Chapter 24

NATIONAL AIDS CONTROL ORGANIZATION (NACO)

24.1 INTRODUCTION

The National AIDS Control Programme (NACP) has been implemented by Government of India as 100% centrally sponsored scheme through State AIDS Control Societies in the states for prevention and control of HIV/AIDS in the country. The National AIDS Control Programme has evolved through three phases of implementation and is currently in its fourth phase and is globally acclaimed as one of the most successful programmes. The unique strengths that contributes to success of NACP in India include prevention focused policies, evidence-driven strategies, community-centric approaches, designs for scale, dynamic multi-stakeholder response, openness for innovation and country stewardship.

Currently, the NACP-IV (2012-2017) has entered in the last year of its implementation. NACP-IV aims to consolidate the gains made till now while making further strides with a goal of accelerating reversal and integrating response. NACP-IV had two objectives - Reduce new infections by 50% (2007 Baseline of NACP-III) and provide comprehensive care and support to all persons living with HIV/AIDS and treatment services for all those who require it. It adopts five key strategies – prevention, treatment, IEC, SIMS and Institutional Strengthening. Communities were continued to be kept at the centre of response with equity, gender and respect for the rights of communities are continuously adopted as guiding principles. Key priorities identified include preventing new infections by sustaining the reach of current interventions and effectively addressing emerging epidemics; Achieving universal coverage of Prevention of Parent to child transmission; Providing comprehensive care, support and treatment to eligible PLHA; Reducing stigma and discrimination; Ensuring effective use of strategic information at all levels of programme; Building capacities of NGO and civil society partners especially in States with rising epidemic; Integrating HIV services with health systems in a phased manner and Mainstreaming of HIV/AIDS activities.

24.1.1 The package of services provided under NACP-IV includes:

a) **Prevention Services:**

- Targeted Interventions (TI) for High Risk Groups and Bridge Population (Female Sex Workers (FSW), Men who have Sex with Men (MSM), Transgenders/Hijras, Injecting Drug Users (IDU), Truckers & Migrants;
- Needle-Syringe Exchange Programme (NSEP) and Opioid Substitution Therapy (OST) for IDUs;
- Prevention Interventions for Migrant population at source, transit and destinations;
- Link Worker Scheme (LWS) for High Risk Groups and vulnerable population in rural areas;
- Prevention & Control of Sexually Transmitted Infections/Reproductive Tract Infections (STI/RTI);
- Blood Transfusion Services;
- HIV Counselling & Testing Services;
- Prevention of Parent to Child Transmission;
- Condom promotion;
- Information, Education & Communication (IEC) and Behaviour Change Communication (BCC) – Mass Media Campaigns through Radio & TV, Mid-media campaigns through Folk Media, display panels, banners, wall writings etc., Special campaigns through music and sports, Flagship programmes, such as Red Ribbon Express;
- Social Mobilization, Youth Interventions and Adolescence Education Programme;

- Mainstreaming HIV/AIDS response; and
- Work Place Interventions.

b) Care, Support & Treatment Services:

- Laboratory services for CD4 Testing, Viral Load testing, Early Infant Diagnosis of HIV in infants and children up to 18 months age and confirmatory diagnosis of HIV-2;
- Free First line, second line & third line Anti-Retroviral Treatment (ART) through ART centres, Link ART Centres, LAC Plus Center, Centres of Excellence & ART plus centres;
- Paediatric ART for children;
- Psycho-social support through Community and Support Centres;
- HIV-TB Coordination (Cross-referral, detection and treatment of co-infections); and
- Treatment of Opportunistic Infections.

24.2 OVERVIEW OF HIV EPIDEMIC IN INDIA

As per the India HIV Estimation 2015 report, adult (15–49 years) HIV prevalence in India was estimated at 0.26% (0.22% – 0.32%) in 2015. In 2015, adult HIV prevalence was estimated at 0.30% among males and at 0.22% among Females.

Among the States/UTs, in 2015, Manipur has shown the highest estimated adult HIV prevalence of 1.15%, followed by Mizoram (0.80%), Nagaland (0.78%), Andhra Pradesh & Telangana (0.66%), Karnataka (0.45%), Gujarat (0.42%) and Goa (0.40%). Besides these States, Maharashtra, Chandigarh, Tripura and Tamil Nadu have shown an estimated adult HIV prevalence greater than the national prevalence (0.26%), while Odisha, Bihar, Sikkim, Delhi, Rajasthan and West Bengal have shown an estimated adult HIV prevalence in the range of 0.21– 0.25%. All other States/UTs have adult HIV prevalence below 0.20%.

The adult HIV prevalence at national level has continued its steady decline from an estimated peak of 0.38% in 2001-03 through 0.34% in 2007 and 0.28% in 2012 to 0.26% in 2015(**Figure 2.1**). Similar consistent declines were noted among males and females at the national level.

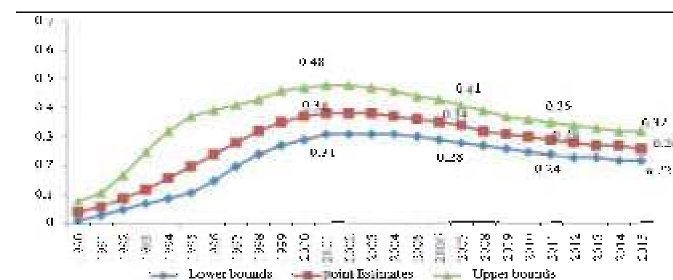


Figure 2.1: Estimated Adult HIV Prevalence (%) in India, 1990–2015 with uncertainty

Bound

The total number of People Living with HIV (PLHIV) in India was estimated at 21.17 lakhs (17.11 lakhs–26.49 lakhs) in 2015 compared with 22.26 lakhs (18.00 lakhs-27.85 lakhs) in 2007. Children (<15 years) account for 6.54%, while females contributed around two fifth (40.5%) of total HIV infections.

Undivided Andhra Pradesh and Telangana have the highest estimated number of PLHIV (3.95 lakhs) followed by Maharashtra (3.01 lakhs), Karnataka (1.99 lakhs), Gujarat (1.66 lakhs), Bihar (1.51 lakhs) and Uttar Pradesh (1.50 lakhs). These seven (7) States together account for two thirds (64.4%) of total estimated PLHIV. Rajasthan (1.03 lakhs), Tamil Nadu (1.43 lakhs) and West Bengal (1.29 lakhs) were other States with estimated PLHIV numbers of 1 lakh or more.

In India, the estimated number of new HIV infections in 2015 were around 86 (56 – 129) thousand. Around 66% decline was observed in new infections from 2000 and 32% decline from 2007, the year set as baseline in the NACP-IV (**Figure 2.2**). Children (<15 years) accounted for 12% (10.4 thousand) of total new infections while the remaining (75.9 thousand) new infections were among adults (15+years).

Figure 2.2: Estimated New HIV Infections in India, 1998–2015

Andhra Pradesh & Telangana, Bihar, Gujarat and Uttar Pradesh currently accounted for 47% of total new infections among adults with each of these States contributing 7.5 thousand or more new infections in 2015.

Since 2007, when the number of AIDS Related Deaths (ARD) started to show a declining trend, the annual number of AIDS related deaths has declined by 54%. In 2015 an estimated 67.6 (46.4 –106.0) thousand people died of AIDS-related causes nationally **(Figure 2.3).** This decline is consistent with the rapid expansion of access to ART in the country.

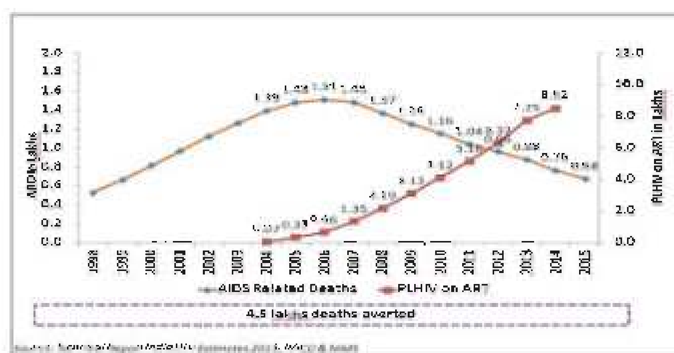


Figure 2.3: Annual AIDS-related Deaths and ART Scale-up, India, 1998-2015

According to HIV Sentinel Surveillance (HSS) 2014-15, the overall HIV prevalence among ANC clinic attendees, considered a proxy for prevalence among the general population, continues to be low at 0.29% (90% CI:0.28-0.31) in the country, with an overall declining trend at the national level **(Figure 2.4).**

The highest prevalence was recorded in Nagaland (1.29%), followed by Mizoram (0.81%), Manipur (0.60%), Gujarat (0.56%) and Chhattisgarh (0.41%). Telangana (0.39%), Bihar (0.37%), Karnataka (0.36%) and Andhra Pradesh (0.35%) were other states which recorded HIV prevalence of more than the national average.

India continues to portray a concentrated epidemic. HIV prevalence among different risk groups is given in Figure below. National Integrated Behavioural and Biological Surveillance (IBBS) has estimated HIV prevalence among Female Sex Workers (FSWs), nationally, level at 2.2% (95% CI: 1.8 - 2.6). HIV Prevalence among Men who have Sex with Men (MSM) recorded at the national level was 4.3% (95%CI: 3.7 – 5.1) while among Injecting Drug Users (IDU), the prevalence of HIV recorded among IDU at the national level was 9.9% (95% CI: 9.0-10.9). Also, HIV Prevalence among Transgender/Hijras(TG) was recorded to be 7.5% (95% CI: 6.2-8.3) as per the IBBS data.

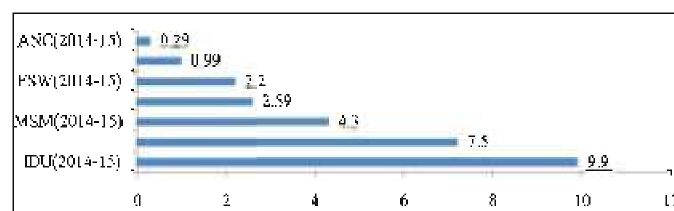


Figure 2.4: HIV Prevalence (%) among ANC Client (HSS 2014-15), FSW, MSM, IDU, TG (IBBS 2014-2015) & other risk groups (HSS 2010-11), India

24.3 TARGETED INTERVENTIONS

Targeted Intervention (TI) programme is one of the most important prevention strategies under NACP. TIs comprise of preventive interventions working with focused client populations in a defined geographic area where there is a concentration of one or more High Risk Groups (HRGs). The key high risk groups covered through Targeted Intervention (TI) programme include: Core HRGs such as Female Sex Workers (FSW), Men who have Sex with Men (MSM), Transgender/Hijras (TGs), Injecting Drug Users (IDU) and Bridge Populations such as Migrants and Long Distance Truckers. People from high risk communities are engaged to deliver services and act as agents of change, linking services with commodities provision. TI projects provide a package of prevention, support and linkage services to HRGs through outreach-based services delivery model which includes screening for and treatment of Sexually Transmitted Infections (STI), free condom and lubricant distribution among core groups, Social Marketing of condoms, Behaviour Change Communication (BCC), creating an enabling environment with community involvement and participation, linkages to integrated counselling and testing centers for HIV testing, linkages with care and

support services for HIV positive HRGs, community mobilization and ownership building and specifically for IDUs, distribution of clean needles and syringes, abscess prevention and management, Opioid Substitution Therapy (OST) and linkages with detoxification/ rehabilitation services.

The national programme continues to provide programme services at the "doorsteps" of the HRGs adopting the peer led approach through partnering with NGOs/CBOs along with State AIDS Control Societies (SACS) and Technical Support Unit (TSU) taking the role of mentoring and supervising the TIs.

Performance of TI Programme during 2016-17 (April 2016 to September 2016):

Coverage of core HRG group: The data for coverage is derived from monthly performance indicator reports received by NACO. As depicted in **Figure 3.1** the coverage has decreased as compared to the last year. This is because of delayed or no reporting from some states. The FSW and MSM coverage is the highest among all groups at 65%. Exclusive TIs for TG was initiated in 2014 and hence the coverage is lower than other core groups. New strategies, guidelines and modules have been developed and are being rolled out to increase the coverage of TGs.

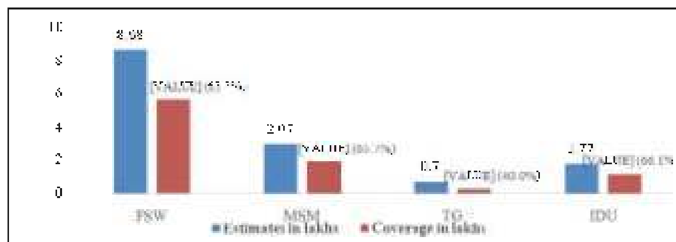


Figure 3.1: Coverage of Core HRGs (FSW, MSM, IDU) during 2016-17 (till September 2016) (% in bracket shows coverage against estimates)

Figure 3.2 showcases the number of clinic visits made by HRGs during 2016-17 (Till Sept. 2016) along with the proportion of STI clinic attendees diagnosed and treated for STI/RTI during 2016-17. The bridge population is showing higher number of STI/RTI episodes vis-a-vis FSW/MSM/TG/Hijra and IDU population. This is due to the fact that the NACO guidelines suggests that HRGs from core groups should visit STI clinics every quarter, especially for regular medical check-up and for treatment of Sexually Transmitted Infection (STI)/Reproductive Tract Infection (RTI). However there has been a decrease in the STI detection among Bridge Population from last year.

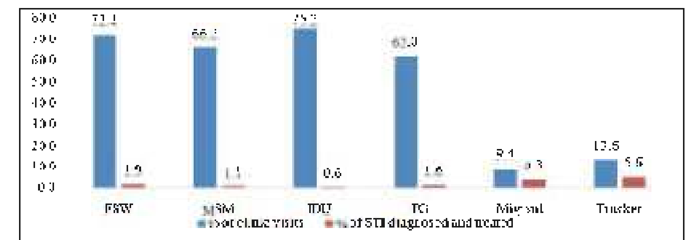


Figure 3.2: STI clinic visits during 2016-17 (Till September 2016)

HIV testing and ART linkagesamong HRGs

As per the NACO guidelines all core HRGs should be tested for HIV once every six months. **Figure 3.3** depicts the number of HIV tests performed among HRGs through referrals from targeted intervention projects. The graph depicts HIV testing done and HIV positivity rate for each typology during 2016-17 (Till Sept. 2016). Amongst IDUs, TGs and Truckers the HIV positivity is higher. The positive detection among all the typologies is consistent with the previous year.

However, among Bridge Population the treatment cascade is a challenge owing to their mobility. Discussions are being undertaken through Technical Working Groups to re-design interventions that will be able to address the gaps.

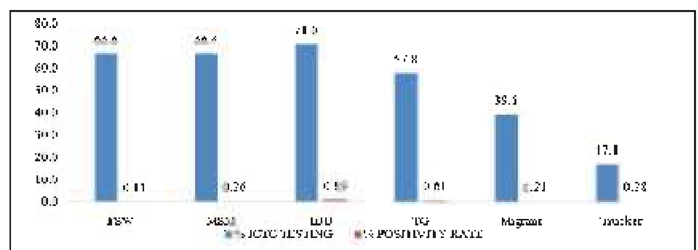
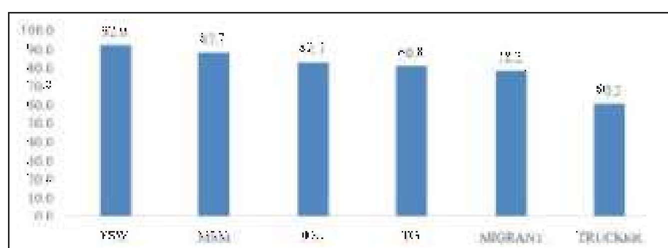


Figure 3.3: HRGs tested for HIV at ICTCs during 2016-17(till September 2016)

Figure 3.4 depicts the PLHIV HRG linked to ART centers during the period 2016-17 (Till Sept. 2016). Although ART linkage of Truckers has been a challenge due to their mobility, the linkages have

improved over the last year from 54% to 60%. The focus for improving treatment linkages resulted in improved linkages for all typologies. More than 80% of the PLHIV identified among core group are linked to ART centers. Community based testing might be able to increase the linkages among bridge population further since trucker ART linkages remains a

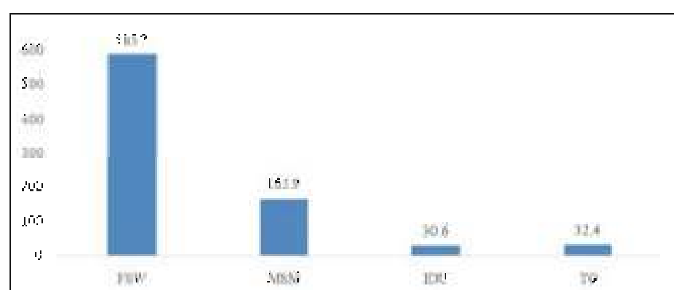


challenge which has been discussed in the Technical Working Groups. Improved post-test counseling can happen immediately and the importance of ART linkages might be stressed.

Figure 3.4: PLHIV (%) HRG linked to ART center during 2016-17 (till September 2016)

Condom distribution among HRGs

As part of the National programme a lot of emphasis is provided on keeping all sexual encounters protected by consistent and correct usage of condoms. To ensure this, condoms are distributed to HRGs as per

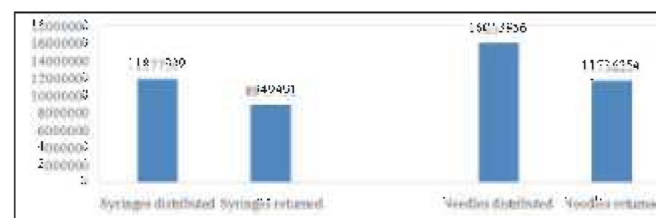


their requirement. **Figure 3.5** shows the typology-wise number of condoms (free and social marketing) distributed to the HRGs during 2016-17 (Up to Sept. 2016).

Figure 3.5: Typology-wise condom pieces distributed to HRGs (in Lakh) during 2016-17 (Up to September 2016)

Needle & Syringe distribution patterns among Injecting Drug Users (IDUs)

As part of preventive services, Targeted Interventions for IDUs distribute free syringes and needles to Injecting Drug Users (IDUs) through peer educators and IDUs are encouraged to return the used syringes and needles. This ensures availability of sterile syringes and needles to IDUs and reduces possibility of sharing injecting equipment, thus decreasing risk for HIV transmission. **Figure 3.6** depicts the number



of syringes and needles distributed to IDUs and the number of used syringes and needles returned by them during 2016-17 (Up to Sept. 2016).

Figure 3.6: Number of Syringes & Needles Distributed and Returned 2016-17 (Up to September 2016)

Capacity Building of TIs

Under NACP-IV, State Training & Resource Centers were envisioned to provide sustained support and enhance quality of interventions through training and developing the capacity of TI projects staff. Since the

Table 3.1: Distribution of Typology wise trainings across partners

Organization	Typology	Region/States
Public Health Foundation of India (PHFI)	Female Sex Workers/Truckers	Pan-India except North-east
Family Health International (FHI)	All typologies and IDUs	North-east region & IDU TIs pan-India
Voluntary Health Services (VHS)	Transgender / Hijra	Pan-India except North-east
Humsafar Trust (HST)	Men who have sex with Men (MSM)	Pan-India except North-east
PIPPSE	Migrants	Pan-India except North-east

STRCs were discontinued, NACO identified development partners capable of undertaking capacity building of all typology of TIs. **Table 3.1** shows the partners who were given responsibility to train the different typology of TIs.

Table 3.2: Status of half-yearly assessments' grading of TIs for the period of October, 2015 to March, 2016

A total of 1100, 733, 1484 and 109 Master Trainers, TI staff members and TSU staff have been trained for Truckers/FSW TIs, IDU TIs, Migrant TIs and MSM/TG TIs have been trained in this year respectively. **Table 3.2** gives a summary of the half yearly assessments conducted during the period October, 2015 to March, 2016. As seen in the table the qualitative aspect of TIs have increased. 81% of TIs are in Good (B) and Very Good (A) category. Since

Sl. No.	Name of the State	October, 2015-March, 2016				
		Poor (D)	Average (C)	Good (B)	Very Good(A)	Total TI Graded
1	Ahmedabad*	2	4	8	4	18
2	Andhra Pradesh & Telangana	2	37	86	30	155
3	Arunachal Pradesh	2	4	12	10	28
4	Assam	0	9	16	29	54
5	Bihar	0	18	18	2	38
6	Chandigarh	0	1	1	11	13
7	Chhattisgarh	0	4	10	28	42
8	Daman & Diu	0	2	3	2	7
9	Delhi	0	2	23	59	84
10	Goa	2	1	0	9	12
11	Gujarat	0	8	31	42	81
12	Jammu & Kashmir	0	0	0	0	0
13	Jharkhand	0	1	1	11	13
14	Haryana	0	0	5	1	6
15	Himachal Pradesh	1	11	15	9	36
16	Karnataka	6	11	41	59	117
17	Kerala	4	22	30	8	64
18	Maharashtra	18	25	54	58	155
19	Mumbai*	11	8	21	7	47
20	Madhya Pradesh	0	1	14	48	63
21	Manipur	0	9	22	32	63
22	Meghalaya	1	1	4	2	8
23	Mizoram	0	2	13	12	27
24	Nagaland	0	1	8	17	26
25	Odisha	3	10	16	17	46
26	Puducherry	0	2	3	0	5
27	Punjab	0	7	41	52	100
28	Rajasthan	2	6	18	18	44
29	Sikkim	0	0	5	2	7
30	Tamil Nadu	3	5	38	28	74
31	Tripura	0	0	3	12	15
32	Uttarakhand	0	3	13	10	26
33	Uttar Pradesh	0	14	25	49	88
34	West Bengal	2	5	12	16	35
35	**Total No. of TI**	**59**	**234**	**610**	**694**	**1597**
All India % Grading		**3.69**	**14.7**	**38.2**	**43.5**	**100**

Note: Zero against each States shows that there is no intervention for the respective typology

** Ahmedabad & Mumbai are Distt. AIDS Control Societies in Gujarat & Maharashtra respectively.*

the 6 monthly assessments are conducted in the month of October 2016, the reports for the period April – September, 2016 are being compiled and analyzed at the time of writing this report.

Table 3.3: State-wise and Typology-wise distribution of Targeted Interventions (TIs) supported by NACO during the FY 2016-17 (till September, 2016)

S. No	State	FSW	MSM	IDU	TG	Core Composite	Migrant (Destination)	Truckers	Total TIs functional
1	Ahmedabad*	3	2	1	1	0	10	1	18
2	Andhra Pradesh	18	3	3		55	7	2	88
3	Arunachal Pradesh	4	1	4		13	6		28
4	Assam	29	1	6		11	2	2	51
5	Bihar	4	3	8	0	12	0	1	28
6	Chandigarh	4	2	2	0	1	2	1	12
7	Chhattisgarh	10	0	3	0	13	5	2	33
8	D & N Haveli						1	1	2
9	Daman & Diu	0	0	0	0	2	4	1	7
10	Delhi	32	11	15	6	0	13	4	81
11	Goa	6	3	1	0	1	2	2	15
12	Gujarat	11	12	2	1	27	23	5	81
13	Haryana	2	2	1	0	0	0	0	5
14	Himachal Pradesh	7	0	1		8	2	0	18
15	Jammu & Kashmir	2	1	3		3	3	2	14
16	Jharkhand	18	0	2		8	1	3	32
17	Karnataka	33	21	2	2	7	12	4	81
18	Kerala	20	13	6	7		14	2	62
19	Madhya Pradesh	17	5	10	0	28	5	3	68
20	Maharashtra	45	7	1	5	26	45	12	141*
21	Manipur	6	2	46	0	7	2	0	63
22	Meghalaya	3		4		2			9
23	Mizoram	1	1	18	0	6	4	0	30
24	Mumbai*	14	6	1	4	0	8	1	34
25	Nagaland	2	3	23	0	15	1	1	45
26	Odisha	12	2	6	1	21	9	2	53
27	Puducherry	1	1	0	0	2	1	0	5
28	Punjab	11	0	21	0	21	4	2	59
29	Rajasthan	13	3	4	2	9	8	3	42
30	Sikkim	3		3					6
31	Tamil Nadu	12	11	1	2	37	6	4	73
32	Telangana	16	2	2		25	6	2	53
33	Tripura	8	0	2	0	1	3		14
34	Uttar Pradesh	12	3	13	2	48	4	6	88
35	Uttarakhand	6	0	4		7	6	3	26
36	West Bengal	21	3	3	1	2	2	5	37
All India		**406**	**124**	**222**	**34**	**418**	**221**	**77**	**1502**

*Note: Blanks against each States shows that there is no intervention for the respective typology; *26 TIs are supported by PIPPSE project in Maharashtra.*

Table 3.4: State Wise Typology wise coverage of High Risk Groups under the programme 2016-17 **(till September, 2016)**

S. No	Name of State	FSW	MSM	IDU	TG	Migrant (Destination)	Trucker
1	Ahmedabad*	3289	2826	408	306	100000	30000
2	Andhra Pradesh	86413	18131	1269	1141	130781	20000
3	Arunachal Pradesh	3513	398	2418	0	31000	0
4	Assam	18345	2681	3188	264	20000	15000
5	Bihar	15658	3929	4855	0	0	10000
6	Chandigarh	2799	1625	1250	105	25000	10000
7	Chhattisgarh	18108	2777	2990	627	82500	50000
8	D&N Haveli				0	10000	5000
9	Daman & Diu	627	712		0	40000	10000
10	Delhi	38914	12306	9992	6003	195000	50000
11	Goa	3966	3060	289	0	20000	10000
12	Gujarat	18326	20620	660	1222	234000	65000
13	Haryana	1836	2104	753	0		
14	Himachal Pradesh	4227	474	318	0	15000	
15	Jammu and Kashmir				0		
16	Jharkhand	10591	1168	778	127	10000	32000
17	Karnataka	67898	16908	1400	2043	162000	70000
18	Kerala	17421	12278	2435	2343	150000	20000
19	Madhya Pradesh	24146	7987	6619	0	77000	50000
20	Maharashtra	63111	22950	670	3847	874000	190000
21	Manipur	5797	958	19311	0	15000	
22	Meghalaya	1518	234	1798	0		
23	Mizoram	892	482	9255	0	25000	
24	Mumbai*	18578	11039	452	3529	135000	10000
25	Nagaland	2972	1270	16441	0	5000	5000
26	Odisha	11117	2763	2492	2056	92000	10000
27	Puducherry	1810	1981		102	12000	
28	Punjab	17954	2301	12889	0	65000	20000
29	Rajasthan	13098	4386	1348	584	100000	20000
30	Sikkim	865		1318	0		
31	Tamil Nadu	44109	31801	514	3115	60000	47000
32	Telangana	56086	12417	1015	311	75601	45675
33	Tripura	5411	183	524	0	15000	
34	Uttar Pradesh	20352	7979	13790	2514	40000	45000
35	Uttarakhand	4329	1573	1314	104	80000	40000
36	West Bengal	18422	1504	1279	235	30000	50000
	All India	**603236**	**206007**	**121840**	**29325**	**2925882**	**929675**

Note: Blanks against each States shows that there is no intervention for the respective typology
** Ahmedabad & Mumbai are Distt. AIDS Control Societies in Gujarat & Maharashtra respectively.*

Opioid Substitution Therapy (OST) Programme for Injection Drug Users (IDUs)

For providing and assuring quality services, a continuous process of capacity building is being followed under Opioid Substitution Therapy (OST) programme for IDUs. The operational guideline on Opioid Substitution Therapy (OST) for clinical staff has been revised incorporating new development in the area. A training manual on special needs of Female Injecting Drug Users (FIDU) has been developed which aims to address the issue of FIDU. Quality Assurance Protocol (QAP-Medical) of Opioid Substitution Treatment in India (A reference guide for mentors) has been developed. The QAP serves as a resource material for mentors, entrusted with the task of carrying out periodic 'Quality Assurance (QA) visits' to OST centres.

Table 3.5: OST centres, September, 2016 ;

S. No	State	No. of Centers	Coverage
1	Ahmedabad*	1	20
2	Andhra Pradesh	1	152
3	Arunachal Pradesh	2	100
4	Assam	2	200
5	Bihar	2	165
6	Chandigarh	4	347
7	Chhattisgarh	4	470
8	Delhi	11	1476
9	Goa	1	41
10	Gujarat	2	34
11	Haryana	9	806
12	Himachal Pradesh	1	64
13	Jammu & Kashmir	2	222
14	Jharkhand	2	192
15	Karnataka	3	113
16	Kerala	10	438
17	Madhya Pradesh	11	910
18	Maharashtra	1	62
19	Manipur	25	2191
20	Meghalaya	5	659
21	Mizoram	17	1358
22	Mumbai*	1	89
23	Nagaland	31	1851
24	Odisha	4	214
25	Punjab	28	7663
26	Rajasthan	2	140
27	Sikkim	3	216
28	Tamil Nadu	1	56
29	Tripura	3	286
30	Uttar Pradesh	11	1189
31	Uttarakhand	5	325
32	West Bengal	8	461
Grand Total		**213**	**22510**

** Ahmedabad & Mumbai are Distt. AIDS Control Societies in Gujarat & Maharashtra respectively.*

New Initiatives under Targeted Interventions

This year, several new initiatives were taken on easeof implementation and use of technology. In addition to this there was a mid-term appraisal to assess the progress of NACP IV and to suggest mid-course corrections as needed. In spirit with all the phases of NACP; community consultations was an important part of all initiatives and appraisals.

1. The Mid Term Assessment (MTA) of NACP-IV was conducted under the Chairmanship of Secretary & Director General, NACO, Ministry of Health & Family Welfare, Govt. of India on 27th and 28th May, 2016. The MTA recommendations for the Targeted Intervention included commissioning of an Option Paper to look into various aspects of implementation of the Targeted Intervention programme in NACP. The first meeting was held on 31st Aug 2016 under the chairmanship of Secretary & DG, NACO, MOHFW, GoI wherein the necessity of forming sub-groups was recognized to go into details of writing an Option Paper. The following are the sub-groups suggested:

a. Governance;

b. Immediate course corrections in implementing TIs in NACP-IV;

c. Design of the next generation of intervention, TI restructuring and

d. M & E and Size Estimation

Three meetings of the Sub Groups on Governance, Immediate Course Correction and Designing Next Generation Interventions have been completed in November 2016.

2. "Sustaining the HIV Prevention Impact among Key Populations" in the State of Andhra Pradesh, Telangana, Karnataka, Maharashtra and Tamil Nadu

To strengthen and improve community institution NACO is leading a focused initiative on vulnerability reduction and Community System Strengthening (CSS) to concentrate (87 CBOS in the Southern States) on Andhra Pradesh, Telangana, Karnataka, Maharashtra and Tamil Nadu for Female Sex Workers programme. The project is titled as "Sustaining the HIV Prevention Impact among Key Populations" and is operational in five (5) States till 2017.

3. Implementation of Project Nirantar PEPFAR CDC-supported program under the Local Capacity Initiative (LCI) implemented by India HIV/AIDS Alliance in States of Chhattisgarh, Odisha and Madhya Pradesh

Project Nirantar is a civil society Capacity Building for Advocacy and Response to the HIV/AIDS Epidemic among Key Populations (KPs) (Female Sex Workers, Men having sex with Men, Trans-genders/Hijras and Injecting Drug User) in three states of Chhattisgarh, Madhya Pradesh and Odisha primarily focusing on building the Local Capacity Initiatives of TI NGOs and SACS. The Goal is to enhance the capacity of CSOs and other local institutions to improve access to HIV prevention and to care and treatment continuum services. The period for this project is till September 2017.

4. Methadone Based Opioid Substitution Treatment Launched at Regional Institute of Medical Sciences (RIMS), Imphal, Manipur

Opioid Substitution Treatment (OST) is an important element of HIV prevention among IDUs under NACP. The process of initiating buprenorphine based OST as part of Harm Reduction strategy began during NACP-III (2008). In order to increase the basket of choices for people who inject drugs, Secretary & Director General, NACO, launched Methadone based Opioid Substitution Treatment at RIMS on 7th September 2016. Deputy Director General (TI), NACO, Director, RIMS, FHI 360 Country Director, RIMS Department of Psychiatry, Head, Manipur State AIDS Control Project Director (MACS), Deputy Director, CDC/India & Public Health Specialist, CDC attended the inaugural function held at Regional Institute of Medical Sciences (RIMS). Secretary & Director General, NACO in his keynote said National and regional level consultations held with key stakeholders including UN agencies, medical institutes, community representatives and subject knowledge experts in the last eighteen months helped NACO to

develop a well calibrated process for initiating Methadone service in the country. He said NACO in coordination with respective SACS and other stakeholders will simultaneously scale up the service in north-east and other parts of the country.

5. HIV Interventions in 12 Central Prisons of Punjab, Chandigarh, Manipur And Mizoram

In order to operationalize National Prison HIV intervention strategy, HIV prevention, treatment and care programme for Punjab and Chandigarh central prisons was launched by Additional Secretary & Director General, NACO during an event held in the presence of Punjab's Principal Secretary Health and Punjab's Principal Secretary Home (Prisons) on 8th July, 2016 at Chandigarh. While speaking at the launch function, Additional Secretary & Director General, NACO said that treatment and care for those living with HIV/AIDS inside prisons should be equivalent to the treatment and care available for the general population. He said National prison HIV Strategy will be implemented in a phased manner in the country. Principal Secretary-Home (Prisons), Govt. of Punjab said initiating HIV interventions in prisons will help to halt and reverse the HIV epidemic in the State. A similar HIV intervention was launched in central prison of Manipur by Secretary & Director General NACO on 6th September, 2016 at an event held in the presence of Additional Director General of Police (Prisons) and Manipur State AIDS Control Society Project Director. Hon'ble Minister, Health & Family Welfare, Government of Mizoram and Joint Secretary, NACO launched HIV intervention in Aizawl central prison on 3rd October 2016 in the presence of Commissioner & Secretary, Health & Family Welfare, Govt. of Mizoram at a function organized in Aizawl, Mizoram.

6. Project Sunrise at Imphal, Manipur

As per the HIV Sentinel Surveillance (HSS) 2010-11, HIV prevalence continues to be high among People Who Inject Drugs (PWID) in the States of Manipur (12.9%), Mizoram (12.0%) and Meghalaya (6.4%) while the National Average is 7.14%. With the support of Center for Diseases Control (CDC)/FHI 360, NACO in consultation with respective State AIDS Control Societies developed State Specific Strategic Plans to upscale HIV interventions in 8 North-Eastern States. This initiative to accelerate the response to HIV in NE region has been titled as 'Project SUNRISE'. Project Sunrise is a five year programme aimed at complementing the ongoing National AIDS Control Programme (NACP) which is primarily to improve coverage, quality and scale of HIV interventions among People Who Inject Drugs (PWID) in eight (8) North East States. Hon'ble Union Minister of Health and Family Welfare Shri Jagat Prakash Nadda launched Project Sunrise in the presence of Minister of Health and Family Welfare, Govt. of Manipur, Govt. of Meghalaya, Additional Secretary and Director General, NACO on 6th February, 2016 at City Convention Centre, Palace Gate, Imphal.

7. Enhancing Partnerships Between Law Enforcement Agencies & Civil Society Organizations In The Context Of Drug Use And HIV

Narcotics Drugs and Psychotropic Substances (Amendment) Act 2014 now allows for "management" of drug dependence, thereby legitimizing opioid substitution, maintenance and other harm reduction services in the country. However, currently harm reduction services including opioid substitution treatment and needle syringe programme are being provided to people who are injecting drugs in a more restricted environment. In order to address this key operational issue, NACO has been organizing series of sensitization workshops with Law Enforcement Agencies (LEAs) at various levels since 2014. In the year 2016-17, NACO had organized State level sensitization workshops with the Law Enforcement Agencies (LEA) in Punjab, Manipur, Nagaland, Meghalaya Mizoram and Tripura. State level workshop organized on 6th September 2016 in Imphal, Manipur was chaired by the Secretary & Director General, NACO. Another State Level Consultation organized on 4th October, 2016 at Conference Hall, Dept. of Excise and Narcotics, Aizawl was chaired by Hon'ble Home Minister, Government of Mizoram and Joint Secretary, NACO. Key functionaries including Commissioner (Health & Family Welfare), Director General of Police, Additional Director General of Police (Prisons), Commissioner-Excise, Narcotics Control Bureau and other senior officials from

various Law Enforcement Agencies participated in the meeting.

These workshops provided a stage for discussion and of experience sharing in promoting partnerships between key functionaries of law enforcement Agencies (LEA), TI-NGOs and the State Health Department. During the workshop, the role of Law Enforcement Agencies in enhancing the access to Harm Reduction services has been highlighted. It was also reiterated that Harm Reduction services provided by NACO through NGOs and Govt. Health facilities are legitimate, recognized and approved by the law under section 71 of the NDPS Act. It was unanimously expressed that prison does not cure addiction and emphasized the need for a broad range of harm reduction and treatment approaches to help deal with the harmful drug use behaviour. FHI 360 and Emmanuel Hospital Association (with financial support from CDC/India and Aids fonts/Netherlands) supported NACO in organizing these workshops in Punjab, Chandigarh and five North-Eastern States.

8. Employer Led Model

In order to reach informal migrants at Industries an Employer Led Model is being implemented. Under this model 346 Industries have partnered with various State AIDS Control Societies for HIV related activities. 7.86 Lakh migrants are covered through this programme.

District AIDS Prevention and Control Units (DAPCU)

There are 188 DAPCUs in A and B category districts spread across 22 States of the country for decentralized monitoring and providing programmatic oversight to the implementation of HIV Programme. The DAPCUs are led by a District AIDS Control Officer, from the Government Health System and supported by the District Programme Manager (DPM), District ICTC Supervisor (DIS) and District Assistants for Monitoring & Evaluation, Accounts and Programme implementation.

The main objective of DAPCU is overall monitoring coordination and troubleshooting for NACP facilities at district level, to develop evidence based district specific programme plan and build robust network with District Administration and line departments.

The DAPCU National Resource Team (DNRT) under NACO has been mandated to mentor the DAPCUs and provide support to SACS in review of DAPCU functioning and drawing up appropriate bottom up action plan for improvement of Programme, in terms of scale and quality.

DAPCU Blog

DNRT have designed DAPCU Blog (DAPCU Speak) to facilitate discussions between DAPCUs. We believe that sharing of experiences, ideas and strategies will help DAPCUs to learn and perform better. In addition to DAPCUs, all HIV functionaries and stakeholders also give their critical suggestions for further improvements of DAPCU functioning.

In addition to thematic sharing, DAPCU Speak also periodically hosts special contributions from DAPCUs around the country as well as stakeholder's experiences of working through DAPCUs.

DAPCU Speak (Blog) Home page

The DNRT conducted residential training for 127 DAPCU staff from, Maharashtra, Andhra Pradesh and Telangana in four different batches in this year with support from CDC-India and VHS, Chennai. In the training, DAPCU staffs were trained on management and monitoring aspect of all NACP components.

Key Activities of DAPCUs

In keeping with the key role of strengthening decentralization and building ownership of State and District Administration of NACP, 188 District AIDS Prevention and Control Units, have contributed in streamlining of SIMS reporting with close to 100% reporting in more than 90% DAPCU districts paving

the way for effective and timely data analysis and drawing up strategic follow up action plan by SACS.

DAPCUs have conducted 959 Monthly district level reviews of all NACP facilities (April, 2016–September, 2016), enabling reconciliation and strengthening of cross referrals from prevention to care & support services. DAPCUs have ensured support of district administration in addressing challenges through quarterly meeting of District AIDS Prevention and Control Committee (DAPCC) chaired by the District Collector/Deputy Commissioner. 209 DAPCC meetings have been conducted in the first 2 quarters of 2016-17. DAPCUs ensured mainstreaming of NACP within the General Health set up by regular participation in 448 meetings with National Health Mission (NHM). DAPCU districts have achieved robust HIV-TB cross referral and linkage by conducting 829 HIV-TB coordination meetings.

Success story of DAPCU Khordha efforts on Social Protection Schemes

Case Study of Khordha District (Odisha)

Prakash (name changed) age 10 yrs and her sister Sabita (name changed)15years belongs to Trilochanpur of Banapur Block of Khordha District are infected with HIV. They came to know the status of HIV after their parents expired. Both children are now staying with their grandmother a widow who is 68 years old. As a single woman, she is taking care of two grandchildren whereas she doesn't have any source of income. The case was unveiled when the DAPCU staff visited Banapur Block for facilitating and addressing MBPY (Madhu Babu Pension Yojana) issues of Banapur Block under Social Protection Schemes in coordination with the local Link Workers. The DAPCU staff met the grandmother and her grandchildren. The MBPY was earlier sanctioned (with the efforts of DAPCU) against Prakash and he availed the same for three months. Due to some reasons after three months' benefit of MBPY for Prakash got stopped. The DAPCU team has apprised the District Collector and DM Khordha mentioning the history and requested for regularization MBPY for Prakash and Nutritional support under child protection scheme. As a result, his MBPY was regularized and he received Rs. 1200/- (pension amount). His grandmother was also sanctioned with Rs. 10,000/- Under Chief Ministers Relief Fund and letter has been issued to concerned Block Development Officer to sanction BijuPuccaGharYojna (housing) to her/for children.

24.4 LINK WORKER SCHEME (LWS)

Linking rural communities to HIV programmes and providing them with access to existing services has emerged as a crucial need in recent times with a special focus on High Risk Populations, Bridge and other vulnerable groups. The HIV epidemic continues to be heterogenic in India, especially in terms of its geographical spread. The HSS, 2012-13 highlighted that although the overall HIV prevalence continues to be low as 0.35%, there are about 80 sites which shows more than 1% prevalence and 12 sites with more than 2% prevalence. Some of these sites are in the moderate and low prevalence States of Bihar, Chhattisgarh, Gujarat, Madhya Pradesh, Jharkhand, Odisha, Rajasthan, Uttar Pradesh and West Bengal. Further, if programme data of Targeted Intervention (which are implemented in urban areas) and Link Worker Scheme (implemented in rural areas) are compared, rural HIV positivity is found at par with urban HIV positivity among all High Risk Groups and bridge populations. It is also evidenced that there are different perceptions surrounding issues on sex & sexuality, drug use and HIV as well as stigma and discrimination towards PLHIV in rural areas which

Migrant spouse & other groups reached with information on HIV in Jaunpur district of Uttar Pradesh

requires localized approach. This has further fuelled by inadequate infrastructures, weak health systems and poor connectivity with most of the facilities

With the premises that large number of HRGs, Bridge population, vulnerable population and PLHIVs residing in the rural areas and there is a need to

provide services to these population in view of the overall prevention strategy, the Link Worker scheme (LWS) has been implemented in rural areas.

The mandate of the Link Worker Scheme under NACP-IV was to work in 163 vulnerable districts, however as on September 2016, the number of LWS districts remain 113 owing to non-replacement/self-withdrawn by agencies working in the district followed by third party performance evaluations. The specific objective of the scheme includes: Reach out to HRGs and vulnerable men and women in rural areas with information, knowledge, skills on STI/HIV prevention and risk reduction. This entails increasing the availability and use of condoms among HRGs and other vulnerable men and women, Establishing referral and follow-up linkages for various services including treatment for STIs, testing and treatment for TB, ICTC/PPTCT services, HIV care and support services including ART, Creating an enabling environment for PLHA and their families, reducing stigma and discrimination against them through

One-to-group session with women group in Nellore district of Andhra Pradesh

interactions with existing community structures/groups, e.g. Village Health Committees (VHC), Self Help Groups (SHG) and Panchayat Raj Institutions (PRI).

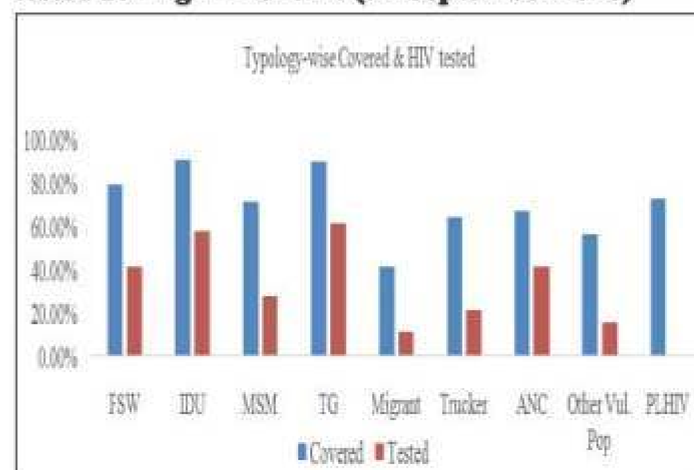
LWS Implementation Mechanism

Link Worker Scheme at NACO and SACS comes under TI division. Similar to TI, the programme is implemented by NGOs/CBOs with staffing structure of one District Resource Person (DRP), Monitoring &Evaluation cum Accounts Officer, two Zonal Supervisors and twenty Cluster Link Workers. These NGOs/CBOs are further monitored by State AIDS Control Societies (SACS) at State level. TSU are also entrusted with the responsibility of monitoring and handholding of LWS at District and State level. At NACO level, National Migration Unit (NMU) under TI division is responsible for LWS. DAPCU (wherever present) also monitors and handholds the programme at unit level. In addition to these, third party evaluation are conducted in every two year and six monthly audits are conducted by empanelled auditors of SACS.

LWS Progress in FY 2016-17 (Till September 2016)

As on September 2016, LWS is being implemented in 113 Districts. Through this intervention, over 88995 HRGs (FSWs, MSMs, TGs and IDUs) are reached in rural areas nationally. In addition, the Scheme also covers nearly 10.36 lakhs Bridge Population members (truckers and migrants) and Vulnerable Population members. The programme has also reached out to 26,988 people living with HIV (PLHIV) with services.

Figure 4.1: LWS Typology-wise covered & HIV tested during FY 2016-17 (till September 2016)



Around 45,887 HRGs have been tested for HIV under this intervention during the financial year 2016-17. Over 7,388 HRGs have sought treatment for STI symptoms under this intervention. This has been done by establishing linkages with existing services. Also, about 3180915 free condoms and approximately 167378 socially marketed condoms were distributed during the FY 2016-17 in the villages covered through this intervention.

Table 4.1 National typology-wise performance for the period April-September 2016

S. No	Typology	Covered			HIV testing		HIV Detection		Linkages to ART	
		Line listed	Covered	% of coverage	HIV tested	% tested	Positive detected	% of positive detected	Total linked with ART	% linked
1	FSW	95538	75907	79.45	39733	41.59	32	0.08	25	78
2	IDU	4584	4164	90.84	2658	57.98	18	0.68	9	50
3	MSM	12378	8861	71.59	3453	27.90	10	0.29	6	60
4	TG	70	63	90.00	43	61.43	0	0	0	0
5	Migrant	929027	386003	41.55	105168	11.32	198	0.19	166	84
6	Trucker	119676	77026	64.36	26023	21.74	34	0.13	23	68
7	ANC	131214	88429	67.39	54252	41.35	33	0.06	30	91
8	Other Vulnerable population	856108	485054	56.66	134602	15.72	296	0.22	202	68
9	PLHIV	37197	26988	72.55						
Total		**2185792**	**1152495**	**52.73**	**365932**	**16.74**	**621**	**0.17**	**461**	**74.24**

24.5 CONDOM PROMOTION PROGRAMME

Condom promotion by the Ministry of Health and Family Welfare, Government of India has a long history. In the initial period, condom was promoted under National Family Planning Programme. With the emergence of HIV as a serious health threat, promotion of condom for preventing HIV/AIDS was taken up under National AIDS Control Programme (NACP). With nearly 86 percent of HIV infection transmitted through unsafe sex, significant efforts have been made by NACO to increase the awareness and usage of condoms to prevent the transmission of HIV/AIDS.

National AIDS Control Programme (NACP) has consistently focussed on prevention from HIV/AIDS through safe sex practices. Given the significant role of condoms in the prevention of STI/HIV infections, the National AIDS Control Organisation (NACO) promotes condom use for controlling the epidemic.

In view of the prevailing status regarding condom usage in the country, a well-focussed national level condom programme was implemented that comprised of social marketing of condom and free distribution among the most vulnerable ones. The desired behavioural outcomes of the condom programme are to increase consistent use of condoms among men with the non-regular sexual partners or in commercial sex encounters, and among married couples for preventing unwanted pregnancies.

Condom Demand Generation

NACO continued to follow its communication framework devised under the current strategy adopted for long term that is based on promoting condom use by enhancing self-risk perceptions. The primary objective is to motivate the behaviour change among the key target population like high risk groups,

bridge population as well as general population especially the youth as a category. Under this strategy, all condom promotion communication activities were developed to focus on to bring about positive behaviour change towards consistent condom use. These promotions are designed to promote condoms for its benefits of triple protection from the risks of HIV/AIDS, STI and unwanted pregnancy.

NACO promotes safe sex and regular condom use through its campaigns on mass media. These condom promotion campaigns on mass media are aired on national networks of Doordarshan, leading Cable & Satellite channels, All India Radio and private FM channels to ensure countrywide footprints. This year, a new mass media campaign was developed in Hindi and other regional languages.

The new campaign is based on theme of *'making regular condom use a habit'* to ensure its consistent use. The basic premise of this communication is to encourage audience to adopt safe sex practice by using condom every time. This campaign has been developed in two parts depicting various common incidents and events occurring in daily life of ordinary individuals. The essence of each of these episodes is to highlight benefits of good habits and thus appealing for making condom use a habit in order to play safe while having sex.

This campaign was conceived to be an integrated one encompassing compatibility across various media platforms including television, radio, outdoor, social media sites on the internet, mid-media activities, leaflets and merchandise as promotion material for display at the points of purchase.

The digital cinema screening was also included in condom campaign media plan to reach out to the target population through cinema halls of smaller towns. Only those cinema halls were shortlisted which are located in priority districts.

Optimization of Free Supply of Condoms

Another key objective of the NACO condom programme is to optimize the supply of free condoms to ensure availability to the vulnerable population and minimize the wastage of free condom. NACO, with the assistance of Technical Support Group (TSG) - Condom Promotion, has adopted multi-pronged strategy to increase the efficiency of distribution system at various stages in distribution chain which includes:

- Regular tracking of free condom supply received from Ministry of Health & Family Welfare to State AIDS Control Societies (SACS) every month to avoid stock out situation at SACS.
- Free condom supply analysis from SACS to TI-NGOs and subsequent distribution from various TI-NGOs to Most at Risk Populations (MARPs).
- Free condom annual demand estimation as done at TI-NGO and SACS levels based on previous data analysis.

The annual condom demand is estimated at SACS based on High Risk Group (HRGs) coverage, past condom usage trends and reviews of existing inventory of free condoms at SACS as well as at TI-NGOs covered by SACS. This results in managing available stock in accordance with the projected estimates of free supply of condom requirements as received from the respective SACS.

In order to ensure the free condom availability at various State AIDS Control Societies (SACS), NACO initiated interstate transfers of free condom stocks from the states where excess or relatively higher stock inventories were available to other SACSs. Similarly, NACO in close collaboration with respective SACS explored availabilities of free condoms under National Health Mission (NHM) and stocks were transferred from NHM to SACS wherever feasible.

Capacity Building

Regular induction and orientation sessions were organized to provide guidelines and road map to TI NGOs and CBOs towards effective implementation of condom training program. These capacity building sessions are aimed at reaching out to TI-NGOs for training their Project Managers, Counsellors, M&E Officers, ORWs and PEs to enhance their knowledge and bring clarity in their roles and responsibilities towards condom programming. These sessions also help them to adapt to contemporary systems and tools like scientific forecasting of condom demand, effective distribution of condoms to maximize the use

of condom and inventory management. Besides, it also helps to build confidence of TI staff in addressing key barriers in condom usage dispelling myths and misconceptions associated with condom use.

24.6 STI & RTI CONTROL & PREVENTION PROGRAMME

Sexually Transmitted Infection and Reproductive Tract Infection are among the top ten reasons for a person to visit health care facilities; STI/RTI is known to cause infertility, reproductive wastage and affect quality of life. Studies suggest that every year 6% of the adult population are infected with STI/RTI. Individuals with STI/RTI have significantly higher chances of acquiring and transmitting HIV infection. Early diagnosis; appropriate and complete treatment of STI/RTI reduces the transmission rate of HIV infection by more than 40%. The prevention and control of sexually transmitted infection is a well-recognised, cost effective strategy for controlling HIV transmission and reducing reproductive morbidity. Syndromic Case Management (SCM), with minimal laboratory tests is the cornerstone of STI/RTI management under National AIDS Control Programme. The key strategies for STI prevention and control are to interrupt transmission where it spreads fastest, and provide services for all who may need them. As per 2002-03 ICMR study, the programme estimates occurrence of 30 million episodes of STI/RTI every year in the country.

NACO target is to manage 90 lakh episodes of STI/RTI in 2016-17, out of which the programme has achieved 39.93 lakhs (43%) till September, 2016.

Progress of STI/RTI services:

Expansion of STI/RTI Service in Government Health Facilities

Presently there are 1165 Designated STI/RTI Clinic (DSRC) supported by NACO with at least one DSRC per district in the country. The two arms of DSRC are a) Obstetrics & Gynaecology OPD and b) STI OPD under Dermato-venereology clinics and provide services through existing public health care delivery system. NACO has provided support to these clinics to provide quality STI/RTI services through audio-visual privacy, furniture and instrument for conducting internal examination, provision of central supply of colour coded STI/RTI drug kits, RPR kits, consumable for conducting basic laboratory tests and computers for maintaining records and for monthly reporting through Strategic Information Management System (SIMS). Each of these clinics is also provided with one trained counsellor. A total of 17,91,879 RPR tests were conducted among attendees of DSRCs of which only 0.4% (6736) were reactive. Number of patients referred to the Integrated Council and Testing centres (ICTC) were 16,24,625 of which 0.4% (5881) were found tested positive for HIV. Among the pregnant women attending antenatal care 21, 88,536 ANC women were registered, of them 18,15,337 Lakhs were screened for syphilis of which s 81% of the total registered ANC attendees. The Syphilis ANC positivity is 0.16% (2904) was found reactive for syphilis and were provided treatment. The sero prevalence of Syphilis is observed to be declining steadily among patients with STI/RTI, Pregnant women and high risk groups.

Pre-packed STI/RTI colour-coded Kits

The pre-packing of STI/RTI drug kits has helped to standardize the treatment. The colour coded STI/RTI kits have been provided for free supply at all DSRCs and TI NGOs. These colour coded drug kits are procured centrally by NACO and dispatched to all SACS for distributing to facilities for use. There is commodity security at present, none of the states have reported any drug stock out in this financial year. The division also procured Injection Benzathine Penicillin - 2.4 million units for all health facilities including NHM facilities. The pre-packaging of the drugs is being recognized as one of the global innovation in STI programme management. The drugs used to treat common STI/RTI were included in the National/State List of Essential Drugs.

Regional STI/RTI Training, Research and Reference Laboratories

There are 10 functional Regional STI Training, Reference and Research Laboratories supported & strengthened by NACO. These are located at:

1. Osmania Medical College Hyderabad;
2. Medical College Kolkata and Institute of Serology Kolkata;
3. Government Medical College Nagpur;

4. Government Medical College Baroda;
5. Institute of Venereology, Chennai;
6. Maulana Azad Medical College, New Delhi;
7. BYL Nair Hospital, Topiwala National Medical College, Mumbai;
8. Government Medical College, Guwahati, Assam;
9. Post Graduate Institution of Medical Education and Research, Chandigarh and
10. Safdarjung Hospital, New Delhi acts as the Apex Centre as well as Regional Laboratory for the country.

The key functions of these laboratories are to provide etiologic diagnosis of common STI/RTI syndromes, validation of syndromic diagnosis, monitoring of drug sensitivity of gonococci and implementation of Syphilis EQAS .

NACO and CDC with SHARE India have conducted assessment of all the Regional STI Centre on quality and programme parameters.

The Objective of the assessment was:

- Measure the level of adherence to the Quality System Essentials (QSEs);
- Compliance to the National STI & RSTRRL Operational guidelines;
- Document different laboratory tests being performed for etiological diagnosis of STI/RTI syndromes;
- Assess the performance of RSTRRLs in EQAS for Syphilis and Gonococcus;
- Review the mechanism of referrals, linkages at the RSTRRL and
- Identify strengths, gaps and challenges to plan a structured site specific mechanism for improvement of QMS of RSTRRL.

All the Regional Centres were graded on the QMS and Programme implementation score.

Table 6.1: Score of Each Regional Centre

Name of the Centre	QMS Score (Total Score 208)	Programme Score (Total Score 47)	Total Score (out of 255)	Star Rating*
VMMC &Safdurjung Hospital, Delhi (Apex Lab)	183.75	42.5	226.25	4 Star
Osmania Medical College & General Hospital, Hyderabad	122	33	155	2 Star
Institute of Venereology & Madras Medical College, Chennai	110.5	32.5	143	2 Star
Institute of Serology and Kolkata Medical College, Kolkata	140	35	175	2 star
Govt Medical College & Hospital, Nagpur	115	36	141	2 Star
Government Medical College & Hospital, Baroda	182	27	209	3 Star
Maulana Azad Medical College & LNJP Hospital, Delhi	44.5	6.87	51.37	1 Star
Post Graduate Institute, Chandigarh	174	15.25	189.25	2 Star
Topiwala National Medical Colllege, Mumbai	139.5	25	154.5	2 Star
Guwahati Medical College Guwahati	85	13	93	1 Star

** Grading pattern based on cumulative (QMS and Programme component) scores*

1 STAR (0-128pts) (0-50%)	2 STARS (129-191pts) (51-75%)	3 STARS (192-224pts) (76-88%)	4 STARS (225-242pts) (89-95%)	5 STARS (243-255pts) (>=95%)

The following are the major observation:

- All the Regional Laboratories have adequate infrastructure for conducting all the etiological tests for STI as mentioned in the list of tests to be conducted except at MAMC and Guwahati Medical College;
- The interdepartmental referral and coordination between the Nodal Officers is limited and needs to be strengthened;
- The RSTRRL to prioritize sample collection and develop coordination between the RSTRRL and the Targeted Intervention programme;
- The RSTRRL should streamline the process equipment calibration and AMC for all the equipment available at the facility;
- The RSTRRL needs to ensure participation of SRCs in the EQAS programme;
- The RSTRRL needs to step up the research activities for STI/ RTIs by utilizing the resources from NACO;
- The RSTRRL should develop an action plan of the facility for review by respective SACS;
- *For MAMC:* There were major nonconformities; Funds received have not been utilized since last two years. The RSTRRL was not providing the requisite testing facility with the exception of syphilis and gonorrhoea. Culture is not being performed in the laboratory.

In addition to 10 Regional STI labs, an additional 45 State STI training and reference laboratories have been identified and their staff recruited and trained. These centres function under the mentorship of linked regional STI laboratories and the network of STI labs will implement the STI surveillance protocol. An operational manual was drafted to facilitate and standardize State STI centres functioning. Each of these STI labs were assigned dedicated geographic areas and DSRCs, TI working in these areas are linked with the respective labs. These STI labs are entrusted to do STI etiologic testing and oversee the quality of syphilis screening as per national EQAS protocol. These labs will also participate in STI Surveillance and community based study and will also investigate the congenital syphilis cases reported to programme in addition to monitoring sensitivity of Gonococci (GASP).

Training and Capacity Building and regular on site mentoring of STI/RTI service providers

Standardized training curriculum for doctors, staff nurse, laboratory technician and counselor is in place. The training to these staff is provided in a cascade form through a cadre of national, state and regional resource faculties across all States. All faculty members have been trained using the same training material, following adult learning methods. The state and regional resource faculties in turn have conducted training of STI/RTI clinic staff in the designated clinic and TI NGO. A total of 1531 personnel were trained including 59 doctors, 42 staff nurses, 118 laboratory technicians, 901 counsellors and 411 preferred providers. The states could not conduct the training due to non-availability of funds.

Additionally, each district has district resource faculties for training doctors, nurses and laboratory technicians on STI/RTI management for sub district health facilities (PHC, CHC and Sub –divisional Hospital). A total of 2293 persons from sub-district health facilities were trained in syndromic case management which includes 811 doctors and 1482 nursing staff. About 85 doctors were also trained in private sector.

Basics of STI programme activities were included in the curriculum developed for trainings of ANM at FICTC and laboratory technicians of ICTC, wherein the related curriculum has been incorporated into their existing curriculum so as to make service delivery comprehensive. To enable screening of pregnant women accessing labour room directly, a training module was designed to orient Labour room nurses for screening of direct walk in pregnant women both for HIV and Syphilis.

Convergence with NHM

STI/RTI services are also an integral part of services provided at all government health facilities including PHC/CHC. At each of these health facilities a standardized service delivery protocol is followed. Medical and paramedical staffs are trained, free STI treatment is provided to patients and monthly reports on STI/RTI indicators are reported by these facilities through existing HMIS.

Convergence has been strengthened at the national level through constitution of a joint working group and development of national operational framework for STI/RTI service delivery at sub-district health facilities. National operational guidelines and training modules for medical officers and paramedical staff for STI/RTI services have been developed jointly and disseminated. A joint convergence meeting between NACO and NHM is conducted once every quarter. STI curriculum is integrated in the training module for nurses and an integrated package of STI/HIV training is imparted by Indian Nursing Council for nursing staff as per the standardized curriculum.

NACO has revised national STI/RTI technical guidelines, 2014 in consultation with NHM. STI Division and NHM are jointly implementing Elimination of Parent to Child Transmission of Syphilis and has done joint procurement of Inj. Benzatrhine Penicillin for NHM.

Provision of STI/RTI Services in High Risk Group Population

The provision of a standardized package of STI/RTI services to High Risk Group (HRG) population is an important component of the Targeted Intervention projects. All the Core group population receives packages of services which include:

- Free consultation and treatment for their symptomatic STI complaints;
- Quarterly medical check-up;
- Asymptomatic treatment (presumptive treatment) and
- Bi-annual syphilis and HIV screening.

Preferred Private Provider approach has been rolled out to scale up STI/RTI services to HRG population under TI Projects. These providers are selected by the community members through group consultation. This approach has enhanced access to services for the HRG. Under this approach, all the HRG receives free STI/RTI treatment and the providers receive a token fee of Rs.75 per consultation. A total of 3400 preferred providers are providing STI/RTI services to the HRG. All these preferred providers are trained using a standardized curriculum on syndromic case management. Colour coded STI/RTI drug kits have also been made available to these providers for free treatment of sex workers, MSM and IDU and data collection tools are also provided to them. A total of about 17.35 lakhs visits have been made by HRG and 10.53 lakhs regular medical check-up have been conducted. The involvement of private practitioners for providing STI services to HRG at such a large scale is one of the few successful initiatives globally.

Partnering with Organized Public Sector, Public Sector Undertaking and Professional Organization

The major proportion of patients with STI/RTI seek services from the vast network of private healthcare delivery systems ranging from freelance private practitioners to large public hospitals. Also, many populations are accessing services from public health care systems under other sectors like Railways, ESI, Armed Forces, CGHS, Railways, Port hospitals as well as health facilities of public sector undertakings like Coal India Ltd, SAIL etc. It has been felt that reaching out to maximum numbers of people suffering from STI/RTI is not possible without partnership with private sector and organized public sectors. NACO has initiated partnership with organized public sectors and private sectors through

professional associations to support the delivery of STI/RTI services with the objective to reach the populations presently not covered by the public health care delivery system. STI/RTI services have been rolled out in major Port hospitals, ESIC, Private Medical Colleges.

New Initiative under STI/RTI Programme

1. Elimination of Parent to Child Transmission of Syphilis (EPTCT)

The STI/RTI Division in collaboration with Maternal Health Division under Ministry of Health & Family Welfare and WHO/SEARO has drafted National Strategy on EPTCT of Syphilis and launched this programme initiative in collaboration with the National Health Mission.

Under the EPTCT of syphilis, NACO and Maternal Health Division are aiming for early registration, early screening for both Syphilis and HIV and treat those found reactive, promote institutional delivery and follow up the new born up to 24 months of age.

India accounts to about 30 million pregnancies annually; Antenatal check-up is one of the first steps in ensuring health of the mother and child. India has largest number of Low Birth Weight babies and neonatal mortality and has significant number of maternal morbidity and mortality. In India about 75% of the pregnant women get atleast one ANC check-up and only about 40% of them gets three ANC check-up. In rural areas, one the ANC check-up is only about 60%.

There are many adverse outcomes due to maternal syphilis like spontaneous abortion, still birth, low birth weight, congenital syphilis and even neonatal mortality. Congenital syphilis is a serious but preventable disease, which can be eliminated proactively through effective screening of all pregnant women for syphilis and treatment of those infected, including their partner and newborn.The syphilis sero-prevalence among the pregnant women in India was reported as 0.38%, the annual burden of syphilis among pregnant women is about 1,02,806 and any adverse outcome due to maternal syphilis is 52,595 and cases of congenital syphilis is 16,144. Considering the very low prevalence of maternal syphilis and rare reported cases of congenital syphilis in India, elimination of Parent to Child Transmission of Syphilis seems easily achievable in India.

The key for elimination is to universalize the syphilis testing and treatment amongst the ante natal women and their partner across all health facilities and use of newer and low cost technology like point of care test for enhancing accessibility of testing in the field. The elimination effort will also require collaborative effort from the NHM functionaries and physician in private practice. There is also need of proving good quality ANC services at the facilities. All the states are participating in the programme; this is an integrated initiative with MH division of NHM.

Key Strategy for implementing the elimination Strategy:

- Ensuring universalization of ANC check-up (>95%);
- Testing for Syphilis and HIV together and both the test to be as essential test in ANC service packages;
- Treatment of all sero-reactive mother, partner and new born for Syphilis;
- Reporting and line listing of all the cases of maternal syphilis and HIV and institutional delivery of them. Follow up of the new born child for 24 months;
- Collaboration and functional convergence between NACO and NHM;
- Allocation of resource (line item in APP, purchase of commodities, training, monitoring etc.) for elimination of congenital syphilis and HIV;
- Introduction of newer and simple technologies in scaling up of testing for (Point of care test) and
- Making availability and supply of commodities (syphilis test kits, HIV test kits, inj.Benzathine Penicillin, etc.)

2. Mid Term Appraisal of STI Programme

NACO conducted Mid Term Assessment of NACP-IV programme with the objective to oversee the current status of Programme Implementation and

suggest any mid-course correction and undertake short term and long term recommendation for improving the programme performance and set up the basis of NACP-V programme design. The following are the short term and Long Term Recommendations for the STI Programme:

Short-Term Recommendations

Strategy related

- Enhance involvement of apex, regional & state STI laboratories for overall programmatic improvement and achieving goal of EPTCT of Syphilis and HIV; and

- Functionalise State reference centre and set up STI Surveillance system for better understanding of the STI burden, levels and trends among different risk groups.

Operational

- Rational use of counsellors & LTs across programme components; Syphilis and HIV testing to be conducted through standalone ICTC for STI attendees, HRG and ANC, continue with *'Single Prick Single Window'* system;

- Roll out EQAS for Syphilis testing across the country in the same lines as HIV testing;

- Strengthen referral linkages between TI, STI, ICTC & ARTC;

- Introduce preparation of line list of Syphilis positive pregnant women at all testing sites and monthly submission to higher levels for effective tracking and treatment;

- Include EPTCT of Syphilis as a regular agenda item in all NACP-NHM coordination meetings at National, State & District levels; incorporate indicators in HMIS to monitor the implementation of ECS programme;

- Ensure supply of commodity for syphilis treatment (inj Benzathine Penicillin) at all public hospitals; take measures to promote prescription by doctors and healthcare providers;

- Develop a new or integrate into existing software such as PALS for individual level tracking of Syphilis cases; and

- Streamline supply chain management of drugs for syndromic management and supply & maintenance of equipment for Syphilis testing at public hospitals.

Long-Term Measures

- Explore inclusion of point of care diagnostics for diagnosis of Syphilis in field settings, especially to reach universal coverage of pregnant women with Syphilis screening;

- Explore options for introducing new and recent technology in diagnostics to enhance specificity of syndromic diagnosis. This will enhance accuracy in testing and treatment. New test kits like dual PoC tests for HIV and Syphilis will help the programme to screen more people for HIV and Syphilis;

- Institutionalize internal and external quality assurance systems covering all testing sites for STI Programmes;

- Undertake community based study to understand prevalence of STIs in different population groups and also to undertake Operations Research on the emerging issues of STI ; and

- Prepare and plan for Sub-National validation of States ready for EPTCT of Syphilis and HIV and progress to country wide validation and declaration of EPTCT of Syphilis and HIV by 2020.

24.7 BLOOD TRANSFUSION SERVICES

The annual requirement of blood for the country is estimated at 12.8 million units of blood and the endeavour is to meet the blood needs of the country through voluntary non-remunerated donation through a well-coordinated and networked blood transfusion service.

An important Supreme Court judgment of 1996 mandated creating of National Blood Transfusion Council and directed stopping of professional blood

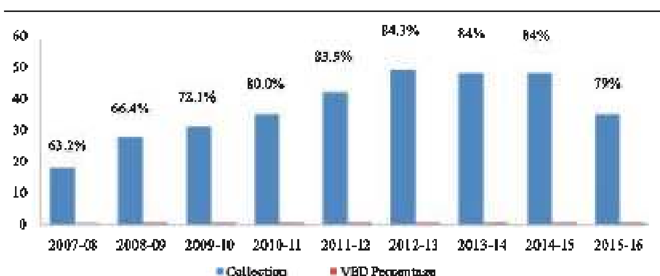
donation. The National Blood Transfusion Council (NBTC), the apex policy making body for issues pertaining to blood and plasma and for monitoring of blood transfusion services is a part of National AIDS Control Organization. Government of India adopted the National Blood Policy in April 2002 which aims to develop a nationwide system to ensure easy access to adequate and safe blood supply. An Action Plan on Blood Safety was formulated by the Governing Body of National Blood Transfusion Council to address all the objectives of the National Blood Policy.

Current Scenario

The blood transfusion services comprise of 2708 licensed blood banks across all States and Sectors, of which a network of 1,126 blood banks, which comprises Blood Component Separation Units (BCSU) Model Blood Banks, Major Blood Banks & District level blood banks and are further supported by NACO by way of equipments, manpower and consumables.

NACO has been primarily responsible for ensuring provision of safe blood for the country since 1992. During NACP, the availability of safe blood increased from 44 lakh units in 2007 to 109 lakh units by 2015-16. During this phase, incidence of donor HIV sero-reactivity has declined from 1.2% to less than 0.14% in NACO supported Blood Banks. NACO supported blood banks are functional across the country in all barring 82 districts, but access to safe blood continues to be limited especially in rural areas in States like Uttar Pradesh, Uttarakhand, Jharkhand, Bihar and Chhattisgarh. Till September 2016, 32.8 lakh units were collected among these NACO supported Blood Banks, 77% of these blood units were collected through Voluntary Blood Donation (VBD). HIV sero-reactivity has remained low in tune of 0.14% in these blood banks.

Figure 7.1: Units Collected and VBD Percentage in NACO Supported Blood Banks



Government has adopted a comprehensive approach towards strengthening blood transfusion services, key strategies for which include:

- Increasing regular voluntary non-remunerated blood donation to meet the safe blood requirements of safe blood in the country;
- Promoting component preparation and availability along with rational use of blood in health care facilities and building capacity of health care providers to achieve this objective;
- Enhancing blood access through a well networked regionally coordinated blood transfusion services;
- Establishing Quality Management Systems to ensure safe and quality blood; and
- Building implementation structures and referral linkages.

National Blood Transfusion Council (NBTC)

The primary function of NBTC as the policy formulating apex body in relation to all matters pertaining to operation of blood centers is as follows:

- Commitment to provide safe and adequate quantity of blood, blood components and blood products through an organized blood transfusion service in the country;
- Formulate and implement National Blood Policy and implement National Blood Programme in the country; Make latest technology available for operating the blood transfusion services and encourage the appropriate use of blood and blood product and encourage the research and development of field transfusion medicine and related technology; and
- Take adequate regulatory and legislative steps in blood transfusion steps and provide adequate resource policy framework of blood bank services in the country.

NBTC and SBTC are the apex bodies responsible for blood transfusion services at National and State level. They are supported by National and State Transfusion Services Core Coordination Committee created in

compliance to directions of governing body of NBTC in its 24th meeting held in January, 2014. Third meeting of National Transfusion Services Core Coordination Committee was held on 28th September, 2016 under the chairpersonship of Director General of Health Services (DGHS). Guidelines for referral and linkages of TTI reactive blood donors have been prepared and await approval for dissemination.

Policy Guidelines for Bulk Transfer of Blood and Blood Components have been adopted by all the State Blood Transfusion Councils. A suitable amendment to the Drugs and Cosmetics Act 1940 and Rules thereof is however awaited.

Promotion of Voluntary Blood Donation

It has been recognized world over that collection of blood from regular (repeat) voluntary non-remunerated blood donors should constitute the main source of blood supply. Definition of Voluntary Blood Donor has been revised as per recommendations of NBTC governing body to exclude family donors. Special days such as World Blood Donor Day and National Voluntary Blood Donation Day were observed at national and state level recognizing the contribution of repeat non-remunerated repeat voluntary blood donors. 14th June, 2016 was celebrated as World Blood Donor Day with theme *'Blood connects us all'*. The celebrations were marked by the presence of Secretary & DG, NACO & President, NBTC, DGHS, Addl. DGHS, Joint Secretary, NACO, DDG – BTS & Director, NBTC, Medical Superintendent, RML Hospital, representative from WHO.

World Blood Donor Day with theme 'Blood connects us all'

During the celebrations, awards were given to States and organizations who have contributed to voluntary blood donation. An update of e-blood banking was appraised to bring transparency and access of safe blood for public on 14th June 2016. This is joint effort of National Blood Transfusion Council (NBTC) in collaboration with National Health Portal (NHP), Ministry of Health and Family Welfare. MoU was signed with Govt. of Tamil Nadu to establish Metro Blood Bank at Chennai, which is envisaged as state of art model of centralized blood services and center of excellence as central sector scheme.

Felicitation of Blood Banks, SACS & Voluntary Blood Donation Organizers (VBD) for outstanding work during National Voluntary Blood Donation day

National Voluntary Blood Donation day was observed on 1st October 2016 by all states with the Theme – *"Donate blood, its about life."* In addition, State Blood Transfusion Councils also receive support to conduct activities for promotion of voluntary blood donation, conduction of blood donation camps and provisioning of donor refreshment. 45966 blood donation camps were held across the country from April to September, 2016 to support blood collection from voluntary non-remunerated repeat blood donors.

New initiatives under Blood Transfusion Services

1. NBTC Microsite on National Health Portal

2708 blood banks across the country are enrolled on Digital Platform – The NHP site provides location and contact details along with GPS coordinates of these blood banks. This serves to locate the nearest blood bank across the entire country on the NBTC microsite at NHP portal as well as a mobile App on Android platform. 753 Blood Banks report their daily stock status on this portal and this has also been taken into cognizance by Drugs Controller General of India with instructions issued to State FDA to review the same during their inspections to blood banks.

Screen shot of Blood Banks Reporting Status

2. Baseline Assessment of Licensed Blood Banks

On occasion of World Hepatitis Day, assessment report of NACO supported blood banks was launched on 28th July, 2016. The assessment was carried out with the specific objectives of reviewing the existing situation in Blood Banks in terms of blood, voluntary blood donation, quality management system and to categorize and grade blood banks using a scoring system for implementation of phased quality systems. Preliminary report has been disseminated and data analysis is ongoing for finalizing the report of assessment of all blood banks of India.

Launching of Assessment Report of NACO Supported Blood Banks

3. Review of DGHS Technical Manual on Transfusion Medicine

A meeting for the renewal of Transfusion Medicine – Technical Manual was organized under the chairpersonship of Prof. (Dr.) Jagdish Prasad, DGHS wherein it was decided to review and revise the Transfusion Medicine Technical Manual and prepare standards and operational guidelines for Blood Transfusion Services.

4. National Review meeting

Review meeting of Division of Blood Transfusion Services of SACS & SBTCs was held on 13th & 14th October, 2016 under the chairpersonship of Joint Secretary, NACO & Dr. R.S Gupta, DDG (BTS) NACO and attended by State Programme Managers. Status of Transfusion services was reviewed for the parameters of Total Blood Requirement, Blood Collection & VBD Collection, TTI Reactivity, Utilization & Discard, Componentization, Financial Utilization, Capacity Building, Monitoring and Reporting Status.

5. Scheme for Modernization

Scheme for modernization of blood banks has been an integral part of all three phases of NACP through provision of one time equipment grant to selected blood banks in Government and charitable sector for collection, testing and storage as well as annual recurrent grant for support of manpower, kits and consumables. There are a total of 1126 blood banks supported by NACO across all States and UTs. All blood banks collecting more than 3000 blood units are also provided with one Blood Bank Counselor to provide pre and post donation counseling and improve donor retention.

6. Model Blood Banks

Model Blood Banks help to improve upon the standards of blood transfusion services and function as demonstration centers for the States. 34 model blood banks continue to function across the country. These were made functional in 2010. All have been provided with State of the art Blood Mobile Vans for enhancing voluntary blood collection.

7. Blood Component Separation Units (BCSU)

In order to promote rational use of blood, BCSU are established as an active part of BTS. Practice of appropriate clinical use of blood amongst the clinicians has seen a definite rise due to the increased component preparation and usage during seasonal epidemics and training of clinicians on rational use of blood. At present, component separation is 69% in NACO supported Blood Banks.

8. Major Blood Banks (MBB) and District Level Blood Banks (DLBB)

Government and charitable blood banks collecting less than 5000 units per year are supported as MBB and DLBB in various districts of the country.

9. Blood Transportation Vans

Blood needs to be transported under proper cold chain maintenance from the linked mother blood bank to the Blood Storage Centre (BSC). NACO has provided 250 refrigerated blood transportation vans to the RBTC/District blood banks, which are being maintained through provisioning of fuel & manpower cost. These vans transfer blood units to the BSC on a regular basis and also on demand/emergency

situations.

10. Metro Blood Banks

It is proposed to set up four state-of-the-art Centres of excellence in Transfusion Medicine in Chennai, Delhi, Kolkata and Mumbai. First phase of project has been approved by Hon'ble Minister for Health and Family Welfare for two such centres and Memorandum of Understanding is to be signed with respective State Governments. MoU with Government of Tamil Nadu has been signed to establish one such center in Chennai.

11. Plasma Fractionation Centre

It was proposed to set up a Plasma fractionation centre at Chennai with a capacity of processing 150,000 litres of plasma per annum and prepare plasma products for use within the country. Keeping in view that large volume of unutilized plasma is being discarded; plasma policy has been formulated, as an addendum to national blood policy, so as to utilize this plasma by existing fractionators. NBTC has also approved modalities including exchange value for plasma exchange with indigenous fractionators. These guidelines have been adopted by respective State Blood Transfusion Councils.

Capacity Building, Quality Management and Research

I. **Capacity Building:** Capacity Building is a fundamental aspect of Blood Transfusion Services to apprise the Blood Bank Staff with the correct basic methodologies thereby giving an insight on the latest technological advancements as well. These trainings are imparted to the Blood Bank Staff (Medical Officers, Clinicians, Technicians, Nurses and Counsellors) through 26 Training Centres across the Country based on a standardized curriculum through the coordination of State AIDS Control Societies. The training programme for all the above is on-going as per the revised standardized curriculum all across the country and around 2600 blood bank staff (Medical Officers- 660, Laboratory Technicians - 1415 and Nurses - 550) have been trained till September, 2016.

ii. **Quality Management Systems:** Ensuring quality in the day to day Blood Banking (BB) procedures is one of the key mandate of Blood Transfusion Services Division. Accordingly, NACO/NBTC along with project partners and leading experts in Transfusion Medicine has devised a standardized training curriculum (Trainers Guide and Trainee's Handbook) for building capacities of BB staff designated as Technical Manager and Quality Manager together with one Medical Officer in selected NACO supported Blood Banks. These trainings are designed to focus on developing skills for improving Quality Management Systems at Blood Banks so as to improve their working and delivery of services and take steps towards certification and accreditation of services. In this regard, a National Training Workshop for Master Trainers on *"Strengthening Quality Management Systems in Blood Banks"* was conducted from 24th to 26th October, 2016 in Gurgaon. Subsequently, roll-out of Regional Trainings is planned from the last week of November, 2016 onwards.

iii. **Blood Donor Counselling:** An exclusive module has been developed for developing capacities of staff who counsel blood donors. A National Training of Trainers Workshop for Counselling Blood Donors was organized from 18th–20th October, 2016 in Mumbai. This aim of this training was to prepare counsellor on motivating potential donors, on organizing community awareness about the cause of blood donation and on organizing public donation drives apart from their existing Terms of Reference (TOR) of Pre and Post Donation counseling & improve referral linkages of TTI reactive Donors. The Regional Trainings are planned to roll out at five locations across the country.

iv. **Research Study:** The focus of BTS is to ensure access to safe and quality blood and blood products in the country. In order to plan and develop appropriate strategies, programmes and policies related to BTS, knowledge on the requirement of blood in the country is essential. Looking towards the need of the estimation of the blood

requirement in the country, it was proposed to undertake the "Estimation of National Blood requirement in India" through CDC- CMAI project. The protocol for the study was designed with assistance from National Institute of Medical Statistics, CMC Vellore and other transfusion Medicine experts. The study was approved by the Technical Resource Group of BTS and Research. Almost 75% data collection of the study is completed till date.

Strategic Information Management System (SIMS)

Looking towards the need of the estimation of the blood requirement in the monthly programmatic data from all blood banks is reported on Strategic Information Management System (SIMS) on a web based format to National AIDS Control Organization. Presently, 2585 blood banks are registered and 2204 blood banks reporting on SIMS. The information procured and data generated from SIMS forms the backbone for spelling out the Annual Action plans and programme management. India is amongst the very few countries that have such a comprehensive national level reporting in transfusion services.

Monitoring and supervision of Blood Transfusion Services (BTS)

State Transfusion Services Core Coordination Committee teams have been constituted in every State to carry out the periodic supervision of all NACO supported blood banks and voluntary blood donation camps. Standardized supervisory tools and reporting formats are developed. The National Blood Transfusion Council is mandated with the task of regular review and monitoring of blood transfusion services of the country. In this regard, quarterly visits by the officers from NACO/NBTC are conducted in different States and regions with the following objectives:

- Assess current situation of BTS in field practice;
- Perform gap analysis from recommendation and existing practices;
- Programme planning;
- Review programme implementation;
- Provide necessary support, capacity building and mentoring to programme and field personnel; and
- Review the functioning of SBTC.

During the FY 2016-17, the States visited include Uttar Pradesh, Punjab, Madhya Pradesh, Maharashtra, Tamil Nadu and Kerala.

24.8 BASIC SERVICES DIVISION (BSD)

The Basic Services Division of the National AIDS Control Organisation provides HIV Counselling and testing services for HIV infection, the critical first step in detecting and linking people with HIV to access treatment cascade and care. It also provides an important opportunity to reinforce HIV prevention. The national programme is offering these services since 1997 with the goal to identify as many people living with HIV, as early as possible (after acquiring the HIV infection) and linking them appropriately and in a timely manner to prevention, care and treatment services. The introduction of ART services for people living with HIV/AIDS in 2004, gave a major boost to counselling and testing services in India. The HIV Counselling and testing services include the following components:

I. **Integrated Counselling and Testing Centres (ICTC)**

II. **Prevention of Parent-To-Child Transmission of HIV (PPTCT)**

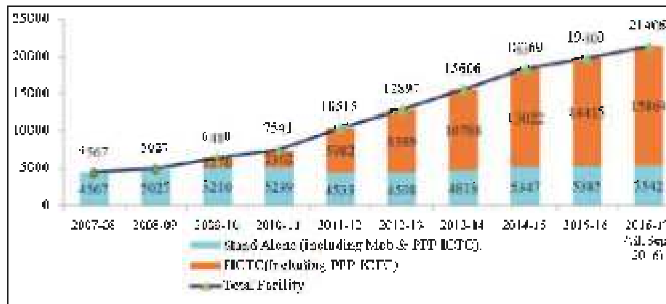
III. **HIV/Tuberculosis Collaborative Activities**

I. Integrated Counselling and Testing Centre (ICTC)

Types of Facilities for HIV Counselling and Testing Services: There are different types of HIV counselling and testing services in India which include Standalone ICTC (SA-ICTC), Mobile ICTC, Facility Integrated Counselling and Testing Centres (F-ICTCs) and Public Private Partnership ICTCs (PPP ICTCs). In order to offer HIV testing to every pregnant woman in the country, so as to detect all HIV positive pregnant women and eliminate transmission of HIV from parent to child, the community-based

HIV screening is conducted by frontline health workers (Auxiliary Nurse Midwives) at the sub-centre level. There is an increase in the number of ICTCs in the country, clearly portraying integration of counselling and testing services under general health services, increase in geographical coverage of these services below block level, better accessibility and addressing sustainability **(Figure 8.1 below).**

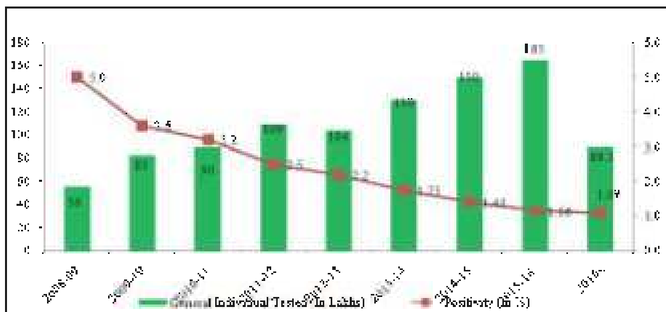
Figure 8.1: Scale-up of ICTCs during the period from 2007-08 to 2016-17 (till September 2016)



HIV Counselling and Testing Services of General Individuals

During the FY 2016-17(till Sept.2016), around 88.8 lakhs general individuals have been tested for HIV against annual target of 140 lakhs and out of which, 96,648 (1.09%) were diagnosed HIV positive. The declining trend is observed in HIV positivity from 5% in 2008-09 to 1.09% in 2016-17. The below **Figure 8.2** shows year-wise general individuals tested for HIV and the positivity.

Figure 8.2: Scale-up of General Individuals tested and positivity in ICTCs during the period from 2007-08 to 2016-17 (till September 2016)



II. Prevention of Parent to Child Transmission of HIV (PPTCT)

The Prevention of Parent to Child Transmission of HIV/AIDS (PPTCT) programme was started in the country in the year 2002. As on Sept. 2016, 21406 ICTCs in the country offer PPTCT services to pregnant women. The aim of the PPTCT programme is to offer HIV testing to every pregnant woman (universal coverage) in the country, so as to cover all estimated HIV positive pregnant women and eliminate transmission of HIV from mother-to-child. During the FY 2015-16, NACO has decided to implement Early Infant Diagnosis (EID) service through all 5237 SA-ICTCs (fixed) across the country.

In India, PPTCT interventions under NACP started in 2002. This provided access to HIV testing services to all pregnant women enrolled in Ante-natal Care (ANC) along with the provision of ARV prophylaxis with Single Dose Nevirapine (SD-NVP) prophylaxis for HIV positive pregnant women during labour and also for her new born child immediately after birth. These interventions rapidly scaled up during NACP-III (2007-12) and NACP-IV (2012-17).

In September, 2012, NACP as a policy adopted Option B+ based on recommendations from World Health Organization (WHO) (2010) and transitioned from SD-NVP strategy to that of multi drug ARV prophylaxis. In order to offer HIV testing to every pregnant woman in the country, so as to detect all HIV positive pregnant women and eliminate transmission of HIV from parent to child, the community-based HIV screening is conducted by frontline health workers (Auxiliary Nurse Midwives) at the sub-centre level. Globally, evidence suggest that although ARV prophylaxis using SD-NVP is highly effective in reducing risk of transmission from about 45% to less than 10%, the 10% uncovered risk is unacceptably high, considering the fact that paediatric HIV can be eliminated if the currently available drugs are used effectively.

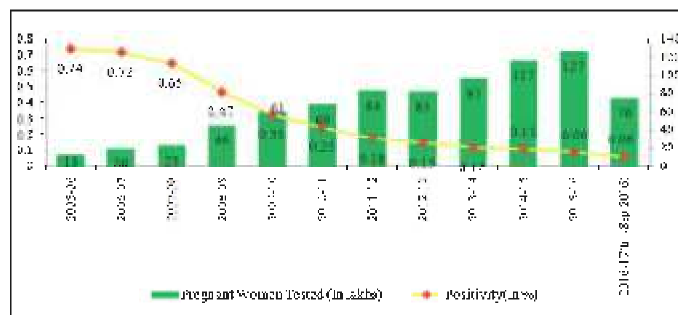
The National Strategic Plan for PPTCT services using multi-drug ARVs in India was developed in May-June, 2013 for nationwide implementation in a phased manner. Based on the new WHO Guidelines (June 2013) and on the suggestions from the TRG In December, 2013 the Basic Services Division/NACO released the *"Updated guidelines for Prevention of Parent to Child Transmission of HIV using Multi-drug Anti-Retroviral Regimen in India"* and the National Strategy Plan for its roll-out. Currently these new guidelines are implemented across India. The

comprehensive ICTC/PPTCT package of services aregiven below:

a) Detection of HIV infected pregnant women and children

Government of India is committed to work towards achievement of the global target of *"Elimination of new HIV infection among children"* by 2017. National AIDS Control Organisation has implemented lifelong ART (triple drug regimen) for all pregnant and breastfeeding women living with HIV, regardless of CD4 count or WHO clinical stage or duration of pregnancy, both for their own health and to prevent vertical HIV transmission and with additional HIV prevention benefits. During FY 2016-17, out of the annual target 140 lakhs, 76.2 lakhs of pregnant women tested for HIV and 5233 were diagnosed HIV positive as new cases and out of which 4935 (94.3%) initiated lifelong ART, the known HIV positive pregnant women availed ICTC service during this period is 1,172. During 2016-17 (till September 2016), 5372 HIV exposed live birth were reported out of which 4,651(86.7%) received ARV drug. Following **Figure 8.3** shows the Scale-up of Pregnant Women tested and positivity in ICTCs.

Figure 8.3: Scale-up of Pregnant Women tested and positivity in ICTCs during the period from 2007-08 to 2016-17 (till September, 2016)



b) Early Infant Diagnosis (EID)

HIV exposed infants born to infected pregnant women have to undergo DNA-PCR tests using dried blood spot and whole blood specimen. Details on EID programme are mentioned in the section on Laboratory Services. During the FY 2016-17(till Sept. 2016), a total of 3,472 HIV exposed babies were initiated on CPT and 4,735 babies were tested under the EID Programme using DBS DNA PCR and 82 (1.73%) babies were found reactive. However, a total of 2,486 babies underwent 18 month test and only 158 were diagnosed as HIV positive and 103 were initiated on Paediatric ART.

c) Quality Improvement Initiatives under Basic Services

1. **Technical Resource Groups (TRG) meeting on PPTCT:** In the FY 2015-16, PPTC-TRG meeting was conducted in the month of September, 2015 to review the key operational and service delivery issues pertaining to PPTCT of HIV, Syphilis and EID programme in the country and discussed the strategies towards universal coverage of HIV & Syphilis testing among pregnant women. The 2nd TRG meeting on ICTC is going to be conducted in the month of December, 2016.

2. **PLHIV-ART Linkage System(PALS):** NACO has implemented PLHIV-ART linkage System (PALS) in India for tracking & monitoring of cascaded of services provided to HIV Positive pregnant women & their child by the different health facilities at different time points & geo-locations. Currently, 23 States/UTs are implementing PALS and reporting data in it. The extended version of PALS: an integrated module for HIV positive general individuals, pregnant women, follow-up of orphan babies/babies referred by paediatrician, follow-up of discordant couples has been developed. This development is at the stage of pre-pilot testing and soon will be deployed for pilot implementation.

3. **Quality assurance and EQAS:** The diagnostic services provided through ICTCs across the country are strictly monitored by a strong internal and external Quality Assurance Scheme (EQAS).

4. **Supervision and Monitoring Mechanism:** Officers from NACO along with the State AIDS Control Societies and partners visit States/UTs and service delivery centres as part

of routine monitoring. During 2016-17, NACO officers visited the States of Madhya Pradesh, West Bengal, Maharashtra, Telangana, Andhra Pradesh, Uttarakhand, Delhi, Uttar Pradesh, Manipur, Odisha, Punjab and Tamil Nadu.

d) Meetings

- **Review meetings:** As the part of programme monitoring, the Basic Services Division has been conducting review meetings on BSD components at regular intervals both at National and State level. It includes, review meting for State AIDS Control Societies (ICTC/PPTCT), National TB HIV Joint Review Meetings, National TB HIV Coordination committee, National TB HIV Technical Working Group (TWG) meetings.

- During 2016-17, the National Review Meeting cum orientation was conducted on Revised HIV Counselling and Testing Guidelines 2016 for the SACS/UTs officials, which was held at New Delhi in the month of June & July 2016 in three different batches (2 days for each batch). The purpose of review meeting is to evaluate the performance of the States/UTs on key programme indicators w.r.t FY 2015-16 along with the orientation on changes highlighted in the guidelines e.g. community based screening, prioritization of key population for HIV testing, revised reporting tools etc. The participants of the meeting include the officials from SAATHII, RMNCH+A and consultants from UNICEF.

- **National Steering Committee (NSC) meeting:** The National Steering Committee under the chairmanship of Secretary & DG, NACO has been formed to access the implementation of PPTCT & Care Support Services by three 'PR' (Plan India, SAATHII and India HIV/AIDS Alliance) under New Funding Model (NFM). The first meeting of National Steering Committee was held on 22nd August 2016 at Committee Room, 6th floor, NACO under the chairmanship of Secretary & DG, NACO. The objective of the meeting is to review and evaluate the progress, achievement and challenges of the projects named AHANA, SVETANA and VIHAAN, which is being implemented by Plan India, SAATHII and India HIV/AIDS Alliance respectively. Around 48 participants were present in the meeting, including officials from BSD & CST Division, NACO, Plan India, SAATHII, India HIV/AIDS Alliance, representatives of development partners (WHO, UNAIDS, UNICEF, CDC) & officials from NHM, IMA, IAP, FOGSI and CTD.

e) Trainings

- **Regional Training of Trainers (ToT) on revised HIV counseling and Testing Service (HCTS) guideline 2016:** BSD NACO has recently updated the National HIV counseling and testing Services Guideline (HCTS) 2016 and it has been approved by Hon'ble Minister of Health & Family Welfare and Secretary, Ministry of Health & Family Welfare, Government of India. In this regard, two regional ToT on revised HCTS guideline 2016 was successfully held at Delhi for the Northern states at Guwahati for NE States and the same will be held for Andhra Pradesh and Telangana on 17th November to 22nd November, 2016 at Vijayawada and Hyderabad respectively. The main objective of the training was to create a pool of master trainers on the revised HCTS guideline 2016. The participants are identified ICTC counsellors and District ICTC Supervisors of the above mentioned States and will be considered as the master trainers of HCTS revised guideline 2016 at down level training at their respective State/District level.

- **Training on PLHIV- ART Linkage System:** BSD, NACO has implemented PLHIV- ART linkage System (PALS) in India for tracking & monitoring of cascaded of services provided to HIV Positive pregnant women & their child by the different health facilities at different time points & geo-locations. Currently all ICTC and ART counsellors, DAPCU officials and all BSD & M&E officials of SACS of 23 States/UTs received hands on training on PALS and all the ICTC/ART counsellors and DAPCU staffs as well as SACS and M&E officials of remaining State/UTs will be trained by the end of December, 2016.

- **Supply Chain Management:** A strong monitoring mechanism for inventory management is in place. The inventory status for all commodities at the State, District and Facility

level is monitored on weekly basis at the National level.

III. HIV/TB Collaborative Activities

TB disease is the commonest opportunistic infection among HIV-infected individuals and major cause of mortality. Nationally about 3% TB patients registered under the Revised National Tuberculosis Control Programme (RNTCP) have HIV infection. The country is dealing effectively with HIV burden, TB associated HIV epidemic is posing a great challenge. TB HIV Collaborative activities are jointly implemented by NACP & RNTCP since 2001. These activities are closely guided through duly constituted TB-HIV Coordination Committees & Technical Working Groups at National, State and District level. In addition to co-ordination mechanism at different levels the national HIV/TB response includes 3I's i.e. Intensified TB Case Finding (ICF) at HIV Care setting, Isoniazid Preventive Therapy and Infection Control at HIV Care settings.

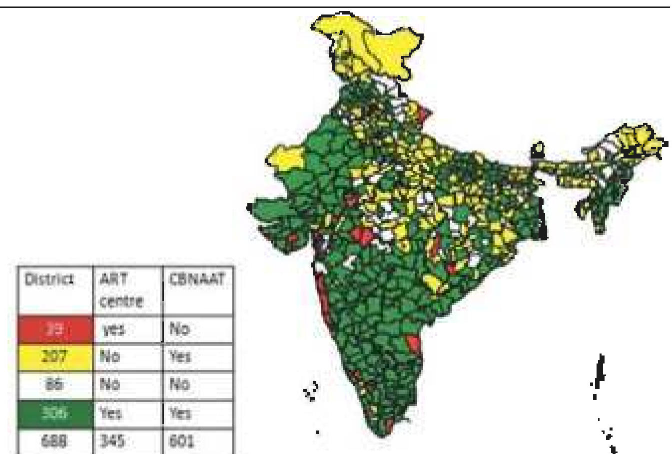
Intensified TB Case Finding (ICF)

Under ICF, all ICTC clients are screened by ICTC counsellors for presence of TB symptoms at every encounter (pre, post, or follow-up counselling). Clients who have symptoms or signs, irrespective of their HIV status, are referred to RNTCP diagnostic and treatment facility located in the same institution. The cross-referrals between NACP and RNTCP have consistently shown improvement, with 5,33,810 presumptive TB cases identified and referred to RNTCP and detection of about 36,318 i.e. 7% TB cases out of which 4,549 found co-infected with TB /HIV at ICTC in FY 2016-2017 (till Sep, 2016). The referrals from RNTCP centres to ICTC have also shown consistent increase in numbers. The ICF at ART centres showing increasing trend in 2016-17 (till Sept. 2016) 3,04,337 PLHIV were identified as Presumptive TB cases and were referred to RNTCP and 20,077 PLHIVs were diagnosed with TB i.e. 7%. The Care Support Centres (CSCs) are also involved in TB HIV collaborative activities & ICF at Care Support Centres (CSCs) has yielded 2,389 TB cases during 2015-16.

In 2016-17 (till July, 2016) there were 9,978 out of 13,886 Designated Microscopic Centres (DMCs) co-located with HIV/TB testing facilities i.e. 70% as per the recommendation of NTCC &NTWG HIV-TB. Rapid diagnostic test i.e. CBNAAT is used for early diagnosis of TB among PLHIV at ART centres. Linkage of CBNAAT facility for ICTC clients is planned.

Use of Rapid Diagnostics (CBNAAT) for early diagnosis of TB & Rif R for People living with HIV

Cartridge Based Nucleic Acid Amplification Test (CBNAAT), is used as rapid diagnostic tool in Designated Microscopic Centres. In addition to TB this also helps in early diagnosis of Rif Resistance among People living with HIV. For upscaling of innovative intensified TB case findings and early



District	ART centre	CBNAAT
39	yes	No
207	No	Yes
86	No	No
306	Yes	Yes
688	345	601

Fig 8.4: CBNAAT Linkage with ART Centres

diagnosis of TB & Rif resistant TB in India, total 601 CBNAAT are available nationwide **(Figure 8.4)** including 300 new CBNAAT equipments installed in districts in country. All ART centres in country except 39 are presently linked with CBNAAT diagnostic facilities. Sputum collection and transport mechanism is planned for these 39 ART centre and also ICTC/F-ICTC CBNAAT linkages.

Isoniazid (INH)Preventive Therapy

Isonaizid Preventive Therapy (IPT) is one of the 3 I's globally recommended strategy for prevention of incident TB among HIV infected individuals. IPT is a key public health intervention for the prevention of TB among people living with HIV and has been recommended as part of a comprehensive HIV and AIDS care strategy by World Health Organisation (WHO), the Joint United Nations Programme on HIV/AIDS (UNAIDS), National Framework for HIV

TB Collaborative activities in India (Nov. 2013) and Standards of TB Care in India. Operational Manual for Isoniazid Preventive Therapy has been developed in 2016. Training for ART centre staff, Basic Service Division officer & Revised National TB Control Programme (RNTCP) staff were conducted during 2015 & 2016.

Operational Manual for Isoniazid Preventive Therapy

Infection Control

To prevent the transmission of TB at healthcare settings, Airborne Infection Control(AIC) measures are emphasised including Administrative, Environmental and Respiratory protection measures.

Innovative Intensified Case Findings

To reduce the burden of TB among people living with HIV 'Innovative Intensified TB case finding and appropriate treatment at high burden ART centres in India' project to support the three I's for HIV/TB (Intensified case finding, Isoniazid Preventive Therapy (IPT) and Infection control) was launched in 2015 and is being implemented at 30 ART centres in five (5) States (Andhra Pradesh, Telangana, Karnataka, Maharashtra &Tamil Nadu). PLHIV diagnosed with Tuberculosis are given first line anti TB drugs i.e. daily regimen for TB through ART centersby single window service.

Salient features of the project include Single window service delivery for TB & HIV co-infected patients, intensified case finding using CBNAAT, TB & HIV patients receive daily anti-TB treatment in Fixed Drug Combination, innovative drug intake tracking mechanism using missed call at a toll-free number on the strip is used under this project, better management of side effects-pharmacovigilance, Isoniazid Preventive Therapy and Air Borne Infection control at HIV care settings. Out of total PLHIV attending ART Centre, number of PLHIV with presumptive TB tested for TB diagnosis is 55939 (cumulative Till July, 2016) of which 7762 PLHIV were diagnosed with TB. Among these TB diagnosed cases 7425 were put on daily ATT and 171 out of 208 Rifampicin resistant TB cases were put on Cat IV.

Training and Capacity building

"E-Training module for HIV TB collaborative activities in India" has been developed jointly by NACO and Central TB Division This innovative methodology of training launched as "Digital India Initiative", is helpful to impart the desired knowledge regarding TB/HIV with the purpose to improve the effectiveness, efficiency and sustainability of

E-learning module for HIV-TB Collaborative *PITC for Presumptive TB cases and TB patients Activities*

Government of India's response to TB/HIV.

To guide the lab technicians at DMCs regarding procedures of HIV testing services and Provider Initiated Testing and Counselling among Presumptive TB cases and TB patients "Provider Initiated Testing and Counselling for Presumptive TB cases and TB patients" has been developed in 2016. Training of various cadre of staff in NACP & RNTCP were conducted through webinar (Distance learning series) regarding Isoniazid Preventive Therapy, Airborne

Infection Control,Intensified TB Case Finding and Programmatic Management of Drug resistant TB. Video Dialogue - Online panel discussion was conducted for DAPCUs regarding TB HIV collaborative activities. Sub Recipient(SR's) andSub Sub Recipient(SSR's) from care support centres were trained in TB HIV.

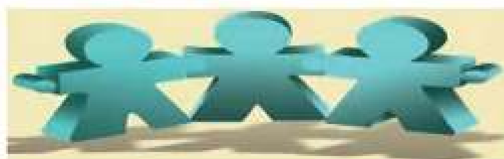
Monitoring & Evaluations of TB HIV activities

National TB HIV Coordination Committee and National Technical Working Group for TB HIV meetings were conducted in May & October, 2016 respectively. National Review meeting for State Basic Services officials and State TB Officers (STOs) were conducted during July & Aug., 2016 respectively to review progress of TB HIV Collaborative activities. Joint supervisory visits were also conducted to all 30 districts of 3I's project in 5 States during October to December, 2015 by national and State teams to assess implementation of project activities. All States except Andaman & Nicobar have conducted State Technical Working Group meeting during 2015-16.

A guide to supervision, monitoring and evaluation was developed as a guidance tool for monitoring TB HIV collaborative activities. **"Guide to Supervision, Monitoring and Evaluation of TB HIV activities" (e-book)** was launched at National Task force of medical colleges on 17th Feb 2016.

Government of India
Ministry of Health and Family Welfare
National AIDS Control Organisation

JUNE, 2016



Central TB Division

Basic Services Division

Guide to Supervision, Monitoring and Evaluation of TB HIV activities, Jan. 2016

World TB Day

World TB Day, falling on March 24th each year, is designed to build public awareness that tuberculosis today remains an epidemic in much of the world, causing the deaths of nearly one-and-a-half million people each year, mostly in developing countries. India which is among 20 highest burden countries globally has committed to achieving universal access to TB care with its campaign for a TB-Free India. This year's World TB Day campaign runs under the strong and action-oriented tagline *"Unite to End TB!"*. On the occasion, Hon'ble Union Minister of Health & Family Welfare, Shri J.P. Nadda launched 3 key initiates with Central TB Decision and NACO coordination:

1. Expanding TB Diagnostics; 500 Cartridge Based Nucleic Acid Amplification (CBNAAT) equipments;
2. Bedaquiline-New Anti TB drug for Drug resistant TB and
3. Third line ART.

Newer Initiatives under HIV/TB Collaborative Activities:

1. Countrywide scale-up of daily Anti TB Treatment (ATT);
2. Nationwide implementation of IPT for which PLHIV and TB infection control activities at all ART centers;
3. District specific intervention in high priority districts identified as per Pragati Review in seven (7) States (Andhra Pradesh, Karnataka, Maharashtra, Mizoram, Odisha, Chhattisgarh and Tamil Nadu);
4. SA-ICTC/F-ICTC CBNAAT linkage: the early detection of TB through ICF at ICTC's and
5. Social support & Nutritional support services for TB-HIV Patients.

24.9 CARE, SUPPORT AND TREATMENT (CST)

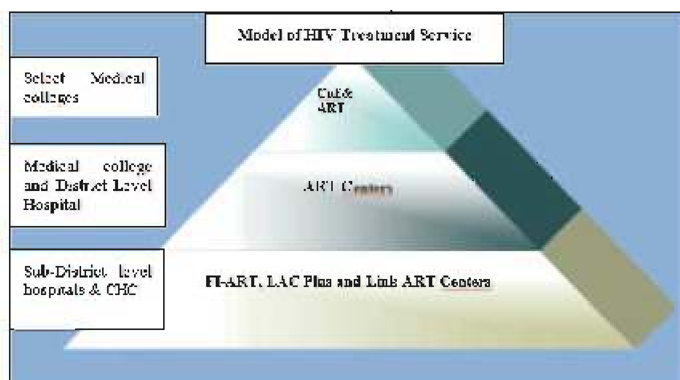
The Care, Support and Treatment (CST) component

of the NACP aims to provide comprehensive management to PLHIV with respect to free Anti-Retroviral Therapy (ART), psychosocial support to PLHIV, prevention and treatment of Opportunistic Infections (OI) including mitigation in stigma free environment. The overall goal is to improve the survival and quality of life of PLHIV.

A. Service Delivery Mechanism for Care, Support & Treatment

Care, Support and Treatment (CST) services are provided through a spectrum of service delivery models including ART Centers, Centers of Excellence (CoE), PediatricCenters of Excellence (PCoE), Facility Integrated ART Centers (FI-ART), Link ART Centers (LAC), Link ART Plus Center (LAC Plus) and Care & Support Centers (CSC) established by NACO in health facilities across the country with aim to provide universal access to free and comprehensive CST Services. There are active linkages and referral mechanism for monitoring, mentoring, decentralization and specialized care. CST Services are also linked to ICTCs, STI clinics, PPTCT services and other clinical departments in the institutions of their location as well as with the RNTCP programme in order to ensure proper and comprehensive care and management. **Figure 9.1** gives a graphic view of this service delivery model.

Figure 9.1: Model of HIV Treatment Service



A.1 Anti-retroviral Therapy Centers: Provisionof free Anti-Retroviral Therapy (ART) for eligible persons living with HIV/AIDS was launched on 1 April, 2004 in eight Government hospitals located in six high prevalence States. Since then, the programme has been scaled up significantly both in terms of facilities for treatment and number of beneficiaries. The ART centers are established in the medicine department of Medical colleges and District Hospitals mostly in the Government sector. However, some ART centers are functioning in the sub-district and area hospitals also, mainly in high prevalence states. The ART centers are set up based on prevalence of HIV in the district/region, volume of PLHIV detected and capacity of the institution to deliver ART related services. Till September 2016, there are 528 functional ART centers across the country.

A.2 Link ART Centers (LAC): In order tofacilitate the delivery of ART services nearer to the beneficiaries, LACs are set up and located mainly at ICTC in the district/sub-district level hospitals nearer to the patients residence. They are linked to a Nodal ART center within accessible distance. The LAC helps in reducing cost of travel; time spent at the center and hence helps in improving clients adherence to treatment. Presently, there are 1108 Link ART Centers functional.

A.3 Link ART Plus Centers: It was observed thatnearly 25-30% of persons detected HIV positive at ICTC are not linked to care, support & treatment services. Reasons for this included, among others, persons being asymptomatic at the time of detection and long distances to reach the ART center for registration and basic investigations, which may lead them to postpone/delay their visit to ART centers till they become symptomatic. It was also observed that nearly 20% patients reach ART centers at a very late stage (CD4 count <50), when the risk of mortality is nearly 2-3 times higher.

In view of the above facts, the scope and functions of select Link ART centers were expanded to include Pre-ART registration and HIV care at LAC itself. The LACs which perform Pre-ART management also are designated as "LAC plus". This helps to bridge the linkage loss between ICTC and CST services and also to reduce the travel cost

and travel time of PLHIV in accessing ART services. PLHIV registered in LAC plus are followed up at LAC plus till they become eligible for ART or till referred to ART center for any other clinical references.

A.4 Centers of Excellence (CoE): CoE areestablished to facilitate provision of tertiary level specialized care and treatment, second line and alternative first line ART, training & mentoring and operational research. Ten Centers of Excellence have been established in different parts of the country. They are located in Bowring & Lady Curzon Hospital, Bangalore; BJ Medical College, Ahmedabad; Gandhi Hospital, Secunderabad; Post Graduate Institute of Medical Education and Research, Chandigarh; School of Tropical Medicine, Kolkata; Institute of Medical Sciences, BHU, Varanasi; Maulana Azad Medical College, New Delhi; Sir J. J. Hospital, Mumbai, Regional Institute of Medical Sciences, Imphal and Government Hospital of Thoracic Medicine, Tambaram.

A.5 Paediatric Centers of Excellence: The Regional Paediatric ART Centers established under NACP III have been upgraded now as Paediatric Centers of Excellence for paediatric care including management of complicated opportunistic infections, training and research activities. These centers have varying roles and responsibilities for delivery of care and support to infected children including specialized laboratory services, early diagnosis of HIV among infants, ART to children infected with HIV, counseling on adherence and nutrition etc. These centers also provide technical support to the other ART centers in paediatric care. Currently, seven Paediatric Centers of Excellence are functional in the country. They are located at Niloufer Hospital, Hyderabad; Indira Gandhi Institute of Child Health, Bengaluru; LTMG Sion Hospital, Mumbai; JN Hospital, Imphal; Institute of Child Health, Chennai; Govt. Medical College Hospital, Kolkata and Kalawati Saran Children's Hospital, New Delhi.

A.6 ART Plus Centres: The ART centresproviding second line treatment are known as ART Plus centres. They were established to provide easy access to second line ART. NACO is currently expanding the number of centres that provide second line ART by upgrading ART centers. Currently, there are 88 ART plus centers functioning in the country. It is ensured that every state has at least one ART Plus centre providing second line treatment.

A.7 Care & Support Centers: The overall goal of care and support centers is to improve survival and quality of life of PLHIV. Care and support centers provide expanded and holistic care & support services for People Living with HIV (PLHIV). It provides linkages and access to essential services, supports treatment adherence, reduces stigma and discrimination and improves the quality of life of PLHIV across India. Till September, 2016, 361 care and support centers are functional and a total of 10,70,928 PLHIV have received care and support services.

A.8 Facility Integrated ART Centers: From April 2014, the concept of Facility Integrated ART Center (FIARTC) has been initiated with financial and technical support from NACO and SACS. The concept of FIARTC is much similar to ART center except for the patient load (>than 300 positives detected at ICTC) and the number of staff serving at the center. The main objective of initiating this concept was to serve those geographical areas which have less accessibility, especially the hilly terrains, desert areas, tribal areas and other areas with fewer infrastructures to access the treatment. This initiative which is to be located at Medical college and District Level Hospital will help to reduce the number of LFU in most difficult areas and will help to increase the drug adherence among those who are on ART. As of September, 2016, a total of 44 FIARTC centres have been made functional.

The progress achieved in expanding Care, Support and Treatment services till Sept. 2016 is summarized in **Table 9.1.**

Table 9.1: Scale up of infrastructure under Care, Support & Treatment Services

Facility for CST	Baseline (Dec. 2012)	As on March, 2016	As on Sept., 2016
ART Centers	355	525	528
Link ART Centers	685	1090	1108
Centers of Excellence	10	10	10
Paediatric Centers of Excellence	7	7	7
ART Plus Centers	24	37	88
Care & Support Centers	253 (CCC)	350	361

Note: Early in 2012, the Care & Support Centers were referred as Community Care Center.

B. Care, Support and Treatment Service Package

B.1 Free Universal Access to ART: Government of India had rolled out free ART initiative under NACP-II in 2004. The National AIDS Control Programme (NACP) is now providing free ART to 9.97 lakhs PLHIV through 528 ART centers and 1108 Link ART centers. The different ART services provided by the programme are as below:

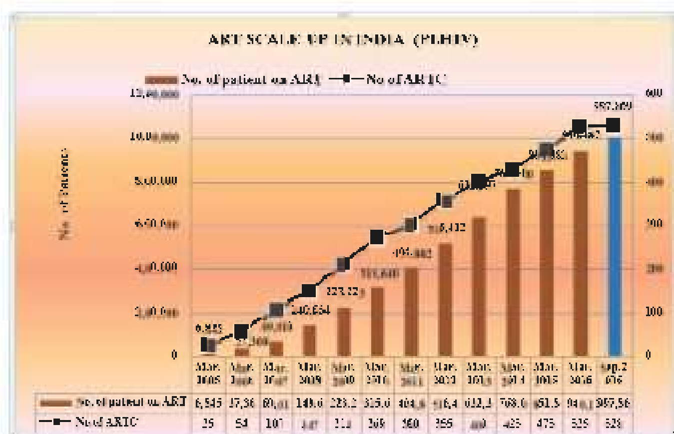
a) **First line ART:** First line ART is provided free of cost to all eligible PLHIV through ART centers. Positive cases referred by ICTCs are registered in ART center for pre-ART and ART services. The assessment for eligibility for ART is done through clinical examination and CD4 count. Patients are also provided counseling on adherence, nutrition, positive prevention and positive living. Follow up of patients on ART is done by assessing drug adherence, regularity of visits, periodic examination and CD4 count (every 6 months). Treatment for opportunistic infections is also provided through ART centers. Till September 2016, 9.97 lakhs PLHIVs are on ART.

b) **Alternative first line ART:** A small number ofpatients initiated on first line ART experience acute/chronic toxicity/intolerance to first line. ARV drugs necessitating change of ARV drugs to alternative first line drugs. Presently, the provision of alternative first line ART is done through the Centers of Excellence and ART plus Centers across the country.

c) **Second line ART:** The patients started on ARTcan continue on first line ART for a number of years if their adherence is good. However, over the years some percentage of PLHIV on first line ART develop resistance to these drugs due to mutations in virus. The rollout of second line ART began in January 2008 at 2 sites – GHTM, Tambaram, Chennai and JJ Hospital, Mumbai on a pilot basis and was then further expanded to other COEs in January 2009. Further decentralization of second Line ART was done through capacitating and upgrading some well-functioning ART Center as 'ART plus Centers'. Till August, 2016, 15500 PLHIV are receiving second line drugs at CoEs and ART Plus Centers. All ART centers are linked to CoE/ART plus centers. For the evaluation of patients for initiation on second line and alternate first line ART, State AIDS Clinical Expert Panel (SACEP) has been constituted by NACO at all CoEs and ART Plus Centers. This panel meets once in a week for taking decision on patients referred to them with treatment failure/major side effects.

d) **Figure 9.2** shows the scaling up of service provisioning under CST component since March 2005. All measures of service provisioning, viz. number of ART centers, PLHIV ever registered and PLHIV on 1st line treatment have increased exponentially.

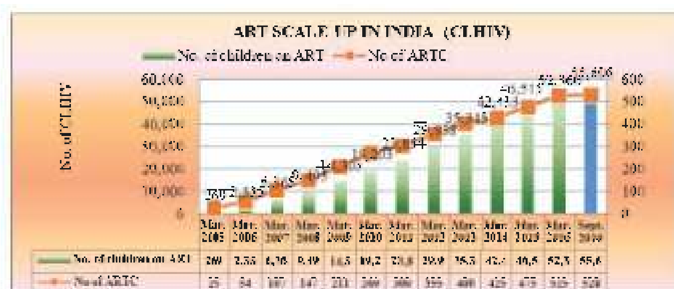
Figure 9.2: ART Scale up for PLHIV in India, 2005 – 2016 (till September, 2016)



e) National Paediatric HIV/AIDS Initiative: TheNational Paediatric HIV/AIDS Initiative was launched on 30thNovember, 2006. Till September 2016, nearly 80,634 Children Living with HIV/AIDS (CLHIV) are active in HIV care at ART centers and of whom, 55,606 are receiving free ART. Paediatric formulations of ARV drugs are available at all ART centers.

f) Pediatric Second line ART: While the first linetherapy is efficacious, certain proportion of children do show evidence of failure. Currently, provision of second line ART for children has been made available at all CoEs and ART plus Centers. **Figure 9.3** gives a view of the services provided to children living with HIV/AIDS, during 2005–September 2016.

Figure 9.3: ART Scale up for Children Living with HIV/AIDS in India, 2005 – 2016



An overview of patients receiving services at different service delivery points under CST component is given in following **Table 9.2.**

Table 9.2: Beneficiaries of Care, Support & Treatment as on September, 2016

Services/ Beneficiaries	Achievement as on September, 2016
Adults in active care at ART Centres	11,41,531
Adults alive and on ART	9,42,263
Children in active care at ART Centres	80,634
Children alive and on ART	55,606
Persons alive and on 2nd line ART	15500*

**till August 2016*

Figure 9.4: Outcome of PLHIV ever initiated on ART till September, 2016 (cross sectional data at one point of time)

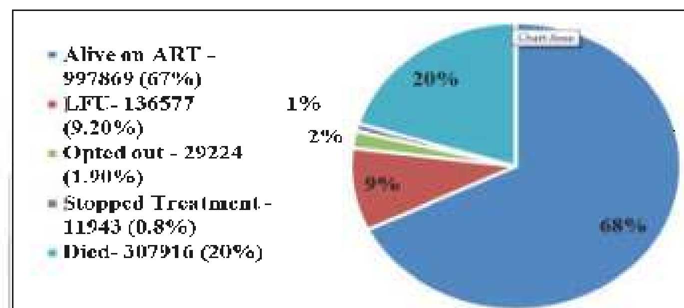
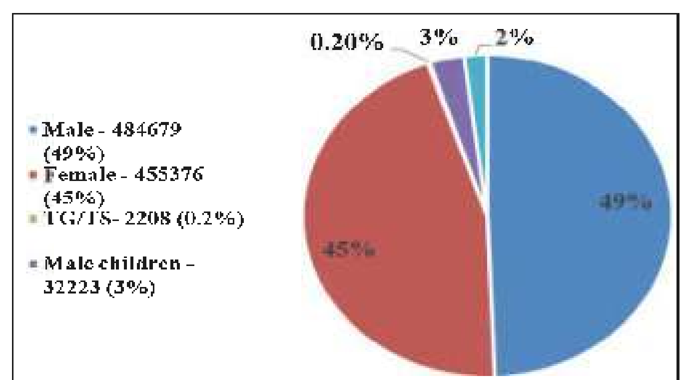


Figure 9.5: Gender distribution of Alive on ART PLHIV and CLHIV till September, 2016



B.2 CD4 Testing Services: The programmeprovides facility for baseline and follow up CD4 cell count testing free of cost to all PLHIV attending ART Centres. There are 282 CD4 machines installed at present serving 528 ART centers. All machines procured by NACO are under comprehensive maintenance or warranty.

B.3 Early Infant Diagnosis (EID): In order topromote confirmatory diagnosis for HIV exposed children, a programme on EID was launched by NACO. All children with HIV infection confirmed through EID are linked to ART services.

B.4 Counselling Services: Counselling services areessential part of the services provided by the CST programme. Counselling services are provided by both ART Centres and Care and Support Centres. Counselling services are provided as part of the psychosocial care at ART centres and care & support centres. The counselling services are provided to both "Pre-ART" and "On-ART" clients on regular follow up visits and CD 4 testing. The themes of counselling includes adherence to ART drugs, issues related to toxicity, positive prevention, positive living, nutritional care, sexual and reproductive health and HIV disclosure among others.

B.5 Management of Opportunistic Infections: ART centres provide clinical care to both Pre-ART and On-ART clients. The clinical care includes diagnosis, management as well as primary and secondary prophylaxis of opportunistic infections as per the guidelines. From April 2016 to September 2016, total 2,65,000 opportunistic infection have been treated at ART Centres.

B.6 Care and Support Services provided through Care and Support Centres (CSCs): The CSCs serve as a comprehensive unit for treatment support for retention, adherence, positive living, referral, linkages to need based services and strengthening enabling environment for PLHIV. This is part of the national response to meet the needs of PLHIV, especially those from the high risk groups and women and children infected and affected by HIV. CSCs are run by civil society partners including District Level Networks (DLN) and Non-Government Organizations (NGOs). The important services provided by CSCs are Counselling services, Outreach services, Training on home based care services, Referral and Linkage services, Life skill education and vocational training, Advocacy and communication and support group meeting.

C. CST Services Referral and Linkage Mechanism

Mechanisms for establishing linkages and referral systems are necessary to meet immediate and long term needs of the persons enrolled in a comprehensive care programme. PLHIV need a wide range of services during the course of HIV infection and stage of the disease. Therefore, the CST division have a comprehensive referral and linkage mechanism with different stakeholders.

D. Capacity Building for CST

To ensure uniform standards of services, adherence to operational guidelines and treatment protocols, induction/refresher training is provided to various personnel using standard curriculum, training modules and tools at identified institutions. Various training programmes organized under CST programme include:

- Orientation of faculty of Medical Colleges/District Hospital (4 days);
- Training of Medical Officers (SMO/MO) of ART Centers (12 days);
- Training of Medical Officers of Link ART Centers (3 days);
- Training of ART Counselors (12 days);
- Training of Data Managers of ART Centers (3 days);
- Training of Laboratory Technicians for CD4 count (2 days);

- Training of Pharmacists (3 days) and
- Training of Nurses (6 days).

These trainings are conducted at the Centers of Excellence and other designated training centers across the country.

As part of continuous capacity building efforts, technical guidelines and training modules have been developed which are available for use at various facilities and SACS. These include:

- Guidelines for ART in adults and adolescents March, 2007 (Updated: April, 2009, November, 2011, July, 2012 and May, 2013);
- Guidelines for ART in children – November 2006 (Updated; September, 2009 and October, 2012);
- Guidelines for prevention and management of common opportunistic infections and malignancies among adults and adolescents March, 2007;
- Operational guidelines for ART centres, Link ART centre and LAC Plus;
- Operational guidelines for Care and Support centres;
- Technical guidelines on second line ART in adults and adolescents – November, 2008 (Updated in December, 2012; May, 2013);
- Technical guidelines on second line ART for children – October, 2009 (Updated; May, 2013);
- Training modules for ART Medical Officers, ART specialists and LAC doctors May, 2007 (Updated: December, 2012);
- Guidelines for Providing Nutritional Care and Support for Adults living with HIV and AIDS: July, 2012 and
- Nutrition Guidelines for HIV Exposed and Infected Children (0 – 14 years of age): July, 2012.

The above documents are revised from time to time with the recommendations of the Technical Resource Groups. These can be accessed on the NACO website (www.naco.gov.in).

E. Endeavors to enhance and ensure the provision of high quality services

E.1 Technical Resource Groups on CST: Technical Resource Groups have been constituted on ART, Paediatric ART and Care & Support services. These groups consist of national and international experts and representatives of organizations like WHO, CDC, Clinton Health Access Initiative and Networks of Positive People. They review the progress and give valuable suggestions and recommendations on various technical and operational issues relating to the programme. Meetings of TRGs are held periodically with clearly drawn agenda and issues for discussion.

E.2 Supervisory/Monitoring Mechanism: Care, Support & Treatment Division at NACO is responsible for planning, financing, implementation, supply chain management, training, coordination, monitoring & evaluation of care support & treatment services in the country.

a) The implementation and monitoring at State level is the responsibility of the concerned State AIDS Control Societies (SACS) consisting of Joint Director (CST), Deputy Director (CST), Assistant Director (CST) and Consultant (CST) based on volume of CST activities in the state.

b) For close monitoring, mentoring and supervision of ART Centers, various states have been grouped into regions and regional coordinators for CST have been appointed to supervise the programme in their regions. The regional coordinators and SACS officials visit each of the allotted ART Centers at least once in two months and they send regular reports to NACO. Periodic meetings of Regional Coordinators/CST officials of SACS

are held at NACO to review various issues pointed out by them. In addition, NACO officers also visit the centers not performing satisfactorily or facing problems to guide them in implementation of the programme.

E.3 Regular CST review meetings: Review meetings of all the CST officers from the State and all NACO regional coordinators are held on a regular basis in a standard format. During these meetings, the state officers give an update on the various CST related activities in their State and wherever required remedial measures are taken.

E.4 Regular State level review meetings: Regular State level review meetings of the programme are conducted at SACS level. These meetings are attended by representatives of NACO, SACS, regional coordinators, medical officers and staff of ART centers and other facilities. Review of the performance of individual centers is undertaken during such meetings. Participants are given refresher/reorientation sessions also during such meetings.

E.5 State Grievance Redressal Committee (SGRC): At the State level, Grievance Redressal committee has been constituted to routinely review the functioning of the ART centers. The Committee is headed by the Health Secretary of the State and consists of Project Director of the SACS, Director of Medical Education, Director of Health Services and the Nodal Officers of the ART center, representative of Civil Society/positive network and NACO. This mechanism ensures that issues pertaining to grievances of PLHIV are brought to the notice of state authorities and SACS in a systematic manner for timely response.

E.6 MIS/LFU Tracking Mechanism: The information on patients Lost to Follow Up (LFU) is captured in the CMIS through the monthly reports from the ART centers. This information is monitored very closely and centers with high rates of LFU are visited by senior officers of NACO. The responsibility of tracking and providing home-based counselling for LFU patients is shared with CSC through outreach workers, PLHA networks and counsellors of ICTC in some places.

E.7 Follow up of Pre-ART LFU: All patientsregistered in Pre-ART and on ART undergo a CD4 test every six months. The ART center lab technician maintains a daily "due list" of the patients who are due for CD4 testing. This list is prepared from CD4 laboratory register. This list is available with SMO/MO and during patient's visit in that particular month for ART, CD4 test is done. Those who do not undergo CD4 test within one week of their due date are followed up by phone call and also home visit by CSC staff, if required, to ensure that CD4 test is done on the next visit.

F. Other Initiatives in Care, Support and Treatment

F.1 Post Graduate Diploma in HIV Medicine:NACO, in collaboration with IGNOU, has rolled out a one-year PG Diploma programme in HIV Medicine. This programme is expected to bridge the gap in trained manpower for ART centers.

Programme Objectives:

- To imbibe comprehensive knowledge on basics of HIV as related to details of management of HIV/AIDS in tertiary care set up;
- To manage all complications as well as opportunistic infections due to HIV/AIDS at the time of need, and
- To recognize and handle emergencies related to HIV/AIDS and its complication and take bedside decision for management whenever required.

The programme is implemented through a network of programme study centers located in select Centers of Excellence (CoE). The curriculum revision for the programme is under progress.

F.2 Various capacity building activities done with support from I-TECH: I-TECH/CDCprovide technical and financial support for these activities.

a) **National Distance Learning Seminar (NDLS):** HIV/AIDS National Distance Learning Seminar Series (NDLS) was introduced in September 2010. The series is aimed at training healthcare workers in ART centers, Link ART Centers and Care and Support Centres providing HIV/AIDS care, support and treatment. National and international HIV/AIDS experts present on a variety of topics on advanced care, comprehensive management, and treatment via synchronous live sessions, across several states and districts around the country using Adobe Connect software. These live sessions have features such as meeting room, live and real time chat, e-poll, video and audio conferencing making sessions intuitive by enabling two way communications.

These bi-monthly 60 minute sessions are conducted in English using an interactive case based format. Access to archived sessions via a streaming link is available to participants who are unable to attend the live, synchronous sessions.

During FY 2016-17 (till September 2016), 16 NDLS and 4 special DLS sessions have been conducted with a total of 15,839 participants, with regular participation from ART centers, CoEs (Center of Excellences) and PCoEs (PediatricCenter of Excellences).

b) **Regional Distance Learning Seminar (RDLS):** Regional Distance Learning Seminar Series (RDLS) was launched in year 2012 aimed at training healthcare workers at ART Centers, Link ART Centers and Care and Support Centres on locally relevant topics, unique case studies and treatment guidelines often in local/regional languages. RDLS is conducted at the regional level and specifically addresses the issues pertaining to the respective state and/or region. The lectures are presented by regional experts on the topics chosen by the regional medical officers based on the current prevailing issues in the region/state. Just like NDLS, RDLS uses Adobe Connect software to host the session with features like meeting room, live and real time chat, e-poll, video and audio conferencing making the session intuitive and interactive. So far, 162 RDLS sessions have been organized with over 13,765 participants trained.

c) **E-Library Articles:** Recent and relevant e-articles are circulated to all the CoEs, PCoE and other NACO & SACS staff every Friday. 116 e-articles were shared and 32 e-articles have been shared as per the request from CoE, PCoE and NACO in present year till September, 2016.

G. New Initiatives under Care Support and Treatment

CST division has under taken a number of new initiatives in 2016-17. Some of the most distinctive new initiatives of the division are as below:

a) **Computerized Online Inventory Management System (IMS):** In 2013, NACO conceptualized a technology based initiative for improved access to HIV commodities for patients across India. The IMS programme leverages bar-coding and web-based technologies to introduce an asset light, scalable solution for addressing the supply chain challenges faced by programme. Implementation of IMS was done in a phased manner. The system has been upgraded and IMS version 2 has been scaled up to all ART Centres in 2016-17.

b) **Airborne Infection Control:** The programme also initiated new TB/HIV activities in ART Centres including Airborne Infection Control Activities and Intensified Case Finding (ICF), Isoniazid Preventive Therapy (IPT) & TB Infection Control (IC) (Three Is) for people living with HIV. To increase the early detection of TB and to improve TB treatment outcomes, now ART centres will act as single window for ART treatment as well as ATT treatment. Care coordinator will do 4 Symptoms (4S) screening and fast track patients with 4S

positive. CBNAAT testing to all TB suspects will be offered at ARTCs. During the year 2016, training of the MOs and Nurses of the ARTCs all across the country has been done in 21 batches and region specific RDLS sessions have also been conducted to train all the staff of the centers with respect to the 3Is and daily ATT initiative.

c) **Viral Load Testing Scale up:** Monitoring of patients by VL instead of CD4 counts provides an early and more accurate indication of treatment failure and the need for timely switch to second-line drugs. It also improves clinical outcomes as second line ART is initiated earlier thus reduces accumulation of drug-resistance mutations. The Technical Resource Group on ART at NACO has recommended doing VL for all patients on first line ART once a year in a phased manner. RFP has been floated for viral load testing that would be done by outsourced agency on "Turn Key" model basis. Presently, there are 10 viral load testing facilities across the country. The option for having more VL labs is being considered for proposal for funding in the new funding model of Global fund.

d) **Launch of Third Line ART:** As over a period of time the patient may develop resistance to first and second line drugs despite good adherence due to mutations in the virus. As per the Technical Resource Group of ART recommendation Darunavir 300mg/Ritonovir 100 mg BD and Raltegravir 400 mg BD have been procured for the Third line ART. Final e-approval for third line is given by NACEP and drugs are provided through COEs. Presently, 109 patients are on third line treatment.

e) **Linking PLHIV data to AADHAR:** As per the Government initiative to link all the Government schemes to Aadhaar Number. NACO has also instructed all the ARTCs to link all the PLHIVs with their Aadhaar number. This will help to remove duplication and chances of pilferage and will improve portability of ART services in country and access to various financial/social welfare schemes for PLHIV.

f) **Revision of ART Guidelines:** As per the recommendation of ART, TRG, NACO has also rolled out new guidelines to initiate ART for PLHIV at CD4 cut off of 500. These revised guidelines were based on the evidence of benefit in terms of reduced morbidity and mortality and also reduced incidence of TB if ART is started at CD count of less than 500 instead of 350 cells/cumm. There are additional benefits of earlier initiation in terms of reduced transmission due to viral load suppression.

g) **Revised guidelines on SACEP Referral mechanism:** Revision was done for the guidelines regarding referral to SACEP and initiation of second line ART. The basic objective of this revision was to ensure universal access and easy availability of second line ART nearby patient's residence to improve adherence and reduce travelling time as well as cost. As per the revised guidelines, patient will visit only once to CoE/ART plus centre for physical examination, viral load test etc. The final decision about starting second line ART can be taken in absentia and referring centre is informed by COE. Treatment can be initiated at the referring centre with transferring out the patients.

24.10 LABORATORY SERVICES

Laboratory Services Division functions at the cross-cutting interface of all other divisions. It is recognised that work related to laboratory services are not just confined to HIV testing, but are overarching and have an impact on other interventions included those under prevention, care, support and treatment, STI management, blood safety, procurement and supply chain management. Emphasis on quality assured laboratory service delivery is important to the success of the National AIDS Control Programme (NACP). Universal availability and routine access to quality assured HIV related laboratory services is ensured in all service delivery points through this division. In 2008, a Laboratory Services Division was formed at the centre. In NACP IV Laboratory services has been positioned as an independent division at the state level as well.

The assurance of quality in HIV testing services through the implementation of External Quality Assessment Scheme (EQAS) for HIV and CD4 testing has been addressed in NACP with the special focus. NACO launched "National External Quality Assessment Scheme" (NEQAS) in the year 2000 to assure the standard quality of the HIV tests being performed in the programme. The scheme aims to:

- Monitor laboratory performance and evaluate quality control measures;
- Establish intra laboratory comparability and ensure creditability of laboratory;
- Promote high standards of good laboratory practices;
- Encourage use of standard reagents/methodology and trained personnel;
- Stimulate performance improvement;
- Influence reliability of future testing;
- Identify common errors;
- Facilitate information exchange;
- Support accreditation;
- Educate through exercises, reports and meetings and
- Assess the performance of various laboratories engaged in testing of HIV which will be used for finalising the India specific protocols.

Technical Resource Group (TRG) and Standardization of Services

To ensure the above, a Technical Resource Group (TRG) for Laboratory Services meets annually to discuss critical areas for quality and relevant laboratory issues like review and discuss strategy of testing and formulate/revise guidelines. Last TRG meeting was held in March, 2016.

Review and develop lab policy and guidelines

Through several rounds of national consultations, 3 Laboratory Services Guidelines were revised and released in 2015. These are: National Guidelines for Quality Management Systems in HIV Testing Laboratories, National Guidelines for HIV Testing and National Guidelines for Enumeration of CD4. These guidelines are also available on NACO website.

Guidelines of Laboratory service division

External Quality Assessment Scheme (EQAS)

The External Quality Assurance Scheme (EQAS) was set up which ensured high reliability and validity to the HIV and CD4 tests under the programme and higher levels of proficiency in the participating laboratories. NEQAS categorized the laboratories into four tiers, as follows:

- Apex Laboratory (first tier) - National AIDS Research Institute, Pune;
- National level: 13 (NRLs) (second tier);
- State level: 117 State Reference Laboratories (SRLs) (third tier) and
- Districts-level: all standalone ICTC.

Thus, a complete network of laboratories has been established throughout the country. Each NRL has attached SRLs for which it has the responsibility of supervision. Each SRL, in turn, has ICTC which it monitors. One Technical Officer at each SRL is supported by funds from NACO to facilitate supervision, training and continual quality improvement in all SRLs and linked ICTCs. In last four quarters, the average percentage of

participation of ICTCs is 87 % and average percentage concordance is 99.88%. The graphic representation of ICTCs participation and the results for last four quarter is placed below.

Fig.10.1: ICTC participated in last four Quarter – Oct. 15, Jan 16, April 16 & July 16

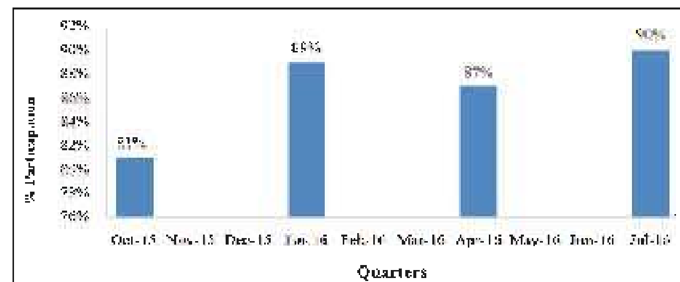
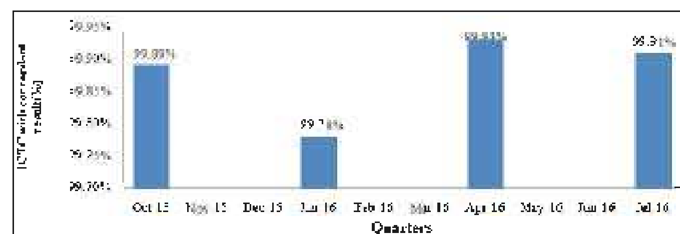


Fig. 10.2: % of ICTC with concordant results of four Quarters –Oct. 15, Jan 16, April, 16 & July, 16



Apart from the above NCDC Delhi; NICED Kolkata and NIMHANS Bengaluru, under supervision of NARI have been identified for panel preparation and evaluation of HIV, HCV and HBV kits procured by NACO. These laboratories form 'Consortium for Quality' developed by NACO for kit evaluation. In 2016, total 163 batches of kits are evaluated. The list of approved batches is also available on NACO website.

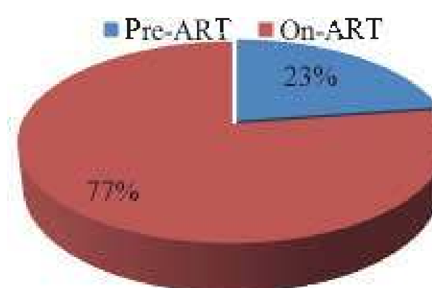
Table 10.1: No. of Kits evaluated in 2016 by Consortium

Type of Kits	No. of batches of Kits
HIV	130
HBV	19
HCV	14
Total	163

CD4 Testing

There are 278 CD4 testing centres serving 528 ART Centres. These include 165 FACS Count machines, 28 Calibur machines, 67 Partec machines, 2 Beckmen Coulter and 20 Point of Care CD4 machines. All machines procured by NACO are under warranty or maintenance. During 2016-17(till September 2016), 8,15,591 CD4 tests were performed.

Fig. 10.3: Break-up of CD4 tests (Pre-ART & On-ART) 2016-17 (till September,2016)



To strengthen the implementation of Quality Management System (QMS), all lab technicians of CD4 labs undergo annual training conducted by NACO and SACS. 179 ART Laboratory Technicians operating these machines have been trained from April to September 2016.

CD4 EQAS

NACO established EQAS for CD4 count estimation for the laboratories linked to NACO ART centers with a pilot run in Apr. 2005 for 24 participating laboratories. National AIDS Research Institute (NARI), Pune functions as an apex laboratory for conducting the EQAS for all these laboratories with three rounds every year. NARI is engaged in CD4 proficiency program nationwide, that provides stabilized blood samples as proficiency panels to the participating laboratories, analyzes the data received from participating laboratories and provides proficiency reports to the respective laboratories. The apex laboratory is co-ordinating all these activities with the support from NACO, Delhi. In 2016, NARI conducted two rounds. The total no. of participating laboratories and the performance is given in table 10.2.

Table 10.2: CD4 EQAS Participation and Result

Round	Total Participation	Satisfactory result	Unsatisfactory result
Round 1	197	158	39
Round 2	213	79	134

Improvement in Quality Management Systems (QMS) and accreditation of HIV testing Laboratories

In an effort to strengthen quality of HIV testing continuous mentoring and supervision to implement and improve the QMS of HIV testing laboratories is undertaken. Lab Service Division is providing support to NRLs/ SRLs for accreditation. Out of 130 referral laboratories (13 NRLs and 117 SRLs), 63 laboratories (11 NRLs and 52 SRLs) have been accredited by National Accreditation Board for Testing and calibrating Laboratories (NABL) as per ISO 15189: 2012 standards. Apart from this, another 10 laboratories (2 NRLs and 8 SRLs) have applied for NABL accreditation.

Improvement and Implementation of Quality Management System (QMS) at ICTCs

To extend the scope of QMS to ICTCs level, NACO has laid Quality standards and implemented a checklist for assessing the quality of ICTCs. A training module has been developed in consultation with basic services division to train the ICTC staff on QMS. For this, Laboratory Service Division conducted "Training of Trainers Implement Quality Management System (QMS) in ICTCs under NACP" for SRL/NRL lab in charges, Technical Officers, Quality managers of SACS. Through 9 such trainings, total 268 trainers were trained. For the implementation of Quality Management Systems at

Training of Trainers Implement Quality Management System (QMS) in ICTCs under NACP

ICTCs, these trained trainers further conducted training for ICTC In Charges, Lab technicians and councillors. Till date such 23 trainings were conducted and total 1131 participants were trained.

Viral Load Testing to Support Second-Line ART

The Viral load (VL) assays are provided for patients failing first line anti-retroviral therapy. NACO piloted VL testing at two centres for ten months from January 2008. Currently, there are ten viral load labs, supporting clinical decision-making at 17 COEs (including 10 Paediatric COEs)-second line centres and 88 ART plus centres for patients estimated to transit to second line therapy. In 2015-16, total 14887 Viral Load tests were done and from April to September, 2016, total 9032 tests were performed.

National Programme on Early Infant Diagnosis (EID) for children under 18 Months

Early Infant Diagnosis of HIV is a National HIV/AIDS care and treatment program in India with the objective to diagnosed HIV-1 infection in infants and children <18 months. Currently, there are 6 EID referral laboratories. The current test of choice is the HIV-1 PCR which detects HIV pro-viral DNA & RNA. Hence, it is used to diagnose HIV-1 infections in infants less than 18 months. Initially, there were 1157 EID centres where Dried blood spot (DBS) of infants was collected. This is being upscaled to 5266 standalone ICTCs. NACO has trained 5266 standalone ICTCs staff for DBS sample collection for EID testing. These ICTCs are linked to six EID testing labs (equipped with basic molecular testing facilities) for testing. In 2015-16, total 14320 EID tests were done and from April to September 2016, total 8182 tests were performed.

Dried blood Spot collection from Infant

24.11 INFORMATION, EDUCATION & COMMUNICATION (IEC) & MAINSTREAMING

Communication is the key to generating awareness on prevention as well as motivating access to treatment, care and support. With the launch of NACP-IV, the impetus is on standardising the lessons learned during the third phase. Communication in NACP-IV is directed:

- To increase knowledge among general population (especially youth and women) on safe sexual behavior;
- To sustain behaviour change in at risk populations (high risk groups and bridge populations);
- To generate demand for care, support and treatment services; and
- To strengthen the enabling environment by facilitating appropriate changes in societal norms that reinforces positive attitudes, beliefs and practices to reduce stigma and discrimination.

Key IEC activities

Mass Media Campaigns

An annual media calendar was prepared to strategize, streamline and synergise mass media campaigns with other outreach activities and mid-media activities. At the National level, 3 campaigns on the themes 'Stigma & Discrimination', 'Condom Promotion' and 'Youth' were implemented. To amplify the reach of mass-media campaigns, innovative technologies were also utilised like dissemination of advertisements through screenings at movie theatres.

Outdoors

Outdoor activities like hoardings, bus panels, pole kiosks, information panels and panels in railways and metro trains were implemented by the State AIDS Control Societies to disseminate information on HIV prevention and related services. NACO has developed a well-coordinated plan involving different agencies to avoid duplication of activities. Wall writings have been emphasised in many States to maximise the reach of HIV awareness to rural population. The National Toll Free Helpline No. 1097 has also been promoted in all the outdoor activities.

Mid Media

Folk Media and IEC Vans: National AIDS Control Programme has extensively used the folk media as an innovative tool for developing an effective communication package to reach the unreached in the remote and media dark areas. The folk campaign is being implemented in two phases focusing on women and youth covering 29 States and UTs. State level Folk Workshop has been organised in 17 States out of 21 as planned in the Annual Action Plan of the States.

Folk performance by folk troupes of West Bengal

Youth

a) **Adolescence Education Programme (AEP):** The AEP is implemented in secondary and senior secondary schools to build-up life skills of adolescents to cope with the physical and psychological changes associated with growing up. Under the programme, sixteen hour sessions are scheduled during the academic terms of classes VIII, IX and XI. SACS have further adapted the NCERT module for training of teachers and transaction of AEP in classroom. The programme is running in more than 53000 schools.

   The programme which was earlier suspended in Mumbai and Chhattisgarh has been resumed due to continuous efforts at National as well as State level.

b) **Red Ribbon Clubs (RRC):** The purpose of Red Ribbon Club formation in colleges is to

encourage peer-to-peer messaging on HIV prevention and to provide a safe space for young people to seek clarifications of their doubts and on myths surrounding HIV/AIDS. The RRCs also promote voluntary blood donation among youth. More than 12000 clubs are functional and are being supported for these activities.

Events

a) **World Hepatitis Day:** National AIDS Control Organisation in collaboration with World Health Organisation organized an event on World Hepatitis Day in Mumbai on 28th July, 2016. The theme for this year's World Hepatitis Day was *"Know Hepatitis - Act Now"*. The Chief Guest for the event was Hon'ble Minister of State for Health & Family Welfare Ms. Anupriya Patel,actor Mr. Amitabh Bachchan and many senior officials from the Ministry of Health& Family Welfare. WHO, NGOs and development organisation attended the event.

Hon'ble MoS Ms. Anupriya Patel and Actor Amitabh Bachchan addressing the Audience on the World Hepatitis Day

b) **Workshop on Social Behaviour Change Communication (SBCC):** The Social Behaviour Change Communication (SBCC) workshop is one of the unique workshop primarily focused National and State IEC/Youth and MS Officers and to make them acquainted with the latest developments in the field of SBCC through theories, models, planning, monitoring & evaluations of SBCC activities. The workshop was held from 13th to 16th September, 2016 in Le Meridien Hotel, Gurgaonin collaboration of UNICEF. There were around 35 participants from IEC & MS Division, programme division, Officers from SACS and Regional coordinators. The Secretary & DG, NACO had chaired the inaugural session. Joint Secretary, NACO, PD DSACS, DDG (IEC & LS) and Chief C4D were also present in the inauguration session.

c) **Collaboration with TeachAIDS:** The renowned Ms. Amala Akkineni, a former actress, dancer and an activist who is best known for her works in Telegu Cinema &is also known for her work in the field of HIV. She is also the co-founder of TeachAIDS along with Ms. Piya Sorcar. Ms. Amala visited NACO on 11thApril, 2016 & shared the animated TeachAIDS CDs on HIV prevention. TeachAIDS CDs are ready to use, easy to understand material that effectively delivers awareness on HIV/AIDS and its prevention.

Co-founder, TeachAIDS shared the Teach AIDS CDs on HIV prevention with Joint Secretary, NACO

d) **International Youth Day (IYD):** International Youth Day, 2016 was observed enthusiastically in many States across India. The observance of IYD 2016 took place in many States on various dates starting from the August to September, 2016. RRCs under the Youth programme of NACO actively participated in many innovative approaches and conducted various activities like Inter College open discussion, Red Ribbon Human Chain, Skit & Street plays, Awareness Motor Bike Rally on HIV/AIDS, Fashion Show with recycling material and awareness messages on Youth & HIV/AIDS, Blood donation camp, football tournament and many more.

Glimpses of various activities on International Youth Day, 2016

New Initiatives under IEC

a) **Mobile App:** In line with ongoing Digital India campaign to boost citizen centric services and create demand for services under National AIDS Control Programme (NACP), NACO has developed a mobile application. This initiative is made available for the general public, most at risk population and People Living with HIV (PLHIV)/People living with AIDS (PLHA). The Mobile APP has a unique feature of assessing the risk a person has for contracting HIV based on his behavioural practices. It allows an individual to locate health facilities as per his/her requirements and allows access to NACO's toll free National AIDS Helpline 1097.

b) **Postal stamp- Special Campaign:** NACO in coordination with Agra Postal Region is running a "Pilot Project" for a period of 3 months for awareness as HIV/AIDS especially in rural areas of under Agra Postal region. NACO has planned to undertake following three awareness generation activities with Agra Postal Region:

- Advertisement inside Post Offices on HIV awareness;
- Advertisement on Mail Motor on HIV awareness and
- A corporate stamp of NACO.

c) **Second Phase of Helpline 1097:** The National Toll Free AIDS Helpline 1097 which was launched by Hon'ble Minister of Health & Family Welfare on 1st December, 2014 is now running into the second phase of implementation. The number of Counsellors has been increased upto 49 and the call centres are currently operational from Jaipur, Guwahati, Hyderabad and Solan. The languages available in helpline are Hindi, English, Punjabi, Bengali, Telugu, Tamil, Marathi, Kannad, Oriya, Assamese, Malayalam and Gujarati. Total calls received in National AIDS Helpline till 31st October, 2016 is 14,69,845.

d) **India international Trade Fair – *Digital India*:** NACO participated in the 36th India International Trade Fair held at PragatiMaidan from 14th - 27th November, 2016. Based on the theme of this year *"Digital India"*, NACO showcased the IT system developed for different services and linkages.

The display in the health pavilion had screen live demonstration/Video of Strategic Information Management System (SIMS), Live demonstration/Video of Inventory Management System (IMS), Live demonstration/video of PPTCT ART Linkage System (PALS), HIV Sensitive Social Protection Portal (HSSP), Live Demonstration of Migrant Service Delivery System (MSDS), E-Training module for HIV/TB collaborative activities in India and E-Training Module for OST.During the trade fair, HIV/AIDS awareness messages were printed on the tickets as well as hoardings were also displayed to spread messages among the visitors.

e) **Update of Website:** The NACO website has been updated with various features and add ons. The responsive design used in the website is compatible to all screens, phones, tablets. A moving slider that showcases latest news and events has also been added in the

website. Link: http://naco.gov.in/

New NACO Website

24.12 MAINSTREAMING & PARTNERSHIP AND SOCIAL PROTECTION

NACO is collaborating with various key Ministries/Departments of Govt. of India with objective of multi-pronged, multi-sectoral response which will ensure better use of available resources for risk reduction and impact mitigation of HIV.

During the current financial year the emphasis was given on roll out of 14 MoUs signed between NACO and other key Ministries/Departments of Government of India. State AIDS Control Societies (SACS) have been implementing the roll out of MoUs with the technical assistance of Regional Communication Officers (RCOs) in the priorities states/UTs. The progress on roll out of MoUs are summarised below:

Table 12.1: Progress on roll out of MoUs in States

	Roll Out of MoUs in the States		
S. No.	Ministry/ Department	Process Indicators	States/ UTs
1	Shipping (Major Ports)	Nomination of Nodal Officer	10
		Constitution of Joint Working Group	12
		Number of Meetings of JWG held	36
		Minutes of JWG prepared and submitted	8
		Directive issued if any	1
		Action Plan Developed or start implementation	11
		Any other Remarks	0
2	Department of Higher Education	Nomination of Nodal Officer	27
		Constitution of Joint Working Group	28
		Number of Meetings of JWG held	35
		Minutes of JWG prepared and submitted	23
		Directive issued if any	16
		Action Plan Developed or start implementation	12
		Any other Remarks	0
3	Department of Youth Affairs	Nomination of Nodal Officer	23
		Constitution of Joint Working Group	29
		Number of Meetings of JWG held	33
		Minutes of JWG prepared and submitted	24
		Directive issued if any	8
		Action Plan Developed or start implementation	20
		Any other Remarks	0

4	Department of Sports	Nomination of Nodal Officer	22
		Constitution of Joint Working Group	22
		Number of Meetings of JWG held	31
		Minutes of JWG prepared and submitted	20
		Directive issued if any	6
		Action Plan Developed or start implementation of activities	11
		Any other Remarks	0
5	Ministry of Coal	Nomination of Nodal Officer	9
		Constitution of Joint Working Group	6
		Number of Meetings of JWG held	15
		Minutes of JWG prepared and submitted	3
		Directive issued if any	6
		Action Plan Developed or start implementation of activities	4
		Any other Remarks	0
6	Ministry of Petroleum & Natural Gas	Nomination of Nodal Officer	13
		Constitution of Joint Working Group	12
		Number of Meetings of JWG held	18
		Minutes of JWG prepared and submitted	10
		Directive issued if any	6
		Action Plan Developed or start implementation	8
		Any other Remarks	150
7	Ministry of Housing and Urban Poverty Alleviation	Nomination of Nodal Officer	12
		Constitution of Joint Working Group	9
		Number of Meetings of JWG held	10
		Minutes of JWG prepared and submitted	9
		Directive issued if any	5
		Action Plan Developed or start implementation	4
		Any other Remarks	0
8	Department of Defence	Nomination of Nodal Officer	12
		Constitution of Joint Working Group	7
		Number of Meetings of JWG held	14
		Minutes of JWG prepared and submitted	5
		Directive issued if any	4
		Action Plan Developed or start implementation	9
		Any other Remarks	0
9	Ministry of Road Transport & Highways	Nomination of Nodal Officer	21
		Constitution of Joint Working Group	15
		Number of Meetings of JWG held	27

		Minutes of JWG prepared and submitted	14
		Directive issued if any	10
		Action Plan Developed or start implementation	15
		Any other Remarks	0
10	Department of Telecommunications	Nomination of Nodal Officer	13
		Constitution of Joint Working Group	11
		Number of Meetings of JWG held	13
		Minutes of JWG prepared and submitted	10
		Directive issued if any	8
		Action Plan Developed or start implementation	8
		Any other Remarks	0
11	Department of Electronics & Information Technology	Nomination of Nodal Officer	8
		Constitution of Joint Working Group	11
		Number of Meetings of JWG held	13
		Minutes of JWG prepared and submitted	10
		Directive issued if any	1
		Action Plan Developed or start implementation	1
		Any other Remarks	0
12	Department of Empowerment of Persons living with Disabilities	Nomination of Nodal Officer	8
		Constitution of Joint Working Group	6
		Number of Meetings of JWG held	8
		Minutes of JWG prepared and submitted	3
		Directive issued if any	3
		Action Plan Developed or start implementation	4
		Any other Remarks	0
13	Department of Commerce	Nomination of Nodal Officer	6
		Constitution of Joint Working Group	1
		Number of Meetings of JWG held	2
		Minutes of JWG prepared and submitted	2
		Directive issued if any	2
		Action Plan Developed or start implementation	2
		Any other Remarks	0
14	Department of Rural Development	Nomination of Nodal Officer	10
		Constitution of Joint Working Group	8
		Number of Meetings of JWG held	13
		Minutes of JWG prepared and submitted	6
		Directive issued if any	6
		Action Plan Developed or start implementation	6
		Any other Remarks	0

Table 12.2: Quantifying progress in roll out of MoUs:

Output Indicators: Roll Out of MoUs in states		
S. No.	Indicators	Total Number
Trainings		
1	Number of People Trained (Govt. Departments, PSU/Private Sector, Civil Society)	54877
2	Number of Resource persons trained (TOT)	2135
3	Number of Institutions incorporated HIV Module in training	76
IEC		
4	Number of hoarding erected by Dept./PSUs	211
5	IEC material developed/displayed	46
6	No of IEC material developed electronically	6
7	Any other IEC activities	30
Services		
8	Number of ICTC established	16
9	Number of FICTC established	27
10	Number of STI clinic established	8
11	Integration of TB detection or treatment in any facility	7
PSU/Private Sector		
12	Number of PSUs and Private Sector mapped	595
13	Number of PSUs and Private Sector approached and meetings held	270
Social Protection		
14	Number of Directives issued by Govt. to include HIV (Inclusive)	27
15	Number of Directives issued by Govt: for specific schemes (Exclusive)	23
Directives from Other Departments		
16	Number of Directives issued by other Departments	126
Knowledge Product		
17	Directory of HIV Sensitive social protection	13
18	Any other knowledge product	

Joint Working Group

a) **Joint Working Group meeting between Department of Empowerment of Person with Disabilities and NACO:** The Joint Working Group meeting was held at Directorate of Empowerment of Persons with Disability on 29th September 2016. The meeting was chaired by Shri Awanish Awasthi, Joint Secretary-DEPwD and co-chaired by JS-NACO. The outcome of the meeting resulted in instructions issued by the DEPwD to state offices for inclusion of HIV and AIDS related Services in hospitals and a curriculum on HIV/AIDS in courses undertaken by various institutes. DEPwD has taken decision to organize Voluntary Blood Donation Camp in Delhi with involvement of all the stakeholders of DEPwD and NACO.

b) **Joint Working Group meeting between Department of Rural Development and NACO:** The Joint Working Group meeting between Department of Rural Development and NACO was held on 17th October, 2016. The meeting was Chaired by Shri Amarjeet Sinha, Secretary Department of Rural Development (DoRD) and co-chaired by Joint Secretary, NACO. Initiating the discussions, the Joint Secretary, NACO emphasized the need for mainstreaming of PLHIV into the Rural Development programmes and social protection schemes. The Secretary (DoRD) suggested NACO to share the numbers of PLHIV with DoRD to enable them to know the area of greater concentration for the epidemic for better planning and mainstreaming PLHIV into rural development schemes. He also informed that the department is preparing a framework for catering disabled people under various schemes. He ensured that once framework is complete, department will explore similar kind of framework for PLHIVs.

c) **Joint Working Group meeting between Department of Sports and NACO:** The Joint Working Group meeting between Department of Sports and National AIDS Control Organization was held under the Chairpersonship of Mr. Rajvir Singh, Joint Secretary, Department of Sports on 8th November, 2016. The objective of the meeting was expediting implementation of activities as laid down in the MoU signed between Department of Sports and NACO. The meeting was co-chaired by Joint Secretary, NACO. The brief overview of MoU and activities carried out by Sport academy was presented. Awareness generation, Promotion of IEC activities through hoarding & panels in the venue of sports events and other major occasion, capacity building of sports educators, administrators and coaches, inclusion of HIV/AIDS as one of the topic in the training programme for sports person, recommendation of sport person for youth icon for HIV/AIDS prevention was discussed.

Social Protection

Social Protection to people infected and affected by HIV and Most at Risk population is one of the key priorities. Social protection is viewed with great importance for reducing vulnerabilities and to mitigate the impact of HIV. The strategy on social & legal protection is to reduce the impact of HIV by ensuring social entitlements & benefits of various welfare schemes to PLHIV & affected families.

Advocacies have been taken place at the national and state level to extend the benefits of various social protection schemes to people infected and affected by HIV primarily in the areas of financial assistance, free transport benefits, legal aid, nutritional support etc. State Governments have amended social protection schemes to extend the benefits of various social protection schemes to PLHIVs. As of now, approx. 10.5 lakh benefits are availed by people infected and affected by HIV.

National Response on Children affected by HIV and AIDS (CABA)

In order to ensure that CABA issues are included and focused in the state mainstreaming plans, every Annual Action Plan (AAP) of all states, activities related to CABA have been sanctioned and incorporated by all SACS in FY 2016-17. All DAPCU are trained on *'single window model'* for social protection especially for CABA.

Social & Legal Protection for children continues to be the strategic priority under NACP-IV. NACO has successfully taken forward this agenda to the states by amending existing programmes and social protection schemes of the State Governments to make them HIV sensitive. These social protection schemes help in mitigating the impact of HIV among children, individuals and households. After advocacy, HIV specific SP schemes for children are in operation in 18 states. NACO reports capture that more than 64000 benefits are availed by CABA across the country.

Project on Orphan and Vulnerable Children

Karnataka Health Promotion Trust has been awarded "HIV & AIDS Orphan and Vulnerable Children (OVC) Social Protection" USAID project which aims to increase access to priority health, educational, social protection and welfare services for OVC/CABA (Children affected by HIV and AIDS)". The project is currently being implemented in Andhra Pradesh, Maharashtra and Karnataka covering 17 districts.

The project assesses the needs and requirements of CABA/families on core components including shelter, protection, education, counselling and institutionalises linkages with Government schemes. The project enhances the capacities of institutions that care for residential children infected and affected by HIV/AIDS (CABA) through training and networking and builds competencies of care givers including doctors, counsellors, nurses and outreach workers in Paediatric HIV care.

24.13 STRATEGIC INFORMATION MANAGEMENT UNIT

Strategic Information Management System

SIMS is an integrated web-based reporting, data management & decision support system, with monthly reporting from over 30,000 facilities across the country covering programme components. SIMS user manuals, data definitions and wall charts have been developed to standardize the roll out. A "Team of IT Experts" have been deployed at NACO for implementation & maintenance of the on-going update & bugs/issues identified & reported on continuous basis. The takeover & knowledge transfer process of SIMS Application from M/s Vayamtech Ltd has been successfully completed with the support of these IT personnel. These IT experts are now further working for development, modification in the MIS Input Formats and resolving issues & patches for the security audit of SIMS for shifting it to NACO Meghraj Cloud of GoI. The Standard reports for vital components of NACO is the new feature which is developed and uploaded on SIMS Application consisting of State/Month/RU wise analysis of core & optional Indicators to maximise the use of programme data on regular basis. These are readymade excel reports having more than 4000 files regenerated and uploaded on SIMS Portal to increase the availability, accessibility and desired evidence based action for the programme.

IT Applications of NACO

Major IT Applications implemented by NACO includes PALS (PLHIV ART Linkage System), IMS (Inventory Management System), MSDS (Migrant Service Delivery System) & Excel Based Analytical Tool for Core Group at NGO-TI level. The Application involves digitization of data and records on a large scale in the country to track clients at the individual level and involve transparency in the program. These are processed at all levels including National/State/District/Facility to collect & collate data to provide the latest & updated information at each level.

Inventory Management System (IMS)

IMS is an IT application of NACO developed to strengthen the Supply Chain Management System of NACO on real time basis. IMS is successfully migrated to NACO Cloud – Meghraj of GoI. Data in IMS is captured related to procurement of drugs and consumables at NACO/SACS/ART Centre level.

PLHIV ART Linkage System (PALS)

PALS is a web – based application which intends to capture details of HIV+ pregnant women from ICTC centers and monitor the progress of the mother and the child for a period of 2 years. After the progress of the software and data capturing, the scope of software is being extended to capture the data of HIV+ general clients through it.

Migrant Service Delivery System (MSDS)

MSDS is a web application that captures data of High Risk Migrants for tracking them at the individual level with the support of NGO-TI (Targeted Intervention). The Migrant Services Delivery System is tool to facilitate effective utilization of data from different sources (programme outreach and services) at source and destination level and linking of data across destination and source programmes for robust planning, implementation and monitoring.

SIMS Training Workshop

A Capacity Building, National Workshop on Data Systems of NACO wasorganized to strengthen the knowledge and working experience of ITapplications across the states. In order to cover respective Statesthe workshop was held at three places Hyderabad (1st & 2nd Aug), Delhi(5th & 6th Aug) and Guwahati (9th & 10th Aug). It was attended by 95 participants (SACS officials) and about 15 resource persons (includingrepresentatives from NACO, WHO, VHS and JSI).

Website of NACO

NACO website (www.naco.gov.in) provides access to information related to policy, strategy and operational guidelines under the programme and the status of the facilities and interventions. Job advertisements, tender documents, updated status notes and proceedings of important events are regularly updated on the website.

Capacity Building Workshop organised at Hyderabad & Delhi

New initiative has been taken regarding NACO Web Site:

- A new Website with innovative design and GIGW (Guidelines of Indian Govt. Websites) compliance has been launched in September, 2016 with the help of NIC (National Informatics Centre);
- Sliders having photographs and depiction pertaining to on-going events, workshops and other activities held at NACO;
- Weekly stock of drugs, contact details of all Project Director and NACO officials are available on the website including the links of websites of State AIDS Control Societies;
- Tender, procurement, vacancy and other documents are updated on website as per the communication received from the various divisions of NACO;
- Training Manuals, Publications, Policies & Guidelines, List of Facilities of various components of programme are uploaded on website and
- On an average, there are around 2500 unique visitors of NACO website every day.

HIV Sentinel Surveillance (HSS) 2014-15

15th Round of HIV Sentinel Surveillance will be implemented from 1st January 2017 to 31st March 2017. It will be implemented across 35 States and Union Territories among Ante Natal Clinics as well as High Risk Groups and Bridge Population. This HSS round will be rolled out among almost 1208 sentinel Sites.

National Integrated Biological & Behavioural Surveillance (IBBS) 2014-15

National Integrated Biological & Behavioural Surveillance (IBBS) was implemented in 31 States and UTs of the country with strategic focus to strengthen the HIV surveillance among High Risk Groups and Bridge Population. The broad objective of the National IBBS was to generate evidence on risk behaviours among HRGs to support planning and prioritization of programme efforts at district, state and national levels.The specific objectives of IBBS are as follow:

- To measure and estimate the change in HIV-related risk behaviours and HIV prevalence at district and State levels among key risk groups, between baseline and end-line for NACP-IV; and
- To analyse and understand HIV related vulnerabilities and risk profiles among key risk groups in different regions, by linking behaviours with biological findings.

Expert Group Consultation on HIV Estimations and Surveillance

India has one of the largest, most robust and consistent HIV surveillance system covering around 90% of the districts. It has many facets but comprised mainly of HIV Sentinel Surveillance (HSS), Behavioural Surveillance System (BSS), Integrated Biological and Behavioural Surveillance (IBBS) and HIV Estimations. The system has evolved over years and has been recognized by independent external experts as one of the fully functional surveillance system. The system has been core to explain the HIV epidemic in country. It has helped in describing the multiple, diverse sub-epidemics in country, spreading at different rates in different populations.

The system has also helped in identifying different stages of epidemic in different states; while the prevalence has been declining in erstwhile high prevalence southern states, the stable epidemic at high level in erstwhile North-Eastern States as well as rising epidemic in Northern States has been well described under surveillance system.

However, like any other system, India HIV Surveillance system has scope of improvements in view of changing epidemic patterns and programmatic considerations. Thus consultation on HIV Surveillance and Estimations was organized on 27th –29th September 2016 at New Delhi to get a road-map for HIV Surveillance system agenda to improve epidemic tracking for further strengthening of programmatic responses. The consultation was supported by UNAIDS, WHO and CDC. The consultation had participation from national experts like AIIMS, NIMS, NARI, NIE, CDC, WHO, UNAIDS etc. Country representatives from Vietnam, Philippines, and China also attended the meeting. International experts from East West Centre, WHO Geneva, CDC USA, PEMA, GFATM were also present in the meeting.

Closing remarks for the 3 days consultation meeting was delivered by Joint Secretary, NACO, Ministry of Health and Family Welfare, Govt of India. Joint Secretary noted that the meeting was a milestone towards strengthening of HIV surveillance and estimation system in India. He remarked that quality of discussions were quite high and recommendations were quite pragmatic. He informed the gathering that NACO will be taking all necessary steps on implementing and generating the evidences as per the recommendations made during the consultation. He further remarked that this endeavour for stretching of surveillance system through engagements of national and international expert will continue and thanked all the experts for taking out time from their busy schedule and contributing towards strengthening of Indian surveillance system. He also thanked UNAIDS-India, WHO India and CDC India for supporting NACO towards successful organization of Expert Group Consultation Meeting of HIV surveillance and estimation system in India.

Expert Consultation on HIV Estimations and Surveillance

HIV Estimations

National AIDS Control Organization (NACO) periodically undertakes HIV estimation process to provide the updated information on the status of HIV epidemic in India. The first HIV estimation in India was done in 1998, while the last round was done in 2012. India HIV Estimates 2015, latest round in the series, provides the current status of the HIV epidemic in the country and the States/Union Territories(UTs) on key parameters of HIV prevalence, number of people living with HIV (PLHIV), new HIV infections, AIDS-related mortality and treatment needs.

The exercise was carried out by independent experts under the guidance of the National Institute of Medical Statistics (NIMS)/Indian Council of Medical Research (ICMR). The experts were drawn from NACO, AIIMS (New Delhi), NIHFW (New Delhi), UNAIDS, WHO, CDC and other organizations. The results were finalised after a series of consultation meetings of the National Working Group (NWG) on surveillance and estimates over a period of around eight months. The results generated were approved after being critically reviewed by the National Technical Resource Group (TRG) on HIV Surveillance & Estimation comprising national and international experts. Technical report presenting the key highlights from the HIV estimations 2015 has been published and released by Hon'ble Union Minister for Health and Family Welfare on World AIDS Day on 1st December in New Delhi.

World AIDS Day on 1st December

Programme Monitoring, Data Analysis and Dissemination

Programme monitoring, data analysis and dissemination is one of the most important tools for measuring the programme performance and take informed decision and course-correction (if any). It is necessary to ensure strengthening systematic analysis, synthesis, development and dissemination of knowledge products in various forms and to ensure emphasis on knowledge translation as an important element of policy making and programme management at all levels.

Key activities undertaken for Programme Monitoring, Data Analysis and Dissemination include:

- Managing Strategic Information Management System (SIMS) Application for monthly reporting from programme units, including system development and maintenance, finalizing reporting formats, ensuring modifications/ improvements based on feedback, training programme personnel in its use, troubleshooting and mentoring
- Monitoring programme performance across the country through SIMS and providing feedback to concerned programme divisions and State AIDS Control Societies;
- Monitoring & ensuring data quality, timeliness and completeness of reporting from programme units data management, analysis and publications maintenance of the NACO website;
- Processing data requests and data sharing;
- Capacity building in strategic information areas;
- Preparation of Programme Status Notes and Reports and
- Providing Data for National/ International documents.

National Data Analysis Plan (NDAP)

To address the evidence gaps in the programme and to make the best use of available data, the Data Analysis and Dissemination Unit has initiated the National Data Analysis Plan (NDAP) under NACP-IV. The

NDAP is an effort to analyze the huge amount of data generated under the programme, to develop analytic documents, scientific papers, journal articles, etc. for publication and wider dissemination and to provide scientific evidence for programme management by strengthening and scaling up appropriate strategies.

The objectives of National Data Analysis Plan:

- To identify the topics/thematic areas that can be studied by analysing available programme data;
- To structure the analysis by identifying key questions and appropriate methodologies/tools for analysis;
- To commission the analysis through a collaborative approach involving institutes, programme units and senior experts as mentors, with agreed timelines;
- To consolidate, discuss and disseminate the analytical outcomes for programmatic use; and
- To promote scientific writing within the programme in the form of papers, articles, reports,

NDAP's initiative is helping in developing skills for reviewing large programme data sets for quality issues, systematic analysis of data, conceptualization of research questions, formulating hypotheses and scientific writing.

In the first round, around 28 institutions (ICMR, medical colleges, development partners and multilateral agencies) apart from NACO and SACS collaborated with NACO in facilitating NDAP. 68 analysts from various institutions, including SACS, ICMR, medical colleges and consultants were engaged. 30 mentors (senior researchers in HIV across the country) were engaged to mentor the analysts. Reports on 21 topics summarizing the findings and programme implications were prepared and 16 scientific articles submitted to the journals for publication. A dissemination seminar was organised on 30 September, 2015 for wider publicity of the NDAP findings.

Surveillance Audit of ISO 9001:2008 Certification

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The ISO 9000 family addresses various aspects of quality management and contains some of the ISO's best known standards. The standards provide guidance and tools for companies and organizations who want to ensure that their products and services consistently meet customer's requirements, and that quality is consistently improved. ISO 9001:2008 sets out the criteria for a quality management system and is the only standard in the family that can be certified to. ISO 9001:2008 helps ensure that customers get consistent, good quality products and services. National AIDS Control Organisation (NACO) have been certified ISO 9001:2008 on April 28, 2015. This achievement comes after successful completion of two rounds of external audit conducted by STQC, Dept. of Electronics and IT, Govt. of India.

ISO 9001 Road Map

Various requirements were fulfilled in systematic manner for carrying out surveillance audit of implementation of Quality Management System of ISO 9001:2008 in NACO. This include the evaluation of all concerned against the QMS clauses as applicable to the division, Internal Non-conformances, Deviating in Performance Trends, Management of Statutory and other key records including Training Records and Corrective Action & Preventive Action (CAPA) etc.

The two rounds of management review meetings & an internal audits were conducted during April-October, 2016. An external surveillance audit of implementation of Quality Management System of ISO 9001:2008 in NACO was carried out by STQC auditors during 27-28 October, 2016. It was completed successfully without any Non-Compliance. It just gives indication how NACO professionally NACO works. This can be role model for other National disease control programme in the country.

HIV/AIDS Research

Research & Evaluation is a vital component of Strategic Information Management under the National AIDS Control Programme. HIV/AIDS research covers a wide diversity of areas, such as epidemiological, social, behavioural, clinical and

operational research; each of these has a strong role to play in providing a direction to the programme strategies and policies. NACO focuses on ensuring translation of research outputs into programmatic action and policy formulation.

The main activities of the Research & Evaluation Division are:

- Setting priority areas for research in HIV/AIDS;
- Commissioning research studies under the National HIV/AIDS Research Plan (NHRP);
- Encouraging, review & approving HIV/AIDS related research proposals;
- Represent NACO in collaborative research Groups & meetings (Indo-US JWG, Indo-Dutch);
- Dissemination of HIV/AIDS research outcomes incl. Brown Bag Seminar Series;
- Coordination of activities of the Network of Indian Institution for HIV/AIDS Research (NIIHAR);
- Capacity building through NACO Research Fellowship Scheme (NRFS) and
- Capacity Building Initiatives in operational research and ethics in HIV/AIDS research.

A structured research plan has been developed for NACP-IV, which is termed as the National HIV/AIDS Research Plan (NHRP). It aims to overcome the barrier posed by gaps between the generation and use of research evidence to inform and influence policy makers to make evidence-based policy decisions. It is focused on time-bound studies with a multi-centric approach and evolving a strong mechanism to use the research outcomes for programmatic purposes.

Objectives of National HIV/AIDS Research Plan (NHRP)

- To identify the information gaps and research needs in the programme that require research to generate fresh evidence;
- To develop and finalise research priorities in consultation with programme divisions, partners and technical experts;
- To commission epidemiological, socio-behavioural, operational, clinical research and evaluations through identified institutes/organisations;
- To consolidate & disseminate research outcomes for programmatic use from time to time and
- To promote scientific publication in the form of papers/articles/reports/briefs etc.

Overall 90 research studies had been identified – Phase-I (36), Phase-II (34) and Phase-III (20). Concept Notes were developed for each topic in Phase-I. TORs for institutes and draft MoU to involve the institutes had also been developed and vetted by legal representative. Procedure for selection of institutes or organisations as Lead Research Institute & Participatory Research Institutes had been developed in consultation with donor partners. Scoring criteria was developed to evaluate EOIs as well as detailed proposals. Periodic meetings have been held with donor partners to discuss various issues from time to time and finalise various modalities of funding and implementing NHRP.

A Research Plan Screening Committee (RPSC) had been constituted under the chairpersonship of Dr. Prema Ramachandran (Director, Nutrition Foundation of India) to evaluate Expressions of Interest, detailed proposals received through RFPs and to finalise the Principal Investigator and co-PIs through the 2-stage selection process. RPSC met thrice since March 2014 and reviewed a total of 113 EOIs received through three different Calls for Proposals. All the Phase-I studies have been approved by TRG and cleared by NACO Ethics Committee and are in the process of contracting and fund release. Currently, 18 studies are ongoing and 15 studies under process for contracting and fund release.

Key activities undertaken during 2016-17:

- The TRG-R&D met once in 2016. A total of 5 research proposals and 4 reports of ongoing projects were reviewed in this meeting covering thematic areas of HLA and HIV transmission, use of Ayurvedic formulations for patient

management, HIV & HCV among Transgendered populations, average time for development of virological failure etc.;

- NACO-Ethics Committee met twice in 2016 and recommended 3 research proposals covering thematic areas of nutraceutical for patient management, drug resistance, immunological-virological discordance, STI Gonococcal antimicrobial programme and HIV Counselling & Testing Services;
- Contouring the spirit of cross-institutional collaboration and capacity building, NACO launched a new initiative, The Brown Bag Seminar Series with a talk on Substance use and treatment adherence by Dr.NiranjanSaggurti, Country Director, Population Council. The aim of the seminar series is to inform and build capacities & knowledge of programme managers at NACO, community, development partners and key stakeholders. As part of the initiative, a new topic relevant to the national programme will be presented every month;
- Fifth round of NACO Research Fellowship Scheme (NRFS) has been advertised. The aim of the Fellowship is to facilitate capacity building of young researchers in the country for undertaking HIV research;
- Collaborating with DBT, ICMR and IAVI in Indo-Dutch Joint Research on mathematical modelling studies on HIV infection;
- A training visit of Post Graduate medical officers of Armed Forces Medical College, Pune to NACO was conducted on 06.09.2016. As part of the annual training visit of PG students, Community Medicine, AFMC, 8 trainee medical officers along with a faculty member visited NACO to sensitise themselves about the programme and its activities including all research activities undertaken by NACO;
- Research areas identified under the Mid-Term Appraisal have been circulated to the TRG members. A fresh Call for Application on the identified areas will be issued shortly and
- A national HIV/AIDS Research consortium is also being developed to facilitate collaboration with other Ministries and Departments along with key stakeholders on HIV/AIDS research.

24.14 PROCUREMENT

Procurements are done using funds under the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), The World Bank and Domestic Fund through M/s RITES Limited and M/s Strategic Alliance Management Services Private Limited as Procurement Agent. M/s RITES Limited continued to provide services to the NACO as Procurement Agent in terms of the contract signed between National AIDS Control Organization and M/s RITES Limited on 16th February, 2010 and renewed on 8th October, 2015 for 2 years. M/s Strategic Alliance Management Services Private Limited is appointed as Procurement Agent in the FY 2015-16 and a contract is signed between National AIDS Control Organization and M/s Strategic Alliance Management Services Private Limited on 14th October 2015 for 2 years.

As in the past, all the main items required for the programme, including Test Kits and other items such as ARV Drugs, STI Drug/Kits, Blood Bags, OST Drug etc. are centrally procured and supplied to State AIDS Control Societies. To ensure transparency in the procurement of goods, Bid Documents, Minutes of Pre-Bid Meeting and Bid Opening Minutes are uploaded on the website on M/s RITES Limited (www.rites.com), M/s Strategic Alliance Management Services Private Limited (www.samsconsult.com) and NACO (www.naco.gov.in). Tender is also published in Government of India website i.e. Central Public Procurement Portal (CPPP) (www.eprocure.gov.in). E-Procurement has been implemented by M/s RITES Limited.

Procurement at State level remained an area of importance for NACO. For smooth and efficient procurement at State level, hand-holding support to State AIDS Control Societies is being provided by the Procurement Division at NACO. Procurement & Logistics Coordinators are functioning in different regions and are managing the Supply Chain Management at central and regional levels.

With increasing number of Facilities (ICTCs, ART Centres, Blood Banks, STI Clinics) being catering to

the National Programme, the issue of Supply Chain Management has gained importance. Efforts were made to streamline the Supply Chain Management of various supplies to consuming units including providing training on Supply Chain Management to the Procurement Officials of SACS. To strengthen the Supply Chain Management starting from the supplier to the consuming units/facilities, NACO has developed and implemented an online web based application i.e. 'Inventory Management System (IMS)' to track drug inventory and individual Patient dispensation.

24.15 ADMINISTRATION

NACO is a division of the Ministry of Health & Family Welfare that provides leadership to HIV/AIDS control programme in India through 35 HIV/AIDS Prevention and Control Societies. NACO is headed by the Secretary & DG to the Government of India, who is assisted by the Joint Secretary, four Deputy Directors Generals, one Assistant Director General, one Director, one Deputy Secretary and two Under Secretaries.

Besides the regular staff (34 Nos.) of the Organization in Group "A", "B", "C" and "D", there are contractual staff to assist the Organization in discharging its assigned functions. The work allocated to the National AIDS Control Organization as per the existing Allocation of Business Rules, as under:

- Inter-Sectoral, Inter-Organisational and Inter-Institutional Coordination, both under the Central and State Governments, in areas related to HIV/AIDS Control and prevention;
- Providing institutional framework for high-end research for control, prevention, cure and management of HIV/AIDS and all coordination in this regard;
- Dissemination of accurate, complete and timely information about HIV/AIDS to motivate, equip and empower people and promotion of measures for effective protection against the spread of the disease;
- International Co-operation, exchange programme and advanced training in HIV/AIDS Management and Research;
- Promoting research studies in the field of HIV/AIDS prevention and control;
- National Blood Transfusion Council, an Autonomous Body;
- Matter relating to collection processing and supply of safe blood. Management of Blood Transfusion Service; and
- All policy matters relating to National AIDS Control Programme, Prevention and Control of HIV/AIDS.

The information on the Organization and its various activities are provided on the website of the Organisation (http://www.naco.gov.in) and is updated from time-to-time.The website is linked to the Centralized Public Grievance Redress and Monitoring System (CPGRAMS) of Department of Administrative Reforms and Public Grievances, Ministry of Personnel, Public Grievances and Pensions.

24.16 FINANCIAL MANAGEMENT

Financial management is an integral part and important component under NACP-IV (2012-17) programme architecture. Financial management deals with the approval and review of annual plans and budgets, fund flow mechanisms, delegation of financial powers, accounting and internal control systems and to ensure that the funds are effectively used for programme objectives. It brings together planning, budgeting, accounting, financial reporting, internal control including internal audit, external audit, procurement, disbursement of funds and physical performance of the programme with the objective of managing resources efficiently and effectively under the effective control of Director (Finance).

The financial process focuses on financial analysis for programmatic and management use and meeting reporting obligations for all stakeholders and producing accurate and timely information that forms basis for better decisions, reducing delays and bottlenecks. Fiduciary requirements are addressed by designing and implementing effective audit mechanisms at all levels. This provides reasonable assurance that:

- Operations are being conducted effectively and efficiently in accordance with NACP norms;
- Financial and operational reporting are reliable;
- Laws and regulations are being complied with and
- Assets and records are maintained.

During NACP IV, the following areas will receive attention:

- Delegation of Financial Powers;
- Asset Management;
- Audit structures;
- NGO financing and accounts;
- Advances;
- Inter-unit Transfers;
- Computerized Project Financial Management System (CPFMS) and
- Human Resource for Financial Management.

Key roles and responsibilities of Finance Division:

- Tendering financial advice on all matters involving expenditure and forwarding proposals from programme divisions for concurrence of the Integrated Finance Division (IFD);
- Monitoring and reviewing the progress of expenditure against sanctioned grant on a monthly and quarterly basis, ensuring compliance of instructions issued by the Department of Expenditure on economy/rationalization of expenditure;
- Standing Committee of Parliament on Finance/Public Accounts Committee and Audit Paras;
- Preparation of budget and related work in respect of grant and
- Coordination and compilation of the detailed demand for grants and the outcome budget of the Ministry of Finance.

Key functions:

- **Budgeting:**
  - Preparation for Demands for Grant;
  - Preparation for Budget Estimate/Revised Estimate in consultation with the Programme Divisions and
  - Correspondence with Planning Commission for finalizing plan allocation.
- **Accounting functions:**
  - Annual Action Plan (AAP) Preparation;
  - Processing and conveying approval;
  - Releases to State Government for onward transmissions to the corresponding SACS, NGOs, Consultancy Agencies, Central Institutions;
  - Expenditure accounting of NACO and SACS;
  - Monitoring of Utilization Certificates;
  - Oversight of financial management and handholding SACS on expenditure management, target, advance settlements and
  - Other recipients.
- **Audit Functions:**
  - Coordination for statutory as well as internal audit of SACS;
  - Submission of audit reports to Ministry, Donor agencies etc. and
  - Facilitate audit at NACO Hq.level.

- **Internal financial advisory functions:**
  - Preliminary checking of bills by DDO (NACO);
  - Advice on financial matters and
  - Representing negotiation meetings.
- **Donor coordination's:**
  - With extra budgetary donors like UNAIDS, BMGF, Clinton Foundation etc.;
  - State Coordination Committees;
  - Convening of review meetings;
  - PDs review on SACS Financial Management;
  - MIS reporting on financial matters;
  - Functional support to CPFMS;
  - Handholding of States;
  - Periodic updates;
  - Submission of claims for reimbursement and
  - Preparation of Financial Management Reports (FMRs), Interim Unaudited Financial Report to the World Bank through Controller of Aid Accounts and Audit (CAAA).

Year wise expenditure incurred during 2013 to 2016-17 under NACP IV is tabulated below:

Table 16.1: RE & Expenditure incurred during NACP IV **(Rs. in Crore)**

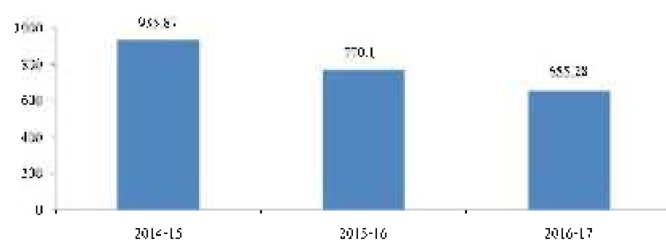
2013-14		2014-15		2015-16		2016-17	
RE	Expenditure	RE	Expenditure	RE	Expenditure	RE	Expenditure
1500.00	1473.16	1397.00	1287.39	1615.00	1602.45	1719.00*	984.02**

**including Rs. 19.00 crore under Non-plan*
***Expenditure upto 04.11.16*

Allocation through State Structure Annual Plan of NACP-IV

The AIDS Control programme is implemented through State AIDS Control Societies in all States and Union Territories. There had been significant increase in the state plans as many programme interventions were scaled-up and stabilized. In addition to providing financial resources, NACO facilitated commodity and equipment support to the HIV service delivery centres following a central procurement method. The scaling-up of resource allocation is given in **Figure 16.1.**

Figure 16.1: Resource allocation through State Structure from 2014-15 to 2016-17



Sources of Funding for NACP-IV (2012-2017)

NACP-IV approved on 03rd October 2013, was formulated after a wide range of consultations with a large number of partners including Government Departments, Development Partners, Non-Governmental Organizations, Civil Societies, representatives of People Living with HIV/AIDS, positive networks and experts in various subjects.

This consultation was carried out over a period of more than six months with 35 working groups, sub-groups and national as well as regional consultative meetings comprising of more than 1,000 participants. Sources of funding for NACP- IV are at **Table 16.2.**

Table 16.2: Source of Funding for NACP-IV

(Rs. in Crore)

Gross Budgetary Support	
General Component (GC)	8,505.20
Externally Aided Component (EAC)	
(IDA/The World Bank Rs. 1,275 crore + The Global Fund Rs. 1,826.25 crore)	3,101.25
Sub-Total 1 (I + II)	11,606.45
Extra Budgetary Support	
(To be implemented directly by developmentpartners)	1,808.60
Sub-Total 2 (III)	1,808.60
Grand Total	13,415.05

The budget estimates of NACP- IV have been worked out based on the targets projected for NACP -IV and using existing costing norms suitably adjusted for the next five years. The total approved budget for NACP-IV is Rs. 13,415 crore which comprises Government Budgetary Support, Externally Aided Budgetary Support from the World Bank and the Global Fund and Extra Budgetary Support from other Development Partners.

Initiatives to Strengthen the Financial Systems

Systems have been established to release the sanctioned amount in a phased manner and to closely monitor the cash flow to peripheral units so that the States, at no point, face a shortage of resources. Monitoring is done through the online systems by having a snapshot of resource positions at any given point of time.

National AIDS Control Programme emphasizes the need for strengthening the workforce in the accounts and finance units at the Central Level for close monitoring and at the State and District levels for prompt utilization of resources. From a skeleton staff structure at various levels, it has enlarged to a group of professionals, with a good mix of both regular and contractual staff.

Better Monitoring Systems

Computerized Project Financial Management System has been developed and rolled-out to have better financial management. The system is working in all SACS for tracking expenditure management, capturing financial data and utilizing and monitoring of advances. An e-transfer facility to avoid transit delays in transfer of funds to States has been implemented in the previous years. This has been established in all the States now and the steps are being taken for onward transfer of funds from State to districts and other implementing agencies at peripheral unit level. Payment of salary to staff at district and peripheral units have been made totally through e-transfer and this has brought down the accumulation of funds at implementing agencies, thereby minimizing 'advances'. Copies of sanction orders, guidelines and instructions have been put on the NACO website and are updated periodically to ensure wider dissemination of information.

- **Quantum of funds provided to each private and voluntary organisations as grant-in-aid of Rs. 1 Lakh and above but below Rs. 5 Lakh & the purpose for which these were utilised**:Quantum of funds provided to State AIDS Control Societies under the head TI & LWS for the FY 2016-17 is Rs. 243.34 crores.

- One time assistance as grant-in-aid of Rs. 10 Lakh & above but Rs. 50 Lakh provided to private & voluntary organisation/societies and the purpose for which the funds were utilised: **Nil**

- Private & voluntary organisations who have not submitted Utilisation Certificates (UCs) for more than 3 years in respect of grants received by them and the amount for which UCs have not been submitted. The reasons therefore & reasons for allowing further grants to these organisations without insisting on UCs may also be given: **Nil**

Key Activities during 2016-17:

Mid-Term Appraisal (MTA) of NACP-IV

The Mid-Term Appraisal (MTA) of NACP-IV was conducted during February to August, 2016. The NACP IV has reached the mid-point of its implementation. With the context of new global targets & recent international recommendations, addressing the unfinished agenda, longstanding systemic issues, mixed epidemic scenario with divergent prevention & treatment needs and financial constraints & fund flow issues affecting the scale and quality of operations, it was felt to undertake a Mid-term Appraisal of the programme. The MTA of NACP-IV aimed at reviewing the progress made so far, document the achievements, identify the opportunities, bridging critical gaps and challenges of the programme and thereby offering recommendations for on-course corrections and the planning of next phase.

The objectives of the MTA:

- to review the progress made by the NACP IV and document the achievements;
- to identify the opportunities and challenges with a view to sustain AIDS response in India; and
- to advise and offer recommendations for the planning of NACP-V in the context of the international goals stated for the 2030 and the India's commitments to SDG.

The MTA involved the various partners (national/international/bilateral/multilateral) of NACO, technical experts, representatives of community, civil society organization and other key stakeholders. The MTA commenced with planning meetings with partners and experts.

A Steering Committee was formed under the chairmanship of the Secretary & DG, NACO to provide strategic direction and oversight of the MTA activities, review the recommendations presented by the Technical Sub-Committees (TSCs) and provide direction regarding the financial support to MTA.

Four Thematic Sub-Committees viz., Prevention, Care, Support & Treatment; Institutional Strengthening & Cross Cutting, and Finance & Procurement were formed to:

- take stock of efforts undertaken in NACP-IV in terms of coverage, quality of interventions, gaps, constraints, etc. in respect of the goals and objectives set in NACP-IV;
- identify barriers in the implementation of the prevention and control strategies and thereby provide possible solutions;
- suggest practical goals, objectives and strategies for the next phase of NACP keeping in view the above and also the financial resources availability;and
- suggest changes in the infrastructure at various levels of implementation in line with proposed strategies and availability of resources.

SEQUENCE OF MTA ACTIVITIES

	Activity	Date
1.	Planning Meeting	: 3 March & 2 May 2016
2.	Steering Committee Meeting	: 12 April & 5th July 2016
3.	Technical Sub-Committee Meetings	: April & May 2016
4.	Common Briefing Meeting	: 27-28 May 2016
5.	Field Visits	: 30 May –11 June 2016
6.	Debriefing Meeting	: 13-14 June 2016
7.	Consolidation of Field Visit Reports	: 15-22 June 2016
8.	Draft Report Presentation to Steering Committee	: 5 July 2016
9.	Dissemination	: 4 August 2016

The MTA also included field visit by technical experts, representatives of community and Civil Society Organizations to five States (Manipur, Uttar Pradesh, Maharashtra, Punjab and Tamil Nadu).

The observations and recommendations of the MTA were finalized and organized into programme component-wise and segregated into short-term and long-term. Further, each observation and recommendation was labeled by the level of application (National/State/District/Facility) and Programmatic Aspects (Policy-related/Strategy or Implementation Approach-related/System-related/Operational or Routine).

The MTA of NACP IV has been one of the large, intense and a unique exercise wherein the partners of NACO, technical experts, representatives of community and civil society organization had actively participated and demonstrated a perfect example of synergy. It had brought all the stakeholders and community voices to one platform and has ensured that all the perspectives are given consideration.

Key recommendations of the MTA:

- Adapt TI strategies to match changing dynamics of key and bridge populations;
- Target to improve yield of detection through strong linkages with other components, roll out newer strategies such as community based testing, population and geo-prioritization strategies;
- Strengthen STI programme management through involvement of apex centres, rational use of counsellors, ensuring timely and adequate supply of essential commodities, etc. and target efforts towards elimination of parent to child transmission of Syphilis;
- Strengthen the functioning of NBTC & SBTC in all States through provision of adequate resources;
- Consider revising the eligibility criterion for treatment initiation to CD4 500 and to introduce *'Test and Treat'* for key population and sero-discordant couples, with due consideration to system strengthening to take additional load;
- Strengthen SIMS as an effective integrated tool for programme management to ensure linkages across all programme components for effective individual-level case tracking over prevention-care continuum;
- Revitalize IEC strategies by shifting to interactive formats, harnessing channels for specific audience segments such as migrants & MSM, upgrading the IEC material and making them relevant to the changing context and newer programme guidelines;
- Focus on institutional strengthening – filling of vacancies, capacity building and strengthen supervision – to reinvigorate the programme;
- Streamline financial management at SACS and peripheral units for effective transfer and utilization of financial resources; and
- Undertake a comprehensive uplift of procurement and supply chain functions under NACP.

High Level Committee Meeting

A High Level Committee (HLC) was constituted under the chairmanship of Mr J V R Prasada Rao, (Former Secretary, MoHFW) UN Secretary General Special Envoy for AIDS in Asia & the Pacific to consolidate the AIDS response based on MTA of NACP-IV and repositioning of NACO to meet the newer challenges. The Terms of Reference of HLC included:

- taking stock of the major achievements made by NACP so far and how these can be utilized for achieving the Sustainable Development Goal (SDG) 3.3;
- to deliberate on the gaps & barriers identified and the key recommendations by the appraisal teams;
- to sustain the current AIDS response while shifting gears to accelerate the decline in the new infections and maximize coverage of treatment; and

- to bring AIDS out of isolation and adopt a policy of selective integration of its biomedical services into the general health system and continue the focus on prevention and allied matters, which are exceptional to AIDS.

The HLC was also expected to suggest the ways to accelerate the current AIDS response to achieve the ambitious global health related targets for 2020 and 2030, bring strategic changes in NACO for implementing the activities and utilizing existing infrastructure of NACO in the field.

The first meeting of HLC was held under the chairpersonship of Mr J. V. R. Prasada Rao (Former Secretary, MoHFW) on 21st September, 2016 and subsequently a second meeting was called on 17th October, 2016 at NACO. The key members present were Joint Secretary, NACO,Director, CDS, WHO-SEARO, Country Director, UNAIDS, Deputy Director General (TB), MoHFW, Director, NARI, Head of the Health Policy Research Unit, Institute of Economic Growth, Delhi University, Community Representative, experts and other special invitees. The meeting deliberated on the key issues identified and recommendations of the MTA and the team hassubmitted the draft report to NACO.

ACRONYMS

AEP	Adolescence Education Programme
AIDS	Acquired Immuno-Deficiency Syndrome
ANC	Antenatal Clinic
ART	Antiretroviral Therapy
BCC	Behaviour Change Communication
BCSU	Blood Component Separation Unit
BMGF	Bill & Melinda Gates Foundation
BTS	Blood Transfusion Services
BSC	Blood Storage Centre
BSD	Basic Services Division
BSS	Behaviour Surveillance Survey
CBO	Community Based Organisation
CCC	Community Care Centres
CD4	Cluster of Differentiation 4
CDC	Centre for Disease Control and Prevention
CLHIV	Children Living with HIV
CMIS	Computerised Management Information System
CoE	Centre of Excellence
CPFMS	Computerised Project Financial Management System
CPGRAMS	Computerised Public Grievances Redress and Monitoring System
CSC	Care and Support Centres
CSMP	Condom Social Marketing Programme
CST	Care, Support and Treatment
CVM	Condom Vending Machine
DAPCU	District AIDS Prevention & Control Unit
DIC	Drop-in Centres
EID	Early Infant Diagnosis
EQAS	External Quality Assessment Scheme
FHI	Family Health International
FICTC	Facility Integrated Counseling & Testing Centre
FPA	Forum of Parliamentarians on HIV & AIDS
FSW	Female Sex Workers
GFATM	Global Fund for AIDS, Tuberculosis and Malaria
GIPA	Greater Involvement of People with HIV/AIDS
HIV	Human Immunodeficiency Virus
HRG	High Risk Groups
HSS	HIV Sentinel Surveillance
IBBS	Integrated Biological & Behavioural Surveillance
ICF	Intensified Case Finding (tuberculosis)
ICMR	Indian Council of Medical Research
ICTC	Integrated Counseling and Testing Centre
IDU	Injecting Drug User
IEC	Information, Education and Communication

JAT	Joint Appraisal Team
LAC	Link ART Centre
LFU	Lost to Follow-up
LS	Laboratory Services
LWS	Link Worker Scheme
M & E	Monitoring and Evaluation
MoU	Memorandum of Understanding
MSM	Men who have Sex with Men
NACO	National AIDS Control Organisation
NACP	National AIDS Control Programme
NARI	National AIDS Research Institute
NBTC	National Blood Transfusion Council
NGO	Non-Government Organisation
NIMS	National Institute of Medical Statistics
NRHM	National Rural Health Mission
NRL	National Reference Laboratory
NTSU	National Technical Support Unit
OI	Opportunistic Infections
OST	Opioid Substitution Therapy
PEP	Post-Exposure Prophylaxis
PLHIV	People Living with HIV
PPP	Public Private Partnership
PPTCT	Prevention of Parent to Child Transmission
QMS	Quality Management Systems
RI	Regional Institute
RNTCP	Revised National Tuberculosis Control Programme
RRC	Red Ribbon Club
RRE	Red Ribbon Express
RTI	Reproductive Tract Infections
SACS	State AIDS Control Society
SIMS	Strategic Information Management System
SIMU	Strategic Information Management Unit
SMO	Social Marketing Organization
SRL	State Reference Laboratory
STI	Sexually Transmitted Infection
STRC	State Training & Resource Centre
TAC	Technical Advisory Committee
TB	Tuberculosis
TG	Transgender
TI	Targeted Interventions
TRG	Technical Resource Group
TSG	Technical Support Group
TSU	Technical Support Unit
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
UT	Union Territory
VBD	Voluntary Blood Donation