing will be emphasized through cadres such as mentor mothers and PLHIV support groups and linkages to OVC programs for eligible vulnerable families. To improve pediatric case identification for the 25 counties where there is an OVC program, PEPFAR will leverage on community OVC caseworkers to: sensitize caregivers and facilitate access to early infant diagnosis, refer biological children of HIV positive index client for HIV testing and support assisted HIV disclosure for children.

Once diagnosed as HIV positive, there is sub-optimal linkage, especially for infants, and high treatment interruptions among children aged 5-9 years. Of the estimated 83,000 children thought to be HIV positive, only 76% were on ART as of September 2021. Starting in the latter half of COP21, PEPFAR will investigate why there is a high level of IIT in the 5-9 year old age group.

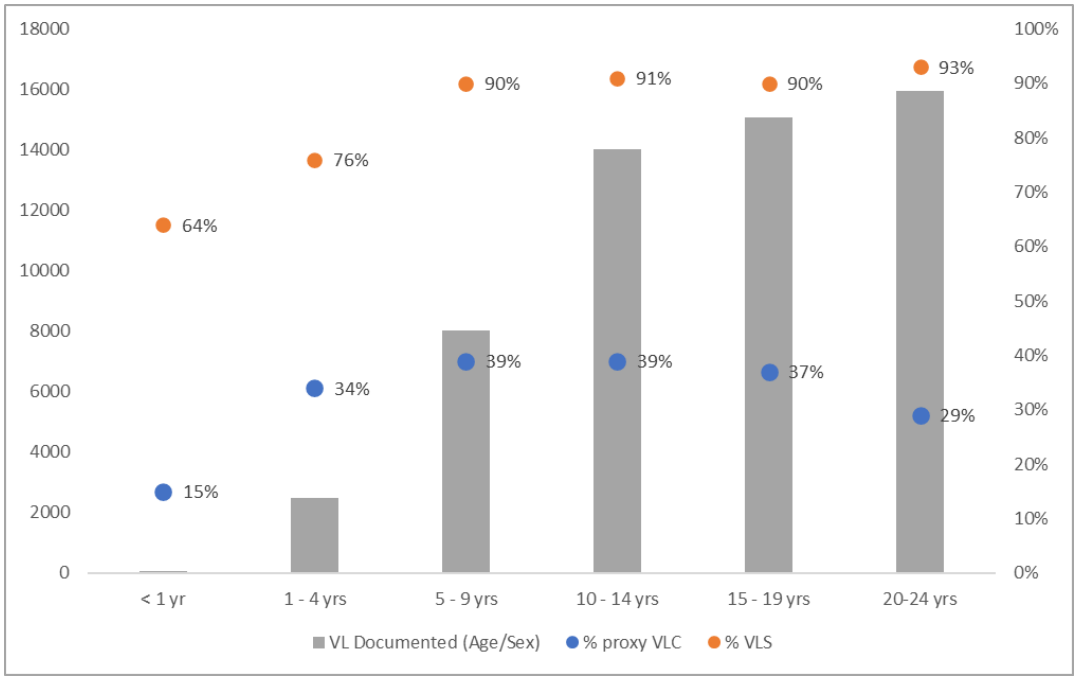
Although there has been good optimization of pediatric regimens for those children weighing >20 kilograms, around 30% of children, mainly below the age of five years, remain on sub-optimal regimens. PEPFAR will continue to advocate for dropping the NASCOP requirement for a viral load prior to changing regimens, which has been hampering regimen optimization. Interruption in treatment has been steadily decreasing, but this remains higher during the first three months of ART initiation, with especially high IIT in five counties (Kakamega, Kisii, Westpokot P, Bomet and Vihiga). Over half the children are not on

[20] Personal communication CRS FASTER project

MMD. With improved commodity security and health worker training, this should improve, hopefully leading to better adherence and viral suppression The new case-based surveillance reports will be used to identify children tested, not linked and not virally suppressed. These will be reviewed at a bi-weekly or monthly meeting with CHMTs and IPs to actively identify breakages along the continuum of care.

TB prevention focuses on routine contact tracing and screening. Of the 97% of children <15 screened for TB, 2.6% screened positive. TPT has a completion rate of 84%. TB is difficult to diagnose in children. COP22 will promote regular and reverse contact tracing and promote the use of stool gastric and nasopharyngeal aspirates for diagnosis in addition to other diagnostic options, based on emerging evidence and optimized use of the National TB pediatric diagnostic algorithm.

Figure 3.2.1 Viral coverage and suppression in children

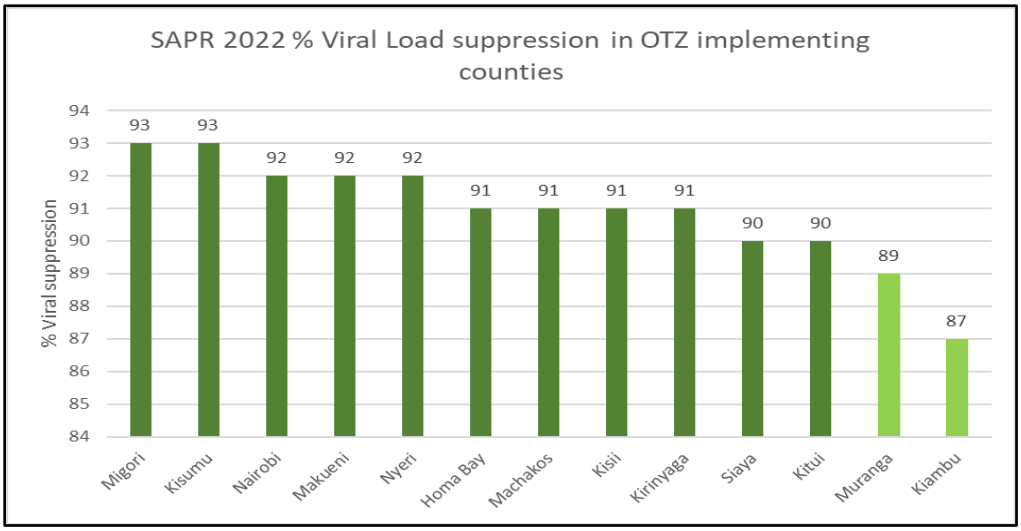


Source: Panorama data pull, June 2022

Due the severe commodity shortages, viral load testing in children and adolescents has dropped to 38%. Viral load reagents are currently coming into the country. Now and in COP22, PEPFAR/Kenya will prioritize viral load testing commodities to ensure optimal ART monitoring in this age band. Community staff will be utilized to convey messaging to create community demand for VL testing. During home visits, case workers will support counseling on treatment adherence as well as follow up and link ART defaulters back to care. Case workers will also be oriented on TB screening and referral of presumptive TB cases to facilities for clinical evaluation.

To improve pediatric viral suppression, a number of approaches will be used. PEPFAR will take to scale the Papa and Mama model which targets caregivers and children up to 10 years. It is currently implemented in 13 counties but will be expanded to all 40 counties in COP22. Adopting such a family centered approach has shown that 90% of appointments have been kept by the caregiver-child pair, 90% of children have been partially or fully disclosed to and viral suppression is 95%. In addition, the program will scale up operation triple zero (OTZ), which is an evidence-based intervention which improves continuity of care, self-health management and viral suppression among adolescents (see Figure 3.2.2) Jua Mtoto Wako is a casework driven model which is being implemented in 22 counties and addresses barriers to improved outcomes and develops individual case management plans. For children not virally suppressed, video directly observed therapy (VDOT) with informed consent has been used in 4 counties and this will be expanded to other counties.

Figure 3.2.2. Viral load suppression in OTZ implementing counties



For the 25 counties where there is an OVC program, to improve pediatric case identification, PEPFAR will leverage on community OVC caseworkers to: a) sensitize caregivers and facilitate access to early infant diagnosis; b) refer biological children of HIV positive index client for HIV testing ; and, c) support assisted HIV disclosure for children. During home visits, case workers will support counseling on treatment adherence as well as follow up and link ART defaulters back to care. Case workers will also be oriented on TB screening and referral of presumptive TB cases to facilities for clinical evaluation. To support of pediatric viral suppression, the case workers will foster U=U messaging by creating community demand for VL testing and VL suppression, link non virally suppressed C/ALHIV to community support, and other services and monitor caregiver literacy as well as refer sick children from the community to facilities. To improve IIT, the OVC case manager will draw up idealized case management plans, reinforce

appointments through the USHAURI platform and identify options for community DSD models once a child is stable on ART. Lack of or late disclosure of a child's HIV status is often a basis for poor adherence to treatment. Caregivers must be encouraged to disclose to the HIV+ children under their care, with the help of health workers as needed. Through the reinforced community outreach, which is the hallmark of COP22, there are several different models addressing comprehensive care and treatment of children which can also form a basis to increase disclosure:

3.2.1 Orphans and Vulnerable Children

The OVC program currently covers 25 high burden PEPFAR supported counties with a transition from 14 counties in FY20. The OVC program will continue to provide interventions that reduce the risk of HIV for children, mitigate the impact of HIV on children, access to HTS and treatment services, retention of children and adolescents living with HIV. By SAPR, there were 61, 955 C/ALHIV <18 years enrolled in the comprehensive program. Of the total C/ALHIV enrolled in the program, 100% are on ART out of whom 90% are virally suppressed. Enrollment into the OVC program is based on an assessment of vulnerability to determine those that require comprehensive services and those that will be targeted for primary preventive interventions. The OVC program will continue to scale up and offer opportunity for enrolment into the program, for the C/ALHIV, pregnant adolescents, breastfeeding young mothers and HEIs, children of KP, and children who have experienced any form of sexual violence. MOUs between the OVC partners and health facilities have led to better identification and joint monitoring of children particularly the HEI and those living with HIV. COP21 saw the start of implementation and monitoring of the OVC/PMTCT standard operating proecdures and checklist developed by the OVC and PMTCT interagency teams in COP20. The tools have been revised and partners are using them for data collection, reporting and documenting outcomes. The OVC program will continue to leverage the PMTCT and pediatric platform to follow up mothers, infants and pregnant adolescents at high risk of lost to follow-up.

The package for C/ALHIV is age appropriate and is based on a case plan co-developed by the child's family and case worker. These case plans are used for service delivery, management and monitoring progress towards OVC outcomes with benchmarks associated with health, schooling, safety and stability. The intervention packages range from 1) nutritional support; 2) birth certificate acquisition; 3) education subsidies, levies and fees; 4) disclosure; 5) treatment adherence support; 6) linkage to psychosocial support groups; 7) home visits; 8) transport support to appointments; 9) peer support group meetings; 10) parenting skills; 11) household economic strengthening activities for C/ALHIV caregivers; 12) linkage to social safety net programs; and 13) prevention of 10-14 year olds at elevated risk of sexual violence and HIV infection.

The OVC program will continue to collaborate with the various ministries and departments including the Ministry of Health, Ministry of Education, Ministry of Youth and Gender, Ministry of Justice, Department

of Registrar of births and deaths, clinical partners, faith-community-based platform, DREAMS program and the private sector to ensure the beneficiaries access comprehensive services. Household economic strengthening for caregivers is based on the level of vulnerability and engagement of older and out of school adolescents in age-appropriate market-based livelihood activities. In collaboration with the Directorate of Children Services (DCS), the program will prioritize the Child Protection Information Management System (CPIMS) and the caregivers will receive help to obtain a birth certificate. Through faith-based networks, highly vulnerable children and their caregivers will be identified within their respective communities and provided with psychosocial support. To address issues of equitable access to affordable quality HIV services, especially by the poor and vulnerable groups, COP22 will focus on addressing policy and legal barriers that hinder efficient financial risk pooling for the benefit of the poor and vulnerable groups.

Table 6: OVC County Targets

County	All Orphans	Orphans Due to HIV	OVC SERV Comprehensive	OVC SERV Preventive	OVC DREAMS	OVC HIVSTAT
_Military Kenya	-	-	146	-	-	144
Nairobi County	99,256	17,246	55,918	9,162	49,289	54,900
Homa Bay County	84,287	40,181	39,150	6,416	24,484	38,438
Kisumu County	77,408	34,832	41,009	6,714	16,447	40,228
Siaya County	68,971	29,546	15,015	2,454	13,730	14,708
Migori County	85,443	28,736	14,210	2,328	33,073	13,952
Nakuru County	86,118	22,526	14,050	2,302	-	13,794
Mombasa County	47,247	13,999	6,058	992	20,798	5,948
Kakamega County	91,362	23,226	10,795	1,764	-	10,564
Busia County	45,573	15,957	11,732	1,922	-	11,518
Kisii County	87,989	17,037	8,708	1,426	-	8,550
Uasin Gishu County	46,022	14,778	6,024	988	-	5,914
Kiambu County	71,525	19,243	11,032	1,808	20,151	10,832
Machakos County	48,685	14,317	3,690	604	-	3,622
Meru County	53,929	14,559	3,550	582	-	3,486
Kajiado County	44,325	11,056	3,674	602	-	3,608

Kitui County	46,244	14,597	2,454	402	-	2,410
Kilifi County	80,997	17,069	17,716	2,904	-	17,394
Bungoma County	86,103	18,881	6,842	1,122	-	6,718
Trans-Nzoia County	44,794	12,205	4,262	698	-	4,184
Turkana County	40,804	9,700	4,994	818	-	4,904
Nyeri County	21,752	6,826	-	-	-	-
Narok County	56,498	12,969	-	-	-	-
Muranga County	33,591	8,738	2,446	400	-	2,402
Makueni County	37,737	10,995	2,850	468	-	2,798
Vihiga County	27,620	7,871	2,016	330	-	1,980
Kwale County	48,759	9,692	-	-	-	-
Kericho County	41,132	10,386	6,118	1,002	-	6,006
Nandi County	38,266	9,063	-	-	-	-
Nyamira County	41,073	7,026	1,212	200	-	1,190
Bomet County	42,592	9,779	-	-	-	-
Kirinyaga County	17,217	4,758	-	-	-	-
Embu County	19,969	5,102	-	-	-	-
Nyandarua County	23,537	6,067	-	-	-	-
Taita-Taveta County	15,107	3,202				
Laikipia County	20,769	4,563	-	-	-	-
Baringo County	31,169	6,091	-	-	-	-
Elgeyo-Marakwet County	20,310	4,173	-	-	-	-
Tharaka-Nithi County	13,447	3,658				
West Pokot County	31,540	5,528	-	-	-	-
Isiolo County	10,367	2,394	-	-	-	-
Samburu County	15,217	2,613	-	-	-	-

Lamu County	7,097	1,264	-	-	-	-
Marsabit County	18,702	3,776	-	-	-	-
Tana River County	19,192	2,714	-	-	-	-
Mandera County	35,006	5,368	-	-	-	-
Garissa County	29,367	4,651	-	-	-	-
Wajir County	29,936	4,588	-	-	-	-
Total	**2,084,050**	**553,547**	**295,525**	**48,408**	**177,972**	**290,048**

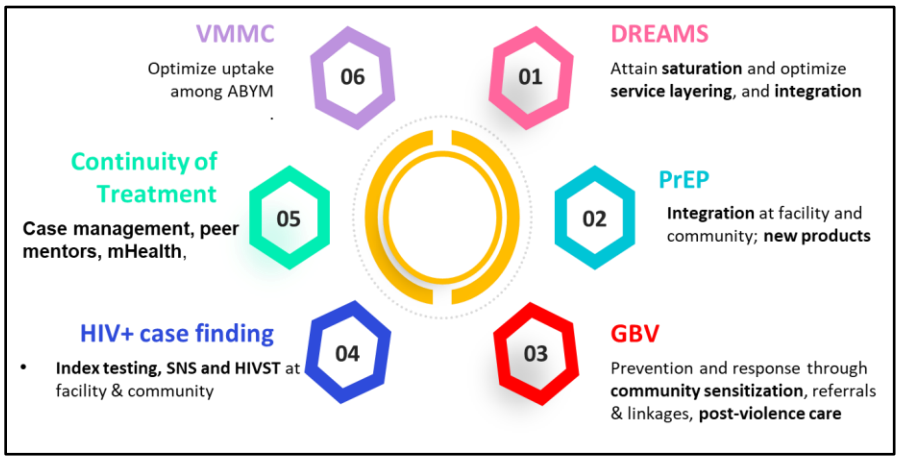
Source: COP22 Data Pack

3.3 Adolescent Girls and young women and adolescent boys and young men

This section builds on strategies outlined in the various sections above, and has additional tailored approaches for those aged between 15-24 years. In 2022, the 15-24 year old age group represents about 20% of the population in Kenya. The population for this age group is projected to increase from the current 10 million to 12 million in 2030, with implications on the HIV epidemic and youth vulnerabilities related to school, higher education, employment and reproductive services. Although the HIV prevalence (1.01% in males and 1.85% in females) and incidence (0.05% in males and 0.18% in females) are low, because of the size of this populationand specific vulnerabilities, this age band contributes 42% of all new infections in the 15+ population in the country. Of all new infections among females (15+ years of age), 47% are among females 15-24 years of age who contribute an estimated 9,290 new infections. Among all new infections among males (15+ years of age), 30% are among males 15-24 years of age, who contribute 2,500 new infections annually. This highlights the extreme vulnerability of AGYW to HIV. It also means that, in order to reach and sustain HIV epidemic control, targeted interventions to prevent new infections, and interventions to ensure all individuals living with HIV are identified, linked to care and treatment and achieve viral suppression in this age group are essential. [21]

[21] KENPHIA 2018 updated with Naomi 2020estimates

Figure 3.3 Outline of key strategies for AGYW and ABYM



Particular attention to AGYW was and remains the rationale behind the DREAMS program in areas of high HIV burden. Nationally 72% of all new infections occur in 13 counties; seven of these, that contribute to half of all new infections, are in the DREAMS counties (Homa Bay, Siaya, Kisumu, Migori, Mombasa, Kiambu and Nairobi). The other six counties are Kakamega, Uasin Gishu, Kajiado, Machakos, Nakuru and Kisii. These counties have been prioritized by MOH, and PEPFAR will align its youth emphasis in the same counties, while not ignoring the other counties where PEPFAR supports HIV services.

Youth 15-24 years are faced with a number of risk factors and barriers to accessing HIV services, with AGYW being disproportionately more affected. With the leadership of NASCOP and NACC, at policy level Kenya is currently developing an adolescent and youth population (AYP) package of services. In health facilities, the skills and attitudes of health workers to address the provision of youth friendly services for this age group is varied affecting uptake of HIV prevention, care and treatment and sexual and reproductive health services. Only about half of AYP have an adequate knowledge about HIV prevention[22]. Furthermore, poverty, negative gender and cultural norms, early marriage, teenage pregnancy, high levels of gender-based violence and reduced economic opportunities disproportionately affect AGYW.

Therefore, the overall approach to AYP for COP22 will be to expand DREAMS activities in the seven counties where DREAMS is already being implemented, with a focus on reaching more wards, and ensuring population-level coverage of the most vulnerable AGYW within each ward. Additionally, PEPFAR will focus support for high impact prevention interventions in the six MOH priority counties, in line with the MoH package of services for AYP; and also support the provision of youth friendly

[22] KENPHIA 2018

prevention, care and treatment programs across all 40 PEPFAR supported Counties. PEPFAR will harmonize the package of services to reach the other AGYW not in the DREAMS program, and also provide services to ABYM in other counties as part of the national AYP package.

The DREAMS program in Homa Bay, Siaya, Kisumu, Migori, Mombasa, Kiambu and Nairobi will optimize layering of age-appropriate evidence-based and evidence-informed services for the 10-14, 15-19, and 20-24 year age bands, and expand outreach into new wards. PEPFAR/Kenya will focus attention on identification of the hard to reach and most vulnerable AGYW, through targeted entry points and hot-spots. Age appropriate group interventions will include social asset building, school and community based gender violence prevention and post violence care, HIV education, HIV risk screening and testing with linkage to care and treatment, PrEP, sexual and reproductive health services, financial literacy and entrepreneurship, and education subsidies. STI screening and treatment will be added to the DREAMS core package of youth friendly sexual and reproductive health services. Economic empowerment opportunities will be expanded after market assessments to identify more private partnerships to expand skills building, wage employment and entrepreneurship leading to increased economic empowerment for AGYW within the DREAMS counties. Emphasis will focus on support, capacity building and rewards to DREAMS mentors as outlined in the COP22 technical guidelines. FY22Q2 results indicate that only about 80% of AGYW completed the primary package of interventions within the first year, with a better completion rate among the 10-14 year olds. Therefore, efforts to improve DREAMS service completion across all AGYW age-bands within DREAMS must be made. In an effort to better understand the reach of these programs, PEPFAR will use the most current up to date estimates of the number of vulnerable AGYW in the DREAMS counties to calculate saturation estimates. In addition, integrating and improving the interoperability of the DREAMS database into the MOH platforms will provide better data for decision making.

Community interventions will continue, especially community mobilization for violence prevention and norms change, since violence against children and youth is still a big problem. In COP22 PEPKAR/K shall focus on strengthening the use of youth friendly technologies (virtual platforms such as WhatsApp, Twitter and SMS reminders, integrated emergency contact numbers) to improve individual outcomes.

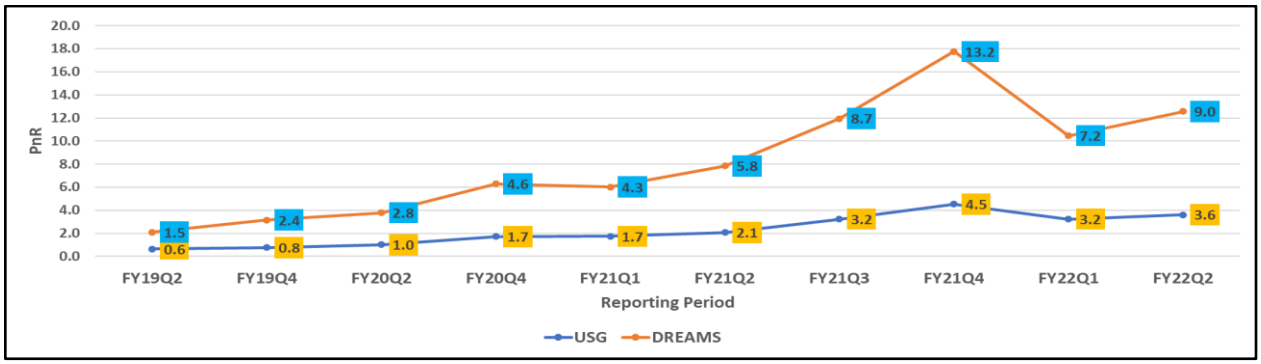
One of the most effective interventions for HIV prevention for adolescent boys and young men is voluntary male circumcision. See section 3.1.2 where the focus of the VMMC program is outlined, targeting men 15+ in high HIV burden non-circumcising counties. In addition to VMMC, in DREAMS counties we will continue male sexual partner characterization focused on ABYM, support HIV and violence prevention in schools, and support the approved primary HIV prevention interventions for 10–14-year-old boys and girls. In other counties, key strategies will include referral to the OVC program for additional support; community mobilization and norms change; parenting/caregivers program to improve communication between men who are fathers and boys and young men; HTS; and referrals for

clinical services including PrEP, VMMC, STI treatment, and ART for those who are HIV-infected. In the non-DREAMS counties, PEPFAR will work with the national and county governments and other stakeholders to roll out the AYP package of services, leveraging PEPFAR core programs as feasible, and other sources of funding.

3.3.1. PrEP for 15-24 years old

As an overarching approach to expand prevention, the Kenya PEPFAR program will continue to scale up PrEP, and education on PrEP will be given to all AGYW enrolled in DREAMS and non-DREAMS counties. Through behavioral interventions such as "My Health My Choice" and "Shuga" which are being used in Kenya, the resulting increased knowledge on HIV transmission and healthy choice options will lead to increased demand for PrEP. Analysis of the PrEP to Need Ratio (PnR) trends in DREAMS counties and at national level shows an increase in PnR from FY19 to FY22Q2, with DREAMS counties having a higher PnR for AGYW than the national average. This is an indication of heightened promotion of PrEP in communities with higher risk (see Graph 3.3.1.). For those AGYW below the age of 18 years who are sexually active or married, the national guidelines allow for access to PrEP.

Figure 3.3.1 PrEP to Need Ratio Trends in DREAMS Counties and at National level



Integration of PrEP into all service delivery points including reproductive health services, MNCH and community services is aimed at delinking PrEP provision in CCC clinics, which have been cited as a barrier not only for this age group but also for other clients eligible for PrEP.

In COP22, key priorities to expand and strengthen the quality of PrEP implementation in counties where there is a DREAMS program, and in counties without DREAMS program, will include:

- Use of DREAMS safe spaces for PrEP eligibility assessment and initiation; or strengthen referral to a clinic; and follow up through mentors to promote PrEP adherence
- In COP22, the program will aim to reach 21% of AGYW and 5% of ABYM with PrEP services.

- Demand creation for PrEP will be fostered through social media platforms, peer outreach, youth mentors, and champions such as PrEP ambassadors who are AGYW using PrEP
- In other parts of the country, there will be service provider training and mentoring with greater PrEP integration at all service delivery points
- Adherence to PrEP will be supported through peer outreach, SMS and WhatsApp reminders, home visits where applicable, and community-based support groups;
- Fast track refills and 3-month MMD as well as community distribution will also increase access
- PEPFAR will engage NASCOP and NACC to support roll-out of new PrEP products as they become available in Kenya

3.3.2.Gender-Based Violence

Gender based violence levels are high in Kenya, with 16% of females 18-24 years having experienced sexual violence, and an 8% pregnancy rate among sexual and gender-based violence (SGBV) survivors[23]. GBV increased even more during the COVID-19 lockdowns in 2020. However, there is vast under-reporting and few SGBV survivors seek health services. The national package of SGBV services includes counseling, treatment of injuries, STI screening and treatment, HIV testing, post exposure prophylaxis (PEP), and emergency contraception. Referrals and linkage with PrEP for high risk GBV survivors and other services such as legal aid, trauma or psychosocial support are facilitated. This package of services will be integrated into all service delivery points (SDPs) together with training of health care providers on first line response to violence (LIVES). PEPFAR partners will provide mentoring and encourage better reporting. Functioning GBV technical working groups will be supported at all levels. At national level, PEPFAR will be involved in national technical working groups and oversight of the implementation of National GBV Prevention and Response Plan 2019-2023. Through NACC and the counties, multisectoral mainstreaming will involve departments of education, justice, law administration and children's services. The focus on communities, which is a hallmark of this COP, will increase awareness of GBV, strengthen community and facility linkage and encourage normative change.

3.3.3 PMTCT

Forty-five per cent of women tested for HIV in ANC are aged between 15-24 years; 37% of newly identified positive HIV+ PBFW found in ANC also belong to this age group. In order to address increasing infections for those young mothers who are negative but identified as high risk, integration of PrEP at MNCH is a priority. This is yet to gain traction due to HCW hesitancy, client specific barriers, missed

[23] Kenya Violence against children survey 2019

opportunities in testing especially at Post ANC1, lack of PrEP tracking at MNCH and minimal demand creation that targets AGYW and community perceptions.

In COP22, all AGYW attending ANC services in PMTCT settings will be educated on PrEP, screened for HIV risk, and immediately initiated if eligible without further referral. Providing access to new PrEP products, including dapivirine (DPV), is critical as they become available. Demand creation at community and facilities, PrEP adherence, and completion in this age group will be achieved through PMTCT/OVC collaboration, use of mentor mothers, support groups, and addressing HCW confidence. Bidirectional referrals to DREAMS and OVC will be enhanced to benefit 15-24 year old AGYW. There will be routine GBV screening and management/referral as needed. In DREAMS counties, pregnant women aged between 15-19 will benefit from bidirectional referrals as required.

For HIV+ positive AGYW, and in order to address potential interruption in treatment, the roll out of the PMTCT EMR module will help identify high risk young women for a personalized case management approach and heightened support through the mother to mother groups and peer support groups. The USHAURI platform for appointment reminders will be expanded across the high burden counties of Kisumu, Siaya, Migori and Homa Bay. The JUA program[24] which has shown excellent results in improving viral load suppression, EID and peer support will be scaled up across PEPFAR supported counties. This is a model similar to that which was employed in Eswatini , and will involve existing community cadres such as community health volunteers, OVC case workers and peer mentor mothers carrying out home visits to young pregnant women to support ART adherence and timely EID for their infants. They will also encourage postnatal family planning and identify other missed opportunities at households including PBFW due for 1st and 4th ANC visits, skilled delivery and HTS services.

3.3.4. HIV Testing

Building on the prevention efforts described, increased focus will be made to ensure that all those who attend a health facility are screened and tested for HIV based on their risk eligibility. In COP22, testing opportunities of those eligible will be maximized through the adoption of optimized PICT using machine learning. For those that test positive, they will be offered recency testing. Recency testing will provide surveillance information of emerging hot spots that will help in guiding the public health response to finding and preventing new infections.

However, there are youth who do not come to health facilities. In COP22, reaching this more hidden population is key to decreasing ongoing HIV transmission as well identifying those living with HIV and

[24] Strengthening high impact interventions for an AIDS free generation Project 2020 https://pdf.usaid.gov/pdf_docs/PA00WK8J.pdf

linking them to treatment services. This will require increasing access to HTS through targeted community distribution of HIVST as well as community-based index case testing and SNS. KENPHIA showed that only 55% of males aged 15-24 (vs 74.4% of females) had been aware of their positive status. In COP22, PEPFAR/K shall also focus on reaching more young men through closing the gaps in index testing and expansion of SNS and outreach into workplaces and hotspots to increase access to HIVST. HTS also offers an excellent entry point for prevention services. In COP 22, we shall integrate linkage to prevention services for eligible clients, based on risk assessment during HTS.

3.3.5.Continuity of Treatment and Viral Suppression

Continuity of treatment remains a significant challenge in the 15-24 age group. Based on the PEPFAR program results for 2021 and case-based surveillance data, interruption in treatment is highest in the first 12 months, with 21% lost to follow-up and 9% transferred out. Their overall national 12-month retention is 68% with regional retention varying from 42-79%. Thirty-three of the 40 (83%) PEPFAR supported counties show a retention rate below 70%. While retention in this age group subsequently improves in the 12-24 month period to a national average of 77% with a decrease in deaths and transfer-out rates, interruption in treatment still persists. There are no gender differences in retention. In COP22, to mitigate interruption in treatment, several strategies will be employed. These include enhanced peer-led case management and strengthening documentation of locator information. In consultation with the beneficiaries themselves, customized facility specific client-centered “welcome back to care” packages will be developed. Structured patient literacy will also be strengthened with an emphasis on the Positive Health, Dignity and Prevention (PHDP) and Undetectable=Untransmissible (U=U) messaging. Psychosocial Support Groups specifically for newly enrolled clients will be introduced for close follow up and support of those newly initiated on treatment. Based on risk characterization, differentiated service delivery models will be expanded from the facility to the community to include Community ART groups (CARGs) and health-care worker or peer-led Community Drug Distribution Points (CDDPs). Use of mHealth and surveillance innovations including use of the USHAURI platform for appointment reminders and health worker initiated anonymous client feedback (PSurvey) to identify underlying issues for those Returning to Treatment (RTT) will also be strengthened. Improving the existing adolescent friendly clinics by strengthening health care worker competency will also help to provide a supportive environment to address the high treatment interruptions among the youth.

Despite the drastic recent decreases in viral load coverage due to commodity challenges, viral suppression remains relatively high (>90%) in this age group. In COP22, individual level and cross-cutting barriers at the community or clinic that contribute to non-suppression in this age group will be addressed through various interventions such as scaling up the OTZ program, and strengthening the OVC-Clinical collaboration for the 15-19 age group. For the 20-24 group, the treatment buddy system will be strengthened and differentiated service delivery models will be expanded to allow the clients to receive their medication in the community at their convenience.

3.4 Key and Priority Populations

The Kenya NASCOP recognizes the following categories of KP in Kenya: female sex workers (FSW), Men who have sex with Men (MSM), the transgender population (TG), and people who inject drugs (PWID). In recognizing their HIV prevalence and incidence, along with their vulnerabilities and contribution to the national HIV epidemic, Kenya has categorized fisherfolk and populations in prisons and other enclosed settings as high-risk priority populations requiring tailor-made HIV programming. Through the leadership of the Ministry of Health, in 2019 KP programming was geographically rationalized between PEPFAR and Global Fund to increase efficiencies. In 2021, the NASCOP committee of experts changed the name 'priority populations' to 'vulnerable populations', a category which—in addition to fisherfolks and prison populations—also includes the military, truckers, and discordant couples.

Table 7 Target Key and Vulnerable Populations for Prevention Interventions to Facilitate Epidemic Control

Target Populations	Population Size Estimate* (SNUs)	Disease Burden**	COP22 Target
FSWs	197,096 (152,970-240,270)	**N/A****	176,074
MSM	51,100 (38,917-61,650)	**N/A****	97,806
PWID	35,784 (26,673-46,945) (Kisumu, Nairobi and Kiambu only)	**N/A****	3797
Fisher Folk	268,517	**N/A****	123,065
Military	Undisclosed	**N/A****	61,776
People in Prison and other enclosed settings	Unknown	**N/A****	64,800
TOTAL			**527,318**

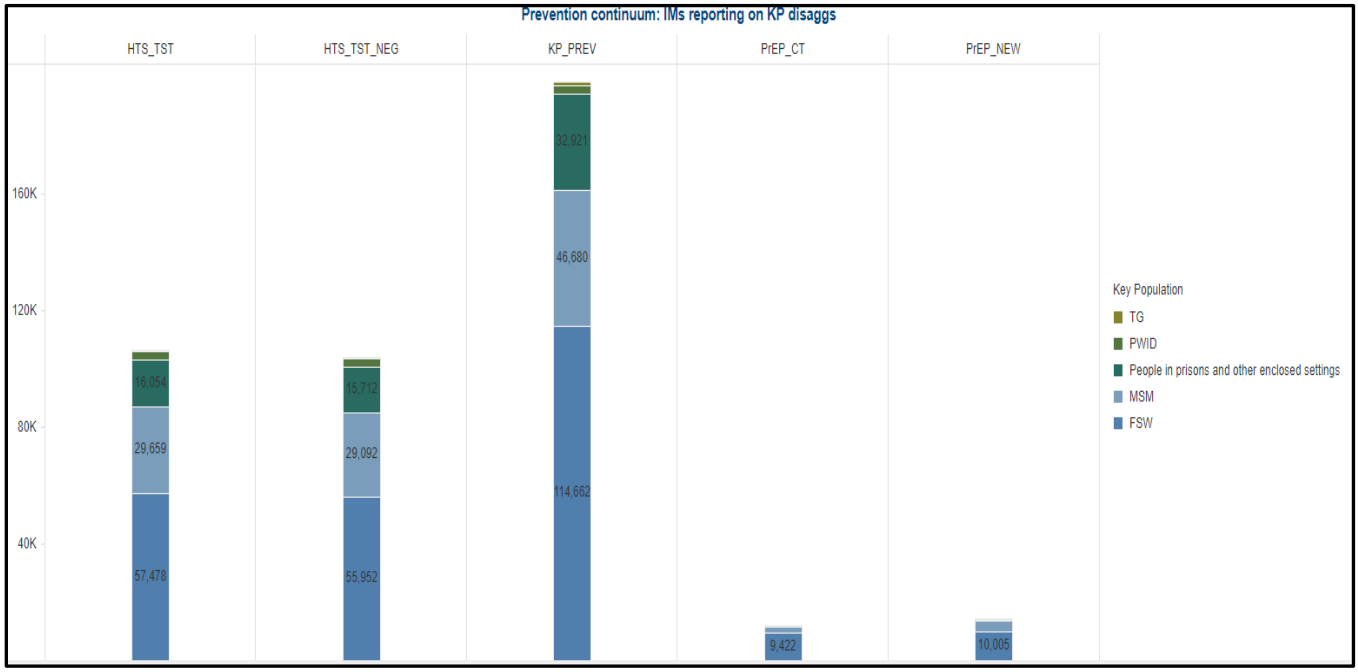
* Source: COP22 Data Pack & KP size Estimates

**Data not available.

Kenya does not have recent survey data on HIV prevalence among KP. The last integrated bio-behavioral survey (IBBS) conducted in 2011 showed that the HIV prevalence was 18.2% among MSM, 29.3% among

FSW, and 18.3% among PWID[25]. Fisherfolk in the Great Lakes region of Western Kenya constitute a vulnerable population with an HIV prevalence of 31% (females 41%, males 25%)[26]. These demographic and epidemiological data are summarized in Table 2.1.1 and Table 2.1.2 .

Figure 3.4.1 Prevention Continuum by Key Population Group



Source: Panorama data pull, June 2022

Current HIV incidence, prevalence and socio-behavioral information of the KP populations in Kenya has been hampered by lack of recent data. In COP22, a long overdue Integrated Bio-behavioral surveillance survey (IBBS) will be carried out covering nine counties (Nairobi, Mombasa and Kilifi for all four KP typologies; Kiambu for FSM, MSM and PWID; Nakuru, Kisumu, Machakos for FSM and MSM; and Kajiado and Kisii for FSWs). This survey will provide information on KP sizes by population, estimate incidence and prevalence of HIV, STIs and Hepatitis, and provide understanding of the socio-demographic characteristics of the key populations, risk behaviors, utilization of HIV prevention and treatment services and structural barriers to accessing services by key population typology. Preliminary results will be released on a rolling basis as each county survey is completed. These results will provide important information on the service coverage among key population groups that will help in planning and programming.

[25] (IBBS, 2011)

[26]IBBS of Island Fisherfolk communities of Lake Victoria Study Report , 2018 NASCOP and PEPFAR

PEPFAR's KP programming is aligned to the Kenya AIDS Strategic Framework II, and is implemented following the National Guidelines for HIV/STI programming with Key Populations. A comprehensive package of biomedical, behavioral and structural interventions are offered to KP, as outlined in Table 8 below. The delivery of services relies heavily on peer outreach through KP networks at KP hot spots, safe spaces, and integrated public health facilities. As Kenya reaches closer to HIV epidemic control, reaching out to identify hidden pockets of KPs will be achieved through SNS and the use of virtual platforms.

Table 8 : Outline of Key Population Interventions

Essential Behavioural Interventions	Essential Biomedical Interventions	Essential Structural Interventions
▪ Peer education ▪ Targeted information, education, and communication (IEC) for KP ▪ Promotion, demonstration, and distribution of male and female condoms and water-based lubricants, needles, and syringes ▪ Risk assessment, risk-reduction counselling, and skills-building ▪ Evidence-informed behavioural interventions (EBI)	▪ Comprehensive condoms and lubricant programming ▪ Harm reduction for people who inject drugs (Needle and Syringe Programme and Opioid Substitution Therapy) ▪ ARV-related prevention ▪ HIV testing and counselling ▪ STI prevention, screening, and treatment (oral and anal STI services for MSM, MSW, and TG) ▪ HIV care and treatment (ART and EMTCT) ▪ TB screening and referral to treatment	▪ Shaping policy and creating enabling environments ▪ Reducing stigma and discrimination ▪ Empowering the community, including ownership and leadership ▪ Violence prevention and response

Since COP21, the following key milestones have been achieved: expansion of reach of KP through SNS and virtual platforms; increase in HIV case finding and initiation on treatment among KPLHIV, improvement and verification of on-site and off-site linkage for HIV-positive KP; improving viral suppression; and training health care workers to offer KP sensitive and friendly services.

COP22 will focus on optimizing high-impact HIV prevention interventions including PrEP, HIV case finding and treatment for viral suppression, and U=U messaging. Additionally, PEPFAR will address structural gaps in order to improve access to services, and address current gaps in policies and guidelines (including finalization of vulnerable population and transgender services guidelines, and revision of MAT and PrEP guidelines).

PrEP is offered to KPs in drop in centers and KP friendly clinics. Additionally, KP clients can access PrEP at health facilities without identifying themselves as a KP. Although PrEP uptake and continuation rates among KP continue to improve, there is still room for improvement. Building upon peer outreach networks, COP22 will further enhance demand creation and uptake of PrEP, and strengthen continuation among clients. Event-driven PrEP has been included in the revised PrEP guidelines for Kenya[27], and will offer a flexible option for men (born male at birth, and not using exogenous affirming hormones).

27

Implementation of other PrEP products, including injectable Cabotegravir, will also be supported as they become available. To encourage further PrEP uptake, there will be strengthening of PrEP delivery models, including implementation of "bring a friend day" to reach hidden KPs and increase PrEP uptake; and provision of PrEP through mobile outreaches and community-based refills.

STI screening and treatment is a key component of biomedical interventions for KP. In COP22, focus will be on building health worker capacity through training and continuous medical education sessions; and characterizing hotspots with high STI positivity to reach and screen more KPs clients and enhance contact tracing.

PEPFAR supports the PWID program in Mombasa (Kisauni, Miritini and Shimo La Tewa MAT Clinics), Kwale (Kombani MAT Clinic), Kilifi (Malindi MAT Clinic), Nairobi (Ngara and Mathare MAT Clinics) and Kisumu (JOOTRH MAT Clinic). PWID programs build on close collaboration with the Global Fund, who purchase methadone and needle/syringe exchange supplies. A number of shortcomings have been highlighted in the People's COP ranging from limited working hours; service quality; the need for take home doses of methadone and community availability of naloxone; the addition of sexual reproductive health services in MAT clinics; and particular for this population access to economic empowerment opportunities. PEPFAR will collaborate with NASCOP to develop policies to improve methadone access, explore opportunities to integrate health services in MAT clinics, and improve service quality through continuous quality improvement measures.

Case finding will be intensified through minimizing missed opportunities in index case testing, expanding of efforts to test through sexual networks, optimizing PITC and improving access to HIVST. Through recency surveillance, hotspots will be identified, and will form a basis for targeted peer outreach testing and prevention interventions. FY22Q2 data showed HIV-positive yield of 7.9% among FSWs, 4.4% among MSM, 4.1% among PWID, and 4% among transgender. Additionally, increased case identification through social network testing (SNS) in 20 of the 24 counties where there are KP programs showed impressive results with a HIV-positive yield of 14%. COP22 will expand SNS to all 24 KP focus counties; and actively pursue increased availability of HIVST distributed via peer networks, community-based outreaches and hotspots, and work on developing strategic private sector partnerships. In FY21, linkage to treatment for HIV positive KP ranged from 91-100%. Strategies will be put in place to ensure >95% of HIV positive KP are linked to treatment, with verification for clients who choose to link off-site.

Similar to ART cohort growth among the general population, the TX_NET_NEW growth is 25% of the total number of those identified as HIV positive, indicating either that KPs are retesting even when positive or, as has been mentioned during stakeholder consultations, silently transferring between facilities because of commodity stock outs or dissatisfaction with service quality. Community led monitoring, which will be rolled out in the latter half of COP21, will provide important additional information about gaps in services. Opportunities to expand improved and differentiated services to enhance retention,

through options such as mobile and community ART with KP friendly staff, and fast track options will be explored.

Although viral load coverage has been low due to reagent stock out, viral load suppression remains high (>95% in FY22Q 2) in all KP groups except PWID where there is a need to explore barriers to achieving viral load suppression. In COP22, with availability of VL testing and commodity security, strategies will be put in place to ensure high VL coverage (including line-listing and recalling clients due for VL tests), as well as addressing structural barriers leading to lower VL suppression among PWID. U=U messaging will be implemented to improve retention in care and suppression.

During the development of COP22, a series of listening sessions with clients identified a number of concerns. Commodity stock outs over the last year or so, of condoms, lubricants, rapid test kits, and HIV self-test kits have severely impacted HIV prevention programs. Additionally, criminalization, stigma and discrimination remain barriers to accessing services, as well as cost of services in private facilities. In COP22, commodity security will be a top priority; as well as ensuring provision of services that are KP-competent, friendly, person-centered, non-discriminatory, ethical, safe, and comprehensive. Additional priorities will include: offering person centered onsite TB screening, TPT and treatment; expansion of access to sexual and reproductive health services; and provision of services for children of KP. Index testing will be offered to all children, and referrals to OVC and DREAMS programs where available will be proactively made. There will also be improved screening for gender-based violence with referral services where needed. Ongoing advocacy work by all stakeholders to address stigma and discrimination and ongoing harassment must continue.

In COP22, PEPFAR Kenya will focus on the following priority populations; fisherfolk, military and people in prisons. Fisherfolk remain a high priority population to be reached in order to achieve epi-control. According to the Qualitative study done by NASCOP to assess attitudes and perceptions towards HIV, there was a high level of knowledge of HIV prevention measures and treatment for HIV infected. However, knowledge did not equate to practicing protective behaviors like condom use, getting HIV testing, or adhering to ART. From the fisherfolk IBBS study done in 2018,HIV prevalence was high at 31% with females disproportionately affected. There are practices that put women at higher risk including transactional sex “fish for sex”, low condom use and GBV. Knowledge of HIV positive status was low resulting in low population ART coverage and viral suppression. Additionally, the study identified CALHIV among the fisherfolk highlighting the need for comprehensive services for this population.

Adaptive behavioral, structural and biomedical interventions will be key for fisherfolk. In COP22, PEPFAR Kenya will work collaboratively with the Beach Management Units who are key stakeholders in reaching fisherfolk at the beach landing sites by enumerating migratory fisherfolk for targeted reach and follow up. Differentiated behavioral interventions for male vs female fisherfolk as seen from the differences in

prevalence and behaviors will be important and working with NASCOP and other donors to improve reach for non-targeted fisherfolk. To improve case finding and ART initiation in COP22 PEPFAR Kenya will promote innovative DSD approaches such as community ART initiation and mobile ART to address migratory patterns and isolated islands, characterization of high and low risk beaches for targeted outreach will be key for this COP. The roll out of the vulnerable population guidelines by NASCOP to help us better program for this population.

The military program continues to face two challenges service delivery interruption due to deployment and self denial, stigma & discrimination. To address these, PEPFAR will work with the military leadership to strengthen continuity of services and implement U=U messaging to reduce stigma and discrimination. Prison population continues to bear a disproportionate dual burden of HIV and TB. To address this, PEFAR Kenya will engage prison authorities in the screening, prevention and treatment of HIV and TB and support development of service quality package and referral documentation during transfers. Programs addressing discordant couples and truckers have been included under interventions among adults =>25 years.

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

4.1. Community Led Monitoring

Community Led Monitoring (CLM) is one element of quality assurance used to gather patient-level feedback on HIV services in a routine and systematic manner. It also empowers communities to be part of the solution to improve overall service quality in line with the concept that meaningful participation in social accountability of health programs is a constitutional principle in Kenya. CLM is a component of PEPFAR regular quarterly reviews, triangulating feedback in conjunction with MER results and SIMS scores. These results will be made accessible for use by all stakeholders.

During COP21, PEPFAR/K issued three CLM funding opportunities resulting in three CSO Partner awards: National Empowerment Network of People Living With HIV/AIDS in Kenya (NEPHAK), Lake Region Community Development Initiative (LARCOD), and Women Fighting AIDS in Kenya (WOFAK). Plans are in place to secure a fourth partner who will focus on the quality of care and services provided to key, priority, and vulnerable populations. All of these partners will set the groundwork for PEPFAR's contribution to the ongoing national CLM program. PEPFAR/K CLM currently covers Homabay, Kilifi, Makueni, Mombasa, Nairobi, Nakuru, Narok, Kisumu, Samburu, and Turkana counties, with the fourth award expanding outreach to cover additional counties.

In COP22, PEPFAR is committed to ensuring our CLM program remains fully aligned with national guidelines and protocols. PEFPAR is one of several actors who are currently investing in CLM efforts in Kenya. It is timely for the government to convene a meeting at which the eight years of experience of the Global Fund and other donors supporting CLM is reviewed to inform the establishment of a policy and harmonized national framework. PEPFAR remains guided by GoK and communities on how our program is best positioned to support the needs of the country in this process. PEPFAR is committed to the fundamental principles of community led monitoring as articulated in the KASF-IV.

4.2. Commodities

A key requirement for COP22 was the demonstration of a solid supply chain plan. Extensive discussions were held with the MOH and Global Fund in order to reach an agreed upon basket of essential HIV commodities to prevent the frequent and severe stock outs experienced over the past 12-18 months from being repeated. This included a critical request that the GOK increase their contribution towards the purchase of essential HIV commodities over and above their required counterpart contribution within the GF grant. This agreement is shown in Table 9 below. It is accompanied by an understanding that at a minimum quarterly high-level discussions will be held in order to monitor commitments from all parties, review pending deliveries and stock levels and track actual expenditures.

Table 9 COP22 Supply Chain Plan

Program Area	Funding required (USD) 2022/2023 Annual requirements and *National buffer of Minimum (6 mos)*	PEPFAR	GF	CPF	GOK/MOH	Funding Gap for FY 2022/23
ARV medicines (for ART, PMTCT, PrEP, PEP)	$102,253,059	$24,230,746	$46,814,956	$6,074,259	$11,654,537	$13,478,561
Medicines for Ois	$19,346,147	$819,150	$0	$5,083,544	$578,570	$12,864,883
Nutrition Products	$14,210,753	$0	$0	$947,691	$661,500	$12,601,562
HTS	$26,296,966	$10,332,501	$2,040,053	$1,133,189	$4,575,707	$8,215,516
Condoms, lubricants and dispensers	$9,891,943	$0	$2,621,794	$1,293,000	$0	$5,977,149
Other commodities for Key populations_Opioid Substitution Therapy, Methdone dispensing cups, Hepatitis C treatment and STI medicines	$10,676,081	$0	$511,426	$76,000	$587,232	$9,501,422
Voluntary Medical Male circumcision (VMMC)	$787,482	$0	$0	$121,095	$436,590	$229,797
Lab commodities	$48,889,001	$23,744,356	$371,301	$713,772	$1,474,844	$21,619,820
Total HIV Commodity Costs	**$232,351,432**	**$59,126,753**	**$52,359,531**	**$15,442,549**	**$20,933,888**	**$84,488,711**
PSM related cost 8% * based on KEMSA rates	**$18,588,115**		**$4,188,762**	**$1,235,404**	**$1,674,711**	$6,759,097
Total Costs (HIV Commodity Costs+8 % PSM Cost KEMSA)	**$250,939,547**	**$59,126,753**	**$56,548,294**	**$16,677,953**	**$22,608,599**	**$91,247,808**
TB program Supply plan						
TPT -3HP procurements FY 22/23 in the TB supply plan	$4,186,319	$966,498	$2,595,171		$624,650	$0
Lab commodities ** TB program	$4,186,319	$461,760				TB program supply chain
Total for TB co-infections products commodity costs	**$8,372,638**	**$1,428,258**	**$2,595,171**	**$0**	**$624,650**	**$0**
Total for HIV and TB co-infection products commodity costs	**$240,724,070**	**$60,555,011**	**$54,954,702**	**$15,442,549**	**$21,558,538**	**$84,488,711**
Total for HIV and TB co-infection products commodity costs	**$259,981,996**	**$66,610,532**	**$59,351,078**	**$16,677,953**	**$23,283,221**	**$91,247,808**

** Total PEPFAR commodities budget including PSM, storage and distribution and QA is $73 million*

Of note in the above plan:

i. The gap shown for ARVs includes the country requirement for 1 year and buffer stocks to maintain a 6 Months buffers stocks.
ii. Gap shown under drugs for opportunistic infections is mainly attributed to cotrimoxazole. The revised national guidelines have still retained the provision of prophylactic cotrimoxazole.
iii. While food basket for communities affected by drought and other humanitarian crisis are supported by other partners including UNICEF, therapeutic feeds are part of clinical care prioritized for PLHIV and TB clients. PEPFAR does not currently support this.
iv. The funding available under GF and GOK doesn't meet the country's full requirements for condoms and lubricants. There is a need for additional approaches to mobilizing for availability of affordable condoms and lubricants to sustain prevention programs

5.0 Program Support Necessary to Achieve Sustained Epidemic Control

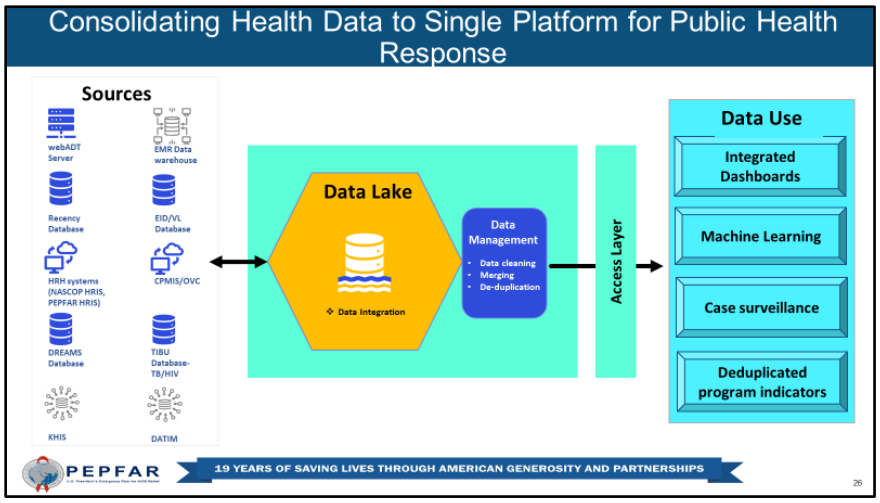
Key elements of the system's support for COP22 focus on investments in strategic information, laboratory networks, human resources for health and strengthening of leadership and governance at county level, setting the stage for gradual transition of programs to in-country institutions.

5.1. Strategic Information

There are 3 major elements within strategic information systems that COP22 will support: ongoing surveillance – expansion of recency testing, case based surveillance reports and mortality surveys.. The rollout of recency testing to all 40 PEPFAR supported counties will provide a basis for a proactive health response when hotspots are detected. Facility and county level case-based surveillance reports provide information for clients that require immediate interventions as well as program quality information at facility and county levels. National Acquired Drug Resistance Surveillance will provide data for improvements in the treatment program at an aggregate as well as at a client-level for immediate clinical action. Mortality surveys are not national at this point but will provide national level estimates of HIV associated mortality.

The gamechanger here has been the adoption by the GOK of a UPI. As Kenya moves closer to reaching the 95's, the use of a UPI provides a basis by which previously siloed dashboards (EID, Viral Load) and EMR records can be integrated into a consolidated platform (the "data lake"), thereby complementing

the aggregated data system (KHIS) with case based data. It is envisaged that the data-lake will aid in case surveillance, provide an integrated dashboard to enable easier identification of program gaps by age and sex, deduplicated program numbers and also allow smooth implementation of machine learning within the program for better patient outcomes. These health information system products include mobile health applications which play a pivotal role in meeting the dynamic and evolving program and data needs of the PEPFAR Kenya-supported HIV response, such as the need for early identification of non-virally suppressed patients, categorization of "stable patients," and timely detection of missed appointments



To promote flexibility in the developed systems and ownership of EMRs by counties, COP22 will support upgrading of KenyaEMR to run on OpenMRS 3.0 platform, integration with the facility-wide digital health platform and integration of all mhealth solutions to run from one base as guided by PEPFAR partnership with Ministry of Health under NASCOP direction. This integrated system ('the data lake") will be operationalized within the provisions set out by the MOH data policy and in the Kenya Data Protection Act (2019). COP22 will continue to support strategic information initiatives in all PEPFAR-supported counties to enable counties to generate and use high quality individual-level data to drive impact and move toward full ownership for sustainability. All county typologies will be supported to conduct continuous Data Quality Assessments and improvement initiatives. COP22 will also support expanding digitized health platforms.

5.2 Laboratory

Kenya has made substantial progress in optimizing diagnostic networks for VL and EID. COP22 activities will prioritize enhanced access to VL and EID testing services and timely return of results to support eMTCT and efficient follow-up of non-virally suppressed PLHIV for effective management. Maintenance

of quality laboratory management systems (QMS) for national referral labs' VL/EID, TB, HIV-DRT and BSL3 labs will remain a priority activity to assure reliable, accurate, and timely VL/EID/TB/HIV DR results.

PEPFAR Kenya will continue to provide technical assistance toward the transitioning of VL/EID testing laboratories to the Ministry of Health-owned regional laboratories. Close monitoring of this process will ensure that the already high VL coverage and equipment (VL/EID, TB) optimization are not negatively impacted. In the process, gaps in effective and efficient identification of POC sites against conventional platforms are being addressed through the national VL TWG. At the moment, the ten selected POC sites will support 24% of EID testing when fully optimized in COP22.

The national equipment calibration center will continue ensuring that the national and regional referral network hubs have calibrated pipettes, centrifuges, fridges, and freezers to optimize transition of dried blood spot (DBS) to plasma for increased accuracy in VL measurements to ultimately realize the goal of Undetectable = Untransmittable (U=U).

To ensure the quality of HIV/TB-related testing, PEPFAR will continue to support the integrated external quality assessment (EQA) for HIV/TB diagnostics including for GeneXpert Ultra, TB LAM, RHT, VL and EID. The National Public Health Laboratory (NPHL) will be supported to coordinate Rapid Test Continuous Quality Improvement (RTCQI) activities including the creation of a national certification system for sites and testing personnel involved in rapid HIV testing. A national HIV recency testing QA program will be conducted under the framework of the HIV recency surveillance in Kenya. To foster sustainability of lab quality services for reliable results, technical assistance will be provided to the national lab diagnostic unit to coordinate national laboratory assessments and monitoring of Stepwise Laboratory Improvement Process Toward Accreditation (SLIPTA) implementation, ensuring harmony across stakeholders (e.g. World Bank, Ministry of Health, and the private sector).

PEPFAR Kenya will provide technical assistance toward establishing a national Guanidinium thiocyanate (GTC) waste management system for waste emanating from Roche VL/EID and GeneXpert cartridges. This will include mapping of incinerators with required capacity (>1000^{0}C incinerators) and the development the waste disposal network. Working with the equipment/reagents vendors, waste calculation at the source equipment (within the VL labs) will continue and subsequently be able to provide cost estimates for planning. The need for Biosafety and IPC trainings has gained more prominence since the onset of COVID 19 we will provide wide coverage through on-line training models.

5.3. County Systems Strengthening

The HIV response in the country is coordinated at the national level and implemented at the county level To avoid a fragmented and piecemeal approach to health financing, sustainable HRH policies, the private sector, the participation of government both at the national and county level with the COG will be critical in the Health systems strengthening dialogue. Key program strategic objectives for county systems strengthening include: 1) increasing sustainable finance, domestic resource mobilization and private

sector engagements for the health sector; 2) improving the quality of health workers training and increasing the number of those graduating and entering the workforce; 3) improving governance, management, leadership and use of human resources information systems for decisions making of the health workforce at the county level and strengthening technical leadership; 4) improving county- and community-level systems for enhanced access to quality care, partnerships and private sector engagements, and coordination for commodity management. These activities will provide the foundation for ongoing direct funding and transition to county governments.

5.3 Human Resources for Health

PEPFAR/Kenya supports a large number of clinical cadres as well as lay cadres. COP22 will begin to work with counties and at the national level to draw up plans for the gradual transition of clinical cadres to the government payroll (national and county levels) as well the faith-based network of health providers. Support for HRH should ensure a rationalized and right-sized workforce that is efficiently utilized for HIV services at above site, facility and community levels. Functional county HRH units have been effective in enabling county governments to prepare strategic plans and budgets to mobilize resources. Coordination of county and intercounty cluster fora will be supported to ensure that deeper engagement of counties and learning and adaptation of success in HIV management takes place. The PEPFAR-supported HRH data system will be used to guide decisions and budgets for a rationalized and right-sized workforce based on epidemic control needs. Workforce unrest and labor disputes have made it necessary to support regular engagements (such as work councils) between the Ministry of Health, Council of Governors, CHMTs, and health worker leadership for closer and continuous dialogue to minimize disruptions in PLHIV service delivery and target achievement and sustainability for epidemic control. PEPFAR support will be applied to enhance engagement with government (national and county) and relevant stakeholders towards regularization and ownership of community and lay cadres who are critical in provision of HIV services.

6.0 USG Operations and Staffing Plan to Achieve Stated Goals

USAID

PEPFAR-Kenya is committed to epidemic control, implementing a county-led model with indigenous partners assuming the lead role in direct service delivery, monitoring, supportive supervision, mentorship, and technical assistance to maintain quality HIV service delivery. USAID will continue to embrace county and community input in program planning, implementation, and monitoring to foster a stronger partnership around HIV/TB and social, client-centered service delivery.

The broad footprint in COP22 takes into consideration having adequate staffing to effectively engage other bilateral partners and national, county, and community stakeholders in co-creation,

implementation, and monitoring of programs. This is reflected in the interagency staffing patterns and level of effort (LOE) by program area and administration support.

The PEPFAR interagency discussed emerging and vacant positions to determine relevance for each agency, as well as the entire country portfolio. The number of PEPFAR Kenya staff and percent of time allocated remain aligned to the interventions described herein and maintain coverage for SIMS, business processes, and partner management. USAID understands managing local partners and taking a county approach to service delivery will require intensive partner monitoring, as well as substantial capacity building, as we cement partnership with country governments and development partners in each county. County-by-county programing, planning, and monitoring, while geared toward laying a stronger foundation for local ownership, also comes at a higher initial cost of creating, building, and nurturing partnerships.

USAID Kenya is in the process of filling the vacant positions. USAID reviewed all the vacant positions to determine if any of them should be repurposed or reconsidered. USAID is not planning to repurpose any positions. However, three vacant (new FSN; one USPSC) positions have been removed as these activities will be carried out by other staff members.

Although three positions have been removed, the cost of doing business (CODB) has been flatlined. In COP21, USAID shifted all service delivery mechanisms to local partners, which continue in COP22. The cost savings from reducing the three positions will be shifted to a contract mechanism to support local organization capacity building given the technical assistance needs required by our partners in managing USAID funding.

Additional oversight is required to manage the significant challenges of the Kenya context regarding corruption and fraud both within and outside of the public sector. A more labor-intensive approach is also required for increased oversight and management of USAID Kenya contractors and grantees to ensure that programs operate more efficiently and cost-effectively and that they meet PEPFAR targets efficiently and effectively. A critical component of this approach is more frequent monitoring, reporting, and analyzing of results to make course adjustments and adapt program approaches.

The USAID Kenya business model includes more direct staff engagement in managing development relationships with local governments and counties. USAID is the lead agency for HIV service delivery in 23 counties. This direct engagement with the GOK is aimed at strengthening and building the capacity of public institutions and building partnerships to leverage resources.

CDC

CDC Kenya has been re-organizing the management and operations structure, creating Pillars which better align with PEPFAR goals and with the aim of effectively supporting County Governments (G2G) agreements and ensuring we are proactively planning for sustainability of the HIV progress. CDC has

experienced significant challenge filling CDC vacant positions and also classifying and reclassifying positions, due to the time-consuming recruitment process and limitations set by State Department Human Resources. In line with the restructuring, CDC is requesting new positions and has conducted a staffing review to ensure existing positions align to support county activities and readiness toward direct county government-to-government funding through CDC Cooperative Agreements as well as through enhanced site level technical assistance. CDC is committed to being 'proactive' vs 'passive' as we develop a program that contributes to identification of new cases and filling existing gaps by utilizing different modalities that collect data electronically at an individual level and plan strategies with the Field Epidemiology Lab training program to close gaps.

The CDC Kenya program has a robust history of funding local partners. CDC is on track to move from 70% of its program funding allocated to local partners in COP21 to 93% in COP22. CDC Kenya has plans to increase its funding to local partners in COP22 and beyond. CDC currently has 4 existing cooperative agreements awards with County Governments and is planning 9 additional G2G awards to County Governments in COP22. This will bring the total number of G2G County Governments awards to 13. CDC will aggressively advance sustainable HIV response through direct funding to county governments.

STATE

In COP22, PEPFAR State has a total of 4 FSN vacancies and 1 USDH. Three positions, the Communications Specialist, DREAMS Coordinator, and Global Fund Liaison positions are currently under recruitment and expected to be filled early COP22. PEPFAR State will repurpose the Community Grants Administrative Assistant to a Community Led Monitoring (CLM) Coordinator to support CLM activities. This requires increased funding that is within the current funding envelope for State.

The PEPFAR Coordinator USDH position has been recruited and is expected to be on board before the end of COP21.

In COP22, PEPFAR State plans to bring on a short-term health financing consultant to support an assessment of national health financing as the PEPFAR program evolves to sustain maximum impact. A full-time health financing position is planned to be added in COP23. The consultant will inform the position description for this position.

Department of Defense

In COP21, recruitment actions were completed for DOD's remaining vacant positions. The current DOD team consists of five personnel, including one country director, one deputy country director, one HIV specialist for care and treatment, one HIV prevention specialist and one health management information systems specialist. All DOD USG positions have been designed to improve program oversight and provide technical leadership and expertise to DOD implementing mechanisms as well as contribute to the

interagency team. With DOD program expansion in COP21 and increased financial oversight demands for PEPFAR, DOD identified gaps in ability to manage and oversee the diverse M&O and program budget, including internally for the USG team. This includes gaps in ability to support PEPFAR required financial and expenditure reporting. In addition, there are growing needs to support the technical team in travel, logistics, and management as the team increases travel for supportive supervision and oversight. To strengthen the team and fill these gaps, in COP22 DOD plans to hire a Management and Financial Specialist. Additionally, while DOD shares the pooled vehicles of the US Army Medical Research Directorate-Africa, the DOD USG team does not have a dedicated driver. Thus, to ensure the DOD team can travel for oversight activities and key meetings, DOD proposes adding one locally employed staff driver.

DOD does not propose any major changes to the cost of doing business in COP22 as internal shifts are being made to accommodate support for the new positions.

PEACE CORPS

As Peace Corps is reopening its program in Kenya and will have a small group of volunteers in late 2022 (building to approximately 100 over the next three years). Peace Corps plans on modifying the current Partnerships Manager position to a Partnerships Coordinator, which would continue to be a locally employed staff (LES) hired via a Peace Corps personal services contract (PSC) mechanism. The incumbent will coordinate PEPFAR programming, monitoring, and reporting in Kenya, and coordinate the training of additional appropriately funded staff, trainees, volunteers, and Kenyan counterparts. Peace Corps volunteers and their counterparts will be working in GOK health facilities, secondary schools, and CBOs or FBOs. The Partnerships Coordinator will ensure that training and programming funded by PEPFAR will be appropriately designed and implemented according to S/GAC guidelines. Additionally, they will coordinate the collection of data and submission of sub-annual program reporting (SAPR) and annual program reporting (APR) and the Peace Corps Kenya submissions of various planning tools.

APPENDIX A -- PRIORITIZATION

Continuous Nature of SNU Prioritization to Reach Epidemic Control

County	COP	Prioritization	APR Results Projected	Treatment Coverage at APR by Age and Sex					
				<15Yrs Coverage	15-24 Male Coverage	15-24 Female Coverage	25+ Male Coverage	25+ Female Coverage	Overall Coverage
Baringo	COP15	Sustained	3,001	57%			49%	74%	54%
Baringo	COP16	Sustained	3,167	57%	35%	32%	45%	72%	57%
Baringo	COP17	Sustained	3,222	58%	27%	19%	46%	77%	58%
Baringo	COP18	Sustained	3,855	75%	53%	53%	53%	83%	69%
Baringo	COP19	SCALE	5,172	107%	61%	85%	69%	74%	75%
Baringo	COP20	SCALE	4,594	134%	41%	40%	46%	59%	55%
Baringo	COP21	Sustained	4,893	61%	40%	41%	55%	62%	58%
Baringo	COP22	Sustained	4,893	60%	55%	49%	54%	57%	56%
Bomet	COP15	ScaleUp Agg	9,586	79%			75%	122%	86%
Bomet	COP16	ScaleUp Agg	11,088	93%	74%	69%	83%	122%	99%
Bomet	COP17	ScaleUp Sat	10,732	84%	62%	55%	91%	115%	96%
Bomet	COP18	ScaleUp Sat	13,073	95%	97%	97%	97%	142%	117%
Bomet	COP19	EVOLVE	11,774	91%	89%	126%	101%	98%	100%
Bomet	COP20	EVOLVE	10,439	139%	46%	54%	49%	74%	65%
Bomet	COP21	Sustained	11,035	70%	38%	48%	63%	79%	69%
Bomet	COP22	Sustained	11,035	77%	54%	56%	70%	79%	74%
Bungoma	COP15	ScaleUp Agg	21,327	84%			60%	95%	71%
Bungoma	COP16	ScaleUp Sat	22,178	82%	66%	72%	59%	82%	74%
Bungoma	COP17	ScaleUp Sat	22,485	82%	69%	69%	60%	84%	75%
Bungoma	COP18	ScaleUp Sat	26,931	101%	71%	87%	71%	100%	89%
Bungoma	COP19	EVOLVE	27,749	89%	63%	121%	96%	106%	100%
Bungoma	COP20	EVOLVE	25,791	102%	29%	111%	29%	209%	76%
Bungoma	COP21	Scale-up: Saturation	27,189	92%	46%	66%	71%	112%	92%
Bungoma	COP22	Scale-up: Saturation	27,189	97%	78%	80%	76%	108%	95%
Busia	COP15	ScaleUp Sat	30,042	76%			75%	101%	78%
Busia	COP16	ScaleUp Sat	32,385	76%	63%	61%	76%	96%	84%
Busia	COP17	ScaleUp Sat	32,941	76%	53%	56%	78%	99%	85%
Busia	COP18	ScaleUp Sat	34,502	95%	72%	72%	77%	101%	90%
Busia	COP19	SCALE	36,213	79%	61%	94%	98%	101%	95%
Busia	COP20	SCALE	33,248	208%	61%	44%	90%	81%	83%
Busia	COP21	Scale-up: Aggressive	34,225	67%	38%	49%	83%	101%	86%

Busia	COP22	Scale-up: Aggressive	34,225	73%	52%	58%	73%	93%	82%
Elgeyo Marakwet	COP15	Sustained	2,419	54%			48%	78%	55%
Elgeyo Marakwet	COP16	Sustained	2,722	54%	25%	48%	50%	79%	62%
Elgeyo Marakwet	COP17	ScaleUp Sat	2,645	53%	26%	27%	48%	81%	60%
Elgeyo Marakwet	COP18	ScaleUp Sat	3,944	90%	76%	76%	76%	104%	90%
Elgeyo Marakwet	COP19	SCALE	4,194	81%	66%	94%	76%	71%	75%
Elgeyo Marakwet	COP20	SCALE	3,596	147%	30%	38%	38%	56%	50%
Elgeyo Marakwet	COP21	Sustained	4,873	95%	37%	45%	58%	76%	68%
Elgeyo Marakwet	COP22	Sustained	4,873	72%	42%	44%	47%	58%	54%
Embu	COP15	Sustained	8,219	93%			90%	93%	74%
Embu	COP16	Sustained	7,948	91%	33%	21%	79%	84%	71%
Embu	COP17	Attained	8,040	90%	38%	19%	81%	85%	72%
Embu	COP18	Sustained	9,972	98%	75%	75%	87%	95%	90%
Embu	COP19	EVOLVE	9,948	84%	100%	153%	81%	86%	90%
Embu	COP20	EVOLVE	10,341	219%	160%	70%	84%	83%	87%
Embu	COP21	Scale-up: Saturation	10,549	122%	90%	78%	96%	99%	97%
Embu	COP22	Scale-up: Saturation	10,549	116%	148%	86%	90%	92%	93%
Garissa	COP15	Sustained Com	1,087	17%			100%	53%	43%
Garissa	COP16	Sustained Com	1,158	13%	113%	94%	66%	31%	46%
Garissa	COP17	Sustained Com	1,223	16%	115%	100%	68%	33%	48%
Garissa	COP18	Sustained Com	1,333	50%	82%	68%	47%	48%	53%
Garissa	COP19	GOK/TRANSITION							
Garissa	COP20	GOK/TRANSITION		61%	28%	43%	44%	58%	52%
Garissa	COP21	Centrally Supported							
Garissa	COP22	Centrally Supported							
Homabay	COP15	ScaleUp Sat	92,465	91%			49%	97%	58%
Homabay	COP16	ScaleUp Sat	98,500	95%	22%	29%	47%	92%	62%
Homabay	COP17	ScaleUp Sat	99,734	93%	30%	38%	47%	89%	63%
Homabay	COP18	ScaleUp Sat	117,833	98%	51%	58%	64%	92%	75%
Homabay	COP19	EVOLVE	117,957	89%	92%	100%	99%	73%	85%
Homabay	COP20	EVOLVE	115,992	198%	40%	72%	75%	83%	81%
Homabay	COP21	Scale-up: Saturation	118,697	102%	44%	92%	83%	87%	85%
Homabay	COP22	Scale-up: Saturation	118,697	93%	47%	86%	87%	96%	90%
Isiolo	COP15	Sustained Com	2,095	107%			71%	69%	58%
Isiolo	COP16	Sustained Com	2,176	107%	21%	18%	72%	65%	60%
Isiolo	COP17	Sustained Com	2,066	102%	20%	15%	67%	63%	57%

Isiolo	COP18	Sustained Com	2,386	102%	51%	51%	56%	72%	66%
Isiolo	COP19	GOK/TRANSITION							
Isiolo	COP20	GOK/TRANSITION		161%	55%	48%	57%	54%	58%
Isiolo	COP21	Centrally Supported							
Isiolo	COP22	Centrally Supported							
Kajiado	COP15	ScaleUp Agg	10,640	42%			46%	76%	52%
Kajiado	COP16	ScaleUp Agg	10,796	40%	31%	30%	44%	70%	53%
Kajiado	COP17	ScaleUp Agg	10,838	38%	38%	40%	43%	68%	53%
Kajiado	COP18	ScaleUp Agg	15,100	58%	62%	62%	62%	90%	75%
Kajiado	COP19	REBOOT	21,759	65%	65%	93%	76%	74%	75%
Kajiado	COP20	REBOOT	15,278	162%	35%	38%	40%	53%	49%
Kajiado	COP21	Sustained	15,991	64%	32%	38%	44%	58%	52%
Kajiado	COP22	Sustained	15,991	62%	44%	45%	44%	55%	51%
Kakamega	COP15	ScaleUp Agg	35,526	86%			60%	92%	70%
Kakamega	COP16	ScaleUp Agg	38,467	92%	75%	83%	61%	80%	76%
Kakamega	COP17	ScaleUp Sat	38,613	89%	74%	85%	61%	81%	76%
Kakamega	COP18	ScaleUp Sat	45,506	99%	100%	91%	72%	97%	89%
Kakamega	COP19	EVOLVE	43,992	68%	80%	114%	87%	94%	90%
Kakamega	COP20	EVOLVE	44,297	400%	81%	54%	96%	86%	92%
Kakamega	COP21	Scale-up: Saturation	46,687	115%	44%	72%	82%	118%	100%
Kakamega	COP22	Scale-up: Saturation	46,687	117%	72%	79%	79%	101%	93%
Kericho	COP15	Sustained	13,768	75%			81%	110%	84%
Kericho	COP16	Sustained	15,584	87%	104%	80%	76%	112%	95%
Kericho	COP17	Attained	16,279	88%	115%	86%	80%	116%	99%
Kericho	COP18	Sustained	17,169	89%	184%	86%	86%	118%	105%
Kericho	COP19	EVOLVE	19,205	89%	217%	134%	87%	85%	95%
Kericho	COP20	EVOLVE	15,979	152%	67%	60%	53%	84%	72%
Kericho	COP21	Scale-up: Aggressive	16,789	83%	61%	61%	65%	86%	76%
Kericho	COP22	Scale-up: Aggressive	16,789	107%	92%	76%	77%	85%	84%
Kiambu	COP15	ScaleUp Agg	31,885	82%			60%	44%	45%
Kiambu	COP16	ScaleUp Sat	35,239	77%	61%	39%	59%	45%	50%
Kiambu	COP17	ScaleUp Agg	35,494	74%	51%	31%	60%	47%	50%
Kiambu	COP18	ScaleUp Agg	52,873	104%	63%	63%	63%	79%	75%
Kiambu	COP19	REBOOT	44,543	54%	68%	90%	64%	103%	85%
Kiambu	COP20	REBOOT	47,508	125%	88%	58%	63%	80%	75%
Kiambu	COP21	Scale-up: Saturation	43,881	78%	61%	72%	73%	101%	88%
Kiambu	COP22	Scale-up: Saturation	43,881	73%	139%	98%	106%	112%	108%
Kilifi	COP15	ScaleUp Agg	20,566	84%			74%	82%	65%

Kilifi	COP16	ScaleUp Agg	20,663	80%	62%	43%	59%	72%	65%
Kilifi	COP17	ScaleUp Agg	21,030	83%	71%	56%	58%	70%	66%
Kilifi	COP18	ScaleUp Agg	23,564	99%	91%	57%	64%	79%	74%
Kilifi	COP19	REBOOT	29,982	107%	128%	97%	61%	71%	75%
Kilifi	COP20	REBOOT	26,500	229%	79%	60%	67%	70%	73%
Kilifi	COP21	Scale-up: Saturation	28,775	90%	41%	63%	63%	107%	87%
Kilifi	COP22	Scale-up: Saturation	28,775	129%	81%	77%	88%	100%	97%
Kirinyaga	COP15	Sustained	8,415	119%			87%	69%	68%
Kirinyaga	COP16	Sustained	9,068	114%	60%	34%	92%	70%	74%
Kirinyaga	COP17	ScaleUp Sat	9,378	113%	61%	37%	91%	74%	76%
Kirinyaga	COP18	ScaleUp Sat	11,090	123%	76%	76%	96%	88%	90%
Kirinyaga	COP19	SCALE	10,670	59%	60%	80%	64%	100%	83%
Kirinyaga	COP20	SCALE	10,801	129%	92%	70%	64%	76%	73%
Kirinyaga	COP21	Scale-up: Aggressive	11,470	112%	75%	84%	94%	99%	97%
Kirinyaga	COP22	Scale-up: Aggressive	11,470	64%	99%	77%	78%	88%	83%
Kisii	COP15	ScaleUp Agg	25,737	113%			54%	135%	76%
Kisii	COP16	ScaleUp Sat	27,901	114%	34%	40%	55%	128%	82%
Kisii	COP17	ScaleUp Sat	28,176	110%	35%	41%	56%	130%	83%
Kisii	COP18	ScaleUp Sat	31,633	113%	43%	55%	76%	130%	93%
Kisii	COP19	REBOOT	32,055	65%	54%	64%	78%	71%	71%
Kisii	COP20	REBOOT	33,233	240%	52%	76%	60%	79%	75%
Kisii	COP21	Scale-up: Aggressive	36,345	129%	62%	117%	68%	85%	83%
Kisii	COP22	Scale-up: Aggressive	36,345	84%	58%	103%	70%	97%	87%
Kisumu	COP15	ScaleUp Sat	92,212	86%			56%	105%	64%
Kisumu	COP16	ScaleUp Sat	97,973	87%	49%	38%	56%	92%	68%
Kisumu	COP17	ScaleUp Sat	98,770	85%	43%	37%	53%	98%	68%
Kisumu	COP18	ScaleUp Sat	108,227	92%	52%	60%	65%	92%	75%
Kisumu	COP19	EVOLVE	122,966	77%	112%	92%	83%	66%	76%
Kisumu	COP20	EVOLVE	111,032	220%	40%	55%	71%	83%	78%
Kisumu	COP21	Scale-up: Aggressive	118,067	115%	51%	84%	81%	91%	87%
Kisumu	COP22	Scale-up: Aggressive	118,067	94%	56%	81%	81%	99%	90%
Kitui	COP15	ScaleUp Agg	17,303	109%			57%	78%	60%
Kitui	COP16	ScaleUp Sat	17,470	104%	30%	19%	59%	71%	60%
Kitui	COP17	ScaleUp Sat	17,591	101%	32%	21%	52%	74%	61%
Kitui	COP18	ScaleUp Sat	25,882	109%	73%	73%	73%	101%	90%
Kitui	COP19	SCALE	22,166	95%	77%	119%	59%	75%	75%
Kitui	COP20	SCALE	21,959	179%	113%	48%	65%	64%	68%
Kitui	COP21	Scale-up: Aggressive	23,801	104%	58%	53%	84%	87%	83%

Kitui	COP22	Scale-up: Aggressive	23,801	94%	99%	60%	78%	78%	78%
Kwale	COP15	ScaleUp Agg	7,501	44%			34%	40%	31%
Kwale	COP16	ScaleUp Agg	8,063	45%	52%	46%	25%	31%	34%
Kwale	COP17	ScaleUp Agg	8,255	42%	27%	27%	30%	38%	35%
Kwale	COP18	ScaleUp Agg	17,807	75%	61%	61%	61%	85%	75%
Kwale	COP19	REBOOT	16,959	115%	84%	102%	57%	75%	75%
Kwale	COP20	REBOOT	12,259	214%	92%	81%	55%	60%	65%
Kwale	COP21	Scale-up: Saturation	13,747	105%	42%	63%	68%	83%	78%
Kwale	COP22	Scale-up: Saturation	13,747	97%	51%	61%	55%	66%	64%
Laikipia	COP15	Sustained	6,895	87%			83%	122%	89%
Laikipia	COP16	Sustained	7,692	88%	76%	53%	78%	128%	99%
Laikipia	COP17	ScaleUp Agg	7,814	88%	108%	53%	89%	122%	101%
Laikipia	COP18	ScaleUp Agg	5,933	75%	78%	55%	62%	91%	76%
Laikipia	COP19	SCALE	8,796	124%	86%	83%	77%	75%	81%
Laikipia	COP20	SCALE	8,851	283%	100%	84%	70%	99%	92%
Laikipia	COP21	Scale-up: Saturation	9,287	94%	78%	74%	72%	87%	82%
Laikipia	COP22	Scale-up: Saturation	9,287	126%	123%	108%	90%	106%	102%
Lamu	COP15	Sustained Com	1,125	78%			61%	56%	49%
Lamu	COP16	Sustained Com	1,218	69%	59%	42%	54%	52%	53%
Lamu	COP17	Sustained Com	1,222	63%	24%	25%	62%	57%	53%
Lamu	COP18	Sustained Com	1,379	75%	46%	46%	46%	68%	59%
Lamu	COP19	GOK/TRANSITION							
Lamu	COP20	GOK/TRANSITION		170%	85%	87%	58%	71%	70%
Lamu	COP21	Centrally Supported							
Lamu	COP22	Centrally Supported							
Machakos	COP15	ScaleUp Agg	21,477	101%			75%	83%	66%
Machakos	COP16	ScaleUp Sat	22,063	91%	40%	22%	72%	79%	68%
Machakos	COP17	ScaleUp Sat	22,435	93%	44%	25%	70%	80%	69%
Machakos	COP18	ScaleUp Sat	29,187	102%	74%	74%	74%	101%	90%
Machakos	COP19	SCALE	27,310	98%	94%	141%	70%	89%	88%
Machakos	COP20	SCALE	27,975	161%	97%	51%	64%	71%	71%
Machakos	COP21	Scale-up: Aggressive	29,117	85%	54%	55%	72%	82%	77%
Machakos	COP22	Scale-up: Aggressive	29,117	98%	125%	72%	86%	86%	86%
Makueni	COP15	ScaleUp Agg	15,012	87%			53%	66%	51%
Makueni	COP16	ScaleUp Sat	15,234	84%	24%	16%	51%	61%	52%
Makueni	COP17	ScaleUp Sat	15,367	80%	26%	19%	50%	62%	52%
Makueni	COP18	ScaleUp Sat	26,286	98%	75%	75%	75%	101%	90%
Makueni	COP19	SCALE	19,012	97%	80%	120%	59%	74%	75%

Makueni	COP20	SCALE	19,131	189%	116%	59%	75%	72%	76%
Makueni	COP21	Scale-up: Saturation	20,816	117%	68%	68%	96%	99%	96%
Makueni	COP22	Scale-up: Saturation	20,816	109%	125%	80%	95%	95%	95%
Mandera	COP15	Sustained Com	481	5%			52%	14%	14%
Mandera	COP16	Sustained Com	513	7%	45%	22%	33%	9%	15%
Mandera	COP17	Sustained Com	525	8%	48%	22%	35%	9%	16%
Mandera	COP18	Sustained Com	542	50%	46%	12%	7%	7%	16%
Mandera	COP19	GOK/TRANSITION							
Mandera	COP20	GOK/TRANSITION		25%	37%	27%	48%	47%	44%
Mandera	COP21	Centrally Supported							
Mandera	COP22	Centrally Supported							
Marsabit	COP15	Sustained Com	1,421	79%			54%	64%	50%
Marsabit	COP16	Sustained Com	1,205	47%	106%	78%	39%	27%	42%
Marsabit	COP17	Sustained Com	1,219	57%	106%	79%	29%	31%	43%
Marsabit	COP18	Sustained Com	1,352	85%	110%	79%	41%	31%	48%
Marsabit	COP19	GOK/TRANSITION							
Marsabit	COP20	GOK/TRANSITION		82%	52%	28%	35%	39%	39%
Marsabit	COP21	Centrally Supported							
Marsabit	COP22	Centrally Supported							
Meru	COP15	ScaleUp Agg	17,066	101%			81%	80%	66%
Meru	COP16	ScaleUp Sat	16,994	86%	40%	29%	77%	71%	65%
Meru	COP17	ScaleUp Sat	17,007	82%	39%	22%	75%	74%	65%
Meru	COP18	ScaleUp Sat	23,287	108%	73%	73%	90%	93%	89%
Meru	COP19	SCALE	20,193	81%	81%	125%	80%	77%	82%
Meru	COP20	SCALE	21,248	159%	105%	57%	55%	61%	63%
Meru	COP21	Sustained	22,819	109%	66%	68%	76%	89%	84%
Meru	COP22	Sustained	22,819	89%	103%	63%	66%	66%	67%
Migori	COP15	ScaleUp Sat	59,912	107%			57%	122%	72%
Migori	COP16	ScaleUp Sat	64,577	113%	34%	47%	56%	111%	77%
Migori	COP17	ScaleUp Sat	65,673	113%	32%	46%	58%	114%	79%
Migori	COP18	ScaleUp Sat	72,317	108%	45%	62%	76%	110%	87%
Migori	COP19	EVOLVE	79,087	78%	69%	92%	96%	73%	82%
Migori	COP20	EVOLVE	75,201	242%	39%	88%	75%	91%	88%
Migori	COP21	Scale-up: Saturation	77,953	118%	42%	110%	82%	94%	90%
Migori	COP22	Scale-up: Saturation	77,953	90%	45%	102%	88%	100%	94%
Mombasa	COP15	ScaleUp Sat	40,885	71%			106%	90%	75%
Mombasa	COP16	ScaleUp Sat	43,018	63%	133%	81%	85%	74%	79%
Mombasa	COP17	ScaleUp Sat	42,678	54%	53%	31%	103%	86%	79%

Mombasa	COP18	ScaleUp Sat	48,879	90%	150%	88%	87%	86%	90%
Mombasa	COP19	EVOLVE	50,054	97%	243%	172%	97%	91%	105%
Mombasa	COP20	EVOLVE	44,795	155%	56%	43%	54%	85%	71%
Mombasa	COP21	Scale-up: Aggressive	47,267	88%	63%	56%	89%	95%	89%
Mombasa	COP22	Scale-up: Aggressive	47,267	83%	94%	63%	80%	91%	86%
Murang'a	COP15	ScaleUp Agg	11,648	89%			57%	42%	43%
Murang'a	COP16	ScaleUp Agg	12,970	91%	42%	27%	56%	45%	48%
Murang'a	COP17	ScaleUp Agg	13,096	85%	55%	28%	58%	45%	48%
Murang'a	COP18	ScaleUp Agg	20,297	85%	65%	65%	65%	79%	75%
Murang'a	COP19	SCALE	20,220	40%	64%	84%	56%	91%	75%
Murang'a	COP20	SCALE	16,354	133%	109%	80%	66%	74%	74%
Murang'a	COP21	Scale-up: Aggressive	17,610	100%	74%	93%	85%	100%	94%
Murang'a	COP22	Scale-up: Aggressive	17,610	64%	93%	79%	72%	78%	76%
Nairobi	COP15	ScaleUp Sat	125,705	94%			68%	96%	73%
Nairobi	COP16	ScaleUp Sat	141,541	92%	69%	52%	70%	98%	83%
Nairobi	COP17	ScaleUp Sat	142,560	90%	60%	46%	71%	100%	83%
Nairobi	COP18	ScaleUp Sat	158,678	100%	82%	82%	82%	102%	93%
Nairobi	COP19	EVOLVE	199,527	65%	144%	106%	93%	106%	101%
Nairobi	COP20	EVOLVE	163,751	160%	118%	80%	80%	97%	92%
Nairobi	COP21	Scale-up: Saturation	166,267	95%	98%	81%	98%	108%	103%
Nairobi	COP22	Scale-up: Saturation	166,267	68%	115%	84%	100%	111%	104%
Nakuru	COP15	ScaleUp Agg	32,336	71%			72%	110%	78%
Nakuru	COP16	ScaleUp Agg	35,530	69%	57%	48%	74%	109%	86%
Nakuru	COP17	ScaleUp Sat	35,757	68%	58%	49%	75%	110%	87%
Nakuru	COP18	ScaleUp Sat	41,217	90%	81%	81%	81%	121%	100%
Nakuru	COP19	REBOOT	43,427	72%	64%	91%	74%	75%	75%
Nakuru	COP20	REBOOT	42,051	219%	59%	50%	64%	66%	67%
Nakuru	COP21	Scale-up: Aggressive	43,524	86%	57%	55%	66%	82%	75%
Nakuru	COP22	Scale-up: Aggressive	43,524	90%	81%	69%	73%	82%	79%
Nandi	COP15	ScaleUp Agg	9,442	69%			80%	118%	84%
Nandi	COP16	ScaleUp Agg	10,296	77%	70%	39%	88%	113%	92%
Nandi	COP17	ScaleUp Agg	10,579	75%	56%	36%	86%	121%	94%
Nandi	COP18	ScaleUp Agg	11,266	86%	82%	59%	91%	121%	100%
Nandi	COP19	SCALE	12,066	77%	101%	76%	70%	87%	81%
Nandi	COP20	SCALE	11,591	172%	46%	45%	44%	64%	58%
Nandi	COP21	Sustained	12,167	65%	47%	38%	52%	69%	60%
Nandi	COP22	Sustained	12,167	74%	70%	51%	59%	68%	65%
Narok	COP15	ScaleUp Agg	6,985	50%			41%	59%	44%
Narok	COP16	ScaleUp Agg	7,804	49%	31%	26%	55%	61%	49%

Narok	COP17	ScaleUp Agg	7,870	53%	35%	29%	41%	61%	50%
Narok	COP18	ScaleUp Agg	11,838	86%	56%	56%	56%	90%	75%
Narok	COP19	REBOOT	15,453	82%	57%	80%	65%	70%	70%
Narok	COP20	REBOOT	9,961	124%	27%	38%	31%	49%	43%
Narok	COP21	Sustained	10,249	62%	35%	41%	45%	59%	52%
Narok	COP22	Sustained	10,249	59%	43%	44%	43%	45%	45%
Nyamira	COP15	ScaleUp Agg	12,257	81%			36%	89%	50%
Nyamira	COP16	ScaleUp Agg	13,055	83%	34%	41%	35%	75%	54%
Nyamira	COP17	ScaleUp Sat	13,207	82%	34%	42%	35%	76%	54%
Nyamira	COP18	ScaleUp Sat	21,799	97%	79%	79%	79%	104%	90%
Nyamira	COP19	SCALE	16,883	80%	109%	98%	86%	59%	75%
Nyamira	COP20	SCALE	14,009	352%	74%	83%	72%	87%	87%
Nyamira	COP21	Scale-up: Saturation	17,294	225%	101%	164%	96%	110%	112%
Nyamira	COP22	Scale-up: Saturation	17,294	109%	69%	109%	78%	107%	96%
Nyandarua	COP15	Sustained	6,873	142%			70%	52%	54%
Nyandarua	COP16	Sustained	7,299	134%	67%	34%	67%	52%	57%
Nyandarua	COP17	ScaleUp Sat	7,330	126%	92%	45%	71%	49%	57%
Nyandarua	COP18	ScaleUp Sat	11,478	181%	69%	69%	69%	95%	90%
Nyandarua	COP19	SCALE	10,640	67%	55%	72%	50%	93%	75%
Nyandarua	COP20	SCALE	9,749	134%	109%	77%	70%	77%	78%
Nyandarua	COP21	Scale-up: Saturation	10,264	110%	81%	91%	103%	109%	105%
Nyandarua	COP22	Scale-up: Saturation	10,264	68%	103%	94%	91%	97%	93%
Nyeri	COP15	Sustained	15,085	147%			111%	79%	81%
Nyeri	COP16	Sustained	15,904	128%	94%	48%	102%	81%	85%
Nyeri	COP17	ScaleUp Sat	15,949	122%	112%	48%	108%	79%	85%
Nyeri	COP18	ScaleUp Sat	16,720	157%	98%	52%	103%	85%	90%
Nyeri	COP19	EVOLVE	17,124	89%	98%	63%	86%	95%	90%
Nyeri	COP20	EVOLVE	18,633	105%	120%	76%	61%	77%	73%
Nyeri	COP21	Scale-up: Aggressive	18,909	80%	86%	80%	85%	92%	89%
Nyeri	COP22	Scale-up: Aggressive	18,909	52%	121%	83%	75%	87%	82%
Samburu	COP15	Sustained	1,092	63%			30%	48%	37%
Samburu	COP16	Sustained	1,399	79%	74%	131%	27%	31%	47%
Samburu	COP17	Sustained	1,424	83%	96%	126%	30%	29%	48%
Samburu	COP18	Sustained	1,750	70%	96%	136%	48%	42%	59%
Samburu	COP19	REBOOT	2,669	78%	131%	263%	73%	45%	74%
Samburu	COP20	REBOOT	1,770	257%	41%	63%	54%	79%	74%
Samburu	COP21	Scale-up: Saturation	1,870	95%	40%	50%	54%	70%	64%
Samburu	COP22	Scale-up: Saturation	1,870	110%	53%	68%	62%	72%	70%
Siaya	COP15	ScaleUp Sat	73,440	87%			49%	97%	58%

Siaya	COP16	ScaleUp Sat	78,891	91%	37%	34%	47%	88%	62%
Siaya	COP17	ScaleUp Sat	79,399	90%	31%	29%	49%	91%	63%
Siaya	COP18	ScaleUp Sat	94,630	99%	60%	63%	64%	88%	75%
Siaya	COP19	EVOLVE	95,346	81%	113%	112%	99%	72%	87%
Siaya	COP20	EVOLVE	93,597	215%	31%	63%	69%	88%	81%
Siaya	COP21	Scale-up: Saturation	99,205	132%	44%	97%	90%	98%	95%
Siaya	COP22	Scale-up: Saturation	99,205	114%	53%	90%	107%	102%	102%
Taita Taveta	COP15	Sustained	4,955	42%			55%	52%	42%
Taita Taveta	COP16	Sustained	4,880	34%	23%	11%	49%	49%	41%
Taita Taveta	COP17	Sustained	4,983	39%	30%	12%	51%	48%	42%
Taita Taveta	COP18	Sustained	6,012	55%	41%	23%	52%	58%	51%
Taita Taveta	COP19	REBOOT	9,003	88%	86%	58%	72%	77%	75%
Taita Taveta	COP20	REBOOT	6,848	163%	102%	85%	56%	77%	72%
Taita Taveta	COP21	Scale-up: Saturation	7,621	118%	79%	81%	84%	81%	83%
Taita Taveta	COP22	Scale-up: Saturation	7,621	82%	86%	71%	59%	68%	66%
Tana River	COP15	Sustained Com	894	41%			35%	41%	32%
Tana River	COP16	Sustained Com	1,008	44%	62%	50%	28%	32%	36%
Tana River	COP17	Sustained Com	1,020	46%	58%	49%	30%	33%	37%
Tana River	COP18	Sustained Com	1,061	61%	47%	38%	29%	38%	38%
Tana River	COP19	GOK/TRANSITION							
Tana River	COP20	GOK/TRANSITION		116%	40%	53%	41%	63%	56%
Tana River	COP21	Centrally Supported							
Tana River	COP22	Centrally Supported							
Tharaka Nithi	COP15	Sustained	5,878	86%			85%	78%	65%
Tharaka Nithi	COP16	Sustained	5,950	77%	48%	24%	76%	73%	65%
Tharaka Nithi	COP17	ScaleUp Sat	6,013	76%	44%	23%	79%	74%	66%
Tharaka Nithi	COP18	ScaleUp Sat	8,138	98%	75%	75%	89%	94%	90%
Tharaka Nithi	COP19	SCALE	7,061	64%	89%	134%	79%	77%	81%
Tharaka Nithi	COP20	SCALE	7,253	194%	163%	69%	88%	76%	83%
Tharaka Nithi	COP21	Scale-up: Saturation	7,563	105%	96%	78%	106%	102%	102%
Tharaka Nithi	COP22	Scale-up: Saturation	7,563	104%	176%	90%	105%	96%	100%
Trans Nzoia	COP15	ScaleUp Agg	12,968	48%			41%	72%	50%
Trans Nzoia	COP16	ScaleUp Sat	13,665	45%	36%	30%	45%	65%	52%
Trans Nzoia	COP17	ScaleUp Sat	13,280	41%	46%	26%	42%	65%	51%
Trans Nzoia	COP18	ScaleUp Sat	23,417	90%	71%	71%	71%	108%	90%

Trans Nzoia	COP19	REBOOT	23,663	80%	57%	82%	67%	70%	70%
Trans Nzoia	COP20	REBOOT	16,328	160%	42%	44%	44%	53%	52%
Trans Nzoia	COP21	Sustained	18,421	88%	49%	58%	64%	78%	72%
Trans Nzoia	COP22	Sustained	18,421	83%	61%	61%	60%	68%	66%
Turkana	COP15	ScaleUp Agg	6,205	36%			28%	34%	28%
Turkana	COP16	ScaleUp Agg	7,253	42%	90%	36%	22%	31%	32%
Turkana	COP17	ScaleUp Agg	7,212	42%	95%	36%	22%	30%	32%
Turkana	COP18	ScaleUp Agg	16,780	75%	131%	59%	52%	89%	75%
Turkana	COP19	REBOOT	19,188	84%	130%	83%	61%	70%	72%
Turkana	COP20	REBOOT	8,594	114%	21%	35%	33%	40%	39%
Turkana	COP21	Sustained	11,038	100%	26%	51%	57%	62%	60%
Turkana	COP22	Sustained	11,038	80%	23%	35%	39%	34%	38%
Uasin Gishu	COP15	ScaleUp Sat	27,444	81%			100%	142%	103%
Uasin Gishu	COP16	ScaleUp Sat	29,164	77%	78%	61%	99%	137%	109%
Uasin Gishu	COP17	ScaleUp Sat	29,244	79%	81%	44%	99%	141%	109%
Uasin Gishu	COP18	ScaleUp Sat	31,604	100%	97%	87%	101%	143%	118%
Uasin Gishu	COP19	SCALE	31,024	66%	73%	91%	87%	82%	82%
Uasin Gishu	COP20	SCALE	31,566	155%	59%	45%	54%	68%	63%
Uasin Gishu	COP21	Sustained	33,076	70%	62%	50%	69%	82%	74%
Uasin Gishu	COP22	Sustained	33,076	74%	90%	61%	78%	82%	80%
Vihiga	COP15	Sustained	12,685	87%			60%	83%	65%
Vihiga	COP16	Sustained	13,035	90%	63%	70%	56%	70%	67%
Vihiga	COP17	ScaleUp Sat	13,054	82%	64%	71%	56%	71%	67%
Vihiga	COP18	ScaleUp Sat	17,346	100%	71%	71%	71%	103%	90%
Vihiga	COP19	SCALE	15,426	69%	61%	84%	80%	92%	84%
Vihiga	COP20	SCALE	16,181	306%	77%	61%	75%	74%	79%
Vihiga	COP21	Scale-up: Saturation	18,509	129%	70%	84%	89%	106%	99%
Vihiga	COP22	Scale-up: Saturation	18,509	112%	85%	80%	73%	85%	82%
Wajir	COP15	Sustained Com	214	8%			51%	18%	17%
Wajir	COP16	Sustained Com	249	11%	65%	41%	31%	10%	19%
Wajir	COP17	Sustained Com	258	11%	68%	43%	32%	10%	20%
Wajir	COP18	Sustained Com	252	50%	27%	17%	13%	13%	20%
Wajir	COP19	GOK/TRANSITION							
Wajir	COP20	GOK/TRANSITION							
Wajir	COP21	Centrally Supported							
Wajir	COP22	Centrally Supported							
West Pokot	COP15	Sustained	2,173	42%			42%	63%	45%
West Pokot	COP16	Sustained	3,201	97%	166%	101%	41%	61%	67%
West Pokot	COP17	Sustained	3,523	89%	206%	113%	42%	71%	74%
West Pokot	COP18	Sustained	3,880	77%	173%	108%	67%	77%	81%

West Pokot	COP19	REBOOT	5,238	64%	165%	151%	73%	59%	75%
West Pokot	COP20	REBOOT	2,689	131%	31%	43%	44%	67%	58%
West Pokot	COP21	Scale-up: Aggressive	3,962	97%	52%	68%	91%	118%	101%
West Pokot	COP22	Scale-up: Aggressive	3,962	85%	50%	63%	74%	80%	76%

APPENDIX B – Budget Profile and Resource Projections

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

Table B.1.1 COP22 Budget by Program Area

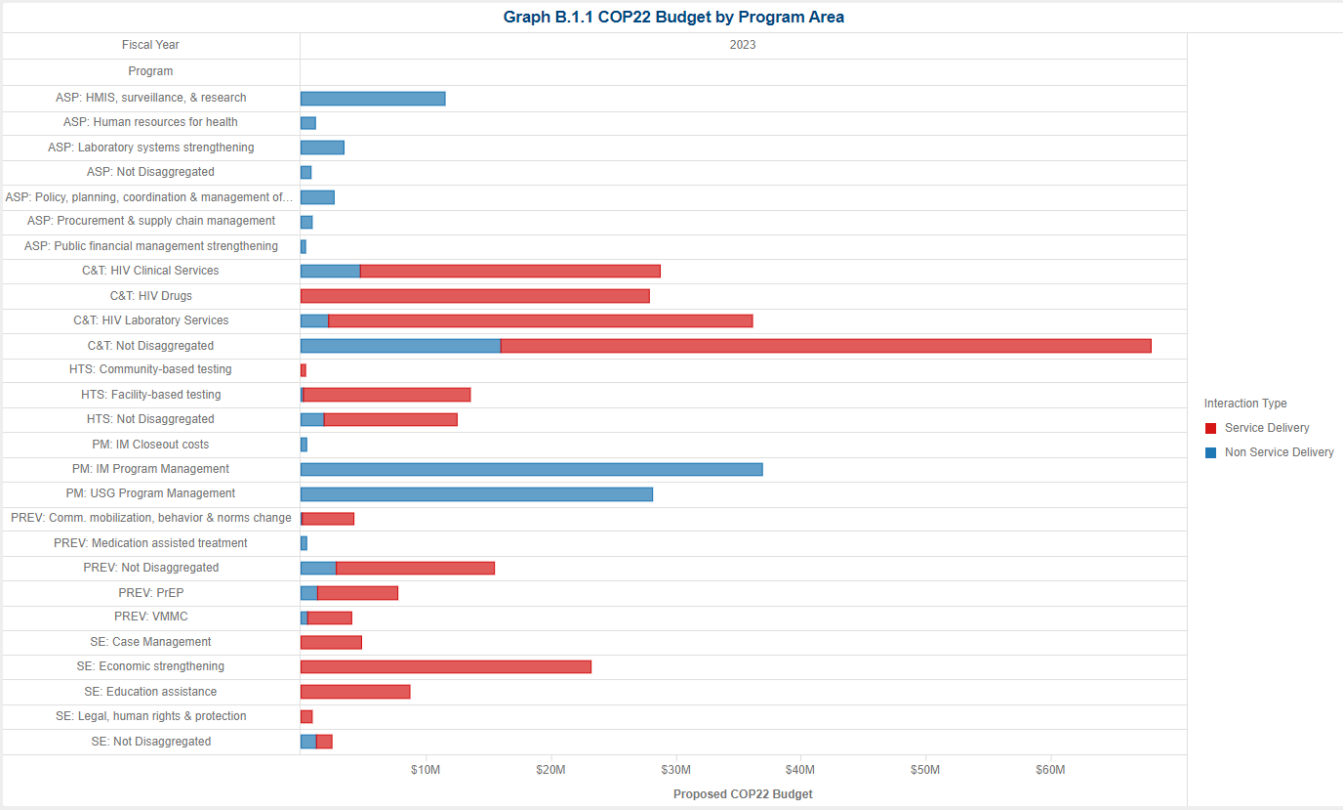


Table B.1.2 COP22 Budget by Program Area

Program	Metrics	Proposed COP22 Budget			Percent of Proposed COP 22 Budget		
	Sub-Program	Non Service Delivery	Service Delivery	Total	Non Service Delivery	Service Delivery	Total
Total		$117,611,894	$227,388,106	$345,000,000	34%	66%	100%
C&T	Total	$22,980,289	$137,579,872	$160,560,161	14%	86%	100%
	HIV Clinical Services	$4,782,485	$23,909,692	$28,692,177	17%	83%	100%
	HIV Drugs		$27,813,397	$27,813,397		100%	100%
	HIV Laboratory Services	$2,226,229	$33,862,772	$36,089,001	6%	94%	100%
	Not Disaggregated	$15,971,575	$51,994,011	$67,965,586	23%	77%	100%
HTS	Total	$1,990,741	$24,365,475	$26,356,216	8%	92%	100%
	Community-based testing		$313,988	$313,988		100%	100%
	Facility-based testing	$155,129	$13,379,137	$13,534,266	1%	99%	100%
	Not Disaggregated	$1,835,612	$10,672,350	$12,507,962	15%	85%	100%
PREV	Total	$5,158,705	$26,747,050	$31,905,755	16%	84%	100%
	Comm. mobilization, behavior & norms change	$94,131	$4,127,692	$4,221,823	2%	98%	100%
	Medication assisted treatment	$427,062		$427,062	100%		100%
	Not Disaggregated	$2,783,163	$12,671,393	$15,454,556	18%	82%	100%
	PrEP	$1,334,692	$6,395,873	$7,730,565	17%	83%	100%
	VMMC	$519,657	$3,552,092	$4,071,749	13%	87%	100%
SE	Total	$1,270,853	$38,695,709	$39,966,562	3%	97%	100%
	Case Management		$4,799,207	$4,799,207		100%	100%
	Economic strengthening		$23,167,578	$23,167,578		100%	100%
	Education assistance		$8,726,890	$8,726,890		100%	100%
	Legal, human rights & protection		$844,691	$844,691		100%	100%
	Not Disaggregated	$1,270,853	$1,157,343	$2,428,196	52%	48%	100%
ASP	Total	$20,838,537		$20,838,537	100%		100%
	HMIS, surveillance, & research	$11,545,252		$11,545,252	100%		100%
	Human resources for health	$1,118,703		$1,118,703	100%		100%
	Laboratory systems strengthening	$3,451,498		$3,451,498	100%		100%
	Not Disaggregated	$827,118		$827,118	100%		100%
	Policy, planning, coordination & management of disease control programs	$2,633,904		$2,633,904	100%		100%
	Procurement & supply chain management	$904,333		$904,333	100%		100%
	Public financial management strengthening	$357,729		$357,729	100%		100%
PM	Total	$65,372,769		$65,372,769	100%		100%
	IM Closeout costs	$404,000		$404,000	100%		100%
	IM Program Management	$36,888,901		$36,888,901	100%		100%
	USG Program Management	$28,079,868		$28,079,868	100%		100%

Table B.1.3 COP22 Total Planning Level

Table B.1.3 COP22 Total Planning Level			
Metrics	Proposed COP22 Budget		
Operating Unit	Applied Pipeline	New	Total
Total	**$7,583,639**	**$337,416,361**	**$345,000,000**
Kenya	$7,583,639	$337,416,361	**$345,000,000**

Table B.1.4 COP22 Resource Allocation by Program and Beneficiary

Table B.1.4: COP22 Resource Allocation by Program and Beneficiary															
Operating Unit	Metrics	Proposed COP22 Budget							Percent to Total						
	Beneficiary	C&T	HTS	PREV	SE	ASP	PM	Total	C&T	HTS	PREV	SE	ASP	PM	Total
Kenya	**Total**	**$160,560,161**	**$26,356,216**	**$31,905,755**	**$39,966,562**	**$20,838,537**	**$65,372,769**	**$345,000,000**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
	Females	$2,425,138		$12,853,910	$23,920,799	$40,247		**$39,240,094**	2%		40%	60%	0%		**11%**
	Key Pops	$9,165,978	$3,117,546	$10,653,178		$1,586,525		**$24,523,227**	6%	12%	33%		8%		**7%**
	Males		$587,102	$4,003,645		$43,350	$14,500	**$4,648,597**		2%	13%		0%	0%	**1%**
	Non-Targeted Pop	$140,551,927	$21,770,155	$3,639,730	$160,312	$18,982,382	$63,780,544	**$248,885,050**	88%	83%	11%	0%	91%	98%	**72%**
	OVC			$38,044	$15,885,451		$1,577,725	**$17,501,220**			0%	40%		2%	**5%**
	Pregnant & Breastfeeding Women	$8,417,118	$850,739			$186,033		**$9,453,890**	5%	3%			1%		**3%**
	Priority Pops		$30,674	$717,248				**$747,922**		0%	2%				**0%**

Figure B1: Budget by Funder, 2022

Total Budget: $777.4 million

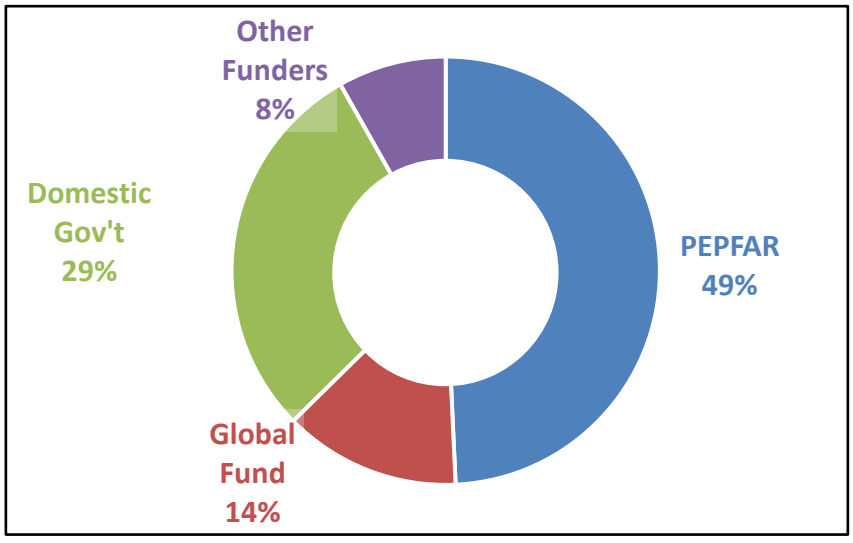


Figure B2: Trend in Total Budget by Funder, 2018-2023

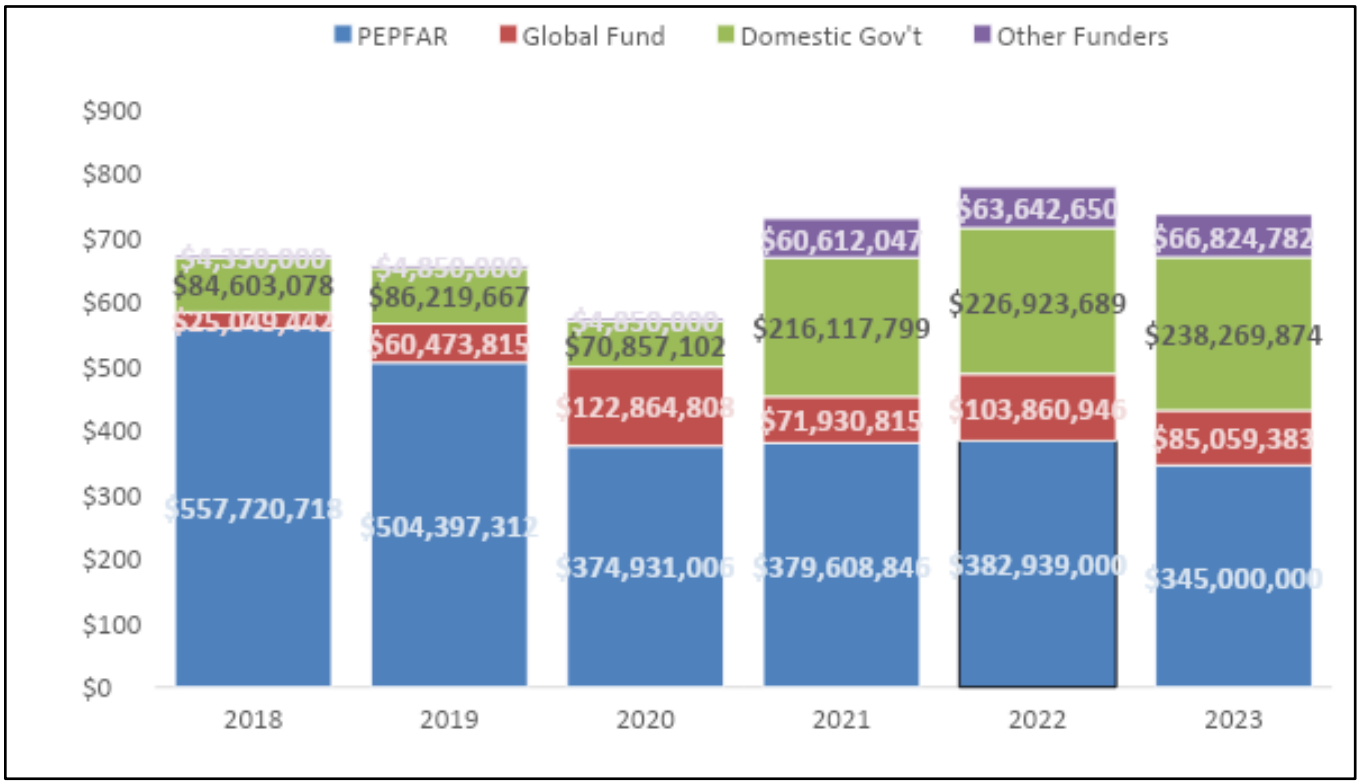
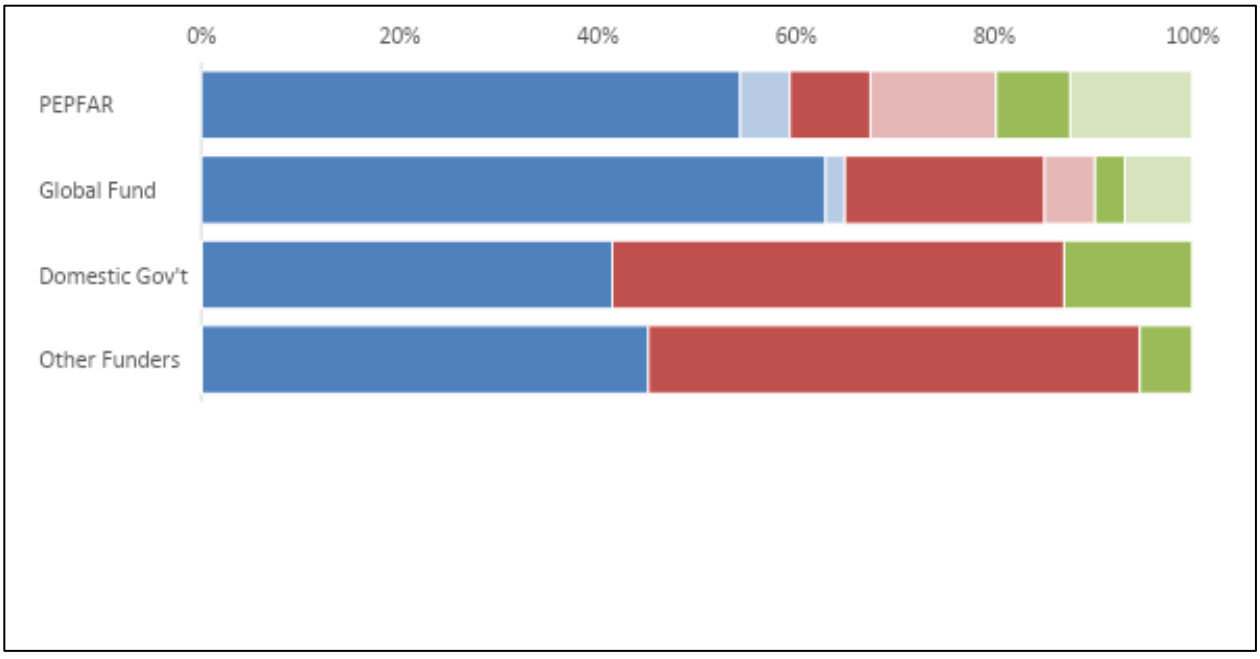


Figure C2: Budget Allocation by Funder, 2022



APPENDIX C – Tables and Systems Investments for Section 6.0

The Key Systems Barriers-E, Table 6-E tab, and SRE Tool-E tab of the Table 6 and SRE Excel workbook should be saved as a PDF and attached here in Appendix C.

The final Excel workbook should be considered a part of the SDS and submitted at the same time.

APPENDIX D– Minimum Program Requirements

Program	MPR	Progress
Care and Treatment	1. Adoption and implementation of Test and Start with demonstrable access across all age, sex, and risk groups, with direct and immediate (>95%) linkage of clients from testing to treatment across age, sex, and risk groups.[a]	Completed
	2. Rapid optimization of ART by offering TLD to all PLHIV weighing ≥35 kg (including adolescents and women of childbearing potential), transition to other DTG-based regimens for children weighing ≥20kg, and removal of all nevirapine-based regimens.[b]	Optimization of adult regimens to TLD is virtually complete. Optimization to DTG for children <20kg has been slow because of the requirement of a viral load before change of regimen. All nevirapine based regimens have been removed.
	3. Adoption and implementation of differentiated service delivery (DSD) models, including six-month MMD/MMS and delivery models to improve identification and ARV coverage of men and adolescents.[c]	New guidelines to be released in July 2022 incorporate 6-month MMD/MMS for stable clients and to extend MMD to children, adolescents, PBFW, and clients. Commodity insecurity during 2020/2021 seriously affected MMD uptake. The 2022/2023 supply chain plan, which includes replenishing of a 6 month buffer at national level, should improve MMD.
	4. All eligible PLHIV, including children, should complete TB preventive treatment (TPT) by end of COP21, and co-trimoxazole, where indicated, must be fully integrated into the HIV clinical care package at no cost to the patient.[d]	Kenya is meeting this requirement. It has a policy in place and implementation in progress with over 90% of all PLHIV in care and treatment having been initiated on TPT. In COP21, the country will focus on ensuring capacity within the GOK to mop up the remaining cohort of PLHIV eligible for TPT, ensuring improved documentation, reporting, and strengthening of pharmacovigilance. The country will also focus on finalization of policy change and guidelines and introduction of 3HP.
	5. Completion of Diagnostic Network Optimization activities for VL/EID, TB, and other coinfections, and ongoing monitoring to ensure reductions in	This is ongoing. Ministry of Health has successfully completed VL/EID optimization activities (e.g., testing, receipt of results,

	morbidity and mortality across age, sex, and risk groups, including 100% access to EID and annual VL testing and results delivered to caregiver within 4 weeks.	networks) and ongoing monitoring to ensure reductions in morbidity and mortality across age, sex, and risk groups.
Case Finding	1. Scale up of index testing and self-testing, ensuring consent procedures and confidentiality are protected and assessment of intimate partner violence (IPV) is established. All children aged <19 years with an HIV positive biological parent must be tested for HIV.[e]	This policy is done. Implementation is in progress. Kenya HTS guidelines (reprint 2016) include index testing as a promising modality. In addition, Kenya launched *HIV Self-Testing and Assisted Partner Notification Services* guidance document in 2019 that emphasizes implementation of the 5Cs of testing and principles of index testing (pg. 49-50). Kenya is developing an enhanced guidance document for index testing that includes consent procedures emphasizing confidentiality and enhanced monitoring of intimate partner violence (IPV). The draft language is to be included in a Ministry of Health circular to all counties and health facilities on scaling up index testing with fidelity and safeguards. This language was discussed and agreed upon with GOK representatives on March 5, 2020 at the Johannesburg COP meeting.
Prevention and OVC	1. Direct and immediate assessment for - and offer of -prevention services, including pre-exposure prophylaxis (PrEP), to HIV negative clients found through testing in populations at elevated risk of HIV acquisition (PBFW and AGYW in high HIV-burden areas, high-risk HIV negative partners of index cases, KP and adult men engaged in high-risk sex practices*).* [f]	Kenya has adopted and plans to offer combination prevention services including HIV prevention and is in the process of establishing prevention centers for community education, assessment, and provision of prevention services including PrEP and referral. The national AART policy guidelines developed in 2016 provides for the provision of PrEP to any individual who is at substantial risk of acquiring HIV regardless of population, provided they meet the eligibility criteria. The guidelines provide for PrEP provision both at the community and in health facilities. Via COP21, Kenya is expanding the provision of PrEP by integrating service provision into the key service provision areas among highly vulnerable populations. Using targeted HTS as a platform, clients will be screened and

		tested and the vulnerable sero-negative individuals evaluated for suitability and offered PrEP. Specific targets have been allocated in COP21 for the most vulnerable populations including MNCH and KP clients in addition to the discordant and AGYW populations. Kenya has conducted a study on the provision of PrEP in MNCH to PBFW and important lessons were learnt. Services will be scaled up in 2020 to achieve integration. A combination prevention will be followed to allow for choice and fidelity.
	2. Alignment of OVC packages of services and enrollment to provide comprehensive prevention and treatment services to OVC aged 0-17 years, with particular focus on 1) actively facilitating testing for all children at risk of HIV infection; 2) facilitating linkage to treatment and providing support and case management for vulnerable children and adolescents living with HIV; 3) reducing risk for adolescent girls in high HIV-burden areas and for girls and boys aged 9-14 years in regard to primary prevention of sexual violence and HIV.	Kenya is addressing the requirement of ensuring that all the eligible OVC sub populations are identified, assessed, offered opportunity for enrolment, and served with an appropriate package of comprehensive and preventive services. Family-centered case management and tracking of graduation benchmarks will continue. With the revision of case management tools, in FY 22 Q2, Kenya will ensure that the distinct, comprehensive package of services for vulnerable families with known risks as well as preventive services are implemented. COP22 will further support Kenya facilitating access to HTS for at-risk OVC, ensuring those who are HIV positive are linked to treatment, monitoring adherence and viral suppression (including that of HIV positive caregivers with sub-optimal continuity of treatment as a safeguard for children). With clear SOP, reporting tools and continued sensitization: identification, referrals and service delivery to PBF AGYW will be intensified through PMTCT OVC collaboration, Kenya is also focused on primary prevention of HIV and violence targeting pre-and adolescent boys and girls aged 9-14 years with interventions that prevent violence,

		delay sexual debut and prevent HIV, using evidence-based materials that also target families and communities.
Policy and Public Health Systems Support	1. Elimination of all formal and informal user fees in the public sector for access to all direct HIV services and medications, and related services, such as ANC, TB, cervical cancer, PrEP and routine clinical services, affecting access to HIV testing and treatment and prevention.[g]	All HIV, TB and related services are free in all public health facilities. Under the UHC roll out, this will be extended to include more services in all public health facilities.
	2. OUs assure program and site standards are met by integrating effective quality assurance and Continuous Quality Improvement (CQI) practices into site and program management. CQI is supported by IP work plans, Agency agreements, and national policy.[h]	Kenya has institutionalized QM systems, plans and workforce capacities to ensure continuous program and service delivery QI. While the health ministry now has a national QA framework to guide implementation, cascading and sustaining gains to county level for service delivery and laboratory QA systems remains an area of focus. The IPs will support HIV/AIDs related CQI activities through their workplans, similarly the same will be incorporated in county MOU documents.
	3. Evidence of treatment and viral load literacy activities supported by Ministries of Health, National AIDS Councils and other host country leadership offices with the general population and health care providers regarding U = U and other updated HIV messaging to reduce stigma and encourage HIV treatment and prevention.	This is an activity that is in progress and has been prioritized in COP21. PEPFAR has had discussions with Ministry of Health through NASCOP and NACC, and CSOs through NEPHAK, on how to continue supporting this activity. The priority activities are demand creation and provision of IEC materials across the counties. PEPFAR Kenya has set aside resources through the Ministry of Health COAG to support these activities in this COP.
	4. Clear evidence of agency progress toward local, indigenous partner direct funding.	Agencies are working toward awarding more agreements and contracts to local partners for service delivery and systems strengthening. This is reflected in the new awards and designs for the various agencies. Discussions are on course to have the county governments receive direct funding to implement specific activities.
	5. Evidence of host government assuming greater responsibility of the HIV response including demonstrable	Kenya's contribution as part of its Global Fund (GF) counterpart-financing (CPF) requirement for procurement of ARVs and

	evidence of year-after-year increased resources expended.	test kits was $26.4 million in KFY 2019/20 but this has declined to $19.2 million in KFY 2022/23 . The health sector continues to rely on donors to finance procurement of HIV commodities. Donors account for approximately 69 percent of HIV financing but this level of support has been declining over years without the government filling the gaps left by decreases in Donor funding. The Government finances only 19 percent of ARVs procurement but budget execution for CPF remains low (70 percent)

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

1. Misalignments between Investments and Outcomes

Moving towards long-term sustainability requires that investments in the HIV response contribute to improvements in the systems and capacities that are critical to achieving and maintaining epidemic control. To support country teams' assessments of areas where there may be misalignments between these investments and intended outcomes, S/GAC's Office of Financial and Programmatic Sustainability has provided country teams with a set of illustrative analytics drawing on the various sustainability-focused tools and initiatives that are already available to countries. These will include the following:

- ***Program Expenditures vs. SID Score Trends and Responsibility Ratings:***

In Figure E 1.1 below, trends in systems-related (above site programs) expenditures have been compared with changes in relevant SID scores to demonstrate where cumulative investments in these areas may have contributed to improvements in SID scores over time for Kenya.

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

Responsibility Matrix ratings from the 2021 country engagement also show the degree of functional responsibility that each major funder (i.e., Partner Government, Private Sector, PEPFAR, or Global Fund) has for each investment area, and where there may be opportunities to transition to greater domestic responsibility. Figure E 1.2 shows the percent primary responsibility ratings between the GOK and Kenya. Notably, for Kenya's investment and degree of functional responsibility, the following are key areas that warrant further discussions as per the stakeholders:

- Support to private sector including FBO need to be clarified and ensure that there is no duplication based on support from GF or PEPFAR. This should be clearly distinct to ensure that there is no under reporting by the Private Sector.

- Under strategic information, GOK plays a key role and should be considered as primary; however, for the other section, other contributing factor such as coverage, funding should apply.
- Some areas have all entities with primary responsibility i.e., self-testing and testing at pregnancy related visits.
- Meds is an FBO that is contacted by USAID for supply chain management of HIV commodities. If considered separately, there will be duplication.
- Relook at the private sector level of responsibility under service delivery.
- Challenges in categorization of staff as clinical, ancillary, site level and other staff. The understanding of the categorization was not very clear. Some of the staff are not in GOK scheme of service. In some areas, it is indicated as salary and benefits, yet stipend is what is paid i.e., community health volunteers, peer educators etc.
- GOK, PEPFAR, GF and Private sector to provide the number of health workforce under clinical, ancillary, site level and other staff.
- Under above site programs, other system support was not very clear. The team needed clarity and agreed to indicate N/A until further guidance is provided.
- Local manufacturing should be considered as capacity and should be moved under non-service delivery section however this is not primary but contributes.

Below are the summaries from the RM ratings:

1. **Care and treatment excluding ART and Health workforce**
   a. **Service delivery**
      - The host government provides infrastructures and other investments in the provision of HIV care and treatment.
      - PEPFAR provides substantial support in HIV service delivery at facility level in the 40 counties. The support goes towards clinical interventions at site level (clinician, nursing), laboratory (viral load and EID), community (adherence support, defaulter tracing), TB/HIV through the implementing partners.
      - Private sector including faith sector provides supports to government efforts. The number of PLHIV seeking care and treatment from private sector is minimal. Source of funding to support this mainly comes from PEPFAR and GF.
      - Global Fund support GOK efforts in the fights against HIV/AIDS with substantial support under community (linkage, retention, and adherence), TB/HIV.

   b. **Non-service delivery**
      - GOK plays a key role in mentorship, capacity building and supervision.
      - PEPFAR provides substantial support in capacity building, mentorship, and supervision.

   c. **Strategic formulation and planning**
      - The government takes the lead role, PEPFAR as a stakeholder's provides technical input.
      - GF provides financing support for the guideline and work with GOK in defining the strategic directions.

2. **HIV testing services**
   a. **Service delivery**
      - Host Government plays a key role in HIV testing services.
      - PEPFAR, GF also play a key role in HIV testing.
      - Private sector including the FBO run programs to mobilize HIV testing and outreach. services. Most private facilities have self-test that the public can buy and utilize to know their HIV status.

b. Non-service delivery

- GOK plays a key role in mentorship, capacity building and supervision.
- PEPFAR provides substantial support in capacity building, mentorship, and supervision.
- Global Fund also plays a key role in capacity building, mentorship, and supervision.
- Private sector provides a secondary role.

c. Strategic formulation and planning

- Similar to care and treatment above

3. Prevention

a. Service delivery

- GOK plays a primary role in prevention of HIV.
- The private sector mainly plays a secondary role since they can mobilize the communities to provide preventive services including adolescent friendly services.
- PEPFAR plays a primary role in most of the preventive services except condom and lubricant.
- Global Fund provides support in HIV prevention especially around AGYW, condom programming and community mobilization with minimal role under PrEP.

b. Non-service delivery

- PEPFAR plays a key role in prevention under the DREAMS program.
- GF plays a key role under HIV prevention especially for GYW.

c. Strategic planning

- GOK and GF play a primary role while PEPFAR and Private sector plays a secondary role.

4. Key and priority population

Service delivery.

- GF provides substantial preventive services for MSM, FSW and PWID and secondary role for trans gender since this is a new area. They also play a secondary role in GBV and none for OVC.
- There is substantial support from PEPFAR towards prevention services across target populations such as MSM, FSW, PWID, Trans gender and OVC. They also provide substantial support for GBV programming.
- Private sectors provide services to key populations that compliments GOK efforts however they do not provide services for OVC.

Strategic planning

- GF and PEPFAR plays secondary role.

5. Commodities

ARVS, consumables, medicines, laboratory, health equipment and PSM.

- The Government contributes substantially amount in the procurement of MAT, TB medicines, CD4 and essential medicines.
- Private sector plays a nominal role in the procurement of most of the HIV commodities including supply chain management and capacity building.
- PEPFAR provides substantial support towards ARVs for treatment, PrEP, self-test kits, male circumcision, viral load and VL reagents. PEPFAR does not procure condoms, CD4 and MAT commodities.
- GF substantial support goes towards ARVs for treatment, condoms, rapid test kits, MAT, TB medicines and other laboratory reagents.

Non-service delivery

- Consideration includes forecasting and quantification, procurement supply chain management system, reporting, training, supervision, and capacity building. These were considered to indicate the level of responsibility.

6. Health workforce

a. Service delivery

- GOK plays a primary role in salary and benefit and a secondary role in training and supervision however there is no policy on salary top up and as such this does not apply under GOK.
- For private sector, all aspects of human resources have been classified as none but it is an area that need to be relooked at keenly to ensure that there is no under reporting.
- GF provides substantial support under human resource. In some instance, GF has a primary and secondary role based on the cadre of health workforce however they do not support salary top up.
- PEPFAR plays primary or secondary role under health workforce however they do not pay salary top up therefore this was rated none across all cadres.

b. Non-service delivery

- The non-service delivery area under health workforce was also confusing however the team. agreed to look at the various cadres who provide non-service delivery i.e., clinical staff who provide non-service delivery.

c. Strategic formulation and planning

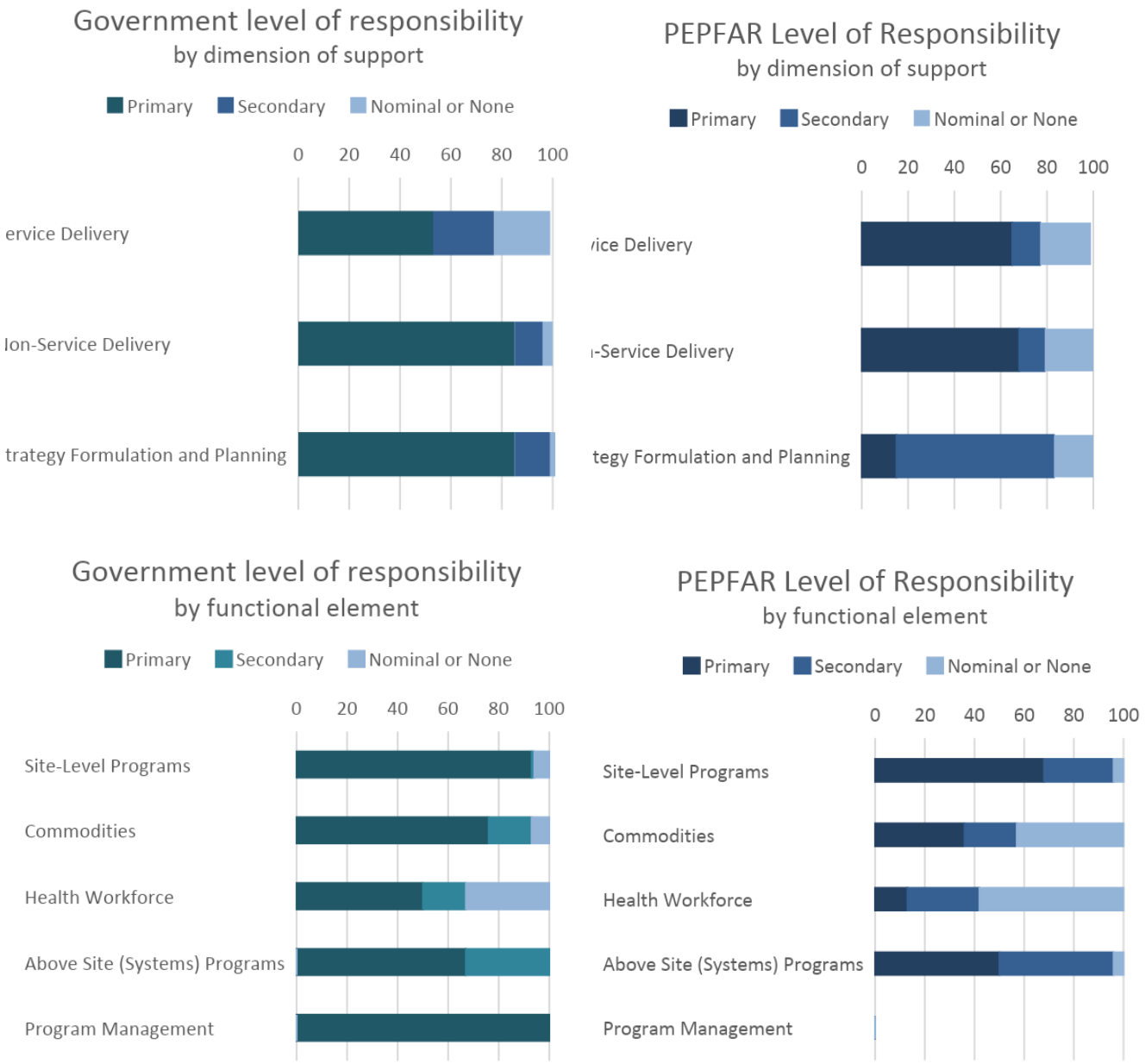
- The area was also confusing but the team agreed to include the staff who support strategic formulation and planning. Based on this, GOK plays a primary role for salary and benefits and training while PEPFAR, private sector and GF play either nominal or do not play a role.

7. Above site programs

- GOK plays a primary role in preservice training and in service training.
- Sample transport system is mainly supported by GF and PEPFAR, GOK plays a secondary role but does not provide substantial support for this intervention.
- Health financing – most of the funding for HIV come from donors however GOK plays a role.
- PHIA and IBBS have been supported by donors mainly GF and PEPFAR, but GOK plays a critical role to ensure that the surveys take place.

Trends in systems-related (above site programs) expenditures will be compared with changes in relevant SID scores to demonstrate where cumulative investments in these areas may have contributed to improvements in SID scores over time.

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



- ***Trajectory of Service Delivery, Commodities, Non-Service Delivery, Above Site Program, and Program Management Expenditures and Country's Status of Achieving HIV/AIDS Epidemic Control:***

Trends in service delivery, commodities, non-service delivery, above site program, and program management spending by country's status of HIV/AIDS epidemic control helps understand how investments are being strategically done and where there is a need for optimization based on program priorities and needs. As countries approach epidemic control and response programs mature to a level needed to sustain their achievements, the overall level of NSD spending (on activities such as training, supportive supervision, mentorship, etc.) should stabilize and potentially decrease.

Figure E.1.3. Assessing Kenya's PEPFAR Expenditure Trends by Interaction Type and Epidemic Control Status.

The first chart is based on actual expenditures across the different components while the second chart shows proportions.

Year	Service Delivery (incl. Commodities)	Non-Service Delivery	Above Site	Program Management	1st 95 (Known Status)	2nd 95 (On ART)	3rd 95 (Virally Suppressed)
2018	$219,390,308	$84,807,775	$48,542,471	$84,013,965	92%	76%	69%
2019	$282,459,322	$69,511,967	$36,802,474	$76,810,038	92%	77%	71%
2020	$200,941,545	$46,617,880	$16,382,004	$49,777,714	92%	78%	73%
2021	$230,082,384	$42,299,247	$19,553,531	$48,421,743	92%	78%	75%