India Country Operational Plan
COP 2016
Strategic Direction Summary

July 5, 2016

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Goal Statement

Since the Fourth NACP began in 2012, India has achieved steady reductions in new HIV cases (for both males and females) and a national estimated prevalence of 0.26% (NACO2015), compared with 0.28% in 2012 and 0.38% in 2001-03. Over the course of a decade, the Government of India has largely displaced external funding, increasing annual allocations to the National AIDS Control Organization (NACO) to the point where it now comprises more than 80% of total HIV/AIDS program funds. Further, Government of India (GOI) leadership has embraced the Global 90-90-90 targets (90 percent of people living with HIV diagnosed, 90 percent of those diagnosed on anti-retroviral treatment, and 90 percent of those on treatment are virally suppressed) by 2020.

The goal of the PEPFAR program in India is to provide technical assistance to the Government of India's HIV program in order to achieve epidemic control, supporting the development and implementation of sound policies and improvements to the overall quality of the HIV response. This is accomplished both through strategic support at the national level and through targeted activities to close the implementation gap between national policy and on-the-ground results.

Targeted activities are conducted in geographic pockets of high HIV burden and unmet need to improve the continuum of care and the systems that support it. PEPFAR India recognized the need for accelerated epidemic control in areas of high unmet need. In COP 2015, districts within the states of Andhra Pradesh, Maharashtra, as well as Manipur, Mizoram, and Nagaland (the North-East Cluster) were identified as geographic priorities. Proven field-level interventions here will then inform activities to address implementation and systems gaps at the National level, as has been done successfully by PEPFAR in the past. One example would be the PEPFAR-funded development of the Targeted Interventions Program (TIs) for Key Populations (KPs), which was scaled up by government. Another example is the District AIDS Prevention and Control Units (DAPCUs), developed with PEPFAR support to establish district-level coordination for the HIV/AIDS response. This model has since been scaled up to 200 high burden districts across the country.

Over the last several years, PEPFAR's support has been leveraged at the national level in order to inform health systems for HIV/AIDS, allowing for impact on a larger scale. For example, PEPFAR technical support for Strategic Information has gained widespread support from NACO for a unified system of data management across all aspects of the HIV/AIDS program. Continuing national level support not only influences policy decisions, but will also ensure sound program quality at all levels of the program. When married with site-level implementation, this bridges the implementation gaps to assist the program in achieving 90-90-90 by 2020.

COP 2016 will work in these priority areas to ensure activities continue to be directed to the right people, in the right places, in the right way. Guided by these approaches, our goal within COP 16 rests on two major components:

1. Improve the national response by providing TA to strengthen critical components at the central, state and district level to reach the three 90s.
2. Improve the HIV service cascade in the clusters[1], especially among the key drivers[2] of the epidemic (targeting 80% ART coverage among PLHIV in the clusters):
    a. To improve identification of PLHIV
    b. To shorten the timeframe to get PLHIV on treatment
    c. To increase adherence on treatment to achieve viral suppression

Below, please see our Strategic Framework, which elaborates on the PEPFAR India Strategy.

[1] Based on epidemiology, PEPFAR India identified three districts in Andhra Pradesh (East Godavari, Guntur and Krishna), and three districts in Maharashtra (Mumbai, Pune and Thane) representing the highest burden of PLHIV in the respective state. The three districts in each state represent a priority cluster, as referred to in the rest of the document. The three states with the highest prevalence of HIV, Manipur, Mizoram and Nagaland identified as the third cluster.

[2] The drivers of the epidemic in the Andhra Pradesh and Maharashtra clusters are Key Populations (Female Sex Workers, Men Who Have Sex with Men, Transgendered individuals, and Persons Who Inject Drugs) and those at higher risk (sero-discordant, partners and children of PLHIV, TB and STI patients). In the Northeast cluster, the drivers of the epidemic are PWID.

PEPFAR India Strategic Framework

Above site-level TA

Cross-cutting above-site level TA
- Support development and roll-out of guidelines and policies
- Strengthen information systems, data management and data use
- Address stigma and discrimination to reduce barriers to prevention, testing, care, and treatment
- Review the results of pilots with NACO and SACS for potential national roll-out, provide technical support for expansion of proven approaches

Above-site level TA: First 90
- Strengthen technical and organizational capacity of existing structures (SACS, DAPCUs, TSUs)
- Strengthen quality systems at testing and screening sites
- Increase linkage to HIV testing and screening for KPs and TB presumptive cases

Above-site level TA: Second 90
- TA for policy implementation of test and start for priority populations
- Increase capacity of health staff to utilize data to address gaps in retention and adherence
- Lab capacity building and quality improvement

Above-site level TA: Third 90
- Strengthen quality systems at labs
- Catalyze viral load (VL) testing and gradual scale-up

Cluster Level (on-site & off-site)

Site-level: First 90

Gaps
Unknown Status

Key approaches
- Find missing KPs (hotspot analysis, Peer navigation, Snowballing, Contact tracing, Risk elicitation)
- Use technology to reach mobile KPs & their networks

Gaps
Low yield

Key Approaches
- Pilots (real-time monitoring, CBT)
- KP Friendly services
- Never-tested & young KPs
- Reaching people at higher risk (Sero-discordant, partners and children of PLHIV, STI & TB patients)

Site-level: Second 90

Gaps
Weak linkages

Key approaches
- Pilots (Test & Start, task-shifting, real time cascade monitoring)
- TA for implementing ART initiation
- Optimize same day ART initiation
- Prevention with positives

Gaps
Quality of care for adherence

Key approaches
- Mentorship of ART centers staff
- Patient support networks to improve adherence
- Strengthen linked ART centers (LACs) for decentralized care
- Use technology to increase adherence

Site-level: Third 90

Gaps
Weak retention

Lack of scale of VL

Key approaches
- Patient support networks to improve adherence
- Scale-up VL testing through Public Private Partnerships
- Mentor clinical staff in use of VL for optimizing clinical care

Gaps
Inadequately trained lab staff

Key approaches
- On-site mentoring
- Capacity strengthening

1.0 Epidemic, Response, and Program Context

1.1 Summary statistics, disease burden, and epidemic profile

HIV Summary Statistics

India currently has an estimated total population of 1.3 billion[3]. As of 2015, 0.26% of the adult population (15-49 years), or 2.12 million people, were living with HIV.[4] Just over two percent of all deaths, or 68,000 deaths per year, were attributed to AIDS[5]. TB causes approximately 25% of deaths of all HIV positive persons in India. India has the third largest number of people living with HIV in the world, and contributes to 6% of new HIV infections, 8% of HIV deaths, and 10% of HIV-TB co-infected individuals.[6] Epidemic control in India is crucial to achieve global 90-90-90 targets by 2020.

Epidemic Profile

India has achieved substantial progress in reducing the spread of HIV, with an overall reduction of 32% in new infections between 2007 and 2015 (Chart 1.1.2). Although the overall HIV prevalence in India is 0.26%, higher prevalence is found among key populations: 2.2% in FSW, 4.3% in MSM, 8.8% in TG, 9.9% in PWID. Program data from PEPFAR programs has demonstrated positivity rates of 45% in spouses of PLHIV[7] and 7% in children of PLHIV tested for HIV[8]. The estimated populations of KPs are not particularly large in comparison with the other high risk populations, but are known to be key drivers of the epidemic.

There is substantial geographic variation in the epidemiology of HIV in India, with greatest estimated PLHIV burdens in Andhra Pradesh/Telangana (AP)[9] (395,000) and Maharashtra (MH) (301,000). Together, these two states account for 33% of total estimated PLHIV. According to the 2015 HIV Estimations report, Manipur has the highest estimated adult HIV prevalence at 1.15%, followed by Mizoram (0.80%), Nagaland (0.78%) and AP (0.66%). Only seven states[10] are seeing

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[3] Note that World Bank (2014) and WHO (2015) estimate the current population of India at 1.3 billion people, but for calculating estimations and targets, the National AIDS Control Organisation uses 1.2 billion, or the population as determined in the 2011 Census.

[4] India HIV Estimations 2015, NACO

[5] NACO Technical HIV Estimates, 2015

[6] UNAIDS Gap Report, 2013

[7] Journal of Clinical and Diagnostic Research, April 2012, Vol 6(2):195-197 Profile of the patients who attended who attended the Integrated Counseling and Testing Center in a teaching hospital of Rajasthan.

[8] Programmatic data in the OVC program over the past 22 months in Andhra Pradesh, Karnataka and Maharashtra.

[9] Andhra Pradesh was split in 2015 into the states of Andhra Pradesh and Telangana. In this document we will refer to statistics for both states together as collected information for these states has not yet been disaggregated.

[10] Assam, Chandigarh, Delhi, Jharkhand, Punjab, Tripura, and Uttarakhand

rising trends in HIV prevalence in contrast to declining or flat-lined prevalence in the rest of the country. More than a third of the estimated ART need is in the states of AP and MH.[11]

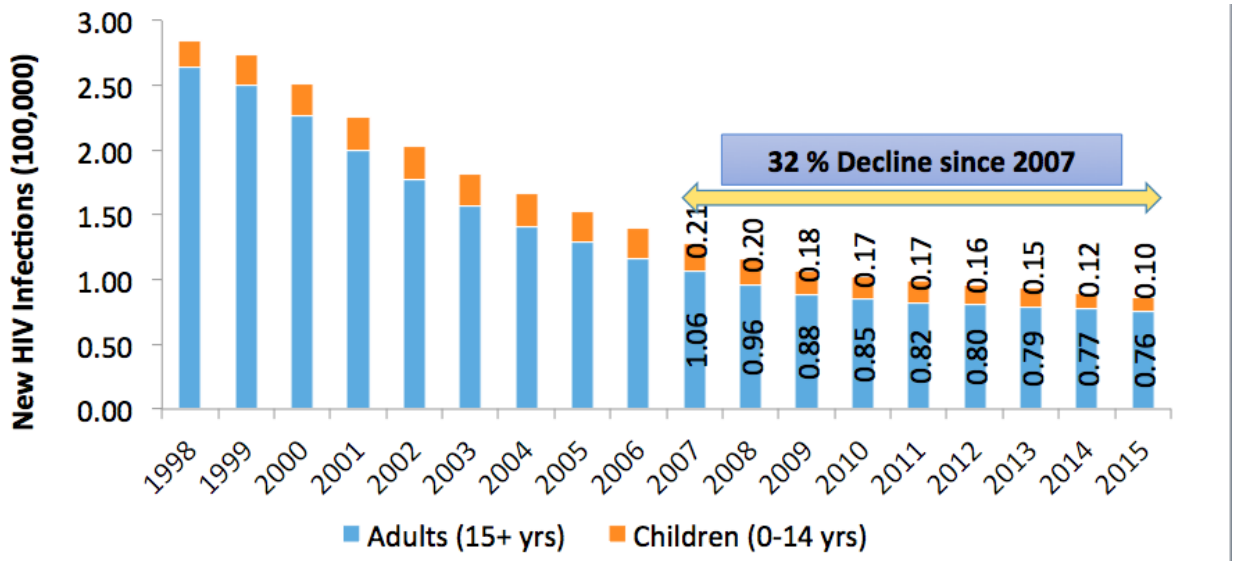
[11] India HIV Estimations 2015, NACO

Table 1.1.1 Key National Demographic and Epidemiological Data											
	Total		<15				15+				*Source (Year)*
			Women		Men		Women		Men		
	N	%	N	%	N	%	N	%	N	%	
Total Population	1,295,291,543	1	78,919,053	.061	370,561,377	.286	407,546,473	.315	438,264,640	.338	World Bank (2014)
HIV Prevalence (%)		.26						.22		.30	India HIV Estimations (2015)
AIDS Deaths (per year)	67,612		7,526				60,086				India HIV Estimations (2015)
# PLHIV	2,116,581		1,38,456				19,78,125				India HIV Estimations (2015) – 1,260,094 men; 856,487 women
Incidence Rate (Yr)		n/a		n/a		n/a		n/a		n/a	
New Infections (Yr)	86,309		10,361				75,948				India HIV Estimations (2015)
Annual births (Total deliveries)	20,235,73125, 595,200										Health and Family Welfare Statistics in India, 2015 .
% of Pregnant Women with at least one ANC visit (data is for % of Pregnant Women with at least three ANC check ups to total ANC registered)	22,053,687	77.2%									Health and Family Welfare Statistics in India, 2015
Pregnant women needing ARVs	35,255	0.35%									India HIV Estimations (2015)
Orphans (maternal, paternal, double)	*No data*										
Notified TB cases (Yr)	1,683,915										Global Tuberculosis

											Report 2015
% of TB cases that are HIV infected	44,171	5%									WHO Global Tuberculosis Report 2015. Data is for HIV positive incident TB cases.
Estimated Population Size of MSM*	357,000										NACO Annual Report, 2014-15;
MSM HIV Prevalence		4.4									India National Integrated Biological and Behavioural Surveillance (IBBS) (2014-15)
Estimated Population Size of FSW	868,000										NACO Annual Report, 2014-15; State HIV Epidemic Factsheet, July 2014: 2011 data
FSW HIV Prevalence		2.2									India National Integrated Biological and Behavioural Surveillance (IBBS) (2014-15)
Estimated Population Size of PWID	177,000										NACO Annual Report, 2014-15;
PWID HIV Prevalence		9.9									India National Integrated Biological and Behavioural Surveillance (IBBS) (2014-15)
Estimated Population Size of TG	70,000										NACO Annual Report, 2013-14; State HIV Epidemic

											Factsheet, July 2014: 2011 data
TG HIV Prevalence		8.8									NACO Annual Report, 2014-15;
Estimated Size of Priority Populations (Truckers)											
Estimated Priority Populations Prevalence (Truckers)		2.59									NACO Annual Report, 2014-15;
Estimated Size of Priority Populations (Single Male Migrants)											
Estimated Priority Populations Prevalence (Single Male Migrants)		0.99%									NACO Annual Report, 2014-15;
**If presenting size estimate data would compromise the safety of this population, please do not enter it in this table.*											

Chart 1.1.2: New HIV Infections in Adults and Children



	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total	1.28	1.16	1.07	1.02	0.99	0.96	0.93	0.89	0.86

Source: Technical Report India HIV Estimates 2015, NACO & NIMS

India is characterized as having a concentrated epidemic driven by infections among KPs. The recent Integrated Biological Behavioral Survey (IBBS, 2014-15) indicates a continued high prevalence among KPs, with a decline across FSW[12], steady state among MSM[13], and an increase among PWID[14]. Prevalence among FSW and MSM is higher in AP and MH than the national average, and prevalence among PWID was highest in Manipur, Mizoram and Nagaland. Prevalence data for TGs, migrants, and truckers have not been released for the current round of IBBS, but previous prevalence rates were, respectively, at 8.8%, 0.99%, and 2.59%.[15]

Sexual transmission is estimated to account for nearly 90% of new infections in India (88.7% heterosexual, 1.3% homosexual), though due to stigma associated with homosexuality, MSM data may be underreported. While injection drug use is the primary route of transmission in northeastern states, it accounts for only 1.6% of transmission nationally. Over 5% of new cases of HIV are acquired through perinatal transmission and 1% through receipt of infected blood and blood products.[16]

[12] FSW prevalence decreased from 2.6% to 2.2%
[13] MSM prevalence was 4.43% in the prior BSS, 4.3% in the current IBBS
[14] PWID prevalence was 7.14% in prior BSS estimates, 9.9% in the current IBBS
[15] ibid
[16] NACO Annual Report 2011-12

Current National Progress towards Epidemic Control

The GOI has achieved substantial progress in containing the spread of HIV, with a 32% decline in new infections since 2007.[17] The National AIDS Control Organisation (NACO), within the Ministry of Health and Family Welfare (MoHFW), is currently implementing its fourth National HIV/AIDS Control Programme (NACP-IV; 2012-2017), and will soon begin planning for NACP-V. The main priorities for NACP-IV are: 1) intensifying and consolidating prevention services with a focus on HRGs and vulnerable populations; 2) expanding IEC services for the general population and HRGs; 3) comprehensive care, support and treatment; 4) strengthening institutional capacity; and 5) strategic information management systems.

With Prime Minister Modi's commitment to work towards achieving the Sustainable Development Goals (SDG) by 2030, India is poised to accelerate epidemic control. India already has a proven track record in reaching targets for universal access to treatment under the Millennium Development Goals. Minister Nadda reaffirmed the need to adopt the UNAIDS Fast-Track targets at the recent UN General Assembly meeting on HIV/AIDS.

Despite this high level commitment, India's adoption of WHO guidelines for Test and Start and pre-exposure prophylaxis (PrEP) still faces multiple barriers. First, budgets for implementation of these policies were not included in either the NACP-IV, or the 2016 or 2017 budgets. *[REDACTED].* Once financial support is achieved, service delivery sites will need to be established and strengthened to support the increase in PLHIV accessing services. Staff numbers will need to be increased, training facilitated, and task shifting considered in order to provide quality care and support to patients, as well as to support increased reporting, in the face of existing vacancies occurring at all levels.

PrEP has also been a discussion point for NACO, and they recently initiated a pilot for FSWs in Karnataka, and another in West Bengal is being explored. The GOI has made progress on enhancing service delivery models, with pilots for task shifting, spacing clinic visits for stable patients in LAC/LAC+ to every six months and dispensing prescriptions for 2-3 months at a time. It is also pursuing opportunities to integrate services, particularly with sexual and reproductive health.

Over the past decade, the NACP has expanded the HIV service delivery infrastructure with an extensive network of prevention and healthcare facilities and services. In addition, a large workforce has been deployed and oversight by NACO has provided a standardized framework for the program to increase its reach across the country. Given the size of the country and the large population of people living with HIV, this represents a significant achievement.

[17] India HSS HRG Report 2015, NACO

Data from NACO's recent annual report (2014-5) show substantial progress in achieving these priorities, but gaps remain in the response cascade. *[REDACTED]*. By far, TG represents the largest gap in the program and illustrates the need for PEPFAR India to prioritize TG-friendly interventions in particular. Clearly, the most vulnerable KPs are yet to be reached and the disease burden is likely to be high among this group.

IBBS 2016 data showed FSW are engaging in new methods of client solicitation (requiring newer strategies for service delivery points), and have an earlier age at commercial sex debut (young sex workers). In addition, they report low condom usage with clients and partners and have limited knowledge of HIV. Relevant findings for MSM were that a large proportion of MSM have female partners, report low consistent condom use, and experience sexual violence and high rates of STIs[18]. Such data suggest concerning gaps in prevention efforts, and perhaps a younger population of KPs who have not yet been reached with prevention messaging. In addition, gaps in strategic information are a critical challenge, including: inability to monitor individuals across the cascade due to the lack of a unique identifier system, limited use of mapping technology, and lack of epidemic and response profiles. Addressing such challenges will be critical for India to achieve 90-90-90 by 2020.

The coverage of testing in each of these groups has improved since the previous year, but the positivity rates of those tested within each target group is still far below the estimated prevalence captured through surveillance data. This reinforces the evidence that existing prevention and testing strategies are not reaching KPs who are the hardest to find and at the highest risk for contracting HIV. During 2014-5[19], KP testing reached 67% of PWID targets with 0.83% positivity rate, 71% of MSM targets with 0.28% positivity), 70% of FSW targets with 0.19 positivity, and 53% of TG targets with 1.11% positivity.

There are presently more than 1,000 Integrated Counseling and Testing Centers (ICTCs) in the country that offer PMTCT services to pregnant women. In the year 2013-14, out of an estimated 29.3 million pregnant women, 9.75 million (33%) were tested for HIV. Of the estimated 38,762 HIV positive pregnant women that year, 12,008 (31%) pregnant women were identified as HIV positive.[20]

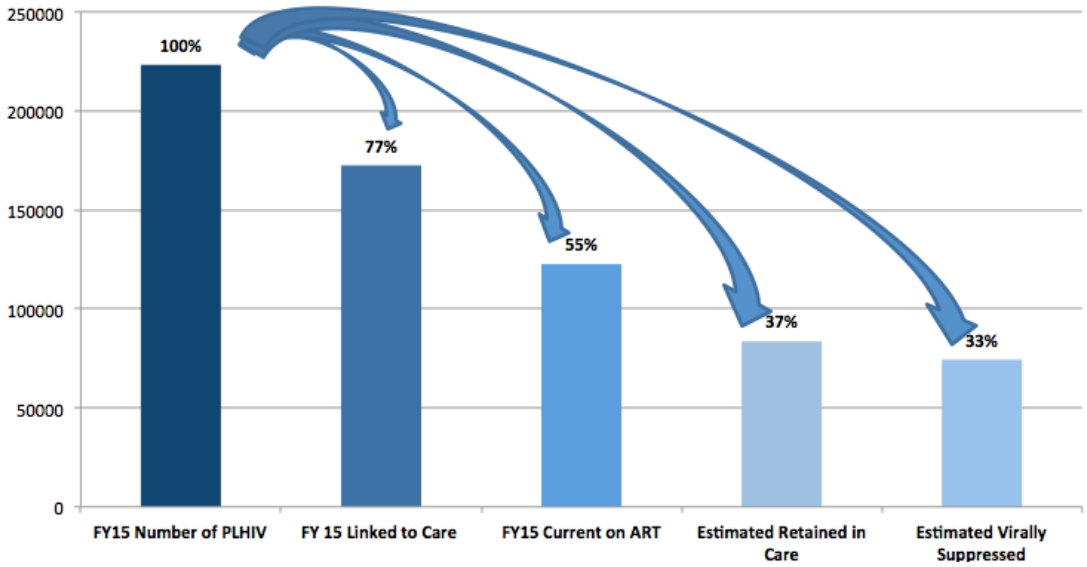
Although referrals to care and treatment are not disaggregated by KPs who test positive, the report noted that 25-30% of individuals diagnosed positive at ICTCs are not linked to care and treatment, and that approximately 20% of patients reach ARTCs at a late stage; for this reason NACO expanded the number of decentralized services at Linked ART Centers (LACs).

[18] Further details are provided in section 4.2
[19] NACO Annual Report 2014-15 (April – September 2014 data)
NACO Annual Report 2014-15

NACO has plans for expanding provision of free opioid substitution therapy (OST) services from 204 to over 300 OST centers to reach the approximately 20% of the estimated PWID population in need of OST services. This is a key intervention to retain PWID on both HIV and TB treatment and reduce transmission.

Publicly available data from 2013 indicate only 36% of total estimated PLHIV are currently on ART[21], but programmatic data in 2014-15 place this figure closer to 68%. The same report from 2013 stated 82% of all PLHIV are in need of treatment at CD4<500. By April 2017, India aims to have 1.25 million on ART. Given the 220,000 patients currently registered in care[22], the revisions in the national guidelines and activities from current Global Fund Grant (for additional infrastructure and ARV drugs) should allow these individuals to quickly access treatment services. To ensure this happens, key program quality components need to be in place.

Graph 1.1.3: HIV Impact Cascade – Adult and Pediatric, 2015, PEPFAR cluster districts



According to the Early Warning Indicator exercise, ART retention is at 76%, due primarily to deaths, LTFU, and self-stopping. Uneven and irregular coordination between various service mechanisms under the program (e.g. from CSC to ARTC), inadequate counseling, delayed diagnosis and registration, and drug stock outs also contribute to low retention.

To meet its needs for viral load monitoring, GOI plans to outsource viral load testing while scaling up their institutional capacity. The government plans to implement viral load monitoring in a phased manner, reaching ~ 1 M population in three years, initially prioritizing patients who have

[21] UNAIDS Gap Report, 2013
[22] National ART Assessment, 2015

been on ART for more than 5 years, HIV-TB co-infected individuals, HIV-Hep C co-infected individuals, CLHIV, and pregnant women.

Looking forward, NACO is currently undergoing a mid-term appraisal of NACP-IV in order to determine progress towards achieving the objectives of the program and identifying specific strategies for addressing gaps in the cascade. In addition, this information will help inform NACP-V planning. The vision of the current government is to integrate the AIDS control services into the general health system in order to decrease stigma and discrimination and increase staffing and system efficiencies. This transition will need careful planning in order to ensure that accelerated progress towards epidemic control does not falter or wane and that the quality of the program does not suffer.

TB/HIV

A key driver of mortality for HIV in India is Tuberculosis (TB), with approximately 2.2 million Indians newly diagnosed with TB each year. On top of an HIV-TB mortality rate of 13%, India had the greatest number of new cases of Multidrug resistant TB (MDR-TB) in the world (61,000). Provider-initiated testing and counseling of TB patients is implemented in 13,866 Designated Microscopy Centers (DMC) and 9,600 co-located TB/HIV testing facilities in the country.[23] ICTC, ARTC, Link ART Centers (LAC), and LAC+ centers conduct intensive case finding (ICF) for TB among their patients. In 2015, 61% of TB patients knew their HIV status, and 4% of all TB patients were known to be co-infected with HIV.[24] Without a significant escalation of ICF and preventive measures such as Airborne Infection Control (AIC) measures, TB patients could quickly become key drivers of the HIV epidemic in India.

Stigma and discrimination and Gender Inequality

Stigma and discrimination of PLHIV continues to be a persistent barrier in India, in both public and private settings, and is compounded for key populations and women.[25] The level of stigma against the FSW, MSM and PWID communities is high, with rates being as high as 54.5%, and physical violence rates as high as 67.4%[26]. Self-stigma is also prevalent, and impedes care-seeking behavior and routine activities for PLHIV. Involuntary disclosure of a person's HIV status in the health setting through health staff is reported to be the beginning of the stigmatization experience for most positive people in India. Potential loss of social status for self and family, possible loss of income, and rejection from family are reasons reported by men with HIV as influencing their disclosure decisions. Health care settings are reported to be the most significant

[23] NACO Annual Report 2014-15
[24] WHO Global TB Report 2015
[25] UNDP Stigma Compendium 2014
[26] IBBS 2015. Stigma in community settings was reported by 21% of FSW in MH and 31% of FSW in AP. In the northeast, the PWID community reported a high level of stigma (Manipur 54.5%, Mizoram 45% and Nagaland 51.2%). Physical violence was reported by FSW (MH 17.9%, AP 19.7%), MSM (MH 9.3%, AP 30.6%), and PWID communities (Manipur 27.9%, Mizoram 67.4% and Nagaland 35.5%).

contexts for stigma and discrimination in India. Engaging affected communities in training and sensitization of healthcare staff and HIV program staff at all levels is essential to close gaps at all levels of the cascade of care. In addition, interventions are needed to make services more KP- and youth-friendly to ensure the HIV program is responsive to populations who have not yet sought care.

The unequal power balances between men and women in India, particularly in rural areas, continues to impact women's choices and abilities to access testing, care, and treatment for HIV, as well as their ability to negotiate for safer sex practices. Further, gender-based violence remains a major concern in India, with increasing numbers of rape cases being reported in recent years. Per 2015 data, 35.4% of women surveyed in India have experienced sexual violence[27] and 43% of women in AP and 31% in MH have ever experienced spousal violence.[28] NACO is in the process of developing specific interventions to address spousal violence.

[27] 2015 UNDP Human Development Index
[28] National Family Health Survey (NFHS)-4, 2015

Table 1.1.2 90-90-90 cascade: HIV diagnosis, treatment and viral suppression (12 months)									
				HIV Treatment and Viral Suppression			HIV Testing and Linkage to ART		
	Total Population Size Estimate (#)	**HIV Prevalence (%)**	**Total PLHIV (#)**	**On ART (#)**	**Retained on ART 12 Months (#)**	**Viral Suppression 12 Months**	**Tested for HIV (#)**	**Diagnosed HIV Positive (#)**	**Initiated on ART (#)**
Total population	1,295,291,543*	.26	2,116,581	810,839****	*No data*	*No data*	13,030,604****	228,226	No data
Population less than 15 years	449,480,430	*No data*	138,456	44,592[Δ]	*No data*	*No data*	*No data*	*No data*	*No data*
Pregnant Women	29,339,000 ****	0.35****	38,000***	*No data*	*No data*	*No data*	9,752,124****	12,008****	10,085****
FSW	868,000	2.2*****	19,096	*No data*	*No data*	*No data*	463,035	2,503	*No data*
MSM	357,000	4.3*****	15,351	*No data*	*No data*	*No data*	163,473	854	*No data*
PWID	177,000	9.9*****	12,637	*No data*	*No data*	*No data*	79,710	1,042	*No data*
TG	70,000	8.82 [Δ]	6,174	*No data*	*No data*	*No data*	6,758	*No data*	*No data*
Long Distance Truckers	*No data*	2.59 [Δ]	*No data*	*No data*	*No data*	*No data*	*No data*	257	*No data*
Single Male Migrants	*No data*	0.99 [Δ]	*No data*	*No data*	*No data*	*No data*	*No data*	1,035	*No data*

*: Source: World Bank, 2014
**: MoHFW, All India State Fact Sheet (2013-14)
***: PMTCT Assessment Report, NACO, August 2014
****: NACO Annual Report 2014-15 (results for 2013-14)
[Δ] NACO Annual Report 2014-15 (results for April-September 2014)
***** National IBBS 2014-15

1.2 Investment Profile

India is a lower-middle income country with gross national income (GNI) of $1,570 USD per capita (World Bank, 2014). The major source of financing budgeted for India's $2.24 billion NACP-IV is domestic resources (63%), a substantial increase from the previous five years, where international donors supported approximately 75% of overall costs. The domestic budget for NACO for 2015-6 is $244.7 million, comprised of 48% ($117 million) domestic resources, 22% ($53.3 million) in World Bank credit, 30% ($74.5 million) Global Fund grants, and less than 1% ($21K) in an Extra-budgetary Aided Component. Extra-budgetary support from donors is estimated in total at approximately 10%, and PEPFAR's contribution to the overall 2015-2016 HIV response is 6%.

For its 2016-7 budget, the GOI continues to reduce the current deficit of 3.5% of Gross Domestic Product (GDP) stepwise down to 3.0% of GDP by 2017-18. One of the consequences of this aim has been the reduction in allocation of resources to several sectors, including public health, which decreased by 5.7% in 2015-6, shortly after a 20% cut in 2014-2015 that prompted significant public outcry. Initial announcements on India's 2016-7 Union budget indicate the health budget will sustain an increase of 9-10%. It is noted that this increase is still well below the amount needed to increase India's health allocation to 2% of GDP, but is an encouraging sign of the support this program continues to receive from the government.[29] NACO faced multiple fiscal challenges in 2015. Beyond the 30% budget cut faced in 2014, the HIV budget was reduced by a further 22%, coupled with increased devolution of funds to the states. The routing of the funds to the state treasuries caused significant delays, impacting service delivery as healthcare staff in parts of the country went 4-6 months without pay. This crippled the states' abilities to spend the allocated funding that could potentially penalize them in successive budgets. However, in late 2015, the MoHFW announced that the HIV program would return to being centrally funded, and funding would flow from NACO directly to the State AIDS Control Societies (SACS), thus accelerating the receipt and expenditure of funds. NACO has also petitioned for recovery of the previously cut funds, and a reversal of the 22% cut is expected. The total allocation for NACO under the 2016-7 Union budget is yet to be determined.

The five-year HIV budget allocated 63% of funding for prevention; 30% for care, support and treatment services; 4% for institutional strengthening; and 3% for strategic information management systems.[30] However, the costing of the five-year strategy has not been updated to reflect changes in program policy, such as the 2013 WHO guidelines, which begin implementation in April 2016, updated donor partner contributions, nor changes in the domestic budget allocations. As a result, the majority of HIV financing requested from the Global Fund through 2017 focuses on care and treatment support; 65% of the $273 million HIV budget is expected to support ARV procurement. During India's 2013-2014 fiscal year, Global Fund procured all ARV drugs, but the GOI intends to expand its domestic budgetary support for ARV drugs, contributing

[29] "By no means a socialist budget," The Hindu, March 1, 2016.
[30] NACP-IV

50%, and 70% of the total requirements over the next two GOI fiscal years. However, the funding of ARVs will be a key point of discussion under the development of the NACP-V, as Global Fund support under the current New Funding Model ends in 2017. The historical spend has been ~80% of the approved health budget.

The HIV supply chain in India continues to see shortfalls across all commodities and gaps in subnational distribution of ARVs. While PEPFAR does not currently support supply chain strengthening, several other donors have supported efforts to improve the procurement (World Bank) and inventory management systems (Clinton HIV/AIDS Initiative), and Global Fund has additional funding available to further strengthen gaps in the supply chain.

Table 1.2.1 Investment Profile by Program Area

Program Area	Total Expenditure	% PEPFAR	% GF	% Host Country	% Other
Clinical care, treatment and support Community-based care, treatment, and support PMTCT HTS VMMC Priority population prevention Key population prevention OVC Laboratory SI, Surveys and Surveillance HSS		*No disaggregated data available*			
Total[31]	**223,204,545**		**28%**	**72%**	

Table 1.2.2 Procurement Profile for Key Commodities

Commodity Category	Total Expenditure	% PEPFAR	% GF	% Host Country	% Other
ARVs		0%	50%	50%	
Rapid test kits		0%			
Other drugs		0%			
Lab reagents		0%	*Expectation is that GOI is procuring 50% of ARVs, and Global Fund is procuring the remaining 50% per previous arrangements. Global Fund was also expected to procure 100% of test kits, condoms, and other commodities, but proportion and total expenditure are unpublished.*		
Condoms Viral Load commodities		0X%			
VMMC kits	*Data not published.*	0%			
MAT		0%			
Other commodities		0%			
Total		0%			0%

[31] NACO Annual Report 2014-5 (2013-4 data)

Table 1.2.3 USG Non-PEPFAR Funded Investments and Integration

Funding Source	Total USG Non-PEPFAR Resources	Non-PEPFAR Resources Co-Funding PEPFAR IMs	# Co-Funded IMs	PEPFAR COP Co-Funding Contribution	Objectives
USAID MCH	$11,000,000	$0	0	$0	
USAID TB	$9,500,000	$0	1	$994,167	CHALLENGE TB: improve case detection and treatment adherence in TB/HIV co-infected in private sector of Mumbai: co-funded by BMGF
USAID Family Planning	$14,000,000	$0	0	$0	
CDC Global Disease Detection/EIS	$3,800,000	$0	0	$0	
PEPFAR Central Initiatives	$1,800,000	$1,800,000	2	$300,000	Lab: leverage HIV lab infrastructure to strengthen public health lab system LCI: Strengthen capacity of civil society orgs in the HIV/AIDS country response
Total	**$40,100,000**	**$1,800,000**	**3**	**$1,294,167**	

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

Funding Source	Total PEPFAR Non-COP Resources	Total Non-PEPFAR Resources	Total Non-COP Co-funding PEPFAR IMs	# Co-Funded IMs	PEPFAR COP Co-Funding Contribution	Objectives
ACT	0%	0%	0%	0%	0%	
DREAMS	0%	0%	0%	0%	0%	
DREAMS Innovation	0%	0%	0%	0%	0%	
DREAMS Test and Start-Men	0%	0%	0%	0%	0%	
VMMC	0%	0%	0%	0%	0%	
Viral Load	0%	0%	0%	0%	0%	
Other PEPFAR Central Initiatives	0%	0%	0%	0%	0%	
Other Public Private Partnership	0%	0%	0%	0%	0%	
Total	0%	0%	0%	0%	0%	

1.3 National Sustainability Profile

Sustainability Index and Dashboard (SID) development process

PEPFAR India completed a multi-step process for completion of the SID. Initial input was collected from the broader PEPFAR India team, the Department of State, the HIV/AIDS Alliance, and UNAIDS to develop a template for further action and comment by broader stakeholders (step 1). After sharing the template in advance, a meeting was convened to discuss any questions

requiring further clarification. All inputs were compiled, and a completely drafted tool was developed for sharing more broadly. The completed tool was shared in advance of an in-person meeting with civil society participants, collaboratively determined by PEPFAR India, UNAIDS, and the HIV/AIDS Alliance (step 2). During the meeting, participants discussed the SID in small, domain-specific groups, and then in a large group session. Meeting participants included individuals from PEPFAR India and UNAIDS as facilitators, and representatives from FSW, MSM, TG, IDU, Trucker networks, PLHIV networks, an OVC network, the Lawyers Collective, and the Family Planning Association of India. PEPFAR India shared the tool with civil society inputs with NACO, and convened a meeting to discuss areas of strengths and vulnerability. After the meeting, the tool was shared more broadly across the NACO leadership for review.

Sustainability strengths

One of GOI's strengths, as determined by the SID, is that NACO leads the HIV response in India. The 2015-6 domestic budget comprises more than 90% of the funds used to address the HIV response in India, as described above. NACO has also been proactive about its technical and allocative efficiency, using evidence to drive the allocation of funds across the country. NACO also funds and provides the overwhelming proportion of service delivery, and has guided very structured approaches to community-based services.

An additional area of sustainability strength is that NACO is largely transparent in its planning and information. NACO consistently develops five-year strategies, in conjunction with all stakeholders, including donors and civil society. Further, under the NACP-III, NACO developed the structural elements that support civil society engagement. These channels allow civil society input not only to the development of strategic plans, but also to the Technical Resource Groups (TRGs). However, it is important to note that the perception of civil society is that while these channels exist, their usage and impact have been decreasing. Finally, in terms of public access to information, NACO posts surveillance reports in a timely fashion, and produces an Annual Report documenting progress against the NACP and current expenditures.

Sustainability weaknesses

One of the identified weaknesses is health worker capacity; pre- and in-service curricula need continuous review and assurance of HIV components, as well as components on quality management and improvement. Further, the capacity of the lab workforce to perform point of care services was identified as a need for expansion.

India also needs a rapid scale up of viral load capacity to support additional patients on treatment. This capacity will be built gradually, but in the meanwhile, the GOI has recently decided to outsource these services to the private sector concurrently to meet the burgeoning need. Since the country is not yet implementing national rollout of Test and Start, the current need will be based on the number of patients receiving treatment under CD4<500 guidelines.

A final area of weakness is private sector engagement. NACO has done well in engaging large sections of industry under the Employer-Led Model (ELM), which works directly with employers and employer networks to reduce stigma and discrimination, as well as to provide prevention information, and has the ultimate goal of the integration of prevention-to-care linkage within industry systems. However, this could not be adequately captured under the framework of the SID. Beyond the ELM, engagement of the private sector, even under the auspices of the 2013 Companies Act, has generally been difficult and unclear. Also, the private healthcare sector is largely unmonitored and the percentage of people accessing services and the quality of the services provided is unclear.

Sustainability Analysis for Epidemic Control: India

Epidemic Type: Concentrated
Income Level: Lower-middle income
PEPFAR Categorization: Technical Collaboration
PEPFAR COP 16 Planning Level: 23,000,000

SUSTAINABILITY DOMAINS and ELEMENTS	2016	2017	2018	2019
Governance, Leadership, and Accountability				
1. Planning and Coordination	9.03			
2. Policies and Governance	6.62			
3. Civil Society Engagement	8.02			
4. Private Sector Engagement	3.82			
5. Public Access to Information	8.00			
National Health System and Service Delivery				
6. Service Delivery	7.87			
7. Human Resources for Health	7.33			
8. Commodity Security and Supply Chain	6.75			
9. Quality Management	5.81			
10. Laboratory	7.41			
Strategic Investments, Efficiency, and Sustainable Financing				
11. Domestic Resource Mobilization	8.06			
12. Technical and Allocative Efficiencies	7.82			
Strategic Information				
13. Epidemiological and Health Data	7.02			
14. Financial/Expenditure Data	6.25			
15. Performance Data	6.63			

1.4 Alignment of PEPFAR investments geographically to disease burden

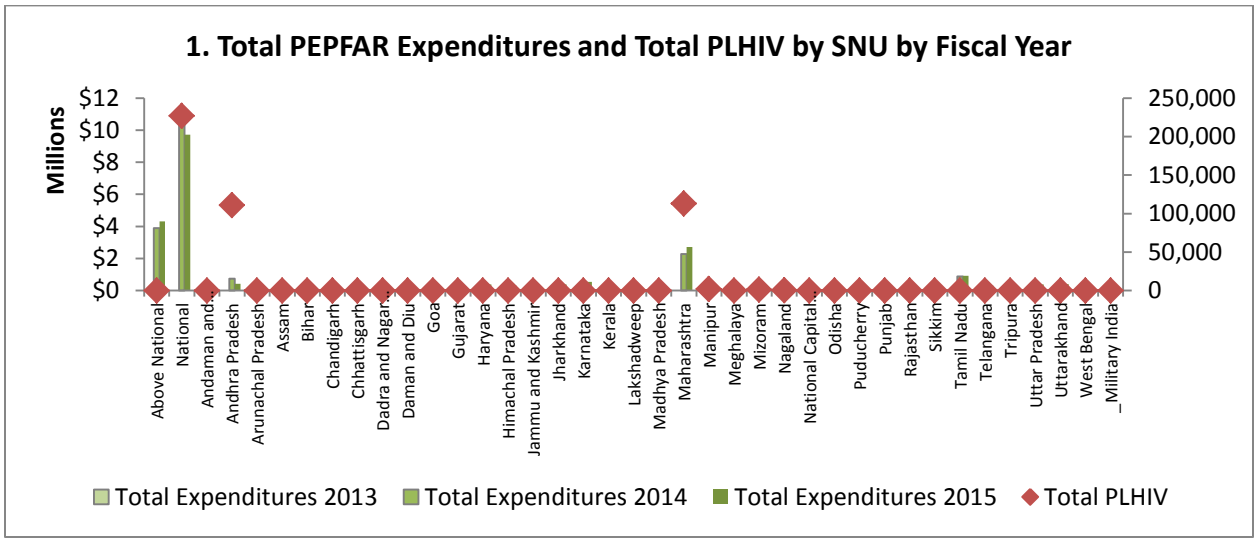
Given the technical collaboration approach of the PEPFAR India program and the delayed implementation of the COP15 program pivot, few resources were reported being expended in FY15 at the point of service delivery or site-level (13%), whereas above-site programming represented 87% of all expenditures, primarily in the form of Health System Strengthening (HSS) activities (64%). The majority of HSS expenditures were within institutional capacity development for government (29%) and civil society (18%). Top HSS expenditures included supply chain

management represented 21%, followed by technical areas specific guidelines and policies (9%), in-service training support (7%), and health information systems (6%).

Figures 1.4.1.a and 1.4.1.b compare PEPFAR expenditures in 2014 to burden of disease by state. While Figures 1.4.1a and 1.4.1b demonstrate that the expenditures generally follow the PLHIV burden, some caution must be taken when interpreting the remainder of the data due to (a) the structure of the Data Pack (DP), (b) not previously reporting against the DP indicators, (c) the nature of our work, and (d) the fact that the expenditures captured in FY15 are pre-pivot. First, the EA was only powered to the state level, and we set targets at the district level in the DP, and only for three districts each in AP, MH, and Mizoram; four districts in Manipur; and five districts in Nagaland – not the entire state. When constructing the DP, it was built to capture results and targets in these priority districts, while the national assistance is not captured (no targeting). Next, data supplied for Manipur, Mizoram, and Nagaland apply only to PWID, so the numbers are very small, and the corresponding expenditures are larger per PLHIV due to a lack of economies of scale. India only has one mechanism with a unit expenditure, so there are no outliers.

Under COP16, approximately two-thirds of PEPFAR India's portfolio is invested in site-level activities, with the remaining one-third invested above site.

Figure 1.4.1: Epi-EA Comparison



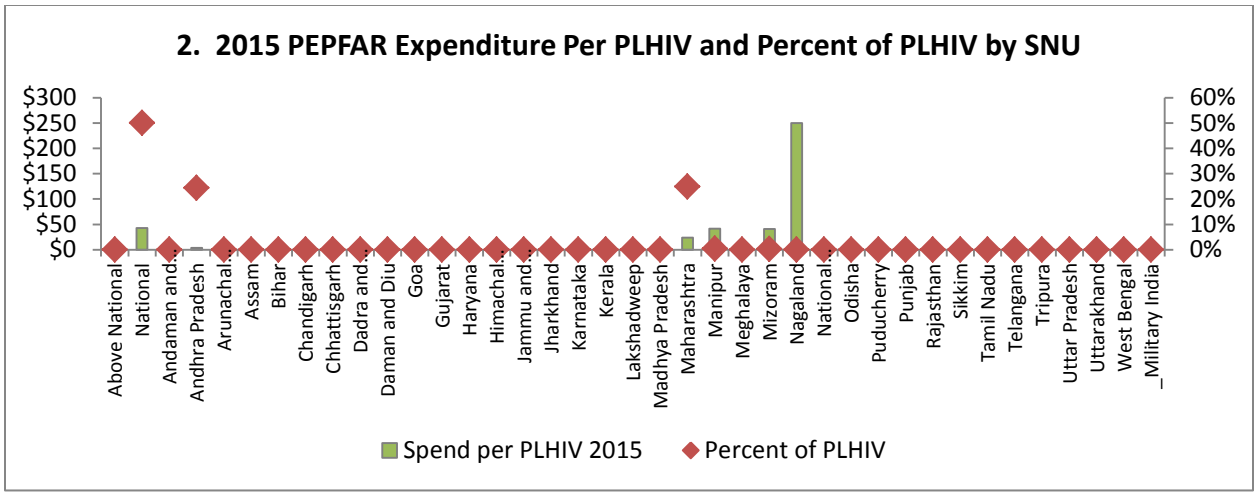


Figure 1.4.2a reflects the number of PLHIV by state in India. In India, the state of AP has the greatest number of PLHIV in the country, with 395,000 PLHIV (prevalence: 0.66%); MH has the second largest volume of PLHIV at 301,000 (prevalence: 0.37%). Figure 1.4.2b reflects the percentage of PLHIV by state. AP comprises 19% of the PLHIV burden in the country, and MH, with 14%. Figure 1.4.2c reflects the ART coverage by state, with AP and MH having 46% and 59% coverage, respectively. Figure 1.4.3 illustrates the PEPFAR India expenditures by state in FY15, as compared to the PLHIV estimates.

Figure 1.4.2a: PLHIV volume by state

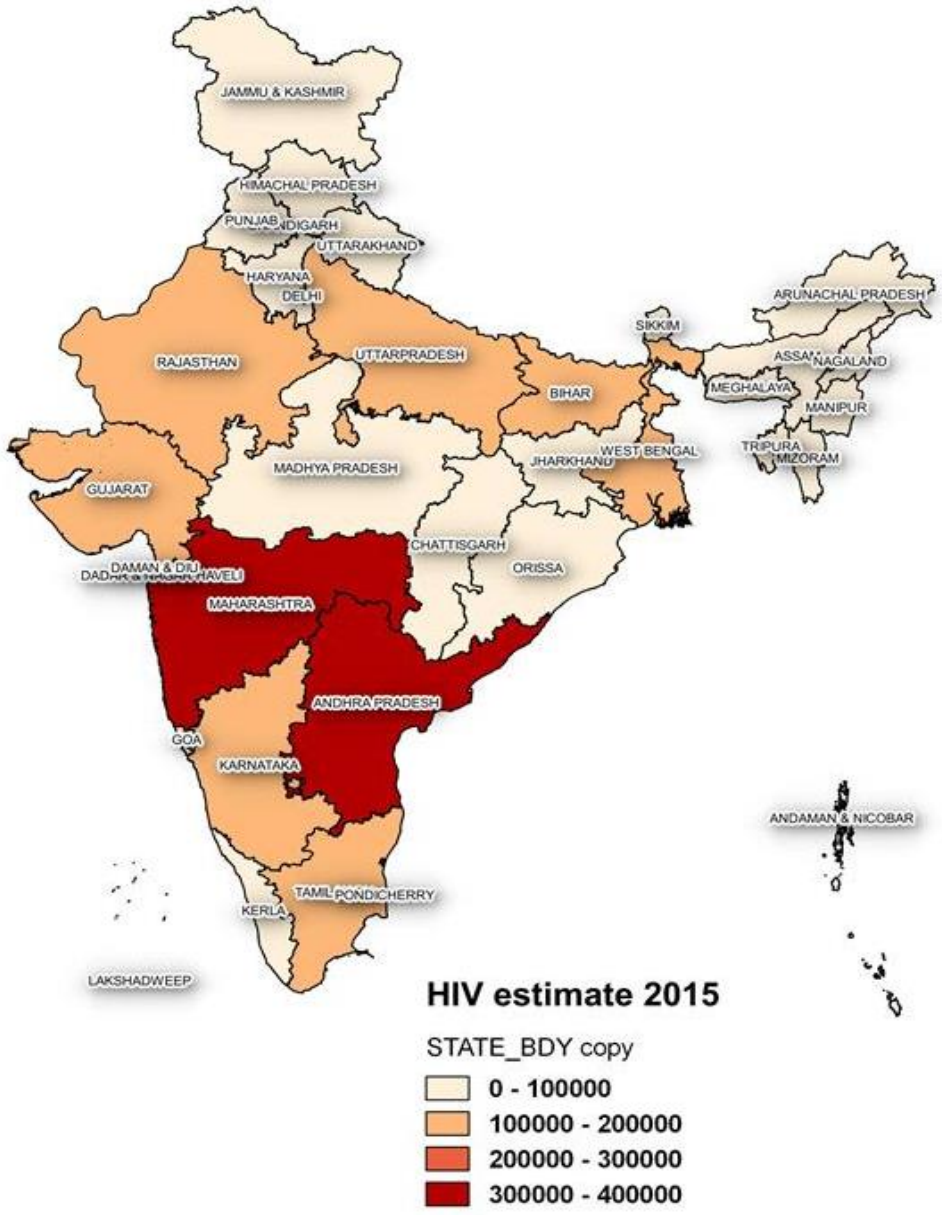


Figure 1.4.2b: HIV burden by state (%)

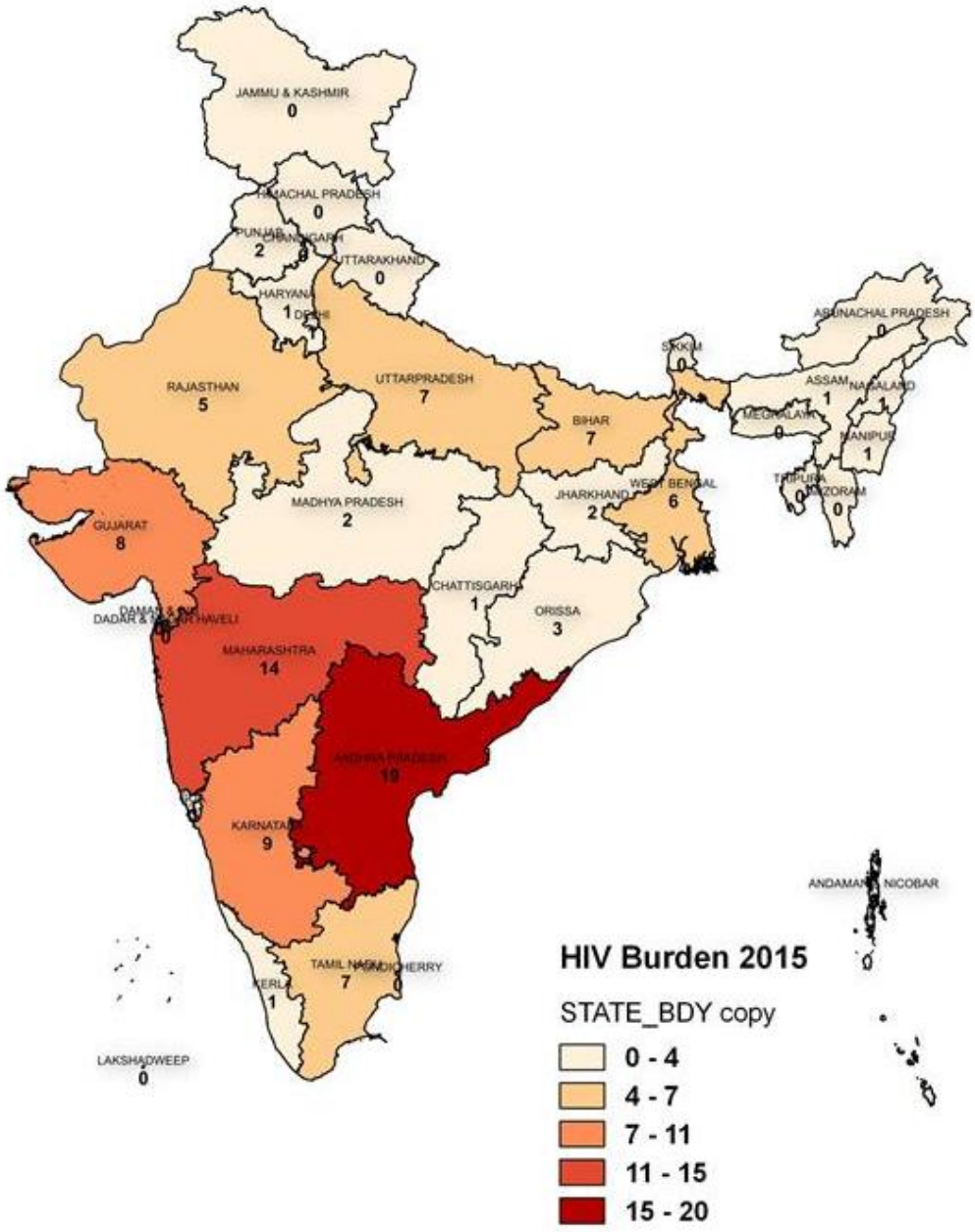


Figure 1.4.2c: ART coverage by state (%)

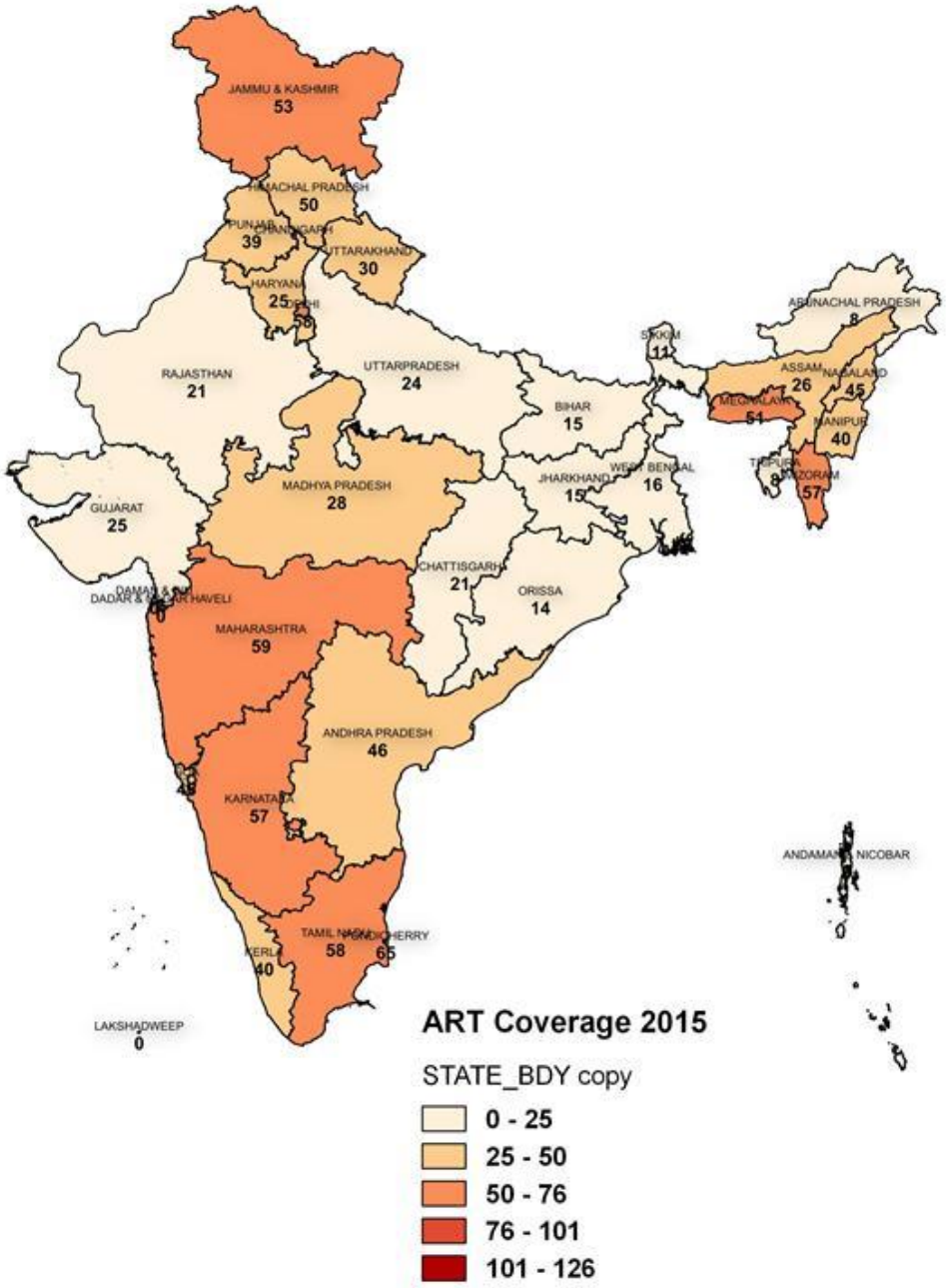


Figure 1.4.3 Total Expenditure, PLHIV, and ART Coverage by SNU

SNU	Total PLHIV	HIV Prevalence[32]	ART Coverage[33]	Total FY15 PEPFAR Expenditure
AP and Telangana	394,661	0.66	179,633	$716,372
MH	301,453	0.37	147025	$2,714,288
Karnataka	199,060	0.45	112,677	$537,292
Gujarat	166,333	0.42	41,715	$268,437
Bihar	150,689	0.25	21,967	$70,713
Uttar Pradesh	150,361	0.12	36,217	$381,843
Tamil Nadu	142,982	0.28	83,135	$913,140
West Bengal	128,757	0.21	20,300	$46,937
Rajasthan	103,148	0.23	21,908	$181,686
Odisha	67,654	0.25	9,539	$36,263
Madhya Pradesh	44,409	0.09	12,240	$38,739
Punjab	36,794	0.19	14,399	$21,787
Jharkhand	34,386	0.17	5,187	$387,972
Chhattisgarh	30,838	0.19	6,368	$17,395
Delhi	30,216	0.23	17,588	$118,271
Manipur	24,457	1.15	9,729	$77,402
Kerala	23,376	0.11	9,286	$145,597
Haryana	22,596	0.13	5,740	$374,883
Assam	12,090	0.06	3,085	$28,449
Nagaland	11,050	0.78	4,999	$70,270
Tripura	7,238	0.31	545	$11,734
Uttarakhand	7,059	0.11	2,133	$381,843
Mizoram	5,762	0.80	3,296	$53,843
Himachal Pradesh	5,723	0.12	2,839	$295,892
Goa	4,619	0.40	2,125	$67,810
Chandigarh	2,933	0.35	3,697	$13,335
Jammu and Kashmir	2,777	0.03	1,478	$18,162
Puducherry	1,560	0.15	1,020	$36,263
Meghalaya	1,122	0.06	571	$8,997
Sikkim	939	0.23	104	$5,235
Arunachal Pradesh	606	0.07	49	$9,738
Dadra and Nagar Haveli	463	0.18		$1,405
Daman and Diu	284	0.14		$1,419
Andaman and Nicobar Islands	186	0.07		$3,134
Lakshadweep				$1,405
Total	**2,116,581**	**0.26**	**810,339**	**$22,064,426**

[32] India HIV Estimations 2015; NOTE: This is adult (15-49) prevalence
[33] NACO Annual Report 2014-15

1.5 Stakeholder Engagement

Host country government

PEPFAR India supports the GOI in its response to the HIV epidemic, and worked closely with NACO to shape the implementation and the activities of the pivot designed under COP15. For COP16 development, PEPFAR India worked with NACO ahead of the DC Management Meeting (DCMM) to confirm no geographic or major programmatic changes since the design of the COP15 pivot, to introduce and review civil society inputs to the SID, and to provide additional inputs into the strategic context. PEPFAR India is also working in conjunction with the SACS, and the District AIDS Prevention and Control Units (DAPCUs), to ensure successful rollout of pivot activities. PEPFAR India will coordinate closely with GOI entities at the state and district levels in the prioritized regions for both implementation and monitoring purposes. The PEPFAR India team meets with a GOI entity on almost a daily basis, although the meetings may vary in terms of purpose, technical to policy, GOI entity, representation, and size of delegation.

Global Fund

Prior to its submission, PEPFAR India participated in the development of the most recent Global Fund concept note, ensuring complementarity of activities supported by PEPFAR and Global Fund in India. Global Fund will be more heavily engaged in health financing, and has discussed with GOI the outlook for Global Fund support over the next several years, specifically in terms of alternative means of support (e.g. buying off loans vs. direct grants), and greater engagement of the private sector, which will aid in the sustainability of the HIV response. Another area of implementation by Global Fund that will positively impact PEPFAR India is its support to enhancing and improving the supply chain and procurement mechanisms. Currently, PEPFAR India has a member who sits on the Country Coordinating Mechanism (CCM), which has been recently revamped to become more streamlined and is anticipated to be more efficient. Further, PEPFAR India meets with the Fund Portfolio Manager when he is in India to ensure continued discussions and to reaffirm alignment of programs, and did so prior to the DCMM.

World Bank and Bill and Melinda Gates Foundation

Members of the PEPFAR India team participate in World Bank Joint Review Missions (JRM). The last JRM was in December 2015, which was beneficial in shaping the contributions of PEPFAR support to KP prevention through the TIs, and the parameters and distribution of support to the Technical Support Units (TSUs), during joint discussions with NACO, World Bank and the Bill and Melinda Gates Foundation.

UNAIDS

PEPFAR India has a very good relationship with the UNAIDS India office, with interactions between UNAIDS and PEPFAR staff occurring several times each week. Outside of project activities and concurrent participation in events, there are approximately monthly meetings with the UNAIDS Country Director, to discuss current PEPFAR activities and progress, challenges in addressing the epidemic, and areas for coordination. To date, work with UNAIDS has

encompassed strategic information, sustainability analysis, and civil society engagement. PEPFAR India briefed UNAIDS on the COP16 programmatic activities prior to the DCMM, and UNAIDS was instrumental in both responding to the SID and convening civil society for inputs.

Civil Society

PEPFAR India meets with civil society on a regular basis with regard to programming, and has been coordinating regularly with the HIV/AIDS Alliance to capture civil society response to PEFAR India implementation, and to better understand the needs of civil society when developing programs. Two of these meetings occurred during COP planning, the first to describe programs and FY15 Annual Program Results for inputs into future programming, and the second for initial inputs into the SID. Following these meetings, PEPFAR India met with broader civil society to present programmatic activities and to gather further input into the SID, as described above. For the coming year, PEPFAR India will have greater engagement of civil society to better understand the barriers to access to HIV testing for KPs, and to devise plans that will better draw KPs to testing centers.

Private Sector

PEPFAR India supports one project that targets the private sector for TB/HIV activities, and will pursue collaboration with the private sector for OVC support. PEPFAR India has also identified private sector engagement as a potential gap in the response and a first step will be gathering information to better understand the mix and proportion of the patient population and the quality of services provided, and to encourage additional reporting to better coordinate a national response.

In addition to the work with private providers in the COP16 implementation period, PEPFAR India will participate in discussions on sustainable financing for health; while these discussions will primarily focus on the GOI, private sector is expected to be a key component as well, given the 2013 Companies Acts section on Corporate Social Responsibility, which places a requirement on companies comprising a large proportion of the private sector to invest at least 2% of their net profits into socially responsible activities.[34]

2.0 Core, Near-Core and Non-Core Activities

PEPFAR India considered the activities required to accelerate sustained epidemic control in a concentrated epidemic, the current country investment portfolio, need to support the GOI strategy, and the gaps/bottlenecks impacting leakage of patients in the care continuum to define core, near-core, and non-core activities for program implementation in FY17.

[34] http://www.mca.gov.in/Ministry/pdf/CompaniesAct2013.pdf

As a result, **core** activities in the cluster districts will generally focus on 1) utilizing strategic approaches to increase the yield of testing among key and vulnerable populations; 2) strengthening the cascade of care between community and facility with special focus on FSWs, PWID, MSM and transgendered individuals. Approaches will include a focus on civil society engagement, reduction of stigma and discrimination, and improving monitoring and evaluation in priority geographic clusters; National level core activities will focus on: 3) laboratory capacity for HIV testing, CD4, STI, EID, and viral load testing facilities with a focus on priority geographic clusters; and 4) surveillance, data quality and use, and national health information systems to collect, analyze and use priority epidemiological and program data.

Near-core activities include: 1) operations research; 2) focused blood safety activities; 3) salary support for non-technical positions; 4) time-limited activities where PEPFAR anticipates building capacity or transitioning support within three years[35]; 5) assessments; and 6) private sector and financial analyses.

Non-core identified this year includes the transition of support for blood safety in non-priority districts (2017), and support to truckers and migrants (2017).

See Appendix A for a full list of core, near-core, and non-core activities and transition plans.

3.0 Geographic and Population Prioritization

Data sources

For prioritization and target-setting, PEPFAR India team utilized publicly available national, state, and district level epidemiologic and programmatic data, including HIV sentinel surveillance; national and state level programmatic data from the NACO annual report; state HIV epidemic fact sheets; district epidemiologic profiles; and the PEPFAR-funded ART assessment. More recent data include the 2015 HIV Estimations, which contained state-wise numbers of PLHIV, prevalence, new infections, AIDS-related deaths, and ART need; the preliminary 2014-2015 IBBS results; and the National Family Health Survey-4 (2015). Please refer to Section 1.4 for state-wise PLHIV estimates, ART coverage, and prevalence.

Limitations in data for decision-making include old data, lack of published age and sex disaggregated data, lack of robust HIV incidence data, lack of data on ART coverage among key and other vulnerable populations, few data points publicly available at the district level, lack of data on viral load, lack of real-time programmatic data, and data sharing (a data sharing request was approved by NACO in March 2016 and has been followed up with additional communication

[35] OVC, trucker and migrant DSD interventions

that outlines the data formats as they compare to PEPFAR indicators, the frequency of data access and from where, and points of contact).

Geographic prioritization

Though the 2015 HIV Estimations only reported to the state level, PEPFAR India conducted a series of enhanced data analyses to generate district-level estimates for PLHIV volume, ART coverage, and level of prioritization. Using this data, PEPFAR India confirmed the high burden clusters of three districts each in MH (Mumbai, Pune and Thane – which together comprise of 38% of the state's burden of PLHIV) and AP (East Godavari, Guntur and Krishna – which together comprise 28% of the state's burden of PLHIV). Once ART coverage was determined and targeted coverage was estimated for FY17 and FY18, PEPFAR India reviewed the prioritization levels set under COP15, and determined no changes in geographies or prioritization levels were needed. The geographies and prioritization levels for COP16 are: in AP, the districts of Guntur and Krishna are targeted for aggressive scale up, and the district of East Godavari for scale up to saturation. In MH, the districts of Mumbai and Pune will be targeted for scale up to saturation, while Thane will be sustained. Further site level prioritization within each district has been done to ensure that the site-level TA being provided is targeted at sites where the greatest impact can be achieved. The remaining 12 districts in Manipur (Churachandpur, Imphal East, Imphal West, and Thoubal), Mizoram (Aizwal, Champai, and Lunglei) and Nagaland (Dimapur, Kohima, Mokochung, Tuensung, and Wokha) will focus on aggressive scale up of high-impact prevention to care and treatment services for PWID.

Population prioritization

The KP volumes in the focus districts of AP, MH and the three northeast states are the highest in the country, and the KP prevalence rates are among the highest for each population (Section 1.1, Epidemiological profile). The six districts from MH and AP have a combined volume of 95,664 FSW and 46,543 MSM. The combined PWID volume in the districts of Manipur, Mizoram and Nagaland is 32,000. In each state, the KP populations are largely homogenous with no major variations in context in the districts, the HIV prevalence reported for the states will hold true for their cluster districts. However, for PWID, three districts have very high HIV prevalence (Thoubal in Manipur with 25.6%; and Champai 36% and Aizwal 18% from Mizoram).[36]

Based upon current IBBS data, HIV burden and prevalence, service delivery coverage, and current TA needs identified by the GOI, PEPFAR India continues to prioritize technical assistance activities focused on PWID, FSWs, MSM, TG, PLHIV, pregnant women and HIV-exposed infants, and TB/HIV co-infected individuals. Data on the vulnerable populations of migrants and truckers is still pending, and support to these populations will be sustained in COP16.

[36] HSS (2010-11)

Impact of prioritization

This prioritization is expected to demonstrate an impact on the HIV epidemic among the targeted populations and geographies and accelerate epidemic control. However, it also provides an opportunity for PEPFAR India to serve as the testing ground for many of the 2015 WHO recommendations, including Test and Start, differentiated service delivery models, and for innovations that work across the continuum of care to increase patients diagnosed, treated, and virally suppressed. In full alignment with GOI plans and projected programming, these activities will act as proofs of concept to assist the government in decision-making and modifying guidelines and approaches for current programs under NACP-IV as well as future programming for NACP-V. The activities have been selected in coordination with GOI in order to inform their interest in expanding these activities more broadly to other populations or geographies.

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

4.1 Targets for scale-up locations and populations

Building on activities undertaken in COP15, in COP16 PEPFAR India will focus in three geographic clusters. Each cluster will have a slightly different strategy based on the epidemiology and program context to support the GOI's response towards accelerated control of HIV/AIDS. The priority AP and MH clusters will be targeted for intervention based on level of unmet needs. This includes identification of gaps in the cascade, targeting efforts to address these gaps, with a targeted approach to scaling up the three 90's. A slightly different approach will be taken in the northeastern cluster, with a targeted strategy to address an epidemic which is primarily driven by injecting drug use and heterosexual transmission. Specifically, 12 districts within the states of Manipur, Mizoram and Nagaland will be the focus. Using evidence available from these 12 priority districts, PEPFAR will drive focused interventions to identify PWID that have not historically been exposed to or accessed services at the government supported targeted interventions. Those who have not been reached by program interventions are likely to show the highest prevalence, and therefore PEPFAR India will prioritize their identification, and referral to testing and treatment, to prevent ongoing transmission in this population. PEPFAR India has set service delivery targets in the states of AP, MH, Manipur, Mizoram, and Nagaland, where plans include enrollment of 6,248 PWID on MAT, ensuring PWID requiring ART are linked to service delivery sites and initiated on treatment.

PEPFAR India has set targets for TA treatment indicators for COP16 considering all ARTC in the priority districts of AP and MH. The NACO program information management system data ending Dec 2015 was used as the baseline for all calculations. Here the indicator "PLHIV Alive and on ART" was used for TX_CURR and "PLHIV Newly Initiated on Treatment" in 2015 (of those registered in 2015-16) was used for TX_NEW indicator. For FY17, an increase of 15% above the baseline was calculated. This increase will account for an increase in number of PLHIVs entering

into ART due to initiation at CD4<500. Age and sex dis-aggregations are proportional to national program data. In FY17, PEPFAR India will work with NACO and partners to strengthen PLHIV estimations at the district-level based on new/updated data and improved methodologies.

4.2 Priority population prevention

Recent data show a paradigm shift in the dynamics of HIV epidemic drivers over the past five years (See Section 1.1 for KP prevalence rates, testing coverage, and positivity rates). Consistent condom use is low among FSW (73% in AP, 80.1% in MH), and lower among MSM (47.4% in AP, 58.9% MH). Only 11.2% MSM in MH and 28.1% MSM in AP had used lubricant.[37] Among the estimated PWID population in the northeast, MAT coverage was only 12.6%. Among PWID who tested positive, only 30% were enrolled in ART. Mobile phone-based solicitation has reduced the need for brothels and traditional pimps, and the home (33%) was reported as the primary place for sex work. The majority of the FSWs in MH (70.9%) and AP (74.6%) solicit clients by mobile phone contact. Similarly, Internet utilization for soliciting partners is increasing among MSM population.[38]

However, major gaps continue to exist in the HIV prevention to care program, including: pockets of underutilization of services across the prevention to care cascade, especially among KPs; poor ART coverage and retention among KP PLHIV; lack of robust systems that measure service quality and effectiveness; underutilization of community-based organizations to track and assist with linking KPs to care and treatment; non-engagement of the private health care providers in the national HIV care and treatment system; and social barriers such as stigma and discrimination against KPs. IBBS data for migrants and truckers is still pending. Currently, support for migrants and truckers is occurring in six TIs in Thane district, and support targeting these populations will be phased out when the Public Health Foundation of India project ends in early 2017. However, it is currently estimated that 32% of single male migrants are clients of sex workers or MSM, and will be reached through KP network approaches.

PEPFAR India will invest in the following combination prevention interventions to accelerate epidemic control: 1) KP-friendly interventions and high quality services along the prevention to care cascade, including community-based testing (CBT) and innovative approaches to reach new and unreached KPs; 2) real time monitoring (RTM) systems to address barriers and improve tracking of KPs along the continuum of care cascade; 3) sustainable models to strengthen the HIV prevention to care continuum at the district levels in priority states, including improving leadership and quality of services in national and state institutions, civil society organizations, and private sector partnerships.

[37] IBBS 2015
[38] ibid

As part of our efforts to find and enroll missing KPs in testing and counseling services, outreach and service delivery to Transgender persons will be refined to make them more accessible and responsive to their needs. PEPFAR will work in the cluster districts to increase the reach of services to TG populations, including transferring learning from other countries in Asia with TG-friendly clinics that offer comprehensive TG-sensitive services on-site. Additionally, key stakeholders influencing TG populations, particularly the 'parent' TG family 'Guru' will be engaged in TG-focused activities through the help of network mobilizers and community supporters as part of the peer navigation strategy.

Innovative strategies to find, reach, and test KPs and their partners, which include HIV screening through targeted interventions and CBT by peer educators, were piloted in Thane district and will be initiated in the remaining districts. The CBT approach in India is based on task-shifting the initial HIV screening test to counselors in TIs at times and places convenient to KPs. Only those people who are reactive on the first screening test are then referred to testing centers for confirmatory testing.

PEPFAR India will optimize the use of civil society organizations (CSOs), in conjunction with discussions with GOI, to find hotspots (large concentrations of KPs) to target for HIV testing, and work through networks to promote peer navigation to HIV testing. This Enhanced Peer Mobilizer model will be implemented in all geographic focus districts, to identify and manage HIV-positive clients across the HIV cascade, and partner with an informal network of incentivized Peer Mobilizers to expand program reach.

Digital media, e-learning modules, and videos, as well as monitoring intensity and quality of service delivery will be aggressively restructured to focus on new and emerging KPs. The program will support internet- and social media-based demand generation activities for the hard to reach MSM and young FSW. These activities include online interpersonal communication and counseling techniques, using standardized tools to guide interpersonal contact and focus on highest-risk individuals and referral, testing, and retention. The social network recruiting model will aim at reaching beyond clients who were traditionally accessed through peer outreach. A pay-for-performance system, based on testing volumes for new testers and registered linkages into the ART system, will also be introduced in the program.

Other ongoing advocacy efforts with NACO will include initiating PrEP among KPs and packaging lubricants with condoms as a prevention product for distribution in PEPFAR-supported cluster districts. PEPFAR India will use the AIDS Prevention and Treatment System (APATS)/RTM, a digital application for outreach workers to improve monitoring and evaluation at the outreach level as well as between outreach, HIV testing, and treatment. The application will also guide workers through their tasks to help standardize the outreach approach and link clients through the prevention to the care and treatment cascade.

PEPFAR India will partner with FSW, MSM PWID, and PLHIV networks, faith-based organizations and community structures to mobilize the KP community and address stigma and discrimination. A Stigma Index tool, leveraging prior work by UNDP and UNAIDS and generated through crowd-sourcing mobile platforms or apps, will be developed to 'measure' levels of stigma and discrimination faced by KPs in health settings and in the community. Team training of health care providers will be carried out in HIV facilities to reduce stigma and discrimination faced by KPs at ICTC testing facilities, ART clinics, pharmacies and laboratories.

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

SNU	Total PLHIV	Expected current on ART (APR FY 16)	Additional patients required for 80% ART coverage	Target current on ART (APR FY17) TX_CURR	Newly initiated (APR FY 17) TX_NEW	FY17 Net New	ART Coverage (APR 17)
East Godavari	40,258	23,020	10,677	26824	3452	3,803	67%
Guntur	41,069	19,123	15,556	21356	2869	2,233	52%
Krishna	29,322	15,327	9,336	17701	2300	2,375	60%
Mumbai	55,601	35,302	13,627	35587	5296	283	64%
Pune	33,270	24,256	4,490	27910	3637	3,653	84%
Thane	23,881	18,362	2,395	21015	2754	2,653	88%
Total	223,401	135,390	56,081	150,393	20,308	14,999	

Table 4.1.2.a Entry Streams for Adults and Pediatrics Newly Initiating ART Patients in Scale-up Districts for Northeast districts

	Tested for HIV (APR FY17)	Identified Positive (APR FY17)
Aizwal	2827	283
Champai	650	66
Churachandpur	626	75
Dimapur	1872	60
Imphal East	3231	388
Imphal West	2356	283
Kohima	1341	43
Lunglei	904	90
Mokchung	2246	72
Thoubal	1261	151
Tuensang	1336	43

Wokha	865	28
Total	19515	1582

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

Entry Streams for ART Enrollment	Tested for HIV (APR FY17)	Identified Positive (APR FY17)	Newly initiated (APR FY 17) TX_NEW
East Godavari	31,112	1,035	3,452
Key Population & Priority Population	5,368	371	
Partner testing	1,542	463	
Pregnant women	24,202	99	
Guntur	33,689	1,327	2,869
Key Population & Priority Population	7,725	546	
Partner testing	1,940	582	
Pregnant women	24,024	89	
Krishna	36,565	1,145	2,300
Key Population & Priority Population	7,919	542	
Partner testing	1,714	514	
Pregnant women	26,932	54	
Mumbai	99,891	2,891	5,296
Key Population & Priority Population	17,570	802	
Partner testing	3,171	726	
Pregnant women	71,527	150	
Pune	33,324	1,085	3,637
Key Population & Priority Population	8,841	888	
Partner testing	2,193	858	
Pregnant women	24,952	72	
Thane	69,741	833	2,754
Key Population & Priority Population	44,668	223	
Partner testing	1,644	493	
Pregnant women	22,196	47	
Total	304,323	8,316	20,308

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

Table 4.1.4 Target Populations for Prevention Interventions to Facilitate Epidemic Control

Target Populations	Population Size Estimate (scale-up SNUs)	Coverage Goal (in FY17)	FY17 Target
Key Population			
FSW			
East Godavari	7,364	90%	6,628
Guntur	10,093	90%	9,084
Krishna	10,081	90%	9,073
Mumbai	5,750	90%	5,175
Pune	20,000	90%	18,000
Thane[39]	15,000	90%	13,500
Sub-total	68,288	90%	61,459
MSM/TG			
East Godavari	1,408	90%	1,267
Guntur	2,530	90%	2,277
Krishna	2,443	90%	2,199
Mumbai	2,548	90%	2,293
Pune	12,693	90%	11,424
Thane	6,847	67%	4,591
Sub-total	28,469	84%	24,051
PWID			
Krishna	416	90%	374
Pune	1,083	90%	975
Thane	300	90%	270
Sub-total	1,799	90%	1,619
Total (Key Population)	98,556	88%	87,309
Priority Population			
Migrants	380,581	30%	114,174
Truckers	60,000	45%	27,000
Total (Priority Population)	440,581	32%	141,174

PEPFAR India will enhance the capacity of institutions at all levels, including CSOs, to address violence against KPs. Specifically, it will strengthen the existing crisis response system that is part of the TI program to address violence against KPs. In the northeast, a structured program to sensitize law enforcement officials will be implemented to decriminalize drug use and to link PWID to MAT centers.

4.3 Voluntary Male Medical Circumcision (VMMC)

n/a

[39] Thane district is prioritized as sustained

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

The GOI has been implementing Option B+ nationwide since January 2014. However, universal coverage of HTS among pregnant women still remains a barrier. Other challenges include ART and EID services; stigma- and discrimination-free services; safe obstetric interventions for HIV positive women; and linkage of HIV-infected Mother/Baby pairs to postnatal HIV care, support, and treatment.

In AP and MH priority districts, PEPFAR India will provide TA for to support linkage of pregnant women to HIV testing, optimizing implementation of Option B+, support EID testing scale-up and retention in care for MB pairs, implementing the PMTCT-ART Linkage System (PALS), supporting monitoring and evaluation, and conducting pilots of viral load testing for pregnant women.

4.5 HIV Testing Services (HTS)

HTS for Key Populations

In India, HTS is provided at diverse access points in the health care system, at the village/community, sub-district, district, and/or state levels, and from healthcare facilities, standalone sites, mobile units and CBT. HIV screening services are provided at facility-integrated ICTCs (public and private), and CBT is done by auxiliary nurse midwives in some labor rooms. Confirmation of HIV tests is done at stand-alone ICTCs situated at the sub-district, district, and state levels.

According to NACO guidelines, all KPs should be tested for HIV once every six months. One of the major gaps in HTS is low yield of HIV positives among KPs (Section 1.1, Epidemiology profile). Among those tested, positivity rates within each target group are far below the estimated prevalence captured through the most recent IBBS survey. Multiple factors were identified as barriers for KPs and migrants to access testing, including previous experiences of discrimination by healthcare providers, distance, unsuitable timings, long waiting times, and difficult terrains (especially in the northeast region). A rapid assessment done by a PEPFAR-supported project identified that distance from testing facility played a major barrier in testing of KPs. A major reason for the low positivity rates among KPs is that the outreach services are not reaching the more vulnerable, who seldom access HIV testing services.

PEPFAR India will conduct hotspot analysis to identify and map first time testers or KPs who have never come to HIV testing facilities. PEPFAR India will implement several strategies to increase testing and services to those harder-to-reach KPs, including new and younger cohorts. NACO is revising the HTS guidelines, which include CBT and screening by lay providers, which will help reach previously untested KPs and increase the uptake of HTC and yield. CBT will be accompanied by a standardized set of counseling resources for outreach workers, including peer educators, and is linked to an IT system that will assist with tracking KPs tested and linked to

care. PEPFAR India will also work with CSOs to crowd-source new approaches to improve testing in KPs. PEPFAR India will pilot CBT by lay providers in all priority districts. This will be a platform for NACO to scale up in all high burden locations in the country, based on lessons learned.

In addition to CBT, other new testing approaches will be based on new guidance from NACO on HIV Testing Services guidelines like the use of mobile vans, camps etc. In consultation with the SACS, DAPCUs, the National Health Mission, and civil society, PEPFAR India will devise innovative delivery mechanisms for scale up.

PEPFAR India will segment testing subpopulations for HTS, including KPs who have never been tested, newly registered young KPs, clients of FSWs, TB infected, KPs treated for STIs, pregnant women, partners of PLHIV, (extended) family members of OVC who have not tested, and private sector patients (testing and reporting). New approaches under HTS include innovative approaches for ensuring confidential testing, using urban health posts as testing sites, CBT, "KP- and customer-friendly" services, models for private sector engagement and training for providers. PEPFAR India will utilize SIMS visits at community level sites to identify strategies for reaching new and young KPs, KPs in non-traditional settings (mobile based), and regular partners of KPs. Post-approval from NACO, PEPFAR India will pilot Test and Start among KPs in priority districts in AP, MH and the three northeastern states. PEPFAR India is still discussing modalities with GOI and CSOs, but proposed options for incentivized testing are through peer mobilization and community based support groups; peer navigation techniques using mobile/tablet based algorithms; performance-based incentives (referrals that result in testing, especially new testers); and via a costing analysis of performance-based incentives through non-TI approaches.

Note that the national guidelines do not recommend retesting of HIV-positive individuals. Technical assistance will be provided in strengthening the linkages from testing to treatment in innovative ways, such as the use of existing community groups/institutions like self-help groups (buddy concept); optimal use of existing frontline workers, peer workers etc.; and by using SMS technology through PALS, where reminders will be sent to health care providers and beneficiaries for follow up and continuum of care. Importantly, PEPFAR India will implement RTM and APATS to track HIV positive KPs not only for prevention purposes, but also for linkages to ART and retention.

Partner Trace and Test

Efforts to increase the testing of partners of PLHIV are limited, despite several recent publications indicating that the HIV positivity rate among spouses of PLHIV was as high as 45% in India. Increasing the coverage of partner HIV testing is vitally important for achieving the first 90 goal, but reaching this population faces multiple challenges. PTT is hindered by stigma and the fear of violence and/or separation upon disclosure. In addition, specific guidance and tools on partner notification are unavailable, and high patient loads constrain the amount of time a counselor can spend with the client. PEPFAR India will also strengthen PTT in the cluster districts of AP and

MH by implementing strategies for scaling up HIV testing at stand-alone ICTCs, linking the partners testing positive for HIV to ART; and linking partners testing negative for HIV to positive prevention to keep them HIV negative.

Blood Banks

Prevalence of Transfusion Transmitted Infections (TTIs) is still high, and transmission of HIV through blood/blood products accounts for 1% of all HIV transmission. Though national sero-positivity among blood donors is .17%, in the priority districts, HIV prevalence among blood donors is higher, with six of the nine districts having rates of .23%, with Mumbai having a prevalence of .40% among blood donors. As a transitioning activity to GoI, PEPFAR's investment has decreased by over 50%. The annual blood collection target of ~600,000 units in the cluster districts is through a network of 201 NACO-supported and private sector blood banks, reaching over 600,000 individuals with knowledge of their HIV status. PEPFAR will provide TA to blood banks to implement quality management systems (QMS) to work towards accreditation, and increase coverage of an external quality assurance scheme (EQAS) to 80% in the priority clusters, offering an opportunity to prevent a large proportion of transfusion-transmitted infections (TTIs). PEPFAR India will also implement mechanisms for donor tracking, both for deferred donors and those initially testing HIV reactive, and linking them to ICTCs, then on to treatment. Ensuring country ownership and sustainability, PEPFAR will transition the capacity building efforts, wherein the Government will take over 80% of the responsibility to mentor and monitor blood banks and expand EQAS for TTIs outside the priority districts. This is yet another example of scale-up of PEPFAR-supported activities to address the HIV epidemic in India.

HIV Screening in TB Patients

PEPFAR/India will support NACO and Central TB Division (CTD) in its efforts to scale up HIV testing of TB patients. It will support NACO to train lab technicians of DMCs to carry out and increase the HIV screening of presumptive TB patients. In the cluster districts, PEPFAR India will augment the efforts to increase the tracking, documenting, and coverage of HIV screening of suspected TB patients. In addition, PEPFAR India will engage private sector health care providers treating TB cases to improve referrals for HIV testing.

4.6 Facility and Community-based Care and Support

As of September 2015, 1.15 million PLHIV in India are in active care, of which 902,000 are alive on ART. The GOI is scaling up viral load testing, although CD4 testing is presently used for initiation and monitoring of ART. The current network of CD4 testing labs lacks adequate external EQA coverage, implementation, corrective action support, and the reporting, analysis and use of EQA data for program improvement. Beyond this, the GOI commits to quality improvement across all service delivery sites - ART, HIV and related HIV testing. Currently recognized gaps in care and treatment are discussed in Section 6, Gap 2.

PEPFAR India will support, with site level TA, all ARTC in the 18 priority districts, as well as high-load stand-alone-ICTCs of these districts, to improve quality of testing and bridge gaps in linking individuals to care services. PEPFAR India will also work at facility level to develop QMS for ICTC, CD4, VL and EID labs, and focus on blood banks for improved quality of HIV testing and linkage to HIV care in the cluster districts. Interventions at the ARTC will concentrate on bridging the leaky cascade as well as the HIV-TB linkages.

Service integration exists between HIV and reproductive health programs, but additional integration opportunities exist, providing for the prevention of HIV, and identification of HIV positive individuals. For example, the STI program in India is integrated with the HIV prevention program, given similarities in control interventions and the relationship between STIs and HIV transmission. Referrals from STI clinics to ICTC numbered 1,514,475, of which 1.25% tested positive for HIV.[40] Further, the majority (80%) of the regional STI labs are HIV referral labs, so building the capacity of Regional STI Training Research and Referral Centers for quality diagnosis and EQAS is done in coordination with HIV LSS.

NACO, with support from PEPFAR India, developed the operational guidelines for implementation of care and support interventions through CSCs, implemented by civil society partners; PEPFAR India will provide training and implementation support for these guidelines.
Please see section 6.0, gap 3, for a discussion on the private sector in care and support.

4.7 TB/HIV

The TB/HIV co-infection rate in the AP and MH priority districts is higher than the national rate of 4%. In the AP cluster, the HIV-TB co-infection rates are 13.1% in Guntur, 17.7% in Krishna and 14.3% in East Godavari. In the MH cluster, the co-infection rate is 10.6% in Pune and 7% in Thane (Mumbai n/a). PEPFAR India is supporting programs in collaboration with NACO and CTD to enhance the HIV-TB response in the public and private sectors.
Public sector strategies include:

a) Strengthening ICF among PLHIVs in ARTC, clients in ICTC, and among KPs in TI. PEPFAR India will develop and train staff on guidelines for implementation of the ICF program in ART, HTC and TI and strengthen linkages between ICF screening program and DMCs for confirmatory tests. PEPFAR India will provide onsite TA and mentoring for strengthening systems for implementing 4-symptom screening in ARTC, ICTC and TI. It will support the implementation of the new guidelines developed by NACO to fast track cough patients in the ARTC.
b) Accelerating HIV testing of presumptive and confirmed TB patients. DMCs recently started HIV testing of presumptive TB cases, but need to scale up. PEPFAR India will support NACO

[40] NACO Annual Report 2012-13

in training the lab technicians of DMCs to carry out screening of both presumptive and confirmed TB patients.

c) Strengthening the HIV-TB treatment cascade. PEPFAR India will support NACO in the implementation of daily anti-TB treatment to ensure that all PLHIV with confirmed TB diagnosis are enrolled and retained. Similarly, it will develop a system to track all TB patients who test positive for HIV to initiation on ART as per the guidelines.
d) Enhancing Airborne Infection Control (AIC) Measures in ARTC. PEPFAR India will establish a technical support program on AIC to ensure implementation and monitoring of national policies and procedures in ARTC of AP and MH clusters. It will conduct trainings for both AP and MH, and support the implementation of cascade training in all the ARTC of these priority districts. Also, it will provide onsite TA to strengthen AIC measures, based on the gaps identified through recent AIC facility assessments.
e) Strengthening HIV-TB coordination mechanisms. PEPFAR India will enhance the HIV-TB response in the northern states by strengthening HIV-TB coordination mechanisms. It will build the capacity of SACS and District TB Office to implement the HIV-TB program.

In the private sector, PEPFAR India will strengthen HIV screening of TB patients and linkages to government HTC for confirmation:

a) Improving HIV-TB case detection by working with the private medical sector in Mumbai, Thane, and Pune to refer all confirmed and presumptive TB cases to private HIV testing laboratories for HIV screening. All cases with a reactive HIV test will obtain a confirmatory test from the government HIV testing center and linked with ART services.
b) Generating data on private sector-diagnosed TB patients co-infected with HIV, to better understand practices in the private sector for diagnosing HIV among the TB affected population.

4.8 Adult treatment

PEPFAR India supports NACO in the development of policies, guidelines, and curricula; review of the Care, Support and Treatment program; and provision of TA to CoE and national and state AIDS clinical expert panels for improvement in the quality of clinical care. PEPFAR India will implement activities to improve ART service delivery at ARTC, with focus on improvements in ART coverage, care cascade, data reporting, data quality and utilization, and quality of care.

The leaky cascade exhibits gaps in the linkage of HTS to ART, delays in the initiation of ART, and low retention in ART. The linkage between HTS and care is currently only 86% at the national level, and as low as 51% in priority districts. This is due, in part, to under-utilized referral mechanisms, case tracking, and follow up. ART initiation is also as low as 35% in the clusters, and this is attributable to delays in lab investigations for eligibility and baseline evaluation; diversion of patients as a result of co-existing TB infections; and lack of patient preparedness for ART initiation. Retention also needs to be strengthened. Per the Early Warning Indicator exercise, retention is at 76%, due primarily to deaths, LTFU, and self-stopping. Uneven and irregular

coordination between various service mechanisms under the program (e.g. from CSC to ARTC), inadequate counseling, delayed diagnosis and registration, and drug stock outs all also contribute to low retention.

To meet its needs for viral load monitoring, GOI plans to outsource viral load testing, while scaling up their institutional capacity for viral load testing. The government plans to implement viral load monitoring in a phased manner, reaching ~ 1 M population in three years, initially prioritizing patients who have been on ART for more than 5 years, HIV-TB co-infected individuals, HIV-Hep C co-infected individuals, CLHIV, and pregnant women.

As such, patient monitoring, per national guidelines, will continue to be done via CD4 testing. Additionally, there are still significant issues in the quality of CD4 testing which need to be addressed, and capacity building is necessary to address those quality gaps.

India announced on December 1, 2015 that it will be moving to ART initiation at CD4<500, and implementation is expected in April 2016. However, Test and Start has been implemented in India for specific subpopulations: (1) pregnant women; (2) TB/HIV co-infected; (3) patients co-infected with HIV and Hepatitis B or C with chronic liver disease; (4) children less than five years of age; and (5) PLHIV with disease stages three and four. ART initiation for sero-discordant couples has been approved but not yet implemented. PEPFAR is discussing with GOI implementation of Test and Start in the priority districts for KPs.

Test and Start still faces multiple barriers. Test and Start was not budgeted in either the NACP-IV, or relatedly, under the 2016 budget. Discussions on financial planning for NACP-V have not yet been initiated, so no post-2017 financial plans have been set for NACP-V. Also, NACO will need to establish and strengthen service delivery sites to support additional PLHIV burden. Staff numbers will need to be increased and trained, and task shifting considered in order to provide quality care and support to patients, as well as to support increased reporting, in the face of existing vacancies occurring at all levels.

As of December 2015, a total of 122,640 PLHIV were alive on ART in the AP and MH priority districts, and to reach a saturation of 80% there is an unmet need of 29,297. PEPFAR will work in these districts to improve ART coverage through:

1. Strengthening the leaky care cascade, by strengthening existing tracking systems for case referrals between HTS and ART service delivery, and coordination mechanisms at district level. PEPFAR India will review progress and challenges in the ART response at national, regional and CoE level, and build the capacity of ARTC on cascade analysis and utilization of their local data for planning and intervention. Though already implemented for pregnant women, there will be movement towards same day ART initiation for other populations to reduce LTFU.
2. Supervision, monitoring, and mentoring of staff at the ARTC, to ensure sustainability of the ART response and quality of care. PEPFAR India will strengthen systems for ARTC

mentoring through capaccity building of CoE on quality, and data management, quality and validation.

3. Addressing programmatic challenges by sensitizing program managers on the issues of human resources, ART stock outs, and trainings, and addressing these gaps through in-service trainings.

4.9 Pediatric Treatment

Currently, almost 100,000 children living with HIV/AIDS (CLHIV) are registered for HIV treatment and care services at ARTC across India, and 44,592 (42%) of them are on ART. Barriers include the lack of a comprehensive package of services for CLHIV, few EID collection centers, limited EID testing capacity, and separation of care for MB pairs and CLHIV across different sites. PEPFAR India will provide TA to the pCoE in the cluster districts to facilitate comprehensive service delivery for CLHIV at ARTC. Interventions will include cadre-wise training of ARTC staff on implementation of national guidelines and CLHIV care, and onsite TA to improve the quality of CLHIV care and treatment. PEPFAR India also proposes focused TA to enhance the capacity of EID testing labs through improving QMS and linkages between specimen collection and testing.

4.10 OVC

India has 7 million children with at least one parent living with HIV, and 1.5 million children orphaned by HIV/AIDS.[41] Contextually, HIV – related orphans and vulnerable children (OVC) represent a small percentage of the overall OVC in India. However, they are subject to greater stigma and discrimination than other OVC. In addition, GOI has many social protection programs geared towards vulnerable populations, with available budgets for families to access. A key barrier is for children affected or infected with AIDS (CABA), their families, caregivers and key staff in HIV programs is access to information about the services that are available for them to access. Thus, the OVC program PEPFAR India has a very targeted approach that is very different from the standard OVC approaches in Africa. In a time-limited and cost-effective project, PEPFAR India focuses on sensitizing staff in DAPCUs, ICTCs and ARTC on available services, updating existing ARTC records to identify families with children, apply a Family and Child Assessment tool that identifies children and extended family members who need to be tested for HIV. Families are then provided with linkages to testing, care, and treatment. Emphasis will be placed on meeting the needs of OVC (including health and nutrition, psychosocial support, household economic strengthening, social protection and legal support) to facilitate their access to HIV services. *[REDACTED].* Further analysis of this data will be done to identify the risk profiles and counseling approaches that are achieving such high yields and inform programming at ICTCs and ARTCs to catch these family members earlier. This will inform the programmatic recommendations to GOI on how to scale up OVC approaches in other states, including how to

[41] UNICEF, 2010

leverage CSR resources for OVC support. These activities will be fully transitioned to GOI by October of 2018.

Table 4.1.5 Targets for OVC and Linkages to HIV Services

	Estimated # of Orphans and Vulnerable Children	Target # of active OVC (FY17 Target) OVC_SERV
AP	28,946	8,220
East Godavari	10,531	3,834
Guntur	10,744	2,428
Krishna	7,671	1,958
MH	29,495	15,071
Mumbai	14,545	6,983
Pune	8,703	3,458
Thane	6,247	4,630
TOTAL	58,441	23,291

4.11 Northeast Strategy

Rationale

Many areas of the northeastern region of India have been challenged by insurgency/disturbed law and order, poor governance, limited infrastructure, hilly terrain, a porous international border, and high levels of drug trafficking. Furthermore, there is a high prevalence of injection drug use and unsafe sexual behavior. These challenges limit the reach of the national program, limiting their efforts to achieve epidemic control and reduce deaths, calling for innovative program approaches to address these needs. In response to this call, the national program supported development of the Northeast strategy, a process for which PEPFAR India extensively engaged with various stakeholders including SACS, general health systems, NGOs, Community and faith based organizations and PWID community.

It should also be noted that the total population of PWID in the northeastern states is based on the available data, but as implementation just began, the accuracy of these figures has not been assessed, and in actuality, the population is expected to be much larger. In order to reach this population, an analysis of all the hotspots (where PWID congregate) in the 12 districts will be carried out. The analysis will be conducted by mentors using program data and in consultation with the community and the targeted interventions outreach team. This analysis will help in identifying the vulnerable PWID population such as PWID with higher number of injecting episodes, young PWID, first time testers and PWID who live on the fringes and who due to distance and their social conditions do not come to health facilities.

It should be noted that PEPFAR India understands there may be overlaps between groups of KPs, for example, PWID who are FSW or MSM. The NE program includes this approach of targeting

PWID who are sex workers or MSM. However, the main focus, of this strategy is to reach, test, link, treat and prevent HIV among PWID. Note that the figures for PWID do not include the PWID in the MAT programs in the northeastern states, as PEPFAR's focus there is on testing, MAT, and linkage to care and treatment, not prevention.

Innovative Strategies for PWID

Lower threshold interventions: To improve access to prevention services, PEPFAR India will implement lower threshold interventions on needle syringe distribution and medication-assisted therapy (MAT). It will support a secondary needle syringe distribution program to attain a high scale up of needle syringe distribution, thus ensuring that all injecting episodes are occurring with the use of new needles and syringes. Similarly, to improve MAT coverage, take home dosing, task shifting to nurses and flexi-timings will be implemented.

Test and Treat: strategies to reach peer networks

PEPFAR India will carry out data analysis of intervention sites and hold consultations with targeted intervention outreach team and the PWID community to identify unreached population. The PWID in these new pockets will be mobilized through outreach sessions and the trained outreach workers will conduct the HIV screening. PWID who are positive will be linked to ART services. The project will also counsel and test spouses/intimate partners of positive PWID and link them to prevention and care and treatment services. Besides, gender-sensitive strategies will be designed to provide HIV/AIDS services to female PWID. The healthcare providers will be trained on specific counseling approaches for creating a supportive environment for these individuals in health facilities and the community.

To prevent overdose and mortality related to drug overdose, PEPFAR/India will implement NGO or peer-led Naloxone program to prevent overdose and mortality related to drug overdose in high burden locations. The project will also support the establishment of a real-time data capturing and program monitoring software solution, which will facilitate monitoring and documenting progress toward quality of interventions and coverage targets and timely collection and use of data to improve the delivery of services. The project will also adopt new approaches to locate newer pockets until we attain total saturation.

Expected Impact

- 90% estimated HIV positive PWID know their HIV status
- 80% HIV positive PWID started on ART
- 20% of PWID enrolled in MAT
- 90% of PWID linked to needle syringe program

5.0 Program Activities in Sustained Support Locations and Populations

5.1 Package of services in sustained support locations and populations

Thane district

The Thane district is prioritized as sustained, with saturation expected within FY17. In Thane, PEPFAR India provides direct support for targeted interventions and implementation of the DNM to increase coverage of prevention to care continuum services by reaching 19,932 KPs and 141,174 priority populations. PEPFAR India is supporting 5,157 HIV-infected adults and children with care and support services at three CSCs and one outside health facility as part of a time-limited service delivery innovation pilot to improve the continuum of care for KPs. The package of services includes psychosocial counseling, treatment adherence counseling, referral and linkages to social welfare and protection schemes.

The direct service delivery activities in Thane will be transitioned by March 2017 to the state of MH. PEPFAR India will continue to provide TA for the core package of services at the district level. Test and Start and CBT for KPs will be piloted in this district, and integration of HTS at the urban health posts of the Thane Municipal Corporations (MC) will be prioritized, leveraging MC resources to sustain HIV prevention activities in selected geographic areas within the district.

National Technical Assistance

PEPFAR India maintains some broader sustained technical assistance activities to maximize GOI investments and support sustained epidemic control in other portions of the country. PEPFAR India will build the capacity of networks of PLHIV to work together and advocate for key issues and policies at national, state and district levels, particularly for the continuum of care in the states of AP and MH.

An overarching area of support is strengthening data system and data use (the National Strategic Information Management System), surveillance, monitoring and evaluation, operations research, and establishing a case reporting system within the HIV response. PEPFAR India will help to strengthen the overall HIV information systems through the development of improved database linkages, and national SOPs, tools, and guidelines to improve HIV surveillance and monitoring systems. Because a current information system exists but is not yet functioning at all administrative levels, such work is critical to ultimately allow tracking individuals through the cascade, identify individual risk characteristics, improve HIV case surveillance, and respond to changes in epidemiology. Thus, PEPFAR India will continue to provide targeted TA to NACO towards vertical elimination of MTCT, including MB pair tracking, reviews of Option B+ implementation, and strengthening linkage to HTS and Care.

Based upon the geographic overlap of the TB and HIV epidemics, focused PEPFAR India HIV/TB activities will be provided in eight northern States (Bihar, Chhattisgarh, Jharkhand, Odisha, Madhya Pradesh, Rajasthan, Uttar Pradesh, and Uttarakhand) which have a high burden of TB, low TB/HIV screening, and showing trends of rising HIV infections.

PEPFAR India lab programs at the national level include development of policies/guidelines to promote quality, HIV rapid testing, EID, VL monitoring, and support to the National and State Reference Labs (SRLs) will be sustained. These lab system strengthening (LSS) activities look holistically at lab-related program gaps important for bridging gaps in the clinical cascade, providing quality services, improving referrals for HIV prevention, and monitoring viral load suppression. On the track towards transition to GoI, PEPFAR's support in the area of blood safety will address capacity building of blood bank staff through training, improving quality, and strengthening the distribution of blood and blood products. GOI has already begun taking over many of these activities.

Table 5.1.1 Expected Beneficiary Volume Receiving Minimum Package of Services in Sustained Support Districts

Sustained Support Volume by Group	Expected result APR 16	Expected result APR 17	Percent increase (decrease)
HIV testing in PMTCT sites	PMTCT_STAT	No targets set	
HTS (only maintenance ART sites in FY 17)	HTC_TST	No targets set	
Current on ART	TX_CURR	No targets set	
OVC	OVC_SERV	No targets set	

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

During the COP15 process, the PEPFAR team made significant geographic shifts in the portfolio. As noted in section 1.4 above, PEPFAR will not make additional geographic changes as part of COP16. During COP 16, a few modifications will be made to transition the direct support of migrant and trucker interventions to NACO, and the support in non-priority districts of in-service regional training programs, QMS, and the mentoring and monitoring of blood banks (Appendix A).

6.0 Program Support Necessary to Achieve Sustained Epidemic Control

6.1 Critical Systems Investments for Achieving Key Programmatic Gaps

PEPFAR India has identified three key programmatic gaps that should be addressed in order to achieve 90-90-90 and sustained epidemic control:

The first gap pertains to limited access to HTS for key and priority populations, as described in Section 4.4. If successful in addressing these barriers to HTS, the numbers tested will increase (HTC_TST, PMTCT_STAT, TB_STAT), as will the yield (HTC_TST_POS). More highly vulnerable people will know their status, and this should translate to additional persons receiving care (CARE_NEW) and treatment (TX_NEW).

The second gap pertains to the 2nd 90 in the leaky cascade, as described in Section 4.8. Reducing these gaps will result in additional patients in pre-ART (CARE_NEW), ART (TX_NEW, TX_CURR), and retained in treatment (TX_RET), and a reduction of first line treatment failure.

The third gap pertains to the 3rd 90, as described in Section 4.6 and 4.8. Addressing these gaps in treatment retention, limited viral load testing, and insufficiently trained lab manpower will result in optimized clinical outcomes through routine VL monitoring of ART clients.

TABLE 6 Above-Site Barriers and PEPFAR India Response							
Table 6.1.1. Key Programmatic Gap #1: Finding the Undiagnosed Positives (First 90)							
Key Systems Barrier	**Milestones/Outcomes expected after 1- 3 years of investment**	**Frequency of Monitoring**	**Proposed COP Activities**	**Budget Code(s)**	**Activity Budget Amount**	**Associated Implementing Mechanism ID**	**Relevant SID Element and Score (if applicable)**
Current HTS approaches for outreach to KPs and other vulnerable populations are saturating already identified KP networks, but not closing the gap by reaching new, missing KPs	Missing KPs and other vulnerable groups identified, tested and testing yield increased from baseline by 10% 50% more new and young KPs reached with HTS through more KP (and youth) friendly services than at baseline[1]. 20% increase in other high risk populations reached with HTS and positive prevention over baseline (30% increase in partner tracing and testing, 5% increase for testing of pregnant women, over baseline) Develop & use real-time monitoring from 1st POC to improve follow-up & close gap in HTS	Quarterly	Develop and build capacity to implement new methods of reaching KPs and other persons at high risk and enroll them in HTS, through snowballing, linkages with TB and Chest OPD sites, outreach to KP networks, and screening of OVC family members.	OHSS HVOP HKID OHSS OHSS HVSI MTCT	$206,800 $25,000 $20,539 $100,000 $39,786 $40,000 $50,000	LINKAGES - 17339 PIPPSE -14841 OVC - 16566 PATH - 17806 APS - 18165 APS – 18165 VHS-16599	6. Service Delivery
			Develop, test and evaluate on-line, e- and m-apps to identify high risk persons and link them to peer counselors and HTS.	OHSS OHSS	$132,500 $25,000	LINKAGES - 17339 PIPPSE - 14841	6. Service Delivery
			Strengthen capacity at State and District levels to perform client risk assessment, case profiling, size estimations and mapping of priority populations for scale up	OHSS HVOP	$227,408 $50,000	LINKAGES - 17339 PIPPSE – 14841 WHO- 17353	6. Service Delivery
			Strengthen capacity to use program level data from HTS sites for improved capacity-building measures at the National and Sub National levels	OHSS OHSS HKID HTXS	$121,500 $245,549 $95,197 $400,000	LINKAGES - 17339 PIPPSE - 14841 PATH - 17806 VHS-16599 Project Sunrise-17351 WHO- 17353	6. Service Delivery

High discrimination and stigma discourage KPs from getting tested	Stigma and discrimination against KPs reduced in cluster districts by 10%[1] Community based monitoring/feedback mechanism established to document and address instances of stigma and discrimination, including through establishment of grievance redressal mechanism.	Policy: after one year Assess: quarterly	Develop systems to link key populations experiencing gender based violence or human rights abuses that lead to reduced condom availability, with relevant health, legal, and social services providers and document these episodes. Build capacity of community based organization for using stigma and discrimination tools Sensitize HCW, community members (PWID) to encourage access to facility-based services.	OHSS OHSS	$52,130 $20,000	LINKAGES - 17339 UNAIDS – 18168 Project Sunrise-17351	2. Policies and Governance 3. Civil Society Engagement
Structural barriers preventing PWID from accessing harm reduction services	Increased access, acceptability, coverage, and quality of combination PWID services - 30% more PWID accessing combination prevention services, over baseline	Annually	Pilot lower threshold interventions such as secondary needle distribution outlets, take home OST dosing, satellite OST centers for female PWID, flexi-timing and task shifting to increase coverage and retention in OST program and HIV care Test innovative approaches on gender-sensitive services for Female PWID and spouses of PWID and prison interventions	OHSS		Project Sunrise-17351	6. Service Delivery

Table 6.1.2. Key Programmatic Gap #2: Initiating and retaining on Treatment

Key Systems Barrier	Milestones/Outcomes expected after 1-3 years of investment	Frequency of Monitoring	Proposed COP Activities	Budget Code(s)	Activity Budget Amount	Associated Implementing Mechanism ID	Relevant SID Element and Score (if applicable)
Gaps between HTC and ART	50% of linkage gap bridged from HTC to ART Functional Real Time Monitoring (RTM) systems link client data across service delivery points to identify clients for timely follow-up 50% of linkage gap bridged from Blood Banks to HTC sites and care	Semi-annually	Enhance national and subnational staff capacity to collect, report, analyze, and use quality data for program planning	HVSI HVSI	$344,560 $100,000	LINKAGES – 17339 PIPPSE – 14841 WHO- 17353 UNAIDS- 14088	15. Performance Data
		Quarterly	Develop and roll out functional real time monitoring systems to link client data across service delivery points and interlink reporting systems Pilot and implement HIV Case Reporting in priority districts	HVSI HVSI	$25,000 $300,000	LINKAGES – 17339 PIPPSE – 14841 Project Sunrise-17351 WHO- 17353	6. Service Delivery; 15. Performance Data
		Monthly	Implement mechanisms to strengthen referrals and tracking of screen positives at Blood Banks to HTC sites and continuum of care and support	HMBL	$50,000	CMAI - 16580	6. Service Delivery 7. Human Resources for Health

Gaps between care and initiation of ART	50% reduction of gap between Care to ART Compliance with treatment initiation policy raised in cluster districts leading to a 50% reduction of gap between Care to ART Lessons learned from lowering treatment eligibility threshold informs Test and Start roll-out See Table 6.2.1 'Test and Start' for related outcomes	Semi-annually	Advocacy for policy, revision of national guidelines (technical, operational) and review of ART program at national level for continuous quality improvement of care and treatment service delivery for PLHIV	HBHC	$123,810	HSS/HRSA - 18167	2. Policies and Governance; 6. Service Delivery
		Annually	Strengthen Adult ART Centers of Excellence (CoEs) for monitoring patterns and emerging trends of indicators related to ART service delivery through Distance Learning Seminars (DLS), CMEs and onsite mentoring	HTXS	$185,714	HSS/HRSA - 18167	6. Service Delivery 7. Human Resources for Health
			Strengthen Pediatric Centers of Excellence (PCoEs) for monitoring patterns and emerging trends of indicators related to ART service delivery	PDCS	$ 247,619	HSS/HRSA - 18167	6. Service Delivery 7. Human Resources for Health
Poor retention of PLHIV on ART	20% reduction of retention gap	Semi-annually	State specific review of retention cascades (TB, ART, ANC) for Andhra Pradesh and Maharashtra each quarter to identify gaps and develop corrective measures for care cascade improvement	HBHC	$247,619	HSS/HRSA - 18167	6. Service Delivery
	Data on Retention of PLHIV (TB, ART, ANC) reviewed for district clusters and State-level in Maharashtra and Andhra Pradesh and NE to identify gaps and develop corrective measures for care cascade improvement	Quarterly	Enhance national and subnational staff capacity to collect, report, analyze, and use quality data for program planning	HVSI HVSI	$20,000 $100,000	LINKAGES – 17339 PIPPSE – 14841 HSS/HRSA – 18167 WHO- 17353 UNAIDS- 14088	7. Human Resources for Health
	Community networks piloted to improve adherence Developed competencies of ART and Care and Support Centers (CSCs) to improve coverage and retention of PLHIV in treatment in priority districts 20% reduction of retention gap	Quarterly	Develop, implement and evaluate effectiveness of innovative community-based prevention, care and support approaches to identify, enroll and retain KPs through the cascade.	OHSS	$61,570	LINKAGES – 17339 PIPPSE - 14841	6. Service Delivery

Table 6.1.3. Key Programmatic Gap #3: Achieving Viral Load Suppression							
Key Systems Barrier	**Milestones/Outcomes expected after 1-3 years of investment**	**Frequency of Monitoring**	**Proposed COP Activities**	**Budget Code(s)**	**Activity Budget Amount**	**Associated Implementing Mechanism ID**	**Relevant SID Element and Score (if applicable)**
Lack of guidelines and capacity for VL testing	National guidelines for Viral Load testing developed VL testing outsourced to private sector Targeted[42] VL used among 60% of patients for improved patient management and ART use System and Accords to monitor VL testing quality and results operationalized	Semi-Annually	Advocacy for policy and guidelines at national level for scale-up and capacity building for VL testing Implement national guidelines and scale up VL testing in priority districts	HLAB	$100,000	SHARE - 17350	2. Policies and Governance
		Quarterly	Implement mechanisms for lab and clinical interface				
		Quarterly	Build capacity for specimen collection, transportation, testing and quality of VL testing				

[42] Targeted viral load testing is aimed at patients needing second line ART, as per current guidelines of the national program,

6.2 Critical Systems Investments for Achieving Priority Policies

India's adoption of WHO guidelines for Test and Start still faces multiple barriers. First, budgets for implementation were not included in either the NACP-IV, or the 2016 or 2017 budgets. There are very preliminary discussions underway with the World Bank for including the costs of Test and Start under the current prevention-focused loan. Once financial support is achieved, service delivery sites will need to be established and strengthened to support the increase in PLHIV accessing services. Staff numbers will need to be increased, training facilitated, and task shifting considered in order to provide quality care and support to patients, as well as to support increased reporting, in the face of existing vacancies occurring at all levels.

With post-approval from NACO, PEPFAR India will pilot Test and Start among KPs in priority districts in AP, MH and the three northeastern states. PEPFAR India is still discussing modalities with GOI and CSOs, but proposed options for incentivized testing are through peer mobilization and community based support groups; peer navigation techniques using mobile/tablet based algorithms; performance-based incentives (referrals that result in testing, especially new testers); and via a costing analysis of performance-based incentives through non-TI approaches.

Table 6.2.1. Test and Start							
Key Systems Barrier	**Milestones/Outcomes expected after 1-3 years of investment**	**Frequency of Monitoring**	**Proposed COP Activities**	**Budget Code(s)**	**Activity Budget Amount**	**Associated Implementing Mechanism ID**	**Relevant SID Element and Score (if applicable)**
Lack of a national policy on Test and Start	Pilots for Test and Start reviewed and analyzed for potential further application Monitoring PLHIV continuum of care at national level and cluster districts Existence of a national policy and guidelines for Test and Start	Annually	Continue evidence based advocacy for Test and Start implementation for KPs in clusters and nationally	HBHC OHSS OHSS HVSI OHSS	$100,000 $10,630 $75,674	HSS/HRSA - 18167 LINKAGES - 17339 EQUIP - 18164	11. Domestic Resource Mobilization; 14. Financial/Expenditure Data
		Semi-annually	Maintenance of existing successfully implemented PMTCT tracking tool PALS (for follow up of all PLHIV pregnant women and their babies), at national level/cluster level will be extended to develop module on capturing all PLHIVs in country tracking for continuum of care.	HVSI	$150,000	VHS-16599 HSS/HRSA – 18167 WHO- 17353 UNAIDS- 14088	15. Performance Data
	50% of the gap in EQAS/PT bridged	Annually	Pilot Test & Start in cluster districts, analyze and apply to national policy (Technical support for national guidelines)	HVSI OHSS	$10,000 $261,620	UNAIDS - 18168 LINKAGES - 17339	2. Policies and Governance
			Advocacy for policy and guidelines at national level for quality improvement for HIV testing (facility and community)	HLAB	$100,000	SHARE Lab - 17350	2. Policies and Governance
		Annually	Strengthen HIV testing laboratory network (NRL/SRL) for quality improvement, mentoring of HTS sites and expansion of EQAS/ PT	HLAB	$150,000	SHARE Lab - 17350	9. Quality Management
Insufficient resources to close coverage gap	50% of coverage gap improved 20% of retention gap bridged Completion of economic modeling, increasing the financial resources to support ART scale up Policy paper on strategy for integration of services and resources made available in	Annually	Enhance capacity of CD4 testing facilities through 1) implementation of CQI; 2) case reporting; 3) training lab staff on EID and VL, and lab referrals/linkages. Develop competencies of ART and Care and Support Centers (CSCs) to improve coverage and retention of PLHIV in treatment Strengthen clinical mentoring and PLHIV case management through capacity building of HIV Centers of Excellence (CoEs)	PDCS	$247,619	HSS/HRSA – 18167 EQUIP- 18164 UNAIDS - 18168	6. Service Delivery 7. Human Resources for Health; 9. Quality Management

	cash or kind at the local level from other programs including NHM						
	Improved quality of services through 2 epidemic-specific operations research conducted 1 national and 2 sub national assessments carried out for performance improvement and midcourse correction Successful integration of information systems, enabling efficient cascade tracking	Annually	Technical assistance to NACO in conducting reviews, human resources capacity building, operations research and information systems strengthening	HVSI	$300,000	VHS-16599 WHO- 17353 UNAIDS- 14088	13. Epidemiological and Health Data

Table 6.2.2. New and Efficient Service Delivery Models[43]

Key Systems Barrier	Milestones/Outcomes expected after 1- 3 years of investment	Frequency of Monitoring	Proposed COP Activities	Budget Code(s)	Activity Budget Amount	Associated Implementing Mechanism ID	Relevant SID Element and Score (if applicable)
Proposed integration of HIV and	Stronger models for addressing holistic health needs of HIV+ will be demonstrated by	Annually	Support integrated lab services that can be leveraged across co-morbidities of PLHIV for both communicable and non- communicable diseases	HLAB	$200,000	CMAI-16580	

[43] It is proposed under NACP-V to integrate HIV/AIDS services into the greater health services

general health services could affect quality, outreach and resources	50% increased testing, increases in linkages to care and treatment services as laid out in Table 6.1.1 and 6.1.2 Reduced stigma in accessing services by 15% from baseline[44] Policy paper on strategy for integration of services and resources made available in cash or kind at the local level from other programs including NHM		Provide training and mentoring to SACS, DAPCUs in the cluster districts as well as technical assistance within health facilities to strengthen integration of HIV-related services into wider health or community platforms, strengthening social protection by improving PLHIV links to existing social services.	OHSS	$80,000	PIPPSE - 14841 OVC - 16566 LINKAGES – 17339	6. Service Delivery 7. Human Resources for Health
			Support integration and decentralization by reviewing service integration and quality across programmatic components	HLAB	$100,000	CMAI-16580	6. Service Delivery
			Provide technical support to NACO on innovative and alternative financing options for integrated systems.	OHSS	$20,000	UNAIDS – 18168	11. Domestic Resource Mobilization; 14. Financial/Expenditure Data
			Support integrated access to services for HIV-TB co-infections and improved quality of care and prevention of co-infection with TB	HVTB	$120,000	PIPPSE - 14841 PATH - 17806	6. Service Delivery
	50% of linkage gap bridged from HTC to ART, 50% of ART coverage gap improved, 20% of retention gap bridged towards achieving 90-90-90	Quarterly	Improve the access and strengthen linkages and referrals in accessing continuum of care through District AIDS Prevention Control Unit (DAPCU) through targeted technical support including mentoring to effectively coordinate the delivery of HIV services and converge with the National Health Mission (NHM).	OHSS	$100,000	VHS-16599	6. Service Delivery
	Networking and planning systems from cluster districts replicated in 20% of the DAPCUs in other high burden districts in the country	Quarterly	Transferring lessons learnt from DAPCU from the clusters to national level	OHSS	$100,000	VHS-16599	6. Service Delivery
Inadequate supervision/ monitoring	Established mechanisms of mentoring Adapt monitoring and	Annually	TA and mentoring on use of programmatic data Strengthen the strategic information management system and	HTXS	$350,000	SHARE India-17286 WHO- 17353	15. Performance Data

[44] LINKAGES plans to utilize stigma index in the cluster districts and Project Sunrise will use a similar index in the North East

and mentoring at ART Centers	supervisory systems into integrated system		implement the HIV Case Reporting in 6 districts to demonstrate utility in integration of systems.			UNAIDS-14088	
Gaps in resources required to scale up care & treatment services	20% of retention gap bridged towards achieving 90-90-90 Evaluation of task shifting feasibility completed	Annually	Strengthen capacity of DAPCUs in high burden districts to effectively implement the prevention, care and treatment continuum of services	OHSS	$100,000 (16599); $227,408 (17339); $769,081 (14841)	VHS-16599 PIPPSE - 14841 LINKAGES – 17339 WHO- 17353 UNAIDS-14088	6. Service Delivery
	Targeted Intervention and Technical Support Units score higher on annual assessments SIMS assessment of sites show improvement in quality scores 50% of ART coverage gap improved 20% of retention gap bridged towards achieving the 90-90-90	Annually	On-site technical capacity building at community, facility and above sites especially during SIMS visits	IDUP; OHSS	$100,000 (17351); $80,000 (14841); $271,258 (17339)	PIPPSE - 14841 LINKAGES – 17339 Project Sunrise-17351	7. Human Resources for Health
			Quality assessment and outcome evaluation of NACO training program for clinical staff of ARTC	HBHC	$123,810	HSS/HRSA - 18167	9. Quality Management
	Gap in TB screening in PLHIV bridged by 50% Gap in retention in care of TB co-infected PLHIV bridged by 20% 30% increase from baseline of ART Centres implementing AIC measures OST coverage increased from 12% to 20%.		Build capacity of high burden TB states at national level to implement the three 'Is' (ICF, IPT, AIC) and daily ATT	HTXS	$350,000	SHARE India-17286	6. Service Delivery
			Implement lower threshold activities such as take home OST dosing and flexi-timing to improve access to services			Project Sunrise-17351	6. Service Delivery
			Support implementation of task shifting			Project Sunrise-17351	6. Service Delivery 7. Human Resources for Health
			Task sharing among existing Blood bank personnel to ensure referral to HTC	HMBL	$50,000	CMAI-16580	6. Service Delivery 7. Human Resources for Health

6.3 Proposed system investments outside of programmatic gaps and priority policies

Strategic Information (SI)

PEPFAR India recognizes the fundamental need for strategic information in program planning, implementation and monitoring at all levels within the HIV response in India. As such, in FY16, PEPFAR investments in this area will be sustained, to ensure robust systems of data capture from facility-level up to national level (within the National Strategic Information Management System), along with program monitoring and evaluation, surveillance and surveys (including district epidemiologic profiles), establishing a national case-reporting system, and conducting operations research to strengthen program strategies and patient outcomes. Targeted SI activities will be applied in the priority SNUs to plug gaps in the cascade, and to strengthen capacity of facility-level staff to routinely analyze program data, and conduct evidence-based decision-making in a timely manner.

Laboratory Systems Strengthening (LSS)

PEPFAR India laboratory programs pivoted in FY16 to provide greater focus on the facilities in cluster districts, while keeping a few maintenance activities at national level. PEPFAR investments in lab systems are key to the achievement of all three UNAIDS 90-90-90 targets through activities pertaining to HIV rapid testing, EID, VL monitoring. These LSS activities look holistically at those lab-related opportunities that are important for bridging gaps in the clinical cascade, providing quality services, supporting referrals for HIV prevention and monitoring of viral load suppression. Note that LSS activities directly impacting one of the above gaps have already been listed in the preceding tables.

Blood Safety

In support of NACO's enhanced focus to reduce TTIs, and to both contribute the diagnosis of HIV (first 90) and strengthen the blood safety system in India, PEPFAR seeks to leverage its expertise in the provision of technical assistance in the priority districts on following key areas:

1. Implement quality systems, blood donor management from collection, production, testing, storage, hemovigilance, and clinical interface;
2. Strengthen information systems to screen donors based on HIV status, improve laboratory quality, and data; and
3. Quality assurance, with focus on lab quality improvement and proficiency testing.

Table 6.3. Other Proposed Systems Investments							
Systems Category* (only complete for categories relevant to country context)	**Milestones/Outcomes expected after 1-3 years of investment**	**Activity**	**For each activity, indicate which of the following the activity addresses: 1) First 90; 2) Second 90; 3) Third 90; or 4) Sustained Epi Control. (Teams may select more than one.)**	**Budget Amount**	**Budget Code(s)**	**Associated Implementing Mechanism ID**	**Relevant SID Element and Score (if applicable)**
Finance	Increased domestic resources allocated from municipal and state level authorities as shared HIV/AIDS programming costs at state level from 0% to 10%	State level advocacy to increase domestic resource mobilization	Sustained epi control	$50,000	OHSS	LINKAGES - 17339 PIPPSE - 14841	11. Domestic Resource Mobilization; 14. Financial/Expenditure Data
Governance	Improved coordination and ownership of state BTCs, and 100% Blood banks with valid license	National and state level advocacy initiatives	Sustained Epi Control	$25,000	HMBL	CMAI-16580	2. Policies and Governance
HRH - Systems/Institutional Investments	Increased capacities- 60% increase in capacity of blood bank staff in blood bank functions and quality systems	Strengthen Blood Bank laboratory workforce through in-service training, onsite Mentoring and Supportive supervision	Sustained Epi Control	$100,000	HMBL	CMAI-16580	7. Human Resources for Health
		Blood bank e-learning initiatives	Sustained Epi Control	$10,000	HMBL	CMAI-16580	7. Human Resources for Health
	Quality and coverage of HIV prevention and testing services supported by Municipal Corporations improved[45]	Strengthen the capacity of Municipal Corporations in Thane district for HIV prevention interventions	Sustained Epi Control	$5,000	HVOP	PIPPSE - 14841	6. Service Delivery
	30% of the labs achieved minimum lab quality standards.	Implement Quality Management Systems (QMS) in unaccredited HIV Testing Referral Labs (NRLs and SRLs)	Sustained Epi Control	$220,000	HLAB	SHARE Lab - 17350	9. Quality Management
	Improved quality and turnaround time for EID, reduced by 40% (in terms of amount of time taken for return of test results, to 10 days)	Strengthen QMS at EID testing labs and between sample collection sites and EID testing labs	Sustained Epi Control, First 90	$100,000	HLAB	SHARE Lab - 17350	9. Quality Management

[45] Municipal corporations only support limited testing services to date in Thane, and no prevention services are supported. New prevention services supported by municipal corporations will be assessed using the GOI annual grading for TIs. Testing services will be assessed via SIMS assessments.

	Improved quality services of blood banks in relation to testing and QA. HIV/AIDS transmission reduced to less than .5%	Implement Blood Bank standards, QMS (including EQAS for TTIs and IH) to ensure safe transfusion practice through quality screening of Transfusion Transmitted Infections	Sustained Epi Control	$75,000	HMBL	CMAI-16580	9. Quality Management
		Facilitation of certification/accreditation in selected Blood Banks	Sustained Epi Control	$40,000	HMBL	CMAI-16580	9. Quality Management; 10. Laboratory
Strategic Information	Introduction of a blood bank monitoring system nationally, to monitor reduction in TTIs	Strengthening the India SIMS	Sustained Epi Control	$50,000	HMBL	CMAI-16580	15. Performance Data
	District authorities in clusters have up-to-date data on children infected and affected by HIV/AIDS (CABA) in the districts and 30% CABA are linked to services[46]	Improving the data collection for OVC and family members using Family and Child assessment tool	First 90, Second 90	$20539	HKID	OVC-16566	15. Performance Data
Systems Development	Improved capacities of Targeted intervention NGOs for increased coverage of services among KPs as demonstrated by: KP testing yields increased by 10% from baseline and 50% more new and young KPs reached with HTS	Strengthen government support for HIV prevention intervention in priority states (Technical Support Units)	Sustained Epi Control First 90	$500,000	HVOP, HSS, HVSI	LINKAGES - 17339	6. Service Delivery
	Improved supply management system in blood banks in order to increase access to safe blood and reduce TTIs by 10% from baseline	E-Blood Banking	Sustained Epi Control	$50,000	HMBL	CMAI-16580	9. Quality Management
		Technology based supply chain management system	Sustained Epi Control	$50,000	HMBL	CMAI-16580	5.Public Access to Information; 8. Commodity Security and Supply Chain

[46] Currently, districts only have very limited data on CLHIV and no data on children affected by HIV.

7.0 Program Support Necessary to Achieve Sustained Epidemic Control

Per the analysis conducted of the staffing footprint and interagency organizational structure, and the subsequent in-country review, the following points can be noted:

a. USAID has 29% and CDC has 71% of FTEs
b. 79% of FTEs are local staff
c. 50% of staff is technical and programmatic oversight and support, 23% are technical leadership/management, 22% are administrative/logistics, 4% are legal/financial/contracting, and 1% is US Mission leadership/public diplomacy.
d. The top 5 budget codes for staff allocation were HVMS (35%), HVSI (15%), OHSS (7%), HTXS (7%), and HVTB (6%).
e. Greatest numbers of FTEs were dedicated to Intra-agency Admin, Training, Financial Management (30%) – this aligns with HVMS allocation;. The next highest categories were intra-agency partner management/coag admin/site visits (20%); then interagency other and interagency leadership (14%); then by external engagement for ta (11%)

In order to maximize effectiveness and efficiency to achieve program pivots, PEPFAR India adjusted staff time to reflect changes in program emphasis. For example, increased staff time will be spent in FY17 on PWID activities with the launch of the Northeastern PWID project (Project Sunrise). Additional staff time on SI and Lab to support reporting requirements and anticipated regional work. PEPFAR India has made adjustments to FY17 staff allocation to reflect general concordance with the budget, however, in some cases this was not possible: OVC, PMTCT, and PWID are each supported by a single person (or a proportion of a single person), so reallocating those individual's time would not be accurate.

For PEPFAR India, each agency maintains its own business processes. Most of the technical areas have little overlap between agencies, but there is a leading agency in the event of overlap. In terms of time, 50% of staff time is spent on intra-agency business, 28% on interagency business, and 22% on external engagement. Days spent out of office are for SIMS visits, and will be distributed across agencies, proportional to the number of sites, particularly for staff with heavy partner management responsibilities. PEPFAR India has also looked for opportunities to generate efficiencies in SIMS visits: All staff members have been fully trained on SIMS 2.0, and any PEPFAR-supported staff can conduct a SIMS visit in community, facility, or above-site locations. The team will also minimize travel by geographically clustering visits.

For staffing changes occurring in 2017, given the focus of the program, one CDC position is being repurposed to focus on HIV/TB. The staff currently focused on TB was stretched thin with PWID and prevention work, and this will allow more focused efforts in both aspects of the program. *[REDACTED].* Finally, regional support to Sri Lanka is still in progress, and staffing allocations are

being determined along with finalization of a Sri Lanka work plan. While PEPFAR India is finalizing these changes, no new staff is proposed.

The recruitment and hiring process in India is similar to other posts in that lengthy security investigations precede hiring of local as well as international staff. India hiring is constrained by an inter-agency process that may take somewhat longer than other smaller posts, for both local and direct hires, both in terms of creating the position and identifying space. While vacancies of local staff may fill more quickly than those of direct hires, Mission India has had difficulties in staffing direct hires due to air quality concerns, and is looking for ways to make the post more attractive to applicants. Additional complications arose recently due to political tension between the U.S. and India, causing delays in visa processing. The current vacancies have been analyzed in conjunction with analysis of the staffing footprint and the functions under the position have been deemed essential to meet program needs.

As a TA/TC country, USG staff members in India directly engage with NACO and sub-national unit officials on results as well as challenges and lessons learned from the program, and for the development of policies and guidelines. SIMS visit results are shared with district and SACS officials, and stock shortages and other areas identified for focus are communicated through the appropriate channels. Site monitoring and TA are related activities that are frequently done simultaneously, allowing an exchange of ideas and thoughts between a subject matter expert and staff members at the site, leading to mentoring and increased awareness.

The PEPFAR India CODB for COP16, in comparison to COP15, is reduced in the bilateral budget by 7%. These reductions were mainly due to staff vacancies that will remain vacant for a period of time in COP16, and lower associated support costs due to the rise in the exchange rate favorable to the US dollar. If the CODB request is not fully funded, it will impact the ability to do TA, both within India and to the region, and may impact the feasible number of SIMS visits.

APPENDIX A: Core, Near Core, and Non-core Activities

Table A.1 Program Core, Near-core, and Non-core Activities for COP 16

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
Site level	• Develop, implement and evaluate effective client profiling, partner tracing and index testing methods • Develop, implement and evaluate innovative ways to identify new HIV+ KPs, including risk screening, and snowballing • Increase HIV testing and ensure effective referrals for treatment among presumptive TB cases, inpatients and outpatients, STI patients, sero-discordant couples, partners and children of PLHIV, partners of positive TB and STI patients • Demonstrate innovative and sustainable approaches to improve targeted reach, uptake of community-based testing, and confirmatory testing and tracking of HIV+ KPs with a focus on the most at risk key populations, in particular MSM, transgender women, and female sex workers, including m- and e- applications • Continue evidence based advocacy for Test and Start implementation for KPs in clusters and nationally	• Pilot Test and Start in cluster districts, analyze and apply to national policy • District Network Model support to CSCs • Conduct assessment on Fast Tracking of known pulmonary TB patients and persons with respiratory infection as an effective airborne infection control practice • Analysis of factors associated with LTFU for PLHIV on ART, and implementation of strategies to reduce LTFU • Develop and build TI capacity to utilize data to implement new methods of reaching KPs and other persons at high risk and enroll them in HTS, through snowballing, linkages with TB and Chest OPD sites, outreach to KP networks, and screening of OVC family members	

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
	• Pilot Test & Start in cluster districts, analyze results and apply to national policy, including 1) Technical assistance for updating guidelines, SOPs, training documents; 2) Direct assistance in TOT; and 3) Technical assistance for monitoring, reporting, analysis	• Develop systems to link key populations experiencing gender based violence or human rights abuses that lead to reduced condom availability, with relevant health, legal, and social services providers and document these episodes	
	• Develop competencies of ART and Care and Support Centers (CSC) to improve coverage and retention of PLHIV in treatment	• Develop capacity of STI program; improving lab and services delivery linkages with focus on quality improvement	
	• Facilitate increase in ART coverage through strengthening referrals from ARTC to CD_4 testing sites and strengthening quality of CD_4 testing	• Use of tablet-based APATS/Real Time Monitoring system to track linkages of KPs to HTS and other services under the second and third 90s	
Site level	• Develop, implement and evaluate effectiveness of innovative community-based prevention, care and support approaches to identify, enroll and retain KPs through the cascade • Pilot Test & Start in cluster districts, analyze and apply to national policy (Technical support for national guidelines) • Strengthen ART Centers in the priority districts for quality of care improvement, and link, track and retain PLHIV and CLHIV through clinical mentoring and capacity building • Conduct and strengthen partner capacity to do client risk assessment, case profiling, size estimations and mapping of priority populations in high priority		

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
	geographic clusters • Document and address cases of abuse and human rights violations and other legal barriers among key populations that lead to stigma, discrimination and reduced condom availability • Link key populations experiencing gender based violence or human rights abuses to relevant health, legal, and social services providers and a process for documenting and reporting these episodes • Improve social protection services for PWID populations • BCC strategy for prevention to care continuum for KPs • Pilot lower threshold interventions such as secondary needle distribution outlets, take home OST dosing, satellite OST centers for female PWID, flexi-timing and task shifting to increase coverage and retention in OST program and HIV care • Systematically assess practical public health strategies and tools (i.e. CBT, and Bamboo puncture-proof containers for needle/syringe disposal) to expand coverage and improve quality, efficiencies and effectiveness of PWID services • Linkages with care and treatment services including Hep C and TB for PWID populations • Developing competencies of PMTCT centers to increase coverage of PMTCT services for pregnant women, lactating mothers, and children • Increase access, quality and continuum of care of PMTCT services among pregnant and breast feeding women and children in cluster districts working towards elimination of vertical transmission • Adoption of case management approach for OVC to		

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
	ensure delivery of comprehensive services including livelihood security, social protection and education, health and nutrition • Scale up of the successful pilot of the introduction of single window for OVC and their family members to access both health (ARV) and social protection services and other entitlements • Follow up CABA to increase family tracing for higher yield • Scale up of good laboratory practices at the HTC sites in cluster districts and capacity building of HIV testing lab network to improve quality of HIV testing at national and state levels • Provide TA for quality improvement and strengthening of specimen collection/transportation for viral load and EID • Facilitate improved coverage of second line ART through strengthening linkages of viral load testing facilities with sample collection sites • Support integrated lab services that can be leveraged across co- morbidities of PLHIV for both communicable and non- communicable diseases to strengthen referrals and to enhance the capacity for quality diagnosis of priority diseases of public health importance and clinical uptake (Labs for Life PPP) • Initiate activities towards strengthening HIV/STI laboratory network, mentoring of NRLs, SRLs, HTS , VL and CD4 testing sites, to improve uptake of lab services for quality HIV testing, quality improvements and monitoring of clinical outcomes • Develop and roll out functional real time monitoring systems to link client data across service delivery points and interlink reporting systems		

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
	• Pilot data quality improvement at the clusters through the use of site, facility and component-specific tools, to enhance rigor in data and its use for local decision making • Strengthen facility-level strategic information management systems in priority cluster districts • Strengthen capacity of high burden districts to effectively implement the prevention, care and treatment continuum services through DAPCUs and SACS for improved coverage of services along the prevention to care continuum among KPs, OVC, TB-HIV patients, and PLHIV communities • Provide training and coaching to SACS, and DAPCUs in the cluster districts as well as technical assistance within health facilities to strengthen integration and mainstreaming of HIV-related services into wider health or community platforms, strengthening social protection by improving PLHIV links to existing social services		
Sub-national level	• Develop, implement and evaluate effective client profiling, partner tracing and index testing methods	• Pilot Test and Start in cluster districts, analyze and apply to national policy	Blood Safety - national and SNUs that are non- priority
	• Develop, implement and evaluate innovative ways to identify new HIV+ KPs, including risk screening, and snowballing	• District Network Model support to CSCs	
	• Increase HIV testing and ensure effective referrals for treatment among presumptive TB cases, inpatients and outpatients, STI patients, sero-discordant couples, partners and children of PLHIV, partners of positive TB and STI patients.	• Conduct assessment on Fast Tracking of known pulmonary TB patients and persons with respiratory infection as an effective airborne infection control practice	
	• Demonstrate innovative and sustainable approaches to	• Analysis of factors	

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
	improve targeted reach, uptake of community-based testing, and confirmatory testing and tracking of HIV+ KPs with a focus on the most at risk key populations, in particular MSM, transgender women, and female sex workers, including m- and e- applications • Strengthen capacity of NACO, SACS, DAPCUs, TSUs and TIs to coordinate, lead, implement, and monitor HTS through updating guidelines, SOPs, training documents, TOT, monitoring, reporting, analysis and onsite technical support • Continue evidence based advocacy for Test and Start implementation for KPs in clusters and nationally • P*ilot Test & Start in cluster districts, analyze results and apply to national policy, including* 1) Technical assistance for updating guidelines, SOPs, training documents; 2) Direct assistance in TOT; and 3) Technical assistance for monitoring, reporting, analysis • Develop competencies of ART and Care and Support Centers (CSC) to improve coverage and retention of PLHIV in treatment	associated with LTFU for PLHIV on ART, and implementation of strategies to reduce LTFU • Develop capacity of AP state government partners to optimize access to comprehensive PMTCT services, as part of routine Option B+ • Develop and build TI capacity to utilize data to implement new methods of reaching KPs and other persons at high risk and enroll them in HTS, through snowballing, linkages with TB and Chest OPD sites, outreach to KP networks, and screening of OVC family members • Improve capacity in monitoring Option B+ implementation, cohort analysis, data management and program outcomes • Strengthen capacity of government service providers, counselors, ANMs and ASHAs for facilitating quality improvement and horizontal convergence of HIV with AP's health	

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
		program	
	• Facilitate increase in ART coverage through strengthening referrals from ARTC to CD_4 testing sites and strengthening quality of CD_4 testing	• Increase private sector investment in OVC programs for comprehensive services	
	• Develop, implement and evaluate effectiveness of innovative community-based prevention, care and support approaches to identify, enroll and retain KPs through the cascade	• Provide in-service training to lab workforce, improve information systems and implement quality standards	
	• Support integrated access to services for HIV-TB co-infections and improved quality of care and prevention of co-infection with TB	• Capacity development and greater involvement of community-based organizations in production and use of strategic information and strategic planning efforts	
	• Enhance the capacity of healthcare workers and targeted interventions (TIs) to scale up ICF among KPs and fast track pulmonary TB patients	• Conduct a market assessment of sources of care for HIV services	
	• Strengthen ART CoEs and PCoEs for treatment monitoring, including State and National AIDS Clinical Expert Panels to optimize treatment outcomes and addressing gaps identified in National ART Assessment	• Enhance national and subnational staff capacity to collect, report, analyze and use quality data for program planning	
	• Conduct and strengthen partner capacity to do client risk assessment, case profiling, size estimations and mapping of priority populations in high priority geographic clusters	• Introduction of social inclusion schemes that provide insurance and improved access for health services including treatment of opportunistic infections for HIV+ KPs	
	• Document and address cases of abuse and human rights violations and other legal barriers among key populations that lead to stigma, discrimination and	• Help to develop national SOPs, tools, and guidelines to improve HIV surveillance	

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
	reduced condom availability	and monitoring systems to allow tracking individuals through the cascade, identify individual risk characteristics, improve HIV case surveillance/reporting, and respond to changes in epidemiology	
	• Link key populations experiencing gender based violence or human rights abuses to relevant health, legal, and social services providers and a process for documenting and reporting these episodes • BCC strategy for prevention to care continuum for KPs • Pilot lower threshold interventions such as secondary needle distribution outlets, take home OST dosing, satellite OST centers for female PWID, flexi-timing and task shifting to increase coverage and retention in OST program and HIV care • Developing competencies of PMTCT centers to increase coverage of PMTCT services for pregnant women, lactating mothers, and children • TA on review of PMTCT program and capacity building at the national level • Scale up of good laboratory practices at the HTC sites in cluster districts and capacity building of HIV testing lab network to improve quality of HIV testing at national and state levels • Provide TA for quality improvement and strengthening of specimen collection/transportation for viral load and EID • Facilitate improved coverage of second line ART through strengthening linkages of viral load testing facilities with sample collection sites • Support integrated lab services that can be leveraged		

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
	across co- morbidities of PLHIV for both communicable and non- communicable diseases to strengthen referrals and to enhance the capacity for quality diagnosis of priority diseases of public health importance and clinical uptake (Labs for Life PPP) • Initiate activities towards strengthening HIV/STI laboratory network, mentoring of NRLs, SRLs, HTS , VL and CD_4 testing sites, to improve uptake of lab services for quality HIV testing, quality improvements and monitoring of clinical outcomes • Determine key population characteristics and locations to guide targeted interventions to bring KPs and PPs in for treatment (IBBS, HSS, SIMS and CMIS data analysis for cascade and ART outcome monitoring, including EWI) • TA in preparation of ANC surveillance, Estimates, IBBS, program data analysis and reports-and dissemination. • Train men who have sex with men and transgender women to use data to develop and carry out advocacy work • Enhance national and subnational staff capacity to collect, report, analyze, and use quality data for program planning. • Develop and roll out functional real time monitoring systems to link client data across service delivery points and interlink reporting systems • Strengthen capacity of high burden districts to effectively implement the prevention, care and treatment continuum services through DAPCUs and SACS for improved coverage of services along the prevention to care continuum among KPs, OVC, TB-HIV patients, and PLHIV communities • Provide training and coaching to SACS, and DAPCUs in the cluster districts as well as technical assistance		

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
	within health facilities to strengthen integration and mainstreaming of HIV-related services into wider health or community platforms, strengthening social protection by improving PLHIV links to existing social services • Support integration and decentralization by reviewing service integration and quality across programmatic components		
National level	• Strengthen capacity of NACO, SACS, DAPCUs, TSUs and TIs to coordinate, lead, implement, and monitor HTS through updating guidelines, SOPs, training documents, TOT, monitoring, reporting, analysis and onsite technical support • Continue evidence based advocacy for Test and Start implementation for KPs in clusters and nationally • Pilot Test & Start in cluster districts, analyze results and apply to national policy, including 1) Technical assistance for updating guidelines, SOPs, training documents; 2) Direct assistance in TOT; and 3) Technical assistance for monitoring, reporting, analysis • Strengthen ART CoEs and PCoEs for treatment monitoring, including State and National AIDS Clinical Expert Panels to optimize treatment outcomes and addressing gaps identified in National ART Assessment • TA on review of PMTCT program and capacity building at the national level	• Improve capacity in monitoring Option B+ implementation, cohort analysis, data management and program outcomes • Increase private sector investment in OVC programs for comprehensive services • Strengthen capacity of government service providers, counselors, ANMs and ASHAs for facilitating quality improvement and horizontal convergence of HIV with AP's health program • Provide in-service training to lab workforce, improve information systems and implement quality standards • Provide technical assistance to develop blood safety strategy and policy and implement quality improvement systems to	• Blood Safety - national and SNUs that are non- priority

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
		ensure safe transfusion practices	
	• Scale up of good laboratory practices at the HTC sites in cluster districts and capacity building of HIV testing lab network to improve quality of HIV testing at national and state levels	• Leverage CSR resources and PPP initiatives to improve access to blood and components	
	• Provide TA for quality improvement and strengthening of specimen collection/transportation for viral load and EID	• Provide TA for a unified national information system with integrated and rationalized IT systems	
	• Facilitate improved coverage of second line ART through strengthening linkages of viral load testing facilities with sample collection sites	• Capacity development and greater involvement of community-based organizations in production and use of strategic information and strategic planning efforts	
	• Determine key population characteristics and locations to guide targeted interventions to bring KPs and PPs in for treatment (IBBS, HSS, SIMS and CMIS data analysis for cascade and ART outcome monitoring, including EWI)	• Help to develop national SOPs, tools, and guidelines to improve HIV surveillance and monitoring systems to allow tracking individuals through the cascade, identify individual risk characteristics, improve HIV case surveillance/reporting, and respond to changes in epidemiology	
	• TA in preparation of ANC surveillance, Estimates, IBBS, program data analysis and reports-and dissemination	• Enhance national and subnational staff capacity to collect, report, analyze and use quality data for program planning	
	• Technical assistance to NACO to conduct reviews,	• Identify best practices for	

Level of Implementation	Core Activities	Near-core Activities	Non-core Activities
	human resources, capacity building and information systems • Provide technical support to NACO on innovative and alternative financing options for integrated systems	resource mobilization at district level to sustain HIV/AIDS services • Introduction of social inclusion schemes that provide insurance and improved access for health services including treatment of opportunistic infections for HIV+ KPs • Through the Grand Challenges Award identify and foster innovations to bridge gaps in the cascade • Strengthen capacities of private health care providers for improved reporting, referral for HTS and treatment as per national guidelines • *[REDACTED]*	

Table A.2 Program Area Specific Core, Near-core, and Non-core Activities for COP 16

Program Area	Core Activities	Near-core Activities	Non-core Activities
HTS	• Develop, implement and evaluate effective client profiling, partner tracing and index testing methods. • Develop, implement and evaluate innovative ways to identify new HIV+ KPs, including risk screening, and snowballing • Increase HIV testing and ensure effective referrals for treatment among presumptive TB cases, inpatients and outpatients, STI patients, sero-discordant couples, partners and children of PLHIV, partners of positive TB and STI patients • Demonstrate innovative and sustainable approaches to improve targeted reach, uptake of community-based testing, and confirmatory testing and tracking of HIV+ KPs with a focus on the most at risk key populations, in particular MSM, transgender women, and female sex workers, including m- and e- applications • Strengthen capacity of NACO, SACS, DAPCUs, TSUs and TIs to coordinate, lead, implement, and monitor HTS through updating guidelines, SOPs, training documents, TOT, monitoring, reporting, analysis and onsite technical support. • Continue evidence based advocacy for Test and Start implementation for KPs in clusters and nationally • Pilot Test & Start in cluster districts, analyze results and apply to national policy, including 1) Technical assistance for updating guidelines, SOPs, training documents; 2) Direct assistance in TOT; and 3) Technical assistance for monitoring, reporting, analysis	• Pilot Test and Start in cluster districts, analyze and apply to national policy	

Program Area	Core Activities	Near-core Activities	Non-core Activities
Care	• Develop competencies of ART and Care and Support Centers (CSC) to improve coverage and retention of PLHIV in treatment • Facilitate increase in ART coverage through strengthening referrals from ARTC to CD_4 testing sites and strengthening quality of CD_4 testing • Develop, implement and evaluate effectiveness of innovative community-based prevention, care and support approaches to identify, enroll and retain KPs through the cascade	• District Network Model support to CSCs	
TB Care	• Strengthen HIV-TB cascade including implementation of daily ATT (HIV-TB => DOTS; TB-HIV=> ART) • Support integrated access to services for HIV-TB co-infections and improved quality of care and prevention of co-infection with TB • Enhance the capacity of healthcare workers and targeted interventions (TIs) to scale up ICF among KPs and fast track pulmonary TB patients Improve HIV testing among TB patients treated in the private sector in three districts of Thane, Mumbai, and Pune	• Conduct assessment on Fast Tracking of known pulmonary TB patients and persons with respiratory infection as an effective airborne infection control practice	
Treatment	• Strengthen ART CoEs and PCoEs for treatment monitoring, including State and National AIDS Clinical Expert Panels to optimize treatment outcomes and addressing gaps identified in National ART Assessment • Pilot Test & Start in cluster districts, analyze and apply to national policy (Technical support for national guidelines) • Strengthen ART Centers in the priority districts for	• Analysis of factors associated with LTFU for PLHIV on ART, and implementation of strategies to reduce LTFU • Develop capacity of AP state government partners to optimize access to comprehensive PMTCT services, as part of routine Option B+	

Program Area	Core Activities	Near-core Activities	Non-core Activities
	quality of care improvement, and link, track and retain PLHIV and CLHIV through clinical mentoring and capacity building		
Prevention	• Conduct and strengthen partner capacity to do client risk assessment, case profiling, size estimations and mapping of priority populations in high priority geographic clusters	• Develop and build TI capacity to utilize data to implement new methods of reaching KPs and other persons at high risk and enroll them in HTS, through snowballing, linkages with TB and Chest OPD sites, outreach to KP networks, and screening of OVC family members	
	• Document and address cases of abuse and human rights violations and other legal barriers among key populations that lead to stigma, discrimination and reduced condom availability	• Develop systems to link key populations experiencing gender based violence or human rights abuses that lead to reduced condom availability, with relevant health, legal, and social services providers and document these episodes	
	• Link key populations experiencing gender based violence or human rights abuses to relevant health, legal, and social services providers and a process for documenting and reporting these episodes		
	• Improve social protection services for PWID populations		
	• BCC strategy for prevention to care continuum for KPs		
Prevention	• Pilot lower threshold interventions such as secondary needle distribution outlets, take home OST dosing, satellite OST centers for female PWID, flexi-timing and task shifting to increase coverage and retention in OST program and HIV care		
	• Systematically assess practical public health strategies and tools (i.e. CBT, and Bamboo puncture-proof containers for needle/syringe disposal) to expand coverage and improve quality, efficiencies and effectiveness of PWID services		

Program Area	Core Activities	Near-core Activities	Non-core Activities
	• Targeted TA to scale up Methadone program		
PMTCT	• Linkages with care and treatment services including Hep C and TB for PWID populations • Developing competencies of PMTCT centers to increase coverage of PMTCT services for pregnant women, lactating mothers, and children • TA on review of PMTCT program and capacity building at the national level	• Improve capacity in monitoring Option B+ implementation, cohort analysis, data management and program outcomes • Strengthen capacity of government service providers, counselors, ANMs and ASHAs for facilitating quality improvement and horizontal convergence of HIV with AP's health program	
	• Increase access, quality and continuum of care of PMTCT services among pregnant and breast feeding women and children in cluster districts working towards elimination of vertical transmission		
OVC	• Adoption of case management approach for OVC to ensure delivery of comprehensive services including livelihood security, social protection and education, health and nutrition • Scale up of the successful pilot of the introduction of single window for OVC and their family members to access both health (ARV) and social protection services and other entitlements • Follow up CABA to increase family tracing for higher yield	• Increase private sector investment in OVC programs for comprehensive services	
Program/system support: Lab	• Scale up of good laboratory practices at the HTC sites in cluster districts and capacity building of HIV testing lab network to improve quality of HIV testing at national and state levels	• Develop capacity of STI program; improving lab and services delivery linkages with focus on quality improvement	
Program/system support: Lab	• Provide TA for quality improvement and strengthening of specimen collection/transportation for viral load and EID		

Program Area	Core Activities	Near-core Activities	Non-core Activities
	• Facilitate improved coverage of second line ART through strengthening linkages of viral load testing facilities with sample collection sites • Support integrated lab services that can be leveraged across co- morbidities of PLHIV for both communicable and non- communicable diseases to strengthen referrals and to enhance the capacity for quality diagnosis of priority diseases of public health importance and clinical uptake (Labs for Life PPP) • Initiate activities towards strengthening HIV/STI laboratory network, mentoring of NRLs, SRLs, HTS , VL and CD4 testing sites, to improve uptake of lab services for quality HIV testing, quality improvements and monitoring of clinical outcomes		
Program/system support: Blood Safety		• Provide in-service training to lab workforce, improve information systems and implement quality standards • Provide technical assistance to develop blood safety strategy and policy and implement quality improvement systems to ensure safe transfusion practice • Leverage CSR resources and PPP initiatives to improve access to blood and components	
Program/system support: SI	• Determine key population characteristics and locations to guide targeted interventions to bring KPs and PPs in for treatment (IBBS, HSS, SIMS and CMIS data analysis for cascade and ART outcome monitoring, including EWI)	• Provide TA for a unified national information system with integrated and rationalized IT systems	
Program/system support: SI	• TA in preparation of ANC surveillance, Estimates, IBBS, program data analysis and reports-and dissemination	• Capacity development and greater involvement of community-based organizations in production and use of strategic information and strategic planning efforts	

Program Area	Core Activities	Near-core Activities	Non-core Activities
	• Train men who have sex with men and transgender women to use data to develop and carry out advocacy work	• Help to develop national SOPs, tools, and guidelines to improve HIV surveillance and monitoring systems to allow tracking individuals through the cascade, identify individual risk characteristics, improve HIV case surveillance/reporting, and respond to changes in epidemiology	
	• Enhance national and subnational staff capacity to collect, report, analyze, and use quality data for program planning	• Enhance national and subnational staff capacity to collect, report, analyze and use quality data for program planning	
	• Develop and roll out functional real time monitoring systems to link client data across service delivery points and interlink reporting systems.	• Use of tablet-based APATS/Real Time Monitoring system to track linkages of KPs to HTS and other services under the second and third 90s	
	• Technical assistance to NACO to conduct reviews, human resources, capacity building and information systems		
	• Pilot data quality improvement at the clusters through the use of site, facility and component-specific tools, to enhance rigor in data and its use for local decision making		
	• Strengthen facility-level strategic information management systems in priority cluster districts		
Program/system support: HSS	• Strengthen capacity of high burden districts to effectively implement the prevention, care and treatment continuum services through DAPCUs and SACS for improved coverage of services along the prevention to care continuum among KPs, OVC, TB-HIV patients, and PLHIV communities	• Identify best practices for resource mobilization at district level to sustain HIV/AIDS services	
	• Provide training and coaching to SACS, and DAPCUs in the cluster districts as well as technical assistance within health facilities to strengthen integration and mainstreaming of HIV-related	• Introduction of social inclusion schemes that provide insurance and improved access for health services including treatment of opportunistic infections for	

Program Area	Core Activities	Near-core Activities	Non-core Activities
	services into wider health or community platforms, strengthening social protection by improving PLHIV links to existing social services • Support integration and decentralization by reviewing service integration and quality across programmatic components • Provide technical support to NACO on innovative and alternative financing options for integrated systems	HIV+ KPs • Through the Grand Challenges Award identify and foster innovations to bridge gaps in the cascade • Strengthen capacities of private health care providers for improved reporting, referral for HTS and treatment as per national guidelines • *[REDACTED]* • Conduct a market assessment of sources of care for HIV services	

Table A.3 Transition Plans for Non-core Activities

Transitioning Activities	Type of Transition	Funding in COP 16	Estimated Funding in COP 17	# of IMs	Transition End date	Notes
Transition of migrant and truckers interventions	Maintenance	$0	$0	1	31 March 2017	On-going negotiations with NACO and MH SACS
Totals						

APPENDIX B Planned Spending in 2016

B.1 Planned Spending in 2016

Table B.1.1 Total Funding Level

Applied Pipeline	New Funding	Total Spend
$4,436,544	$20,563,456	$25,000,000

Table B.1.2 Resource Allocation by PEPFAR Budget Code

PEPFAR Budget Code	Budget Code Description	Amount Allocated
MTCT	Mother to Child Transmission	$343,334
HVAB	Abstinence/Be Faithful Prevention	
HVOP	Other Sexual Prevention	$1,855,254
IDUP	Injecting and Non-Injecting Drug Use	$1,820,017
HMBL	Blood Safety	$259,412
HMIN	Injection Safety	
CIRC	Male Circumcision	
HVCT	Counseling and Testing	$981,274
HBHC	Adult Care and Support	$490,916
PDCS	Pediatric Care and Support	$272,033
HKID	Orphans and Vulnerable Children	$247,753
HTXS	Adult Treatment	$1,699,645
HTXD	ARV Drugs	
PDTX	Pediatric Treatment	$148,224
HVTB	TB/HIV Care	$1,418,112
HLAB	Lab	$1,397,950
HVSI	Strategic Information	$3,769,870
OHSS	Health Systems Strengthening	$3,388,984
HVMS	Management and Operations	$2,470,678
TOTAL		$20,563,456

B.2 Resource Projections

The unit expenditures generated through the 2015 EA were not an appropriate source of evidence for budgeting due to the major programmatic changes for COP16, therefore both US government implementing agencies conducted lump sum budgeting.

Budgets have been calculated based on proposed activities and detailed cost estimates as incurred in the past conducting similar exercise. Each activity of a particular CoAg has been mentioned with budget in PBAC and reviewed by the inter-agency.

Agencies reviewed the existing workplans for continuing partners, and used an activity-based approach for budgeting on the lump sum tab in the PEPFAR Budget Allocation Calculator. Aggregate numbers generated from these activities were compared against the previous year's expenditures (per the EA) and budgets, and cross-checked any differences in activities from the 2015 and 2016 workplans to identify the sources of any differences.

The pipeline for CDC is based on actual expenditure numbers and projected expenditures reported by partners. The budget period for CDC cooperative agreements is April-March, so an applied pipeline of five months has been calculated accordingly. The fiscal year and budget year calculations are the major reason for discrepancy in CDC pipeline numbers.