

Department of AIDS Control
Ministry of Health & Family Welfare



Annual Report
2009-10

AIDS





सत्यमेव जयते

Department of AIDS Control

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National AIDS Control Organisation
Department of AIDS Control
Ministry of Health & Family Welfare
Government of India
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Abbreviations

AEP	Adolescence Education Programme	NACP	National AIDS Control Programme
AIDS	Acquired Immuno-Deficiency Syndrome	NARI	National AIDS Research Institute
ANC	Antenatal clinic	NBTA	National Blood Transfusion Authority
ART	Antiretroviral therapy	NEQAS	National External Quality Assessment Scheme
ASHA	Accredited Social Health Activist	NGO	Non-Government Organisation
ANM	Auxiliary Nurse Midwife	NRHM	National Rural Health Mission
BCC	Behaviour Change Communication	NRL	National Referral Laboratory
BCSU	Blood Component Separation Unit	NYKS	Nehru Yuva Kendra Sangathan
BSS	Behaviour Surveillance Survey	OI	Opportunistic Infections
CBO	Community-based Organisation	ORT	Oral Substitution Therapy
CCC	Community Care Centre	PEP	Post-Exposure Prophylaxis
CDC	Centres for Disease Control and Prevention	PHC	Primary Health Centre
CHC	Community Health Centre	PLHA	People Living With HIV/AIDS
CLHA	Children Living with HIV/AIDS	PPP	Preferred Private Provider
CMIS	Computerised Management Information System	PPTCT	Prevention of Parent to Child Transmission
CPFMS	Computerised Project Financial Management System	PRI	Panchayati Raj Institutions
CVM	Condom Vending Machine	RBTC	Regional Blood Transfusion Centre
DAPCU	District AIDS Prevention and Control Unit	RCH	Reproductive Child Health
DIC	Drop in Centre	RI	Regional Institute
EQAS	External Quality Assessment Scheme	RNTCP	Revised National Tuberculosis Control Programme
FRU	First Referral Unit	RRC	Red Ribbon Club
FSW	Female Sex Worker	RRE	Red Ribbon Express
GFATM	Global Fund for AIDS, Tuberculosis and Malaria	SACS	State AIDS Control Society
GIPA	Greater Involvement of People with HIV/AIDS	SBTC	State Blood Transfusion Council
HRG	High Risk Group	SHG	Self Help Groups
HSS	HIV Sentinel Surveillance	SIMU	Strategic Information Management Unit
IBSS	Integrated Biological and Behavioural Surveillance	STD	Sexually Transmitted Diseases
ICMR	Indian Council of Medical Research	STI	Sexually Transmitted Infections
ICTC	Integrated Counseling and Testing Centre	STRC	State Training & Resource Centre
IDU	Injecting Drug Users	TB	Tuberculosis
IEC	Information, Education and Communication	TI	Targeted Intervention
KHPT	Karnataka Health Promotion Trust	TSG	Technical Support Group
LWS	Link Worker Scheme	TSU	Technical Support Unit
M & E	Monitoring & Evaluation	UN	United Nations
MSM	Men who have Sex with Men	UNDP	United Nations Development Programme
NACO	National AIDS Control Organisation	USAID	United States Agency for International Development
		UT	Union Territory
		WHO	World Health Organisation

Overview

Available evidence on HIV epidemic in India shows a stable trend at national level. Provisional estimates place the number of people living with HIV in India in 2008 at 22.7 lakhs with an estimated adult HIV prevalence of 0.29 percent. The epidemic is concentrated among high risk group populations and is heterogenous in its spread. The primary drivers of HIV epidemic in India are unprotected paid sex, unprotected sex between men and injecting drug use. Heterosexual route of transmission accounts for 87 percent of HIV cases detected.

The **National AIDS Control Programme (NACP)**, launched in 1992, is being implemented as a comprehensive programme for prevention and control of HIV/AIDS in India. Improved understanding of the complex HIV epidemic in India has enabled substantial changes to be made in the policy frameworks and approaches of NACP. The focus has shifted from raising awareness to behaviour change, from a national response to a more decentralised response and to increasing involvement of NGOs and network of PLHA.

Phase-III (2007-2012) of NACP has the overall goal of halting and reversing the epidemic in India over the five-year period. It has placed highest priority on preventive efforts while, at the same time, seeking to integrate prevention with care, support and treatment through a four-pronged strategy:

1. Preventing new infections among high risk groups and general population through (a) saturation of coverage of high risk groups with targeted interventions; and (b) scaled up interventions in the general population
2. Providing greater care, support and treatment to larger number of PLHA.
3. Strengthening the infrastructure, systems and human resources in prevention, care, support and treatment programmes at the district, state and national levels.
4. Strengthening the nationwide Strategic Information Management System.

Highlights of Initiatives/ Achievements

Targeted Intervention for High Risk Group Population: The core element of the control strategy is to ensure that people who are at high risk do not transmit the infection. These populations are at a greater risk of acquiring and transmitting HIV infection due to more frequent exposure to HIV, higher levels of sexually transmitted infections and insufficient capacity or power to decide to protect themselves. Targeted Interventions projects, numbering 1,290 under various State AIDS Control Societies (SACS) and 225 more managed by donor partners, provide prevention and care services covering 53 percent of Female Sex Workers (FSW), 74 percent of Injecting Drug Users (IDU) and 78 percent of Men having Sex with Men (MSM) and transgender populations. Monitoring of TIs has been strengthened by positioning Project Officers - one for every 10 TIs. Mapping of HRG and migrant population was completed in 17 states, and initiated in four other states. The data was validated by the International Institute for Population Sciences, Mumbai. A strategy for migrants is being revised linking it with the source districts.

Link Workers Scheme: This community-based-intervention addresses HIV prevention and care needs of the rural community with special focus on High Risk population and other vulnerable groups. The scheme is operational in 100 selected villages in each of the 126 identified districts in 18 states through nine lead agencies.

Blood Safety: Access to safe blood has been ensured through a network of 1,103 Blood Banks including 130 Blood Component Separation Units and 10 Model Blood Banks. In 2009-10, against the target of 69.8 lakh units for blood collection, 60.1 lakh units were collected till 31 January, 2010. In public sector and charitable blood banks, currently 74.1 percent of blood is collected through voluntary blood donation.

Integrated Counseling and Testing Centres: Counseling and testing services have been

phenomenally scaled up with 5,135 ICTCs as of December, 2009. 113 'stand alone ICTCs' and 608 ICTCs in 24x7 PHCs have been established during 2009-10. 60.8 lakh general clients and 44 lakh pregnant women were counselled and tested at ICTCs as of December 2009. Among the 15,089 pregnant women detected positive, 9,398 (62.28%) mother-baby pairs received Nevirapine prophylaxis to prevent the mother to child transmission of HIV. 37,196 patients with HIV-TB co-infection were identified.

Management of Sexually Transmitted Infections: The Department of AIDS Control supports 916 designated STI/RTI clinics at District and Teaching hospitals, 1,290 STI Clinics in Targeted Interventions, 5,744 private preferred providers for community-based STI services delivery to the high risk population, 22,370 Primary Health Centres/Community Health Centres under NRHM and seven regional STI training, reference and research centres. During 2009-10, against the annual target of managing one crore STI/RTI episodes in patients, 68.2 lakh episodes were managed till 31 January 2009. The STI services are being expanded through effective integration with RCH-II programme and involvement of private sector.

Information Education & Communication: NACP's communication strategy aims at effecting behaviour change with the target of creating an empowering and enabling environment for all. It focuses on reduction of stigma and discrimination attached with HIV infection, and promotion of services; while giving special emphasis to youth and women who are more vulnerable to HIV infection.

During 2009-10, regular campaigns were conducted on mass media, supported by outdoor activities, mid-media and inter-personal communications. NACO released campaigns on Voluntary Blood Donation, ICTC and condom promotion, HIV-TB and PPTCT. A multi-media campaign in the North-East region in September 2009 targeted youth through music and sports in Manipur, Mizoram and Nagaland. 7,677 Red Ribbon Clubs in colleges encourage peer-to-peer messaging on HIV prevention. 208 drop-in-centres supported by NACO are run by PLHA networks to promote

positive living and improve quality of life.

The Red Ribbon Express (RRE) is the world's largest mass mobilisation against HIV/AIDS. In its second phase, the train was flagged off by the Hon'ble Chairperson of UPA and Chairperson of Rajiv Gandhi Foundation, Smt. Sonia Gandhi on 1 December, 2009 on the occasion of the World AIDS Day. This time the National Rural Health Mission has also come on board. During its year-long run, RRE will cover 152 stations in 22 states. Services for HIV testing, treatment of STI and general health check-up have also been added at the stations. IEC exhibition vans and folk troupes are taking the messages to rural areas. The project is successful in mobilising political leadership in the states, districts and Panchayati Raj Institutions at the grassroots level.

The Tribal Action Plan was finalised and launched in 44 Integrated Tribal Development Project areas in A & B category districts; 21 more areas will also be covered. During 2009-10, about one lakh Self Help Groups in 15 states are being trained on HIV/AIDS issues.

Condom Promotion: Condom is the most effective prophylaxis for preventing HIV transmission. During 2009-10, the condom social marketing programme has been successfully scaled up to 294 districts; 4.64 lakh condom outlets serviced by the programme distributed 23.4 crore pieces of condoms till January 2010.

Care, Support and Treatment: The programme provides comprehensive management of PLHA with respect to prevention and treatment of Opportunistic infections, Antiretroviral therapy (ART), psychosocial support, home-based care, positive prevention and impact mitigation. The free ART programme for PLHA has been scaled up to 239 centres. 3,00,743 patients are being provided free ART as of January, 2010 which include 18,889 children. 300 Link ART Centres are functional to facilitate delivery of ART drugs nearer to residence of stabilised PLHAs. The Department of AIDS Control is in the process of implementing the "Smart Card" Project. This card would act as a portable medical record and facilitate easy storage and analysis of data.

With the rollout of second line ART expanded from January 2009, currently there are 970

patients on second line ART provided through 10 Centres of Excellence. Against NACP-III target of 350 Community Care Centres, 287 were functional by January 2010 for admitting patients during investigations and reinforcing adherence counseling. Addressing HIV/AIDS in children especially infants below 18 months is a significant global challenge. Recent evidence demonstrates that early HIV diagnosis and ART are critical for infants, and a significant number of lives can be saved by initiating ART for HIV-infected infants immediately after diagnosis within the first 12 weeks of life. The programme has been rolled out from 1 March 2010 at 760 ICTCs and 180 ART centres.

Laboratory Services: Capacity of laboratories for CD4 testing has been strengthened with 209 CD4 machines. The assurance of quality in kit evaluation and assessment of HIV testing services through implementation of External Quality Assessment Scheme (EQAS) are receiving attention. 117 State Reference Laboratories were assessed.

Strategic Information Management: The timeliness and comprehensiveness of reporting through computerised management information system has improved. The project for introducing Strategic Information Management System underway is expected to be operational in May, 2010.

The 'National Ethics Guidelines for Research in HIV/AIDS' were reviewed and finalised at a joint meeting of the NACO Ethics Committee and the Technical Resource Group on R&D on 8 January, 2010. The 'Network of Indian Institutions for HIV/AIDS Research' pioneered by NACO has 35 institutions as members. Two workshops for building capacity in operational research among young scientists were conducted in November 2009. Thirteen young researchers were recommended for the award of the NACO Research Fellowships in March 2010.

The HIV Sentinel Surveillance 2008-09 was completed in August, 2009. The Behavioural Surveillance Survey was carried out in six states; a working group constituted by The Department of AIDS Control has reviewed and consolidated the findings. The epidemiological profiling of HIV in district/sub-district level through data

triangulation was carried out in 182 districts of seven states from July to November 2009. During the second phase (January - May, 2010), 369 districts in 20 states are being covered. An expert group is working on a plan for reprioritisation of districts with inputs from the data triangulation exercise. A plan is being developed for initiating Integrated Biological and Behavioural Surveillance in a phased manner.

Finance: Against the revised estimate of Rs.980.15 crores for FY 2009-10, an expenditure of Rs 890.77 crores (90.88%) was incurred (as on 15 March, 2010). Special efforts were taken to build in systems both at NACO and SACS levels for effectively managing resource mobilisation and fund utilisation. The dedicated computerised project financial management system monitors resource utilisation at SACS and even at NGOs and peripheral units. A systematic process of review of Annual Action Plans for 2010-11 of SACS is underway in February and March, 2010.

Mid-term Review of NACP-III: A comprehensive evaluation of strategies, plans, resources and activities undertaken in the first half of NACP-III was conducted from 16 November to 3 December, 2009 by the MTR mission team with representatives from World Bank, DFID and other development Partners. Several studies were initiated to inform MTR on the effectiveness and impact of strategies, progress against the set targets and areas that need mid-course corrections. The mission concluded that the development objective of NACP-III was well within reach, that many targets had been reached and even surpassed. Prevalence among Antenatal Clinic attendees, Sexually Transmitted Infections patients, Female Sex Workers and Men having Sex with Men was declining. Vast majority of new infections and existing burden of disease were concentrated in 5-15 percent of districts. Impressive gains have been made in ART services, upscaling of ICTCs and identifying PLHAs. There was significant scale-up of Targeted Interventions; and condom distribution had increased. More emphasis was needed on quality in areas with high HIV prevalence and high vulnerability. While convergence with NRHM had begun, more progress was required in areas like supply chain management and laboratory services.

While consolidating the progress achieved, the Department of AIDS Control is committed to developing and implementing effective evidence-

based strategies with active involvement of all stakeholders towards achieving the goals and objectives of NACP-III.

Date: 22nd March, 2010
New Delhi



(K. CHANDRAMOULI)
Secretary, Department of AIDS Control
Ministry of Health & Family Welfare
& Director General,
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Chapter 1



Introduction

Demographically the second largest country in the world, India has also the third largest number of people living with HIV/AIDS. As per the provisional HIV estimate of 2008-09, there are an estimated 22.7 lakh people living with HIV/AIDS in India. The HIV prevalence rate in the country is 0.29 percent (2008-09) and most infections occur through heterosexual route of transmission. However in the north-eastern region, injecting drug use is the major cause for the epidemic spread.

India's initial response to the HIV/AIDS challenge was in the form of setting up an AIDS Task Force by the Indian Council of Medical Research (ICMR) and a National AIDS Committee headed by the Secretary, Department of Health. In 1990, a Medium Term Plan (1990-1992) was launched in four States - Tamil Nadu, Maharashtra, West Bengal and Manipur and four metropolitan cities - Chennai, Kolkata, Mumbai and Delhi. The plan facilitated targeted IEC campaigns, establishment of surveillance system and safe blood supply.

In 1992, the Government launched the first National AIDS Control Programme (NACP-I) with the IDA Credit of USD 84 million and demonstrated its commitment to combat the infection. NACP-I was implemented during 1992-1999 with an objective to slow down the spread of HIV infections so as to reduce morbidity, mortality and impact of HIV epidemic in the country. To strengthen the management capacity, a National AIDS Control Board (NACB) was constituted and an autonomous National AIDS Control Organisation (NACO) was set up to implement the project.

In November 1999, the second National AIDS Control Programme (NACP-II) was launched with World Bank credit support of USD 191 million. Based on the experience gained in Tamil Nadu and a few other states along with the evolving trends of the HIV/AIDS epidemic, the focus shifted from raising awareness to changing behaviour, decentralisation of programme implementation at the state level and greater involvement of NGOs. The policy

and strategic shift was reflected in the two key objectives of NACP-II:

- to reduce the spread of HIV infection in India.
- to increase India's capacity to respond to HIV/AIDS on a long-term basis

Policy initiatives taken during NACP-II included adoption of National AIDS Prevention and Control Policy (2002); National Blood Policy; a strategy for Greater Involvement of People with HIV/AIDS (GIPA); launching of the National Rural Health Mission; launching of National Adolescence Education Programme; provision of Anti-Retroviral Therapy (ART); formation of an inter-ministerial group for mainstreaming; and setting up of the National Council on AIDS chaired by the Hon'ble Prime Minister.

National AIDS Control Programme Phase III

The overall goal of National AIDS Control Programme Phase III (2007-2012) is to halt and reverse the epidemic in India over the five year period. The programme hopes to achieve this through a four pronged strategy:

- Prevent infection through saturation of coverage of high-risk groups with Targeted Interventions (TI), and a scaled up interventions for the general population.
- Provide greater care, support and treatment to a larger number of People Living with HIV/AIDS (PLHA). Address human rights and ethics issues with focus on fundamental rights of the PLHA and their active involvement.
- Strengthen the infrastructure systems and human resources in prevention, care, support and treatment at the district, state and national levels.
- Strengthen the nationwide Strategic Information Management System, to help track the epidemic, identify pockets of infection.

The overall objective is to reduce the rate of incidence in the first year of the programme in high prevalence states by 60 percent to obtain the reversal of the epidemic, and that in the vulnerable states by 40 percent to stabilise the epidemic.

Guiding Principles for NACP-III

The goal, objectives and strategies of NACP-III are reflected by the following guiding principles:

- The unifying credo of Three Ones, i.e., one Agreed Action Framework, one National HIV/AIDS Coordinating Authority and one Agreed National Monitoring and Evaluation System.
- Equity is to be monitored by relevant indicators in both prevention and impact mitigation strategies, i.e., percentage of people accessing services disaggregated by age and gender.
- Respect for the rights of PLHA, as it contributes most positively to prevention and control efforts.
- Civil society representation and participation in the planning and implementation of NACP-III is essential for promoting social ownership and community involvement.
- Creation of an enabling environment wherein those infected and affected by HIV can lead a life of dignity. This is the cornerstone of all interventions.
- Provision of universal access to HIV prevention, care, support and treatment services.
- For making the implementation mechanism more responsive, proactive and dynamic, the HRD strategy of NACO and SACS is based on qualification, competence, commitment and continuity.

Strategic and programme interventions are to be evidence-based and result oriented with scope for innovations and flexibility. Priority is accorded to specific local contexts.

Programme Priorities and Thrust Areas

NACP-III is based on the experiences and lessons drawn from NACP-I and II, and is built upon their strengths. Its priorities and thrust areas are drawn up accordingly and include the following:

- Considering that more than 99 percent of the population in the country is free from infection, NACP-III places the highest priority on preventive efforts, while, at the same time, seeking to integrate prevention with care, support and treatment.
- Sub-populations that have the highest risk of exposure to HIV will receive the highest priority in the intervention programmes. These would include sex workers, MSM and IDU. Second high priority in the intervention programmes is accorded to long-distance truckers, prisoners, migrants (including refugees) and street children.
- In the general population, those who have the greater need for accessing prevention

services, such as treatment of STIs, voluntary counseling and testing and condoms, will be next in the line of priority.

- NACP-III ensures that all persons who need treatment would have access to prophylaxis and management of opportunistic infections. People who need access to ART will also be assured first line ARV drugs.
- Prevention needs of children are addressed through universal provision of Prevention of Parent to Child Transmission (PPTCT) services. Children who are infected are assured access to paediatric ART.
- NACP-III is committed to address the needs of persons infected and affected by HIV, especially children. This will be done through the sectors and agencies involved in child protection and welfare. In mitigating the impact of HIV, support is also drawn from welfare agencies providing nutritional support, opportunities for income generation and other welfare services.
- NACP-III also plans to invest in community care centres to provide psycho-social support,

outreach services, referrals and palliative care.

- Socio-economic determinants that make a person vulnerable also increase the risk of exposure to HIV. NACP-III works with other agencies involved in vulnerability reduction such as women's groups, youth groups, trade unions, etc., to integrate HIV prevention into their activities.

Mainstreaming and partnerships are the key approaches to facilitate multi-sectoral response, engaging a wide range of stakeholders. Private sector, civil society organisations, networks of people living with HIV/AIDS and government departments, all have a crucial role in prevention, care, support, treatment and service delivery. Technical and financial resources of the development partners are leveraged to achieve the objectives of the programme. The progress in achievement of physical targets listed in the Outcome Budget of the Department of AIDS Control for 2009-10 is summarised in Table 1.1.

Table 1.1: Progress in achievement of physical targets listed in the Outcome Budget of the Department of AIDS Control for 2009-10

S. No.	Indicators	Targets 2009-10	Achievements (till February 2010)
1	New core group targeted interventions set up	122	72
2	New bridge population targeted interventions set up	47	31
3	New STI episodes managed	100 lakh	68.2 lakh*
4	New Blood Component Separation Units set up	40	28
5	New district level blood banks set up	8	4
6	Treat persons living with HIV/AIDS with antiretroviral drugs	2,50,000	3,00,743 (in January 2010)
7	Anti-Retroviral Therapy centres (Cumulative as on 31 March 2010)	200	239*
8	Community Care Centres (Cumulative as on 31 March 2010)	261	287*
9	New Integrated Counseling and Testing Centres set up	176	113
10	Mothers counseled & tested at ICTC	70.15 lakh	48.18 lakh*
11	Persons counseled & tested at the ICTC	85.19 lakh	66.41 lakh*

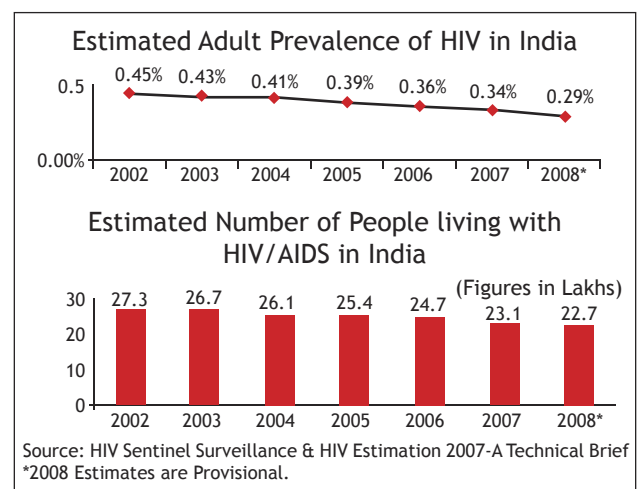
* Till January 2010



Current Epidemiological Situation of HIV/AIDS

Stable HIV Epidemic in India: HIV estimates derived using globally comparable methods and findings from the independent Impact Assessment Study show that the National AIDS Control Programme is progressing steadily towards the objective of halting and reversing the HIV epidemic in India over the period 2007-2012. Available evidence on HIV prevalence and future statistical projections shows signs of stabilisation of HIV epidemic in India at national level. Provisional estimates show that there are 22.7 lakh People living with HIV/AIDS in India by the end of 2008 with an estimated adult HIV prevalence of 0.29 percent (Fig. 2.1). Declining trends are noted in high prevalence states indicating possible impact of sustained programme interventions. Even the prevalence among pregnant women in the age group of 15-24 years, which is considered proxy for incidence/new infections in general population, is showing a declining trend.

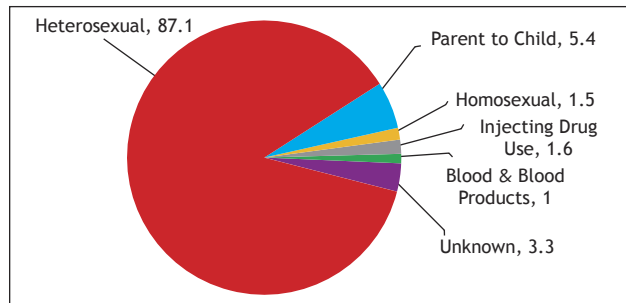
Fig 2.1: Trends of HIV in India, 2002-08



Routes of Transmission: Information from persons testing positive for HIV at the Integrated Counseling and Testing Centres across the country during 2009-2010 shows that 87.1 percent of HIV infections are still occurring through heterosexual

routes of transmission. While parent to child transmission accounts for 5.4 percent of HIV cases detected, injecting drug use (1.6%), Men who have Sex with Men (1.5%) and contaminated blood and blood products account for one percent (Fig.2.2).

Fig 2.2: Routes of transmission of HIV, India, 2009-10 (till February 2010)

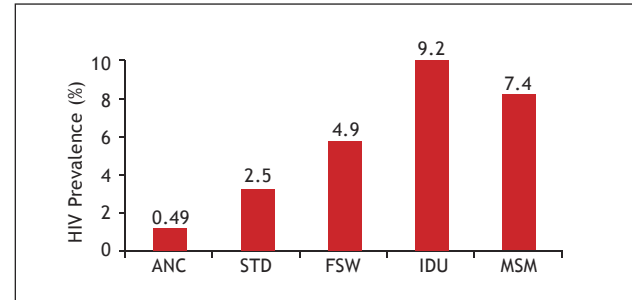


The primary drivers of HIV epidemic in India are unprotected paid sex/commercial female sex work, unprotected sex between men and injecting drug use. It is estimated that there are 12.6 lakh Female Sex Workers, 3.5 lakh Men who have Sex with Men with high risk and 1.9 lakh Injecting Drug Users in India. Though sex workers account for 0.5 percent of adult female population, they account for seven percent of HIV infected females. Sex work continues to act as the most important source of HIV infections in India due to the large size of clients that get infected from sex workers. As per national Behavioural Surveillance Survey in 2006, 2.4 percent of adult males, i.e., around 73.5 lakh adult males have visited commercial sex worker during the year prior to the survey. Men who buy sex, i.e., clients of sex workers are the single most powerful driving force in India's HIV epidemics and constitute the largest infected population group in the country. These men then transmit the infection to their wives affecting several low risk women in the society. Long-distance Truckers and Single Male Migrants constitute a significant proportion of clients of sex workers.

Concentrated Epidemic: The overall HIV prevalence among different population groups in 2008-09 continues to portray the concentrated epidemic in India, with a very high prevalence among High Risk Groups - IDU (9.2%), MSM (7.3%), FSW (4.9%) and STD clinic attendees (2.5%) and low prevalence among ANC clinic attendees (0.49%) (Fig 2.3).

Heterogenous Spread: HIV epidemic in India is heterogenous in its spread, with some states, districts and blocks showing high prevalence levels compared to other (Fig. 2.4). At the state level, 60 percent of the HIV burden is in the six high prevalence states. Except Andhra Pradesh and Nagaland with a

Fig 2.3: HIV prevalence among different population groups, 2008-09 (Provisional)



median HIV prevalence of one percent, all other states have shown less than one percent HIV prevalence among ANC attendees. Among IDUs, Chandigarh, Punjab, Delhi, Mumbai and Manipur have shown high levels of HIV prevalence. Andhra Pradesh, Karnataka, Maharashtra and Manipur have shown high levels of HIV prevalence among MSM and FSW. Similarly, 195 districts (A & B Category districts) have been identified with high levels of HIV and are prioritised for programme interventions (List given in Annex II).

Patterns of HIV among different population groups: An overall decline in HIV prevalence among ANC attendees is noted at all India level and in high prevalence states. However, rising

Fig 2.4: District Categorisation based on HIV Sentinel Surveillance (2004-06)

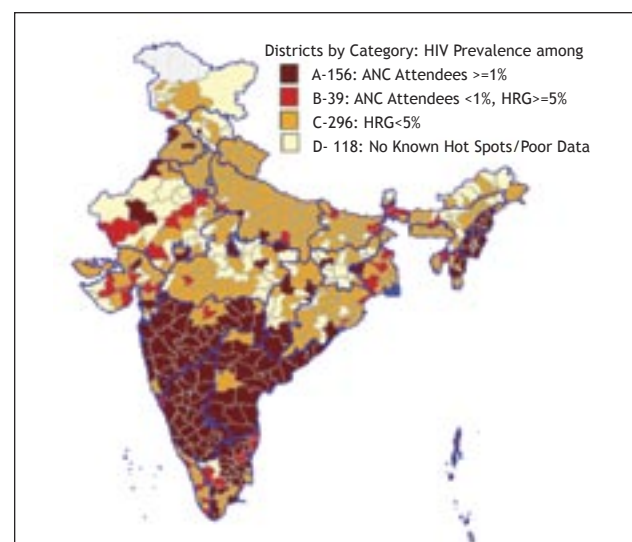
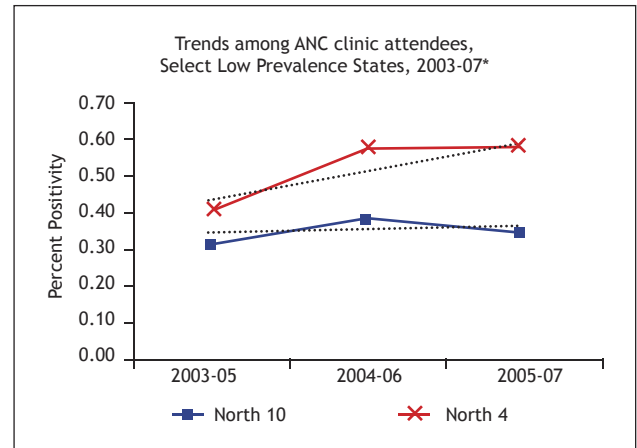
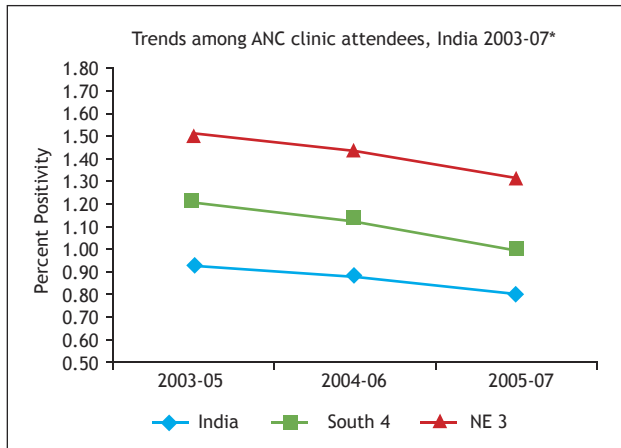


Fig 2.5: Trends among Ante-Natal Clinics (ANC) attendees, 2003-07



trend among ANC attendees is observed in some low and moderate prevalence states such as Gujarat, Rajasthan, Orissa, Uttar Pradesh, Bihar and West Bengal. 108 districts (134 sites) have shown one percent or more HIV Prevalence among ANC attendees in 2008-09. Of these, around one-third of them (34 Districts) are in Low Prevalence States (Fig. 2.5).

87 districts (105 sites) have shown five percent or more HIV prevalence among High Risk Groups and 30 districts have shown HIV Prevalence 15 percent or more in 2008-09. Among sex workers, there is a decline in South Indian states indicating a possible impact of interventions, while rising trends are evident in the North East suggesting a dual nature of the epidemic. Fifty five districts have shown greater than fivepercent HIV Prevalence among FSW in 2008-09.

Injecting drug use is the principal driver of the HIV epidemic in north-eastern states of India. Approximately 25 percent of the injecting drug users reside in the North-eastern states. However, HIV prevalence trends among injecting

drug users are on a decline in Manipur, Nagaland and Chennai indicating a possible impact of interventions, while there is a steady rise in Punjab, Chandigarh, Meghalaya, Mizoram, West Bengal, Mumbai, Kerala and Delhi. 20 districts have shown five percent or more HIV prevalence among IDUs in 2008-09.

In India, pockets of high HIV prevalence among Men who have Sex with Men are identified in high prevalence states as well as in Delhi, Gujarat and West Bengal. 28 districts have shown five percent or more HIV prevalence among MSM in 2008-09.

Thus, HIV epidemic in India is heterogenous in nature, both in terms of routes of transmission as well as geographic spread. Possible impact of interventions could be noted in places where HIV was visible and interventions were started earlier while rising trends are observed in other states. Successes achieved in controlling sex work driven epidemics in high prevalence states need to be sustained. Pockets of high prevalence among IDU and MSM are identified which require cognisance and action.



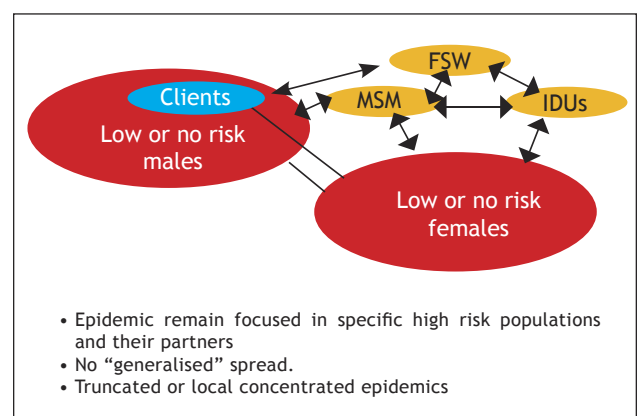
Targeted Interventions

HIV transmission in India is driven by unprotected sexual intercourse and sharing of drug injecting equipment between an infected and an uninfected individual. Not everyone in the population has the same risk of acquiring or transmitting HIV. It occurs within groups or networks of individuals who have higher levels of risk due to a higher number of sexual partners or the sharing of injecting drug equipment. These core high-risk groups (HRG) include:

- Female Sex Workers (FSW)
- High-risk Men who have Sex with Men (MSM), and Transgenders (TG)
- Injecting Drug Users (IDU)
- and also Bridge Populations (Migrants and Truckers)

The broader transmission of HIV beyond these HRG often occurs through their sexual partners, who also have lower risk sexual partners in the “general” population. For example, a client of a sex worker might also have a wife or other

Fig.3.1: Model of HIV transmission among different populations



partner who is at risk of acquiring HIV from her higher risk partner. Individuals who have sexual partners in the highest risk groups and other partners are called a “bridge population”, because they form a transmission bridge from the HRG to the general population. HRG members may have many sexual partnerships

with different bridge population members, who in turn have at least one partner in the general population. Given this model of epidemic transmission (Fig.3.1), it is most effective and efficient to target prevention towards HRG members to keep their HIV prevalence as low as possible and to reduce transmission from them to the bridge population. Therefore, there is need to have targeted interventions among HRG as well as the bridge population which consists of migrants and truckers.

Targeted Interventions in NACP-III

In keeping with the goals and objectives, the primary focus of NACP-III is to halt and reverse the spread of the HIV epidemic in India by 2012. The programme plans to cover 80 percent of HRGs with primary prevention services, including:

- Treatment for sexually transmitted infections
- Condom provision
- Behaviour change communication
- Creating an enabling environment with community involvement and participation
- Linkages to care and support services

Two important structural interventions have been added to NACP-III:

- Strengthening enabling environment for TIs, and
- Community organisation and ownership.

NACP-III's goal is to scale up interventions for high-risk groups (HRGs) - both in terms of sheer numbers (coverage, number of targeted interventions) and in terms of quality of interventions.

Components of Targeted Interventions

Behaviour Change Communication involves understanding and assessment of individual and group practices/behaviour which can pose risk to HIV infection, and development of context specific strategies/activities to address the risk of infection through peer counseling, counseling through counselors, creating enabling environment to reinforce safe practices. The Peers, Out reach workers lead the activities through one to one sessions and group sessions among the community. Group issue specific Information Education and Communication (IEC) materials are developed to further augment behaviour change.

Access to STI Services: As STI (both symptomatic and asymptomatic) pose greater risk for HIV infection and is high among the High Risk Groups (HRGs), the access to STI services is provided through three different approaches i.e. Project Based Clinics, outreach clinics and Referral clinics either with private or public facility with HRG TIs and Bridge Population TIs.

Provision of Commodities to Ensure Safe Practices: TI programme ensures safe practices by providing choices and options of easy accessibility, availability and acceptability. The commodities (only male lubricated latex condoms) are supplied through peers, out-reach workers and social marketing. The social marketing is supported through two channels: direct budget provision under TI and through appointment of social marketing agencies.

For FSW TIs: Male lubricated latex condoms and Female condoms (only in some pilot interventions) are provided through free distribution and social marketing outlets.

For MSM TIs: Male lubricated latex condoms and lubricant sachets are provided through free distribution.

For IDU TIs: Needles, Syringes and OST drugs are provided through free distribution.

For Migrant and Truckers TIs: the provision is through social marketing mode.

Besides, Condom Vending Machines and Free pick-up condom boxes are placed at strategic locations to ensure uptake by clients at their convenience.

Enabling Environment through Structural Intervention: NACP envisage identification of power structures and their influence on the access and control over resources for sustaining safe behaviour and practices. There are provision for building the capacity of HRGs to advocate for themselves in creating enabling environment as well as control of requisite resources to address the issues of stigma and discrimination.

Community Organising and Ownership Building: NACP envisages engaging Community-Based Organisations (CBOs) in programme management through developing their capacity and ownership for steering of community agenda.

Linkages to Care and Support Programme:

To strengthen linkage to care and support programme (ICTC, ART, Community Care Centre, RNTCP Programme, and Detox Centre) has meant to reduce vulnerability, NACP-III has envisaged building the capacity of the counsellors and health care providers at care and support institutions relating to perspectives and sensitivity.

Needle Syringe Exchange Programme : NGO implementing TI for preventing HIV among IDU, reach out to this population using current and ex IDU as their peers. They offer services such as counseling, referral to HIV testing services, STI treatment, management of wounds of IDU and Needle Syringe Exchange Programme (NSEP). Under NSEP, a fresh needle & syringe is provided to the IDU in exchange for the old, used one in order to prevent transmission of HIV by injecting route. NSEP has been proven to be an effective way to reach out to the IDU and prevent HIV among them.

OST Intervention for IDUs: Under NACP-III, a new intervention has been initiated for IDUs called Opioid Substitution Therapy (OST). This medical intervention helps the IDU to stop injecting use. It is initiated by a doctor and daily administered by a nurse. Fifty one OST Centres have been contracted by SACS to implement OST after accreditation by an independent body, the National Accreditation Board for Health Providers (NABH).

Estimation of HRG to be covered under NACP-III

For planning purposes of NACP-III, an expert group was constituted to analyse the primary data available in the country to arrive at the number of

HRG in the country. As per the report submitted by the expert group, 2006, there is an estimated 18 lakh core high risk population group besides 110 lakh bridge population. The group-wise break-up is given in Table 3.1.

Table 3.1: Estimation of HRG and bridge population in India (2006)

Group	Estimated Population
Core High Risk group	
FSWs	12.63 lakh
MSM	3.51 lakh
IDU	1.86 lakh
Bridge Population	
Migrants	80 lakh
Truckers	30 lakh

In addition, a mapping exercise was carried out by NACO, which was initiated in 2008 for 17 states of the country. The mapping was carried out by agencies hired by NACO for the purpose. After the draft reports were received, IIPS (International Institute of Population Sciences), Mumbai has been designated for conducting the validation of the mapping data in all 17 States (including Bihar and UP -funded by donors). The final reports have been made available in October 2009. In addition to the estimates, the mapping reports also provide information on:

- The hotspots in the districts mapped
- The vulnerability factors among the HRGs in the district/state
- Service providers in the vicinity

Procurement of NGO by SACS

An elaborate mechanism has been developed by NACO for procurement of NGOs to implement Targeted Interventions by SACS. The steps for NGO procurement are:

- Open advertisement in regional newspapers and website for inviting proposals / applications.
- Applications are shortlisted by a 'Technical Advisory Committee' (TAC). The TAC consists of the SACS TI point person, Procurement officer of SACS, one member from the State Technical Support Unit, and one NGO representative from the Executive Committee. The screening is for determining whether the organisation fulfills the necessary prerequisites for implementing TI (e.g. registration act, audited statements, annual reports of the NGO, etc.)

Fig 3.2: A photograph from clinic service in an IDU intervention site



Fig 3.3: Satellite interactive sessions in progress showing community members attending the programme



- All the shortlisted organisations are visited by Joint Appraisal Team (JAT) - a three member team comprising one technical officer of SACS, one external technical consultant and a financial consultant. The JAT reviews the records of the NGO, discusses with the board of directors/trustees and conducts field visits. A checklist prepared by NACO is used during the JAT visit for scoring the NGO. The scoring is on issues, such as governance, staffing and organisation policy, project experience, financial management, procurement system in the organisation, planning and monitoring by the NGO, and relationship of the NGO with the society.
- Based on the scoring by the JAT, the applicant organisations are categorised by the TAC into: 'most preferred', 'may be considered' and 'rejected'.

Support mechanisms to ensure quality of interventions

The main focus in the initial two years of NACP-III, was on ensuring that the systems of contracting, fund release, and evaluation are followed by the SACS. In the last one year, there is an increasing emphasis on ensuring that the quality of the TI implementation is improved. In this regard, there have been a number of steps taken:

- Standardisation of the tools for collection of data: Tools for collecting data on registration of HRGs to their tracking, provision of services, and referral system, were developed in NACO with inputs from experts in the area. A total of 17 formats have been developed and

standardised, with a logical flow of information from one format to another, with final feed into the newly developed Strategic Information Management System (SIMS). Regional level trainings on the same have been conducted for the newly recruited district based Project Officers, as well as point persons in SACS and Technical Support Unit (TSU).

- Developing of a quality guide for TIs: For ensuring that a standard process is followed, a guide is developed which covers how the flow of data from outreach to reporting level at TI and finally into Computerised Management Information System (CMIS). In addition, the manner to check factuality of information, timelines and defining the roles and responsibilities of staff in collecting data, is also covered in the guide.

Table 3.2: The training activities conducted by TI divisions across the country

Areas of Training	Category of Participants	Total Number
Management Information System (MIS) tools	TI staffs	12,160
TI monitoring	Project Officers	91
Programme Management	Programme Manager of TIs	1,197
Out Reach Management	Out Reach Workers	958
Counseling and Risk Reduction	Counselor	852
Peer Education	Peer Educators	5,612
Financial Management	Accountants	1,048

- Monthly tracking of CMIS report from TIs is being done at NACO; regular feedback to the SACS is provided on how many TI are reporting. The SACS are encouraged to examine the data collected from CMIS and provide feedback to the TI.
- The CMIS indicators have been changed and incorporated in the SIMS, which will be set up. The indicators clearly capture the one time and regular coverage for the HRG. Operationalising SIMS would help obtain data on the coverage and the quality of available services.
- The TI units which are set up in the SACS are expected to report to them on a monthly basis.

The reports are sent by a hard or a softcopy to the Monitoring & Evaluation officer at SACS, who then feeds into the CMIS, which is then sent to NACO for uploading. It is seen that the number of units reporting to the CMIS has been increasing. Special emphasis has been laid down in the last six months on ensuring that the TI report on the CMIS indicators. As a result of this, the number of units reporting has increased which shows that there has been a consistent improvement in the uptake of services in the TI.

- The appointment of district based Project Officers (POs) is the next step taken to monitor and supervise the TI on a daily basis.

Human Resource and Capacity Building: Developing the capacity of the SACS and NACO is a major thrust of NACP-III. 14 officials at NACO and 48 officials in the SACS have been trained with experts on various aspects of HIV/AIDS and TI in order to support the programme implementation at all levels. In addition, TSU have been established at

NACO and in 20 states to provide technical support to implementing NGO and CBO partners. All the states have a focal person for the TI, looking after its quality and management aspects.

Capacity Building Activities for TIs: Training the TI staff on implementation is a crucial step towards effective implementation of the TIs. As a result, initially the focus was on developing a cadre of state based master trainers. However, with expansion of TI, there has been a need to institutionalise the training. TSU and State Training and resource centres (STRC) have been established in order to improve quality, as well as scale up TI on ground.

State Training and Resource Centre: STRC are designed to provide training and develop the capacity of TI projects staff to ensure the quality of interventions. Fourteen STRC have been established and seven more are being formed. They work closely with states and TSU to develop the capacity of partner organisations. STRC also

Fig 3.4: Key performance of the Targeted Interventions

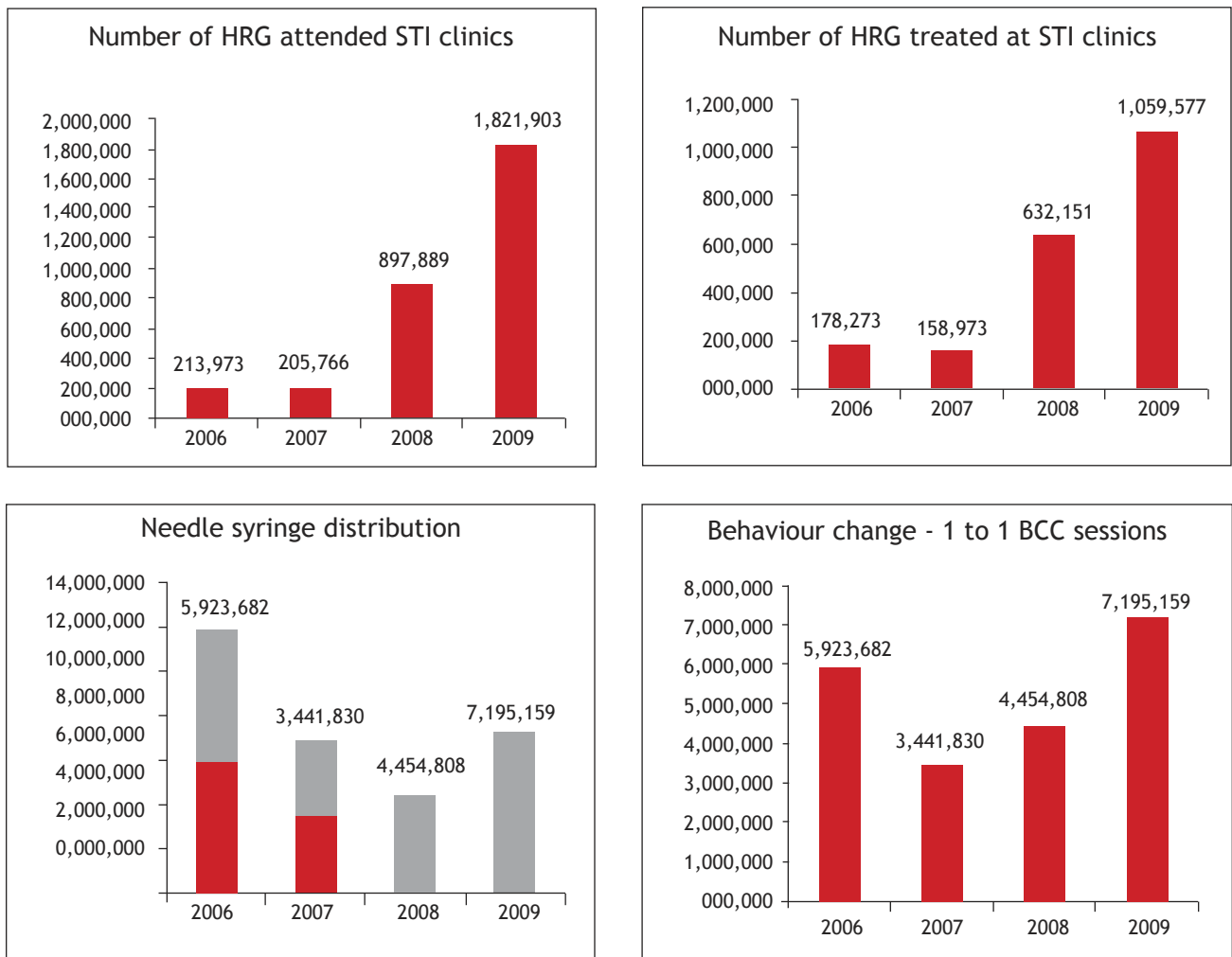


Fig. 3.5: Awareness creation by core target population in Andhra



work with NGO and CBO to develop learning or best practice sites in each state. NACO has conducted the evaluation of STRC with external experts. Out of 13 evaluated, the duration of nine STRC was extended because of satisfactory performance. Based on evaluation report recommendations, the TOR and deliverables have been revised to focus on developing local resources and learning sites at State level.

During 2009-10, the training activities conducted by TI division across the country is shown in Table 3.2

Technical Support Unit (TSU): A National Technical Support Unit (NTSU) as well as state TSUs have been established to provide technical support on key aspects of the TI programme, by visiting interventions on ground. The TSU oversee the implementation of TI in respective state along with the SACS. They follow the NACP-III guidelines and facilitate its implementation along with the partner organisations. The TSU also facilitate

the designing, planning, implementation and monitoring of TI in the states and provide management and technical support to the SACS.

Supportive Supervision and Monitoring: A strong component of monitoring and evaluation has been built in as an integral part of the TI in order to capture the progress, of the project and gain feedback on its efficiency and effectiveness. Thus, there is now a regional structure to mentor the TI. To improve supervision and ensure quality monitoring of TI, Programme Officers (PO) at the ratio of one PO: 10 TIs were appointed in each TSU and non TSU states.

Out of a total 123 slots available, 101 PO have been appointed 91 of them have been trained in five batches during August, September and December 2009. From September to November, 2009 the POs have completed 1,066 supportive visits to the TI to streamline the line-listing of the HRG and strengthen the outreach services. 75 POs of 15 TSUs have done 582 qualitative assessments of TI for the quarter October-December, 2009 and have developed roadmaps to deliver quality services to the HRG population.

Annual Evaluations and Performance Deliverables: Specific deliverables are part of contracts to ensure that NGO meet their targets both in quantity and quality. The types of deliverables are determined by the age of the project, and are now a focal point for monitoring visits and annual reviews.

An independent annual evaluation of the NGO TI is done by an inbuilt mechanism to check the

Table 3.3: Distribution of TI projects by typology and coverage

Type of intervention	Estimated population	Coverage (%)	No. of TIs (Jan. 2010)
FSW	1,263,000	6,74,000 (53.1)	437
MSM	3,51,000	2,75,000 (78)	132
IDU	1,86,000	1,38,000 (74)	230
Core composite *	-	-	220
Migrants	84,00,000	18,00,000 (21.4)	204
Truckers	24,00,000	16,00,000 (66.6)	67
Total			1,290

* Core composite TIs are a mix of FSW, IDU, and MSM, or FSW with MSM, or FSW with IDU, or MSM with IDU.

Table 3.4: Categorisation of truckers mapping data

Category of TSL	Definition (No. of Unique Truckers per month)	Mapping result	
		No. of TSLs	Remarks
High	More than 30,000	22	70% are in Andhra Pradesh, Uttar Pradesh and Mumbai
Medium	10,000 - 30,000	37	Major states: Goa, Punjab, Rajasthan
Low	Less than 10,000	64	

progress of the TI, identify gaps for strengthening and further support. This is a standard evaluation tool and manual to ensure uniformity and is used by trained external consultants. Team leaders for each evaluation team are trained directly by NACO at various region training centres throughout the country.

The extension of contracts with NGOs is based on the recommendations of evaluations. In the year 2009-10, 1,058 TI were evaluated, of which 65 were disqualified. Earlier, the term for a contract was 12 months. However, based on the recommendations of Mid-Term Review of NACP-III, the National AIDS Control Board (NACB) decided at its meeting held on 23rd December 2009, that the contracting will be for a period of 24 months with evaluation conducted in 21st or 22nd month.

The Community-based Organisations (CBOs) evaluation has been completed in all the states and the reports for 50 have been received. Of the 50, two have been terminated, 33 have been recommended for continuation as CBO led TI and the rest 15 have been recommended as NGOs.

The evaluation reports of the TI as well as CBOs have been analysed, and feedback to respective states given. Debriefing exercises have been conducted in the states with team leaders of the evaluation and SACS TI officer to identify gaps in the TI, and develop plans for addressing them. The key performance of the TIs shown in Fig 3.4.

Reaching out to the unreachable: Under the aegis of NACO, the SACS are implementing 1,290 TI projects (Table 3.5). Another 161 TI more were planned for the year 2009-10. The population-wise distribution of TI projects and their coverage are shown in Table 3.3.

Apart from NACO supported TI, donors, including the USAID and the Bill and Melinda Gates Foundation, implement approximately 200 HRG TI

in the country. They work in the six high prevalence states (Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland and Tamil Nadu), where USAID supports interventions with migrants, and the BMGF supports interventions with truckers and male clients of sex workers.

As part of the BMGF transitioning plan, 17 TIs have been transferred to the SACS according to their location (in Andhra Pradesh, Mumbai, Karnataka and Tamil Nadu). As a result, 225 TI are now being implemented from donor partners. As per this transition plan, 10 percent of the high risk population have been transitioned 20 percent will be transitioned in 2011, while the remaining 70 percent will be transitioned by the end of NACP-III in 2012. Before the transfer, these TI were evaluated by an external group of consultants to assess the status of programmes in these them. This also provided a baseline for monitoring further progress. The donor funded TI have now been aligned to follow the costing guidelines laid down by NACO.

Mapping of High Risk Groups and Migrants

In order to have evidence based strategy to ensure saturation of coverage of HRG and bridge population, NACO has conducted mapping in all

Fig 3.6: Reaching out to unreachable - Project staff performing street play in a truckers' intervention site



Fig 3.7: Interpersonal communication session at a truckers' intervention site



the major states in the country with the active participation of trained HRG consultants.

Mapping in 17 states has been completed by external agencies, and validation of the data has been done by the International Institute for Population Sciences, Mumbai. Mapping is in progress in four other states. This data is now available for scale up plan of concerned states for the next year.

A mapping exercise of the Truckers at Trans Shipment Locations (TSL) and Ports was also undertaken during July - Aug 2008. The mapping was conducted by Indian Market Research Bureau at 122 TSL and six Ports. Salient findings are as follows:

The 122 TSL mapped have been categorised on the basis of unique trucker traffic as High, Medium and Low priority TSL (Table 3.4). Six ports (Visakhapatnam, New Mangalore, Paradeep, Mormugao, Tuticorin and Cochin) were short-listed in consultation with NACO. An estimated 1,32,391 unique truckers enter these ports every month. Vishakhapatnam attracts an estimated 47,376 truckers every month, followed by Tuticorin with an estimated 22,535 truckers.

Revision in TI Costing Guideline: NACO has revised the costing guideline for TI to get a uniform pattern of budgeting. These costing guidelines have been redesigned to suit the NACP-III strategy and meant for target population numbering 400, 600, and 800 and above. Many changes have been made like the provision of Monitoring and Evaluation officers for the TI above 800 populations, Drop-in Centre

Fig 3.8: Clinic service in a Truckers project



and office of TI combined incentive for Peer Educators for bringing HRG for Anti-Retroviral Therapy (ART) and provision of travel for each programme staff along with some revision in the salary.

STI Training: Preferred Private Provider (PPP) model of STI management has been rolled out across India. All the programme managers of TI are trained on this model to strengthen the TI (with the support of Sexually Transmitted Infection division in NACO). All the local STI care providers are being trained in TI by master trainers.

Ensure Condom Availability: To ensure the accessibility and availability of condoms with all TI, NACO has established a support unit for its social marketing. The TI are closely working with NACO to ensure the availability of condoms round the clock. The Technical Support Group for condom is working with condom managers placed at each state.

Migrants Interventions: Behavioural Surveillance Survey (BSS)-2008 indicates an impact of migration contributing HIV epidemic in Uttar Pradesh, Bihar, and some districts of Orissa and West Bengal. As there is a need for stronger and focussed intervention both at source and destination districts, NACO has planned to design interventions targeting high risk behaviour. The migrant interventions will address unmet needs of returnee migrants, their spouses, and the potential ones at source through linking up existing services of Integrated Child Development Services (ICDS), *Rashtriya Swasthya Bima Yojana* and HIV related healthcare. Intensification of

Table 3.5: Distribution of Targeted Interventions by state and typology (as on January 2010)

State/UT	No. of Targeted Intervention NGOs						
	FSW	MSM	IDU	Migrants	Truckers	Core Composite	Total
Ahmedabad*	2	2	1	9			14
Andhra Pradesh	31	9	5	15	7	3	70
Arunachal Pradesh	6	0	3	6	0	6	21
Assam	36	4	9	6	3		58
Bihar	7		5			13	25
Chhattisgarh	13	0	1	6		3	23
Goa	6	3	2	5	2	1	19
Gujarat	16	14	2	14	6	42	94
Haryana	10	2	3	9		7	31
Himachal Pradesh	6	0	1	7	0	7	21
Jharkhand	24	3	2		2		31
Karnataka	15	8	2	6	1	2	34
Kerala	19	14	8	3	1	8	53
Madhya Pradesh	24	8	5	2		26	65
Maharashtra	24	1	2	14	4	0	45
Manipur	5	2	42	3	2	0	54
Meghalaya	4		3	1	1		9
Mizoram	2	1	24	7	7	0	41
Mumbai*	13	6	3	17	2		41
Nagaland		2	28	1	1	7	39
Orissa	15	4	7	15	2	24	67
Punjab	6	0	11	3	2	9	31
Rajasthan	29	3	3	9	5	6	55
Sikkim	2		2	2			6
Tamil Nadu	21	15	7	6	4		53
Tripura	6	0	1	9	0	2	18
Uttar Pradesh	14	8	16	6	3	45	92
Uttarakhand	9	1	4	4		6	24
J & K	4	1	1				6
West Bengal	32	4	11	7	9		63
A & N Islands							
Chandigarh	4	2	2	4	0	1	13
D & N Haveli				2	1		3
Daman & Diu				2	1		3
Delhi	35	15	14	3	1		68
Lakshdweep							
Puducherry						1	1
	437	132	230	204	67	220	1,290

* Municipal Corporation

interventions at destination through engaging management structures, informal networks of labourers, contractors, is also undertaken.

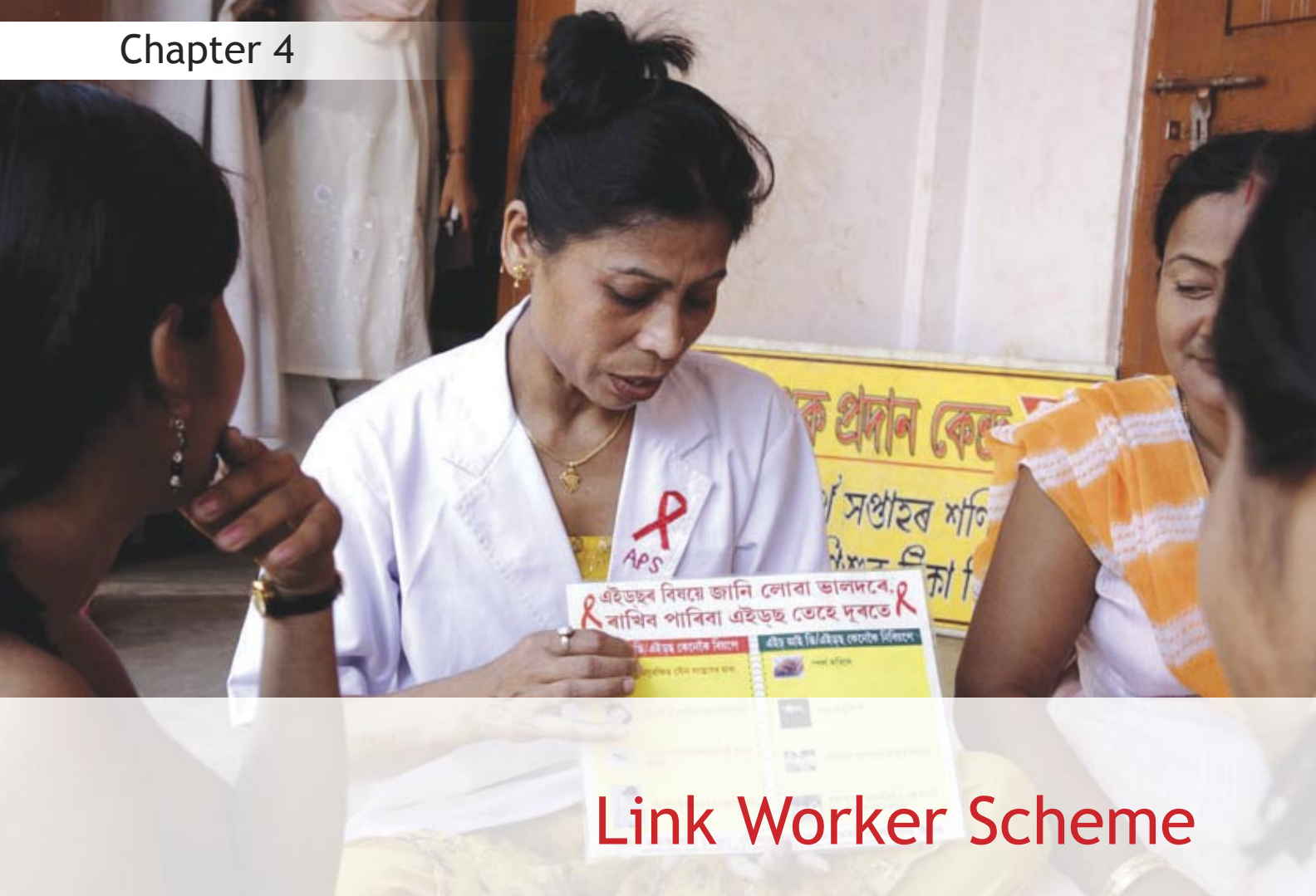
Currently, there are 206 SACS-funded migrant interventions working with 19.26 lakh migrants in 32 States. The sectors include industries, agriculture and transport in the majority. Besides this, there are 26 interventions funded by USAID in Maharashtra and Tamil Nadu.

Truckers Interventions: Currently there are 45 Trucker interventions managed by SACS and 15 managed by the TCI Foundation funded by Avahan. These interventions are targeting 14.2 lakh truckers to provide STI healthcare services, risk reduction counseling, and condoms. Besides this, there are 51 locations where condom social marketing initiatives have been implemented to promote risk reduction, as these areas either do not have considerable captive population, or the exposure to interventions is very limited.

The Truckers Technical Support Group monitors and supports the quality of interventions in all 60 sites. The Behaviour Change Communication (BCC) materials, training kits and micro plan have been revised for each site to suit the local needs for maximising the impact of interventions.

IDU and OST Intervention: Fifty one OST Centres have been contracted after accreditation by an independent body, the National Accreditation Board for Health Providers (NABH). These accredited centres have been contracted by the concerned SACS to implement OST.

IDU Training Module Developed: Guidelines for waste disposal for IDU TI have been printed and distributed to all states. A film on this subject has also been made widely available. Harm reduction training module has also been developed and, based on this, training will be rolled out shortly.



Link Worker Scheme

Under NACP-III, the Link Worker Scheme (LWS) was launched to saturate the reach of the HIV related services to the high risk groups vulnerable population based in the rural areas. It has been estimated based on HSS 2007, that 57 percent of the HIV positive persons in India were living in rural areas (2007). This reinforced the requirement of an intensive rural-based intervention (Fig 4.1) for reaching the marginalised groups which remain uncovered even after the expansion of urban based prevention programmes.

In order to achieve the NACP-III goal of halting and reversing the epidemic, the Link Worker Scheme was formulated for the rural areas of 187 highly vulnerable districts of the country. This short term scheme aims at capacitating the rural community and equipping them with HIV-related knowledge to combat the epidemic. At present, the scheme is being implemented in 126 districts with support from GFATM, UNDP,

UNICEF and USAID. It is proposed to expand the scheme to another 61 districts with support from GFATM Round VII. The detailed list of states where the scheme is being implemented is shown in Table 4.1.

Fig 4.1: Group discussion by a field worker



Table 4.1: Statewise districts implementing LWS

State	Development Partner					Total
	USAID	UNDP	UNICEF	GFATM		
				Year 1	Year 2	
Andhra Pradesh			3	3	0	6
Bihar		5	3	0	0	8
Chhattisgarh		3		0	0	3
Goa				1	0	1
Gujarat			2	4	0	6
Karnataka	16		4	2	6	28
Kerala				1	0	1
Madhya Pradesh				4	0	4
Maharashtra			5	4	14	23
Manipur				2	0	2
Mizoram				1	0	1
Nagaland				1	0	1
Orissa		6	1			7
Rajasthan		6	1	0	0	7
Tamil Nadu			1	4	10	15
Tripura				1	0	1
Uttar Pradesh		5	3	0	0	8
West Bengal			2	2	0	4
Total	16	25	25	30	30	126

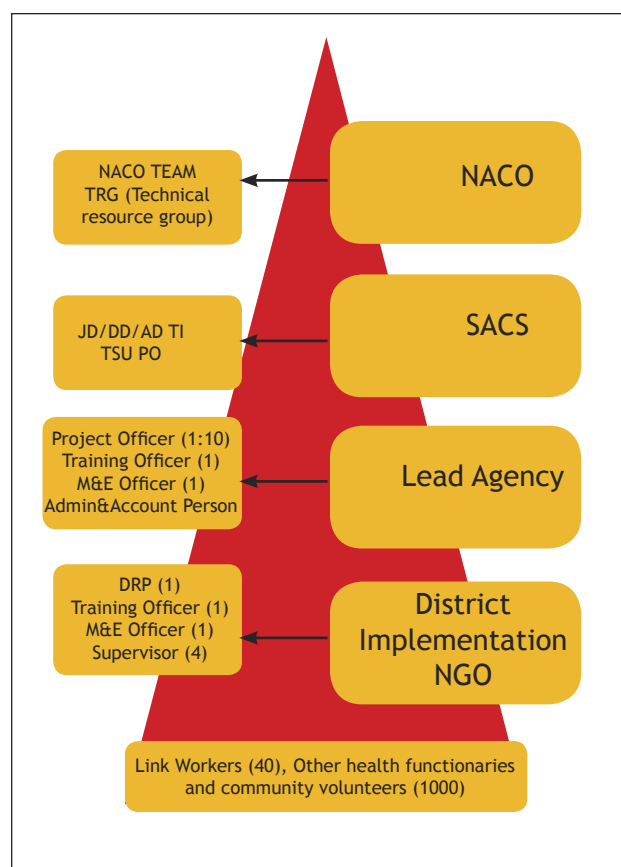
Objective of the Scheme

The LWS aims to address the complex needs of the rural HIV prevention, care and support requirements through:

- Identifying and training, the village level workforce of Supervisors, Link Workers and volunteers on issues of HIV/AIDS, gender, sexuality, STIs and, above all, on mobilising difficult-to-reach, especially vulnerable sub populations including high risk individuals, youth and women.
- Linking the HRG and vulnerable populations to the public health services for STI, ICTC, ART and then their follow-up back to communities (saturation of coverage to HRGs)
- Generating volunteerism among the community for fighting HIV/AIDS and inculcating health values is another cornerstone of this strategy.
- Addressing issues regarding counseling, condoms and behaviour change among youth
- Addressing the issues of stigma and discrimination

Implementation structure (Fig 4.2): The scheme is implemented through NACO/SACS identified lead agencies which, in turn, are responsible

Fig 4.2: Implementation structure of the Link Worker Scheme



for identifying and supporting district level NGOs for carrying out field activities. The LWS is implemented in 100 most vulnerable villages in the identified district, selected on the basis of the estimates received from rural HRG mapping.

Implementation Process: The scheme envisages community participation for identifying the need for addressing issues of HIV/AIDS for their community (Fig 4.3).

Size Estimation of HRG and Vulnerable Population: The implementation of the scheme commences with extensive rural mapping for identifying the 100 most vulnerable villages in the district where the intervention will be rolled out. Through the method of Situational Need Assessment (SNA), the field workers understand the framework of the village and identify and involve the key stakeholders in decision making processes.

Through this approach, the HRGs and the vulnerable population in the village setting are identified. Under the Link Worker Scheme, the estimate of target population as per the mapping of GFATM, UNDP and UNICEF is as follows:

- HRG Population: 1,78,973,
- Vulnerable Population: 31,08,626
- PLHA: 42,316.

Based on the location and the community networks, the service delivery points for the scheme are established. Also, during the process of mapping and other surveys, the active community members are identified as potential link workers

Fig 4.3: Involving communities in decision making



and volunteers. These link workers, with the help of other health/government functionaries/field workers, conduct rapport building activities with the community.

Human Resources and Capacity Building: For the implementation of the scheme, nine lead agencies were identified under GFATM, three under UNDP. Under the Phase I of LWS (2008-10), all the positions are filled at district level (DRP-2, M&E Officer-1, Supervisors-4 and Link Workers-40).

The scheme provides special focus in developing the capacity of field staff and volunteers in addition to the project staff of lead and district NGO. Under the Operational Guidelines, four modular trainings are devised for the district and field staff. Every modular training is for 6-7 days depending on the category.

District Level: As on date, there are 150 District Resource Persons, 361 Supervisors and 53 M & E Officers implementing the scheme at the district level. The training of the district staff was provided by lead agencies.

Field Level: The Link Workers are identified through a workshop mode training which is organised for village youth. During this workshop, orientation towards HIV/AIDS and LWS is provided. The database of the most active participants who have the potential of representing their villages/community is prepared at the end of the workshop. Out of this database, gradually the link workers are appointed in the identified villages. At present, there is a workforce of 2,747 Link Workers in the villages.

Fig 4.4: Involving communities to map, survey and build rapport



During the entry level activities in the villages, the key stakeholders, youth groups, SHG members and other active members of village are identified and involved as volunteers (Fig 4.4). They are further oriented towards HIV/AIDS through Training Officer and other team members. These volunteers other than being peer educators also play a key role in establishing Red Ribbon Clubs, condom depots and in community mobilisation. Currently, there are 33,305 volunteers in the field, who have been imparted HIV related knowledge and will make the scheme sustainable beyond the timeframe and scope of the scheme.

Service Delivery

Coverage & Outreach: After the initial rapport building and mapping, the Link Worker and district staff start outreach to HRG and vulnerable population with HIV related information and services. The coverage present is shown in Table 4.2.

Table 4.2: Population covered under the Link Worker Scheme during 2009-10 (till December 2009)

Category	Coverage
HRG Population	34,781
Vulnerable Population (including bridge population)	5,06,471
PLHA	6,663

ICTC Services: Through mid-media and one to one counseling the information on the vulnerability to HIV/AIDS is provided to the targeted population, i.e., HRG, spouses of long term/seasonal migrants and truckers, unskilled labourers and youth. Following the counseling at the peer level, i.e., through male and female link workers and volunteers, the referrals to the ICTC is made. In remotely placed villages, testing facility is provided through mobile ICTCs and health camps. The cumulative ICTC referrals are 88,054 till December 2009, out of which 42,833 have been tested for HIV.

STI Services: Under the LWS, ensuring that HRG and vulnerable population with STI symptoms are seeking services from qualified healthcare provider is one of the key service indicators. The district and field teams do regular referrals to district hospitals and PHCs. Also, regular

follow up of the referrals is provided. In some cases, accompanied referrals are also done by field team. Also the strategy of health camps, for addressing the issues of reported STI, is undertaken by the district NGOs. During 2009-10, the number of referrals to STI services through LWS was 18,048, out of which 9,768 cases have been tested/treated.

Community Level Activities: The scheme aims to bring sustainability to the prevention programme by involving youth of the village in understanding and fighting HIV/AIDS. For involving the young man and woman of the villages, red ribbon clubs are formed. These red ribbon clubs along with disseminating information of HIV & AIDS among peers, also aims at developing enabling environment for discussing and addressing issues regarding sexuality, family planning, STIs and empowerment (Fig 4.5). The district NGOs with red ribbon clubs conducts various innovative activities like sports competitions, talent shows, e.g., local painting. There are 1,553 RRC under the scheme till 31 December, 2009.

Also, for increasing the visibility and promoting convergence of the scheme with other Health/ Government programmes the information centres are established at every village where LWS is functioning (Fig 4.6). These information centres vary from where all the information is pasted, on to the library where detailed information on various government programmes is available. The local volunteers and Red Ribbon Club members run these information centres with support from district teams. At present there are 1,951 such centres at the village level.

Fig 4.5: Activity being conducted by Red Ribbon Club Members



Fig 4.6: Village information centre



The scheme also aims at ensuring availability and accessibility of condoms through village based condom depots. These condom depots are established at local grocery shops, house of volunteers/link workers, and other easily accessible places. The free condom distribution also takes place through link workers during their visits. For further strengthening the system collaboration for promoting social marketing condoms is in process. As on 31 December 2009, there are 6,222 such condom depots.

Mid-Media Activities: The mid-media component under the LWS is a key strategy for entering the community and for ensuring acceptance of the

Fig 4.7: Reaching communities through mid-media campaigns



link workers in the villages. For conducting mid-media activities local folk groups, youth groups (including RRC), local artists and cultural troops are involved (Fig 4.7). These groups perform as per the thematic requirements of the scheme. Also, the mid-media activities are conducted along with health camps for increasing the participation.

Through mid-media issues of stigma and discrimination, health, woman empowerment are also addressed.

Costing: The annual unit cost for implementing the scheme in a district is Rs.33.8 lakh and the annual cost of the lead agency is Rs.20.7 lakh.



Management of Sexually Transmitted Infections/ Reproductive Tract Infections

Provision of Sexually Transmitted Infection (STI)/ Reproductive Tract Infection (RTI) services is aimed at preventing HIV transmission and promoting sexual and reproductive health under the NACP-III) and Reproductive and Child Health (RCH-II) of the National Rural Health Mission (NRHM). Enhanced Syndromic Case Management (ESCM) with minimal

laboratory tests, is the cornerstone of STI/RTI management under NACP-III.

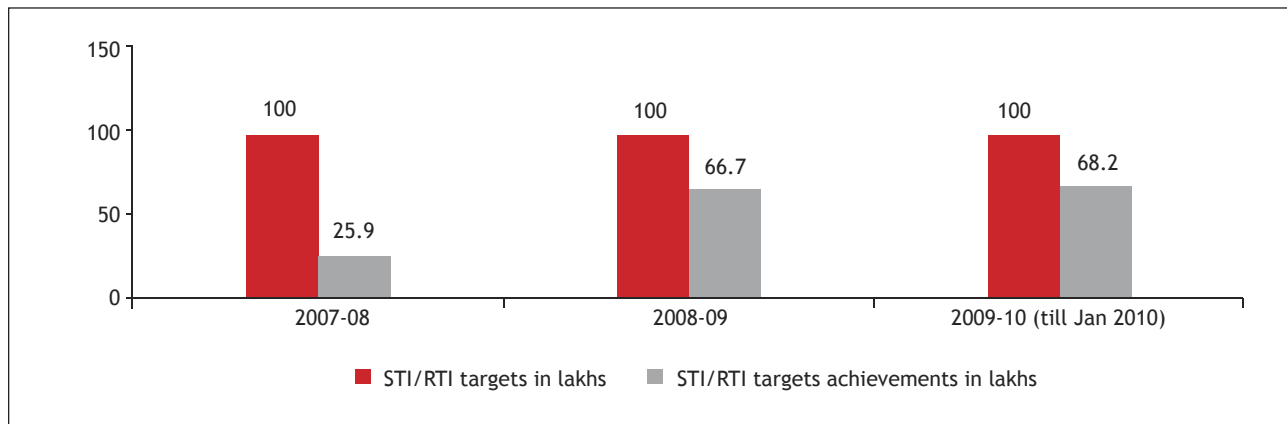
An estimated three crore episodes of STI/RTI occur every year in the country. The NACP-III target is to reach 1.5 crore episodes annually with quality services. The details of the physical targets and

Table 5.1: Target vs achievement of STI/RTI episodes (year-wise)

	2007-08	2008-09	2009-10 (till January 10)
Physical Target of no. of STI/RTI episodes	100 lakh	100 lakh	100 lakh
Target achievement	25.9 lakh	66.7 lakh	68.2 lakh
Percentage	25.9%	66.7%	68.2%

* No NRHM Data available for FY 2007-08

Fig 5.1: Target vs achievement of STI/RTI episodes (year-wise)



* No NRHM data available for FY 2007-08

achievements of NACP-III till January 2010 are shown in Table 5.1/ Fig 5.1.

Progress of STI/RTI services under NACP-III

Expansion of Service Provision in Public Sector

NACP-III has a mandate to strengthen all public health facilities at and above district level as designated STI/RTI clinics, with the aim to have at least one NACO supported clinic per district. There are 37 Deputy Directors and Assistant Directors (STI) in various SACS to monitor and facilitate the programme implementation at state level

- Presently, NACO is supporting 916 designated STI/RTI clinics which are providing STI/RTI services based on the enhanced syndromic case management.
- NACO has strengthened seven regional STI training, reference and research centres. The role of the centre is to provide etiologic diagnosis to the STI/RTI cases, validate

syndromic diagnosis, monitor drug resistance to gonococci, and implement Syphilis EQAS. These centres provide training to various state reference laboratories to carry out etiologic diagnosis. Safdarjung Hospital acts as the Apex Centre for the country.

Infrastructure strengthening of designated STI clinics (Fig. 5.3)

The infrastructure and facilities in designated STI/RTI clinics have been strengthened by ensuring audiovisual privacy for consultation and examination and one computer is provided to each of these clinic for data management.

Appointment of Counselors at Designated STI Clinic

Counseling of STI/RTI patients, forms an integral part of the service. To strengthen the counseling and behaviour change amongst the STI/RTI patients, one counselor is provided to each of these designated clinic. Till December 2009, 776 counselors have been positioned. Training material,

Fig 5.2: View of designated STI/RTI clinic



curriculum and job aids, including posters, flip book (Fig 5.3) and a film on counseling have been developed by NACO. A Trainers Workshop was organised in Tata Institute Social Sciences (TISS) Mumbai in the first week of December 2009. Training for STI counselors has now been rolled out and is continuing in 18 identified institutes.

Branding of STI Clinics and the National Communication Strategy on STI/RTI Service Delivery: NACO has branded the STI/RTI services as “Suraksha Clinic” (Fig 5.4) and has developed a communication strategy for generating demand for these services. The brand is being launched in March 2010 with mass media and mid-media activities.

Capacity Building Training (skill building) to STI/RTI Service Providers: NACO has trained a cadre of 45 national and 587 state resource faculties across all states during 2007-08. All faculty members were trained using the same training material, following adult learning methods, and in a cascade model. The state resource faculties, in turn, conducted training of STI/RTI clinic staff in the public sector. The state and regional resource faculties have trained a total of 2,224 persons in 2008-09, and 6,315 persons in 2009 - 10. The details are in Table 5.2.

Training of doctors working at NRHM health facilities is also being carried out using a

Fig 5.3: STI/RTI job aids (flip charts and posters)

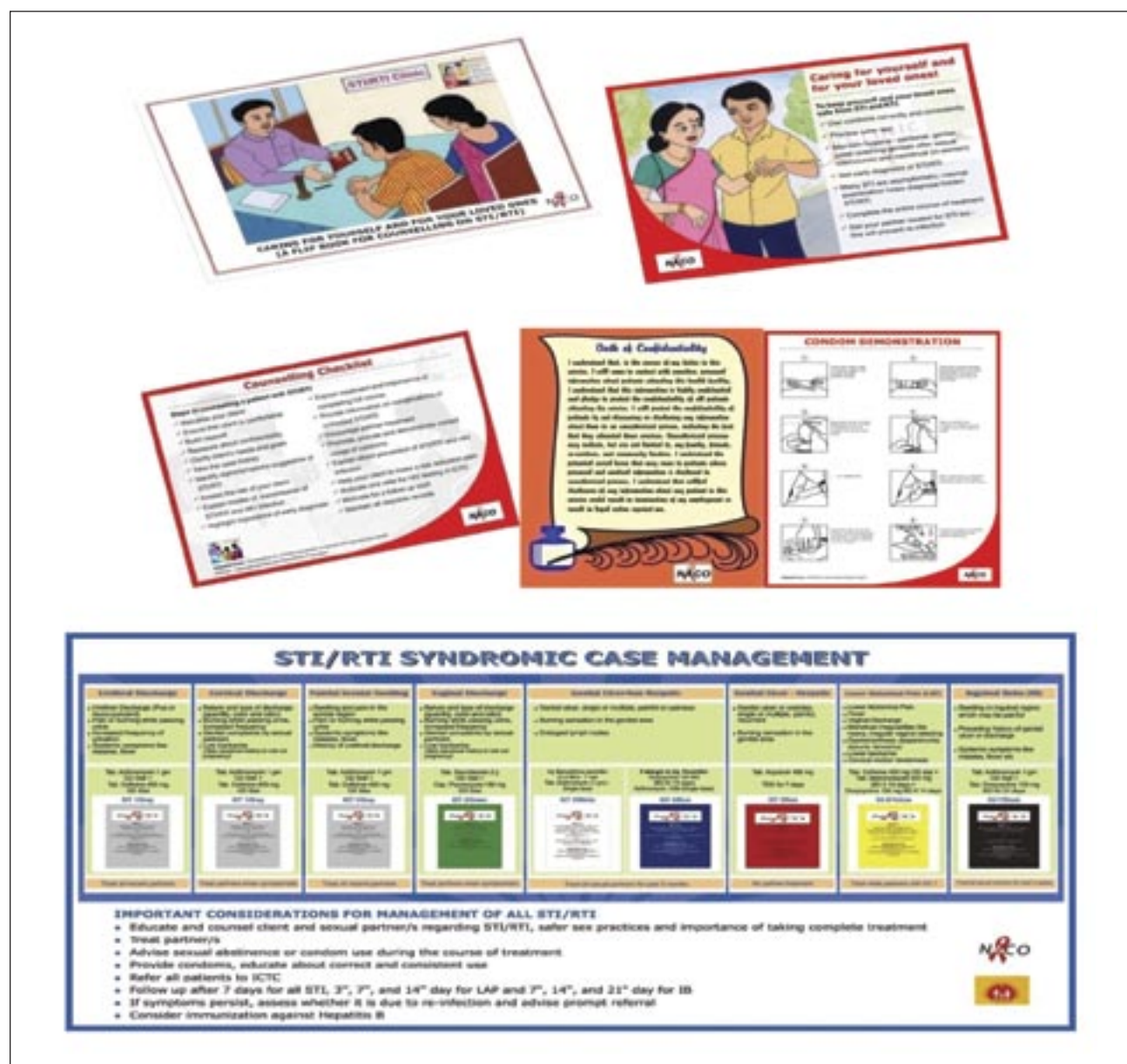


Fig 5.4: STI/RTI brand logo



common curriculum, by involving state and regional resource faculty trained by NACO (Fig 5.5).

Besides this, training institutes have been identified in every state to institutionalise STI/RTI related training for various cadres of staff.

Collaboration with NRHM: The physical targets of treating STI/RTI are distributed between NACO for designated clinic and NRHM for sub-district health facilities. The highest level convergence has been strengthened through constitution of a joint working group at national level. National

Fig 5.5: Training session in progress



Fig 5.6: STI/RTI colour coded drug kits



technical guidelines and training modules for medical officers and paramedical staff for STI/RTI services have been developed jointly. NACO has also completed joint procurement of STI/RTI colour coded drug kits for designated clinics and sub-district health facilities. States are now strengthening coordination for providing

Table 5.2: Progress in training of healthcare providers

	2008 - 09	2009-10 (till February 2010)
STI Clinic Doctors	1,172	1,518
STI Clinic Paramedical staff	852	831
Preferred Private Providers	-	3,535
STI Counselor	200	431
Total	2,224	6,315

STI/RTI services at the sub district level. A Joint training plan is being developed; trained resources at state, regional and district levels will provide quality training to medical and paramedical staff at all service sites. Data on STI/RTI from designated and sub district health facilities is being collated at NACO and monitored periodically.

Pre-packed STI/RTI Colour Coded Kits: Pre-packed colour coded STI/RTI kits have been provided for free supply at all designated STI/RTI clinics (Fig. 5.6). NACO obtained permission from Drug Controller General of India (DCGI) for kitting STI/RTI drug kits. These kits are being procured centrally and dispatched to all SACS. A total of 20 lakh drug kits



till 2008-09, and 90 lakh kits for NACO and NRHM in 2009-10 have been procured so far.

Public Private Partnership

Preferred Private Provider (PPP) Scheme to Provide STI/RTI Services to HRG Population under TI Projects

The provision of a standardised package of STI/RTI services to High Risk Group (HRG) population is an important component of the Targeted Intervention projects. HRG population receive free consultation and treatment for their symptomatic STI complaints, quarterly medical check-up, asymptomatic treatment and biannual syphilis screening. In order to improve the service utilisation HRG preferred providers were selected. The preferred private provider approach has been launched in FY 2009-0. Under this scheme, HRG receive free STI/RTI treatment and the providers receive a token fee of Rs. 50 for consultation.

A series of two day workshops was conducted from June to September 2009 in all states to orient the SACS, Technical Support Unit (TSU), State Training and Resource Centre (STRC) and TI NGO on the PPP approach. 1,184 TI NGO participated and a total of 3,037 participants were oriented and trained on the approach. Based on the workshop inputs, 5,744 PPP have been identified for the delivery of services, majority of them have been trained using a standardised curriculum on syndromic case management. Essential STI/RTI drugs have also been made available to these providers, and data collection tools provided to them. Service delivery has started in states of Kerala, Chandigarh, Gujarat, West Bengal, Uttar Pradesh, Rajasthan, Chhattisgarh, Maharashtra, Haryana, Goa and Delhi.

Mid-Term Review (MTR) of STI/RTI Programme: A review of STI/RTI services was carried out by during August-October 2009, with the objectives to collect evidence on the STI/RTI magnitude

and trends in different population groups, so as to make realistic targets; document changes in trends in epidemiological profile of cases and population group and to recommend mid course corrections for target setting and strategic plans; and evolve further operations research questions.

The process consisted of desk reviews of Indian literature published and unpublished since 2000, field visits to review implementation of TI-STI services in six states, and analysis of data from the Computerised Monitoring and Information System (CMIS).

The key observations include:

- Targets set by the programme remains the same.
- High prevalence of STI/RTI cases amongst the HRG population.
- Decreasing syphilis among ANC attendees
- Some geographic areas have higher STI prevalence.
- Cephalosporins are still effective in the treatment of gonorrhoea.
- Majority of clinical staff have been trained in syndromic case management.

The MTR offered the following recommendations:

- Build capacity of TI for STI service delivery to HRG
- Establish systems for supportive supervision
- Strengthen implementation of 100 percent syphilis screening in ANC and STI clinic/HRG
- Strengthen sentinel surveillance of STI and capacities in the STI regional resource centres to undertake Operation Research, strengthen labs and promote STI drug resistance monitoring

NACO proposes to incorporate these recommendations in implementing STI/RTI programme during the next two and half years of NACP-III.



Information, Education and Communication

Information, Education and Communication (IEC) cuts across all programme components of NACP-III. There has been a strategic shift in IEC strategy during NACP-III with the focus moving on to behaviour change communication from just awareness creation. The key priorities of NACP-III communication strategy are to:

- Motivate behaviour change in a cross-section of identified populations at risk, including the High Risk Groups and Bridge Populations;
- Raise awareness levels about risk and the need for behaviour change among the vulnerable and general population, specially youth and women;
- Generate demand and increase utilisation of HIV/AIDS related health services; and
- Create an enabling environment that encourages HIV related prevention, care and support activities and reduces stigma and discrimination at individual, community and institutional levels

Regular campaigns are conducted on mass media, i.e., TV, Radio and Print, supported by outdoor activities through hoardings, bus panels, information kiosks etc, mid-media including folk theatre and IEC exhibition vans and inter-personal communication such as training of Self Help Groups, Anganwadi workers, ANM, ASHA, members of Panchayati Raj Institutions, government officials, NGOs/CBOs and Corporate sector.

Red Ribbon Express Project

Building upon the success of the first phase of the Red Ribbon Express project (2007-08), NACO launched the second phase of the project on 1 December, 2009 to commemorate the World AIDS Day. The specially designed eight coach exhibition train was flagged off from Delhi Safdarjung station by Hon'ble Chairperson, Rajiv Gandhi Foundation and Chairperson, United Progressive Alliance, Smt. Sonia Gandhi. During its year long journey, the RRE will travel across 22 states, covering 152 halt stations.

Fig 6.1: Smt. Sonia Gandhi, UPA Chairperson and Chairperson of the Rajiv Gandhi Foundation, flagging off the Red Ribbon Express (Left) and reviewing multimedia facilities in the exhibition coach (Right) in the presence of Hon'ble Union Ministers of Health & Family Welfare and Railways, Hon'ble Chief Minister of Delhi, and Ministers of State for Health & Family Welfare and Railways at Safdurjung Railway Station on 1 December 2009



This time, the National Rural Health Mission has also come on board with NACO. Apart from three exhibition coaches with exhibits on HIV/AIDS, the fourth exhibition coach is on NRHM with exhibits on H1N1, Tuberculosis, Malaria, Reproductive and Child Health services, general health and hygiene. There is one coach for counseling and another one for conducting trainings of district level resource persons such as members of Panchayati Raj Institutions, Self Help Groups, government officials, health workers, youth organisations, teachers, defence and police personnel.

During the second phase of the project, services for HIV testing, treatment of STI and general

health check-up are also being provided at the halt stations. Mobile health units have also been deployed at many halt stations. IEC exhibition vans and folk troupes have been deployed to carry messages into rural areas, particularly to reach out to those who are not able to come to the railway stations.

The daily coverage is monitored through a monitoring agency. The inbuilt evaluation system has been put in place through an external agency for assessing the impact of the project.

The response to the RRE is overwhelming with thousands of people visiting the train exhibition everyday at the train halt stations. Moreover, political leaders including Ministers, Members of Parliament and MLAs are actively participating in the project by mobilising the people to the train at local level and attending the functions at the halt stations.

Fig 6.2: Smt Sonia Gandhi listening to the IEC message



Multi-media Campaign in the Northeast: Special multi-media campaigns aimed at educating youth on HIV and promoting safe behavioural practices were conducted in the states of Manipur, Nagaland and Mizoram. The campaign designs included engaging youth in development and dissemination of HIV messages through music concerts and soccer tournaments which are very popular in the Northeast. Messages were developed and disseminated by youth themselves. The campaigns focused on increasing risk perception

The Red Ribbon Express (RRE) is the world's largest mass mobilisation drive on HIV/AIDS. The train will travel through 22 states, during its one year long journey, halting at 152 stations. Through the RRE, NACO, intends to break the silence surrounding the issue of HIV/AIDS, by taking the messages on prevention, care and support to people living in small towns and villages across the country. The aim is also to create an environment, free from stigma and discrimination faced by people living with HIV, so they can access the services, without fear and prejudice, and live a life of dignity. It has proved to be a successful multi-sectoral initiative, of the NACO and a powerful advocacy tool, both at the state and district level, besides enhancing local capacity to deal with HIV prevention.

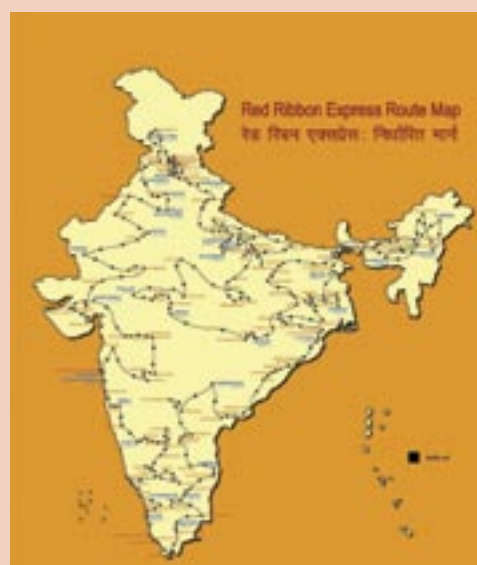


Table 6.1: The highlights of RRE-II coverage (till 11 March, 2010)

State	Date	Halt stations	Halt days	Persons directly reached (in lakh)	Persons trained	Persons counseled	Persons tested for HIV
Delhi	1.12.2009	8	17	1.29	3,665	2,409	1,000
Rajasthan	2.12.2009 to 19.12.2009						
Gujarat	20.12.2009 to 3.1.2010	6	13	6.03	3,810	2,317	1,453
Maharashtra	4.01.2010 to 1.2.2010	13	26	1.27	5,680	9,027	4,153
Karnataka	2.2.2010 to 22.2.2010	11	19	1.80	5,741	3,658	3,183
Kerala	23.2.2010 to 11.3.2010	9	17	1.42	3,559	2,173	855
Total		47	92	11.81	22,455	19,584	10,644

It includes visitors to train exhibition and those reached through outreach activities

about injecting drug use and unprotected sex, reducing stigma and discrimination associated attached to HIV/AIDS and promoting HIV related services. The music competitions and football tournaments organised at district level culminated in the state level mega events, which saw huge youth participation.

Faith based organisations were also sensitised and involved in the campaign. A special effort was made to reach out to the out-of-school youth in the states through training of youth clubs at district, block and village levels. The winners of the music competitions positioned as "youth icons" are further reaching out with messages on HIV/AIDS to the community through road shows at village/block level in their respective districts.

Radio programmes: Three radio programmes in Hindi - "Babli Boli", "5 Down Mohabbat Express" and "Kitne Door, Kitne Pass" were launched by NACO, targeting rural women, rural youth and urban migrants respectively. The programmes were aired for six months from September, 2009 to March, 2010. The duration of the each episode was half an hour and two episodes of each programme were aired every week. The programmes were linked to the ground mobilisation in 21 vulnerable districts, in the states of UP, Bihar, Rajasthan, MP and Delhi through 100 Radio Listener Clubs formed in each of these districts. The radio clubs promoted not only listenership of the programmes, but also helped in further dissemination of messages in the communities. The SACS also produce and air

Fig 6.3: Rock band competition to choose Red Ribbon Youth Icon



radio programmes on HIV/AIDS in their respective languages.

Television Programmes: NACO sponsored 40 episodes on HIV in the Tele-serial “*Kyonki Jeena Isi ka Naam Hai*” which was telecast on Doordarshan during prime time, three times a week. As per the evaluation of the programme, the recall of HIV messages was very high. In the months of December-January 2009-2010, special episodes on HIV/AIDS in *Kalyani Health Magazine* were telecast on regional networks of Doordarshan in the states of Bihar, Chhattisgarh, Madhya Pradesh, Jharkhand, Rajasthan, Uttar Pradesh, Assam and Orissa. Besides this, the SACS also conducted phone-ins and panel discussions on regional networks of Doordarshan.

Thematic Campaigns: NACO released a series of campaigns on television and radio channels to disseminate prevention messages. These included three phases of campaigns on promotion

of voluntary blood donation, two phases on counseling and testing of HIV, two phases on condom promotion and one phase each on PPTCT and linkages of HIV and TB. A campaign calendar was developed to synchronise the campaign with important days (such as the campaign on voluntary blood donation launched on the occasion of the National Voluntary Blood Donation Day) and align the mass media activities at the national level with the ground level interpersonal communication activities by the SACS.

Special Events: The SACS organised special events to reach out to the people with messages on HIV prevention, treatment, care and support on the occasions of the World AIDS Day, the World Blood Donor Day, the National Voluntary Blood Donation Day, the International Women’s Day, the International Day against Drug Abuse and Illicit Trafficking, and the National Youth Day.

Mid-media and Outdoor: The SACS conducted outreach activities in rural areas through IEC exhibition vans, folk troupes and condom demonstration outlets. In the states through which the Red Ribbon Express passed, these activities were aligned with the RRE project. In addition, hoardings, bus panels, kiosks and information panels were installed by the states to disseminate information on HIV/AIDS.

Materials for Interpersonal Communication: Flip Charts on ICTC, ART, STI services were printed by SACS. General information booklets, brochures, folders and short films were produced by SACS and were made available to the target populations through service centres, fairs, exhibitions and outreach activities such as Red Ribbon Express and IEC vans. The materials specially targeting HRGs have been developed and are under the process of replication and dissemination by the SACS.

Branding of STI Clinic: The branding of STI clinic based service is being done as “*Suraksha Clinics*” so as to increase visibility and promote the values of safety and prevention specially among youth and women.

Adolescence Education Programme: The Adolescence Education Programme (AEP) is a key intervention to build life skills of the young people and help them cope with negative peer pressure, develop positive behaviour, improve sexual health

and prevent HIV infections. Under the programme, sixteen hours' sessions are scheduled during the academic sessions in classes IX and XI.

During 2009-10, 47,000 schools were covered. The programme could not be implemented in some states due to ban/suspension in view of the protest against the tool kit. The new tool kit was sent to the states and is now being adapted by them.

Red Ribbon Clubs in Colleges: Red Ribbon Clubs (RRCs) have been formed in colleges to encourage peer to peer messaging on HIV prevention, and a safe space for young people to seek clarifications on their doubts and myths surrounding HIV/AIDS. Against the target of 6,000 RRCs during 2009-2010, 7,677 RRCs are functional across the country as on January, 2010.

Mainstreaming HIV for a Multi Sectoral Response: In order to facilitate a strong multi-sectoral response to HIV/AIDS, the National Council on AIDS (NCA) headed by the Prime Minister of India was constituted in 2005. As a follow up, State Councils on AIDS have been constituted in 25 States/Union Territories. The aim is to mainstream the HIV/AIDS issue into policies and programmes of Government Ministries/Departments, corporate sector and civil society organisations to make the fight against the epidemic as everyone's agenda.

More than two lakh people have been trained/sensitised on HIV/AIDS issues from different Ministries/Departments, corporate sector and NGOs/CBOs as part of mainstreaming efforts. Some of the noteworthy initiatives are mentioned below:

Tribal Action Plan: Tribal population is one of the priority groups under NACP-III since they face multiple challenges due to low awareness, remote locations and poor access to health services. Thus, in line with the NACP-III recommendation, a special strategy has been developed to work closely with the Tribal Welfare Departments in the states to implement an HIV/AIDS strategy specifically addressing tribal population. Out of the 192 Integrated Tribal Development Projects (ITDPs), 65 are in A and B category districts which are planned to be covered in first phase of intervention. The operational guidelines for Tribal Action Plan were finalised.

The Tribal Action Plan has already been rolled out in 47 ITDP areas in 44 'A' and 'B' category districts across nine states – Andhra Pradesh, Gujarat, Tamil Nadu, West Bengal, Karnataka, Chhattisgarh, Orissa, Rajasthan and Manipur. Apart from these, roll out of the Tribal Action Plan in 21 more ITDP areas in 16 'A' and 'B' category districts across four states – Assam, Madhya Pradesh, Maharashtra and Tripura is on the anvil.

Trainings of Self Help Groups: In order to increase awareness, address stigma and discrimination attached to HIV/AIDS and empower rural women to protect themselves, Women Self Help Groups are being trained on HIV/AIDS issues through a systematic three stepped process involving State Institutes of Rural Development (SIRD) and NGOs. Three trainings of master trainers have been done nationally. These master trainers have taken the process further across fifteen states and 80 districts, and will ultimately reach more than one lakh women.

Stigma and Discrimination: Addressing the issue of stigma and discrimination has been envisaged as a major step to mitigate the impact of HIV/AIDS. Thirteen pilot projects were initiated by NACO across seven states to address the issue of stigma and discrimination. The target communities are mostly PLHA and communities vulnerable to HIV such as MSM, FSWs and IDUs. It also involved key stakeholders like youth, religious leaders, teachers, educational institutions, SHGs and civil society organisations.

National Policy on HIV/AIDS and the World of Work: The World of Work becomes the most suitable platform for mainstreaming HIV/AIDS because more than 90 percent of HIV infections are in the productive age group. With this view, the Government of India has adopted the "National policy on HIV/AIDS and the World of Work", which was developed by the Ministry of Labour and Employment in consultation with NACO. It is broadly based on code of conduct prescribed by the International Labour Organisation and aims to minimise the discrimination against PLHA at places of work. It covers both organised and unorganised sectors and will help generate awareness about HIV/AIDS, encourage action to prevent its spread and further improve and develop the support and

care initiatives at the workplace. The policy aims at preventing transmission of HIV infection amongst workers and their families; protect rights of those who are infected and provide access to available care, support and treatment facilities.

Greater Involvement of People living with HIV/AIDS (GIPA): Involving PLHA to strengthen the national response to HIV prevention, treatment, care and support, addressing stigma and discrimination for overall impact mitigation have been accorded high priority in NACP-III. NACO organised a series of regional workshops followed by a National Consultation Workshop

involving key stakeholders, PLHA networks, donor agencies, activists and other representatives to formulate the GIPA Policy, which is under finalisation.

Drop in Centres

Drop in Centres (DICs) have been set up, with support from NACO primarily in A and B category districts in the country. There are currently 208 DICs in the country managed by PLHA district level networks and NGOs, which provide a platform for psycho-social support to PLHA and linkages to services. At these centres PLHAs are also given counseling on drug adherence and legal issues.

Chapter 7



Condom Promotion

While condom use in India has been promoted since the 1960s under the National Family Planning Programme for prevention of unwanted pregnancies, its promotion received major impetus and significance with the outbreak of HIV. 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.

Through rigorous efforts under NACP-I & II, significant achievements have been made, in terms of availability of condoms and increase in the awareness about condoms use in HIV/AIDS prevention. However, this did not have a significant impact on its use. Given the significant role of condoms in the prevention of STI/HIV infections, the Department of AIDS Control is faced with the challenge of promoting their use for controlling the epidemic.

In view of the stagnant growth in condom use, a well focussed national level condom social

Fig 7.1: Stall at the India International Trade Fair, New Delhi held in November 2009



marketing programme was devised under NACP-III, which is designed, implemented and monitored by Technical Support Group (TSG) comprising experts at national and state levels.

The thrust areas under the programme are to expand the social marketing programmes to saturate coverage in districts characterised by high HIV prevalence and/or high family planning need and to increase the demand for condoms among high risk, bridge and general population. It also works toward minimising the wastage in free supply of condoms and maximising its access the most vulnerable groups.

The desired behavioural outcomes of the 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.

The supply objectives of the social marketing programme are to:

- Increase the retail offtake of social marketed condoms to 200 crores by 2012.
- Increase the number of condom outlets to 30 lakhs by 2012
- Increase the accessibility of condoms to make it available within 15 minutes of walking distance from any location.

NACO Targeted Condom Social Marketing Programme

Condom social marketing programme has been successfully implemented in 194 districts in Phase-I (2008-2009) and has been scaled up to 294 districts in Phase-II (2009-2010). The achievements have been illustrated in Fig 7.2. New initiatives such as

condom vending machines (CVM) programme and female condom (FC) programme have also been initiated to enhance the accessibility of condoms or empower female target group to protect themselves by use of female condom.

Phase-I of the programme (2008-2009) was implemented in 15 states to cover 194 priority districts with high HIV prevalence, high fertility or both. The programme’s main objective was to saturate the coverage of areas with condoms that have generalised spread of HIV/AIDS disease.

In all, four social marketing organisations were contracted to achieve the sales targets of 7,49,53,030 condom pieces and 2,42,354 outlet coverage through various sales and distribution activities. Demand generation activities were also conducted to increase the condom use among target groups. There was special focus on effective coverage at high risk areas, such as TI sites and the truckers intervention areas which were under the realm of the programme districts.

Programme focus on ensuring easy accessibility was indicated by the fact that of the total achievements, 72 percent outlets were non-traditional outlets that facilitated easy accessibility of condoms in far flung areas.

Condom retail offtake trends have been estimated by third party were also found very encouraging. The market which had been stagnant for the last three-four years has started growing (Fig 7.3).

In CSMP Phase-II, the programme has been further scaled up to cover 294 high HIV prevalence, high fertility districts in states. More social

Fig 7.2: Targets and achievements for condom sales from outlet coverage in condom social marketing programme-Phase-I (2008-09)

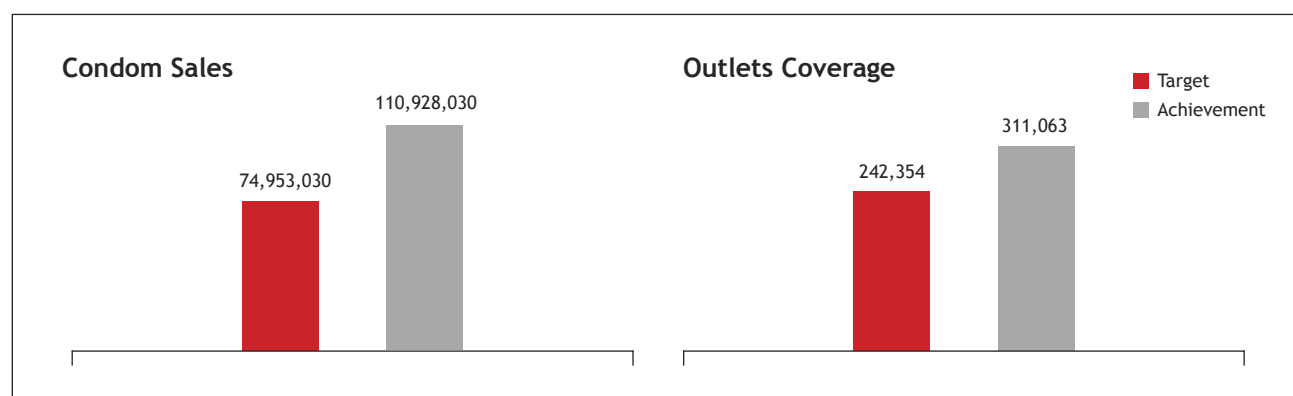
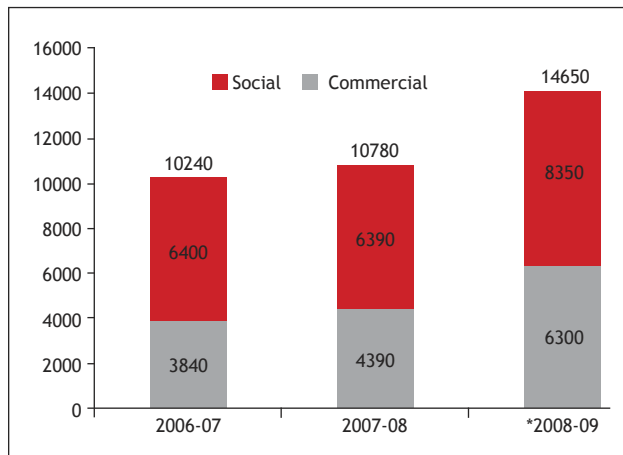


Fig 7.3 Condom retail offtake for four years in social and commercial sector



(Source-ACNielsen ORG-MARG Retail Offtake Report)

marketing organisations were invited and all six SMOs are currently implementing the programme effectively from April 2009 onwards. The programme involves around 900 SMO field staff, 700 stockists and 1,200 stockist salespersons.

The programme targets for the current phase is to achieve sales of 30,69,34,061 condom pieces and to ensure condom coverage at 5,20,879 outlets. Additional emphasis has been laid on increasing rural penetration and creating sustainable nontraditional outlets ensuring easy accessibility. As on January 2010, the implementing agencies have achieved 23,39,42,462 pieces of condom secondary sale (76% of annual targets) and has been able to service 4,64,421 outlets (89% of the annual coverage targets).

The programme focus on saturation of all the high risk areas, i.e., truckers halt points and TI areas, which is evident from the fact that around 360 lakh condom pieces have been sold at outlets

located around these high risk areas till January 2010.

Programme has gone a step ahead to ensure easy accessibility of condoms in all situations by making it available with non conventional shops like petrol pumps, barber-shops, wine-shops, PDS shops, *dhaba*, hotel etc. More than 10,000 such outlets have been opened till January 2010.

In terms of demand generation activities, around 1,90,487 events have been conducted and 4,51,30,625 target populations have been reached till January 2010.

Optimisation of Free Supply of Condoms in order to Ensure Availability and Reduce Wastage

Another key objective of the NACO social marketing programme is to optimise the supply of free condoms to ensure availability to the vulnerable population and minimising the wastage of free condom supply.

By 2011, it is estimated that free condoms will account for only 30 percent of the total condoms marketed in the country and with highest level of public subsidy, will reach the poorest of the poor with minimal wastage.

In this direction, TSG Sate Condom Managers deployed at various SACS are involved in the estimation process of the annual demand for free condoms at SACS, currently they are involved in condom demand estimation for the period of 2010-11 which is still in process. Apart from this, TSG team also ensures proper storage facilities at various SACS.

Fig 7.4: Targets and achievements for condom sales from outlet coverage in condom social marketing programme Phase-II (2009-10)

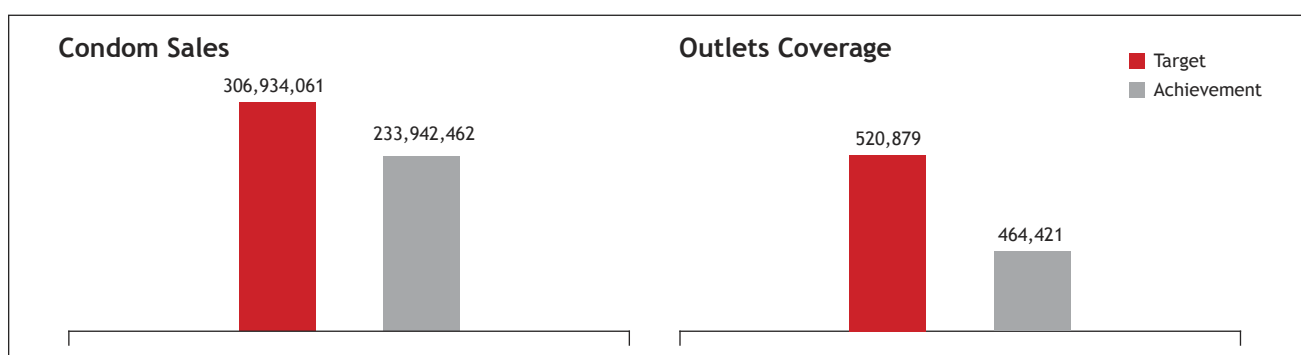


Fig 7.5: Non-traditional outlet stocking social marketing condom



Technical support group also provides support to NACO for efficient supply and monitoring of free condoms through application of scientific approaches of logistics management and monitoring tools.

Other Innovative Programmes to Enhance the Accessibility of Condoms

Condom Vending Machine (CVM) Programme: In order to reduce the consumer's embarrassment of going to shop and asking for condoms and ensuring 24x7 access to condoms, NACO initiated the CVM Programme Phase-II which is being implemented in four big metros and a few large towns of Uttar Pradesh. In Phase-II, nearly 9,000 condom vending machines were strategically placed near high risk activity areas so that condoms can be procured without human interaction. Around six lakh condom pieces have been reportedly sold from 8,770 CVMs placed across Delhi, Mumbai, Chennai, Kolkata, Kanpur, Lucknow and some other towns of Uttar Pradesh.

Female Condom (FC) Scale Up Programme

HLFPPT, with funding from NACO social marketing organisation, is implementing the FC programme in Andhra Pradesh, Tamil Nadu, West Bengal and Maharashtra. It has reached around two lakh FSWs ensuring 100 percent TI NGOs coverage. The programme focuses on capacity building, training and BCC activities for increasing use of female condoms. In addition to this, with funding from UNFPA, PSI is also implementing FC scale up programme in Rajasthan, Bihar, Jharkhand and Orissa. Around six lakh female condoms have been reported as sold till January 2010.

Communication Activities: NACO contracted Social marketing organisations are also conducting communication activities like mid-media, road shows in their respective states among consumers and promotional activities among retailers and suppliers to generate demand for the condoms and strengthening supply side by motivating retailers to stock condoms. On supply side, discussions also occur with retailers and stockists to understand their issues and concerns related to the condom supply and distribution chains.

Condom Normalisation: In the past, strong associations with commercial sex on mass media associated condom usage with promiscuity and further reinforced negative image of users. This has led to some levels of stigma associated with condoms that it is not seen as an acceptable contraception product for family planning in the places of high prevalence of HIV.

Various mid-media demand generation activities are conducted under the programme which is aimed to reduce the consumer's embarrassment to buy a condom from a shop and comfort in carrying or talking about a condom among friends and peers. It is further supported by static mediums like dangler, stockers, posters, wall paintings, etc.

In addition, large scale generic mass media campaign has also been launched to support the on ground activities and boost the condom sales and use in prevention of HIV/AIDS, STI and unwanted pregnancy.

Research & Evaluation Activities

The programme has been supported with various research and monitoring activities at regular intervals in improving the programme strategies and ensuring mid course corrections.

- As part of internal monitoring, regular tracking of free condom supply as per the secondary data available from SACS to TI NGOs and from TI NGOs to Target population is done to ensure continuous flow of free condom supply in the distribution chain.
- SMO sales and coverage reports are also monitored on weekly and monthly basis to identify data inconsistency, also analysis of qualitative reports received from the TSG team of State Marketing Managers (SMMs) placed at various states. This assists

Fig 7.6: BCC activities in Karnataka



the programme team in identifying the low performing areas requiring additional focus.

- The sales and coverage data as reported by SMOs is further validated by an external research agency to assess the SMO performance, the results and feedbacks related to data quality

Fig 7.7: Condom use demonstration at S.G.T. Nagar, Delhi



are shared with SMOs and corrective actions are taken.

- Studies pertinent to condom promotion have also been conducted to identify issues and provide relevant insights and directions to programme implementation.



Blood Safety

The objective of the Blood Safety Programme under NACP-III is to ensure provision of safe and quality blood even to far-flung remote areas of the country in the shortest possible time, by a well-coordinated National Blood Transfusion Service. The specific objective is to ensure reduction in the transfusion associated HIV transmission to less than 0.5 percent.

This is proposed to be achieved through a four-pronged strategy as follows:

- Ensuring regular (repeat) voluntary non-remunerated blood donors constitute the main source of blood supply through phased increase in donor recruitment and retention.
- Establishing blood storage centres in the primary healthcare system for availability of blood in far-flung remote areas.
- Promoting appropriate use of blood, blood components and blood products among the clinicians. Capacity building of staff involved in Blood Transfusion Service through an

organised training programme for various categories of staff.

Current Scenario

Access to safe blood to the needy is the primary responsibility of NACO. Currently, it is supported by a network of 1,103 blood banks, including 130 Blood Component Separation Units (BCSU) and 10 Model Blood Banks. NACO has supported the installation of BCSU and also funded modernisation of all major blood banks at state and district levels. Besides enhancing awareness about the need to access safe blood and blood products, NACO has supported the procurement of equipment, test kits and reagents as well as the recurring expenditure of government blood banks and those run by voluntary/charitable organisations, that were modernised. There are still 31 districts in the country with no facilities for supply of safe blood, and these are now being addressed.

Against the target of 69.8 lakh units for blood collection, 60.1 lakh units were collected till 31 January, 2010. In public and charitable sector blood banks, currently 74.1 percent of blood is collected through voluntary blood donation.

Practice of appropriate clinical use of blood amongst the clinicians has seen a definite rise due to the dengue epidemic, and training of clinicians on the rational use of blood. The proportion of blood components prepared by the BCSU in 2007-08 was 20 percent, which rose to 41.1 percent in 2009-10 (till January 2010). Efforts are being made to further increase it to 50 percent by end of March 2010.

In order to streamline blood transfusion services in the country, National and State Blood Transfusion Councils were established as registered societies. These councils are provided with necessary funds through NACP. While the National Blood Transfusion Council provides policy direction on all issues concerning to blood and related areas, its decisions are implemented by the State Blood Transfusion Councils.

Collection

Voluntary Blood Donation Programme

It has been recognised world over that collection of blood from regular (repeat) voluntary non-remunerated blood donors should constitute the main source of blood supply. Accordingly, activities for augmentation of voluntary blood donation are taken up as per “Operational Guidelines on voluntary blood donation”.

In the year 2006-07, voluntary blood donation was 54.4 percent which was the baseline for NACP-III. It increased to 59.1 percent in 2007-08, 61.7 percent in 2008-09 and further to 74.1 percent in 2009-10 (till January 2010) against the NACP-III target of 90 percent. Several activities to promote public awareness of the need for voluntary blood donation have been undertaken in collaboration with Red Cross and various Blood Donor Organisations. In addition, through collaboration with these organisations, voluntary blood donation camps and other activities will be regularly undertaken to increase blood collection in the country.

The States of West Bengal, Maharashtra, Tamil Nadu, Gujarat, Tripura, Mizoram, Chandigarh

Fig 8.1: Message on safe blood



and Himachal Pradesh, have crossed the national target of over 75 percent and are Good Performing States in voluntary blood donation. The states of Assam, Bihar, Chhattisgarh, Delhi, Haryana, Jharkhand, Manipur, Meghalaya, Punjab and Uttar Pradesh are poor performing states as their voluntary blood collection is much below the desired target. Steps are being taken to augment the donation in these states through the involvement of various stakeholders like Indian Red Cross Society, Nehru Yuva Kendra Sangathan (NYKS), National Service Scheme (NSS), National Cadet Corps (NCC) and NGO.

Scheme for modernisation of blood banks: NACP is implementing a scheme for modernisation of blood banks by providing one time equipment for testing and storage, as well as annual recurrent grant for support of manpower, kits and consumables.

District level Blood Banks: During NACP-I and II, blood banks in all districts of the country were taken up under the scheme for modernisation of blood banks, except for the newly created districts.

In NACP-III, 39 newly created districts have been identified which do not have a blood bank. NACO has taken the initiative with the concerned State Health department for setting up a blood bank in these districts. Eight blood banks have been made operational, two are awaiting the license, and in three districts construction of the building is complete and steps are being taken to meet the requirements for a license.

In 22 districts, construction of a building for a blood bank has not started as yet and in the remaining

three districts a building is under construction. Instructions have been issued by NACO to the respective SACS to set up a Blood Storage Centre in these districts till the new blood banks become operational.

Blood Component Separation Units: In order to promote rational use of blood, 85 BCSU have been established during NACP-I and II. It has been proposed to establish component separation facilities in all the blood banks in tertiary care hospitals attached to medical colleges in the Public sector.

Procurement of essential equipment for 40 BCSU was initiated in 2008-09 and the entire delivery schedule and installation has been completed. 27 Blood Banks have got the license for operating as component preparation units. The remaining 11 blood banks have applied for a licence and are liaising with their respective State Drug Authorities for obtaining it.

Model Blood Bank

Under the NACP-II, 10 Model Blood Banks were developed in eight under-served States, to improve upon the standards of blood transfusion services. These Model Blood Banks are expected to function as demonstration centres for the State in which they are being set-up.

The NACP-III target is to upgrade the existing 22 blood banks in the remaining states/UTs to Model Blood Banks, preferably in the State Capital. Identification of the blood banks was done by SACS and approval for the same has been obtained from the NACB. An MoU has been signed between the concerned State Government and NACO for the terms of reference in establishing these Model Blood Banks. NACO has deputed a team of technical experts to visit these banks for making a pre-assessment of the facilities available for up-gradation them to a Model Blood Bank.

In 2009-10, 16 blood banks have been up-graded to Model Blood Banks, with all infrastructure facilities, manpower and have been already licensed for preparation of blood components. NACO has initiated the procurement of essential equipment earmarked for these 16 blood banks. Up-gradation of the remaining blood banks will be initiated in 2010-11.

Distribution

Blood Storage Centres: In order to make safe and quality blood available in these First Referral Unit (FRU) where a full-fledged blood bank is not feasible, Government has taken the initiative of setting up blood storage units. NRHM and NACO have started a joint programme to have Blood Storage Units in the FRU. NRHM will provide the requisite infrastructure, manpower and procure the necessary equipment for storage and issue of blood. NACO will provide an annual recurring grant of Rs. 10,000 for procurement of consumables, link the centre to the nearest Regional Blood Transfusion Centre (RBTC) for supply of screened blood on a regular basis, and train the staff attached to the storage centres.

It has been proposed to establish 3,222 blood storage centres in the identified FRU during NACP-III. A target of 512 storage units was planned to be made operational by the end of 2009-10, of which 440 were made operational by January 2010.

Blood Transportation Vans: Blood needs to be transported under a proper cold chain maintenance from the linked RBTC to the Blood Storage Centre (BSC). Each RBTC will be linked to 6-8 BSCs. In order to supply blood units under proper conditions and storage, NACO has taken the initiative to provide 500 refrigerated Blood Transportation Vans to the RBTC/District Blood banks during NACP-III. These vans will be transferring blood units to the BSC on a regular basis and also on demand/emergency situations. During 2009-10, procurement of 250 Blood Transportation Vans and 1000 Blood Transportation Boxes (4 Blood Transportation Boxes and one Blood Transportation Van is considered to be One Unit) was initiated. The delivery of the Vans with Boxes will commence from March 2010.

Capacity Building

Blood Safety Training Programme: Education and training is fundamental to every aspect of blood safety. Many of the factors threatening safety of the national blood supply can be attributed, in part, to inadequate training.

The blood safety training programme aims to:

- Strengthening national capacity in education and training in all aspects of blood transfusion;
- Support the establishment of sustainable

national education and training programmes in blood transfusion;

- Strengthen inter- and intra-regional collaboration in training in blood transfusion between NACO and its Collaborating Centres, national blood transfusion services, education and training institutions, and NGO.

NACO has developed a uniform training curriculum for all aspects of blood transfusion. Seventeen centres have been identified across the country to impart training on all aspects of blood safety involving Blood Bank Medical Officers, Technicians, Counselors, Nurses, Clinicians, Donor Motivators and Programme Officers of SACS. During 2009-10, 994 medical officers, 1,833 laboratory technicians, 587 nurses and 186 counselors were trained till January 2010.

Programme Management

Quality practices in blood bank activities can be improved by strengthening the monitoring and evaluation system. With a large network of blood banks and Blood Component Separation Facilities in the country, it is essential to supervise various activities undertaken, both, in blood banks as well as voluntary blood donations at different levels. Supervisory visits undertaken to various categories of blood banks are shown in Table 8.1.

Supervisory Visits to NACO supported Blood Banks: A core team has been constituted in every state to carry out the inspection of all blood banks and voluntary blood donation camps. This core team comprises of three members, which includes one Blood Safety Official of SACS, Director of State Blood Transfusion Council (SBTC), and two nominated experts in the field of Transfusion Medicine. The team makes periodic supervisory visits to the blood banks in their state, to assess the functional status and prepares reports identifying various constraints

Table 8.1: Supervisory visits undertaken to various categories of blood banks

Type of Blood Bank	Number licensed	Number inspected
NACO supported	1,103	711
Other Blood Banks Charitable sector	197	NIL
Private Hospital	714	NIL
Private Commercial	648	600

and the methods to rectify them. Officials of NACO also undertake supervisory visits to blood banks to each State to inspect the quality checks, functional efficiency, identify crisis, and to verify the facts as reported (checking of the maintained records).

During the assessment of these blood banks, the shortcomings and deficiencies identified are as follows:

- Lack of proper infrastructure and facilities
- Lack of manpower
- Frequent transfer of trained manpower to other departments
- Accessibility, adequacy, safety and quality not satisfactory
- Absence of Quality Management System
- Lack of standardisation Proper inventory of equipment, kits and consumables, not maintained
- Improper Record keeping and documentation

These issues have been taken up with PD, and JD (BS) at SACS level.

New Initiatives

Setting up of Metro Blood Banks as Centres of Excellence in Transfusion Medicine

To improve the blood transfusion services in the country, a proposal to set up four Metro Blood Banks as Centres of Excellence, in the cities of New Delhi, Mumbai, Kolkata and Chennai, has been approved. These banks will have State of the Art facilities with 100 percent Voluntary Blood Donation, 100 percent blood components preparation, and a capacity to process more than 100,000 units of blood annually. State Governments of Delhi, Maharashtra, Tamil Nadu and West Bengal have identified land for the construction of these centres. Design Detailed Project Report (DPR) Consultants for these sites have been identified to initiate work.

Plasma Fractionation Centre: Under NACP-III, one Plasma Fractionation Centre with a processing capacity of more than 1,50,000 litres of plasma, which can fulfill the country's demand has been proposed. A large volume of excess plasma in the country is being discarded, as there is no such centre in the public sector in the country. The Plasma products currently

are being imported from abroad to meet the demand of patients, thus exposing them to diseases prevalent abroad but not in India.

The Government of India has approved the project on 8 October, 2008. The State Government of Tamil

Nadu has provided land to NACO for the purpose. A Working Group has been constituted for finalising the DPR and technology to be adopted for the centre. It has been recommended by this working group to adopt the “Cohn with Chromatography” technology.



Laboratory Services

The assurance of quality in kit evaluation, assessment of HIV testing services through implementation of EQAS, CD4 testing has been addressed in NACP-III with focus. NACO launched “National External Quality Assessment Scheme” (NEQAS) in year 2000 to assure standard quality of the HIV tests being performed in the programme. Its objectives of are 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 error
- Facilitate information exchange, and
- Support accreditation

- Educate through exercises, reports and meetings.
- Assess the performance of a various laboratories engaged in testing of HIV for use in finalisation of the India-specific protocols.

Technical Resource Group and Standardisation of Services: To ensure the above, a Technical Resource Group (TRG) was formed for Laboratory Services in December 2006. A revised pattern of assistance was suggested by the experts and action plan for 2007-8 was formulated. First meeting of TRG was held in June 2007 with 12 laboratory experts in which critical areas for quality and relevant lab issues for the programme were discussed. Meetings of the group were subsequently held in January 2008 to discuss viral load platforms and in February 2009 for additional funds to four labs for kit evaluation panel preparation, lab issues and revision of qualifications for LT's.

Capacity Building

- To address quality in Lab Technicians Training and expansion of training institutes to all SRLs (117) in training, a schedule was prepared and training was piloted at NIMHANS Bengaluru in January 2009. This was fully implemented by June 2009 after regional workshops had been completed. All SRLs were identified as training institutions and will undertake training in five-day batches of 10-15 technicians with hands on component addressed maximally. All technicians will universally attend this training in the current financial year. Training plan along with the modules has been circulated to the SACS and SRLs.
- Regional training workshops were conducted at four NRLs across the country (Feb 2009 to May 2009). These workshops oriented the SRLs on quality system essentials, roles and responsibilities, EQAS, financial modalities, training modules and training schedule for ICTC technicians for the year 2009-2010.
 - NARI, Pune (West Zone): Attended by 28 SRLs, two NRLs, seven SACS officials and NACO from Maharashtra, Gujarat, Madhya Pradesh, Mumbai and Goa .
 - NIB, Noida (North Zone): Attended by technical experts from CDC, 28 SRLs from the north zone namely states of Delhi, Rajasthan, Punjab, Haryana, Himachal Pradesh, Uttar Pradesh, Chandigarh, Uttarakhand, J&K; three NRLs, nine officials from respective SACS, CDC and NACO.
 - NIMHANS, Bengaluru (South Zone): Attended by 38 SRLs, Tamil Nadu & Chennai, Andhra Pradesh, Kerala, Karnataka, Lakshadweep, Puducherry, five NRLs and seven SACS officials, CDC and NACO.
 - National Institute for Cholera and Enteric Diseases (NICED), Kolkata (East Zone): Attended by 25 SRLs from West Bengal, north eastern states , Orissa, Jharkhand and Chhattisgarh, three NRLs, 13 SACS officials, NACO and CDC.
- ICTC Training: 1,396 lab technicians were trained in 2009.

CD4 testing

There are 209 CD4 machines installed at present serving 239 ART centres. NACO procured 67 (Partec) CD4 Machines in 2008 and 60 (FACS

Count) CD4 machines were procured in 2009. Out of 209 CD4 machines there are 109 FACS Count machines, 28 FACS Calibur machines, 67 Partec machines and five Guava machines. CD4 tests performed have steadily increased from 3,93,039 in 2007-08 to 6, 58,143 in 2008-09. In 2009-10 about 6.5 lakh tests have been performed till February 2010

CD4 training institutions were identified in 2009 to systematise the training of Lab. Technicians in ART centres. A training of trainers (TOT) was held in May and June 2009 for CD4 machine technicians and in charges. It is proposed to develop regional capacity of three institutions for Calibur machines (Tambaram, STM Kolkata, NARI, PGI Chandigarh), five institutions for Count machines (Vishakapatnam, Nair, MAMC, RIMS, CMC) and six institutions for Partec machines (Surat, Trichy, Kakinada, Davangere, Lucknow, Medinapur). Faculty of these institutions has been trained and is imparting further training. All technicians at ART centres are retrained at these institutions every year. Training plan has been developed in consultation with the respective manufacturer and NARI, Pune which provides technical expertise along with the resource persons for the same. Training of trainers was held for five days regionally and the regional training is ongoing (3 days duration). During 2009-10, 169 lab technicians have been trained till February 2010.

CD4 EQAS: NACO with support from Clinton foundation decided to initiate the development of National CD4 EQAS for Indian CD4 testing laboratories in 2005. National CD4 estimation guidelines were prepared in 2005. NARI functions as an apex laboratory for conducting the EQAS. QASI, Canada was identified as a provider of the CD4 EQAS. First QASI round was done in Feb 2005 and the participants were 24. QASI panels were distributed in two round each in 2005, 2006 & 2009 and three rounds each in 2007 & 2008. For Oct, 2009 round, 135 Centres have already enrolled. The technology transfer workshop was conducted for four regional Centres at NARI in Sep 2009. QASI would continue to send the samples at expanded sites for the near future. An Indian database, India.qasi-lymphosite was developed and would be piloted in the upcoming proficiency round (Sep-Oct 2009) for data entry, online submission analysis and report preparation.

Quality Assurance: The programme has emphasised on quality practices in the regional workshops and documentation of EQAS. A reporting format has been developed in consultation with the M&E division which will be finalised.

Internal Quality Control Procedures: The programme is supporting the workshops of NRLs and SRLs for ensuring accurate record maintenance and optimal use of controls both positive and negative on a day to day basis. Instructions for preparation of QC sample have been reiterated to all concerned laboratories. NRLs are preparing the sample as per guidelines and sending to SRLs which will be further allocated for use at the peripheral testing sites.

External Quality Assessment Scheme (EQAS)

NEQAS categorised the laboratories into four tiers

- 1) Apex laboratory (1st Tier) - National AIDS Research Institute, Pune
- 2) 13 National Reference Laboratories (NRLs) located all over India are to undertake EQAS in respective geographical areas including apex (2nd tier).
- 3) At the State level, 117 state reference laboratories (SRLs) (3rd tier)
- 4) Districts level, i.e., all ICTC & Blood banks. Thus, a complete network of laboratories has been established throughout the country.

Training of Apex and NRLs was completed in the first phase, followed by SRLs in the second phase and now in the ongoing third phase ICTCs and blood banks. Annually two workshops are to be held at each level upto SRLs.

At present financial support under NEQAS programme to Apex laboratory is Rs 23.40 lakh/year inclusive of NRL grant. The other 12 NRLs have been provided Rs. six lakh/year each and each SRL has been given a grant of Rs 1.5 lakh per year.

Each NRL has been allotted designated states for monitoring and in turn each NRL has SRLs which is responsible for training and supervision. Each SRL, in turn, has ICTCs and blood banks which it monitors. EQAS calendar for the year 2009-10 was prepared and shared with the concerned labs.

Apart from the above financial assistance, NCDC, Delhi, Niced Kolkata and NIMHANS, Bengaluru have been identified for panel preparation and quality assessment of kits along with the Apex lab. These have been provided with an additional funding of Rs nine lakh each for the above activity in addition to the NRL grant. These laboratories are part of the consortium developed by NACO for kit evaluation.

Assessment of Standards: A Tool for assessment was developed with CDC and WHO which was made into a document after wetting with NACO and a team of National experts. This was used for assessing the reference laboratories and was based on a checklist of 50 questions which addressed and captured elements within the 12 Quality System Essentials. Two labs have applied for NABL accreditation since the assessment of the NRLs by CDC and WHO with Indian experts. Two more labs propose to apply in the next two months and others are in preparatory activity for the same and will apply for NABL accreditation in the next year. The tool has been shared with the SRLs for self assessment and lead time to be assessed by external experts to look at accreditation as a goal.

A level two check list was prepared based on the checklist prepared by CDC/WHO/CF which was used for assessment of all 117 SRLs after modification suited to the programme. This activity was done to look at the quality of the labs in August-September 2009 through support from CDC and other donor partners. The evaluation has been completed and the scores are being used for improvement of quality systems.

Rolling out viral load testing to support second line ART - 2008: Viral Load (VL) assays are provided for patients failing first line anti retroviral therapy. NACO piloted VL testing at two centres for 10 months from January, 2008. Currently, there are seven viral load labs, supporting clinical decision-making at 10 second line centres for the 3,000 patients estimated to transit to second line therapy. Existing equipped testing laboratories were identified for viral load testing and consent of the labs for participation in the national programme was taken. Viral load lab experience training was done at Bangkok in December 2007.

National Early Infant/Child under 18 Months Diagnosis Roll Out

It is proposed to roll out infant and child diagnosis using HIV-1DNA PCR testing. Training on Dried Blood Spot (DBS) and Whole Blood sample collection, storage; transportation and packaging for the National Early Infant Diagnosis (EID) roll out by HIV DNA PCR testing was completed from June- September 2009. The training materials were developed by NACO. NACO with Clinton Foundation trained 767 ICTC and 181 ART centres, i.e., approximately 3,000 doctors, nurses, and lab technicians across 26 states. NACO designed a vast sample transport network that would ensure timely specimen pickup, testing and report delivery between the 949 specimen collection centres and seven testing labs (already equipped with basic PCR facilities) and have been trained for the above. NACO developed ICTC-ART centre linkages for child referral for whole blood collection. The same has been operationalised in two states by February 2010.

Development of Systems for Reporting and Investigating 'Exceptions'

A system of reporting the panel results has been developed where the SRLs report the discordant test results along with the name of the testing centre which is giving discordant results for corrective action and the same is conveyed to the respective NRLs. The same is done at the NRL level where the SRLs are assessed and the final report is compiled at the Apex lab which is shared with NACO annually.

In case there are exceptions where a batch of kit is found to be performing sub optimally, the in charge of the ICTC is to look into the matter and prepare a detailed report which is communicated to the respective SACS. The manufacturer along with NACO and the licensing authorities are informed for further necessary actions and if required after enquiry the batch is withdrawn and detailed enquiry at the central level is done if required.



Basic Services

Integrated Counseling and Testing Centre

The Integrated Counseling and Testing Centre (ICTC) is a place where a person is counselled and tested for HIV on his/her own freewill or as advised by a medical provider. ICTCs are often the first interface of citizens with the entire range of preventive, care and treatment services provided under the umbrella

of the NACP. The introduction of ART services to people living with HIV/AIDS in 2004, gave a major boost to counseling and testing services in the country. As a consequence, the number of ICTCs as well as uptake of clients who are counselled and tested in these centres, have seen a dramatic scale up in the past five years which is depicted in Fig 10.1 and 10.2.

Fig. 10.1: Scale up of ICTCs in the past five years

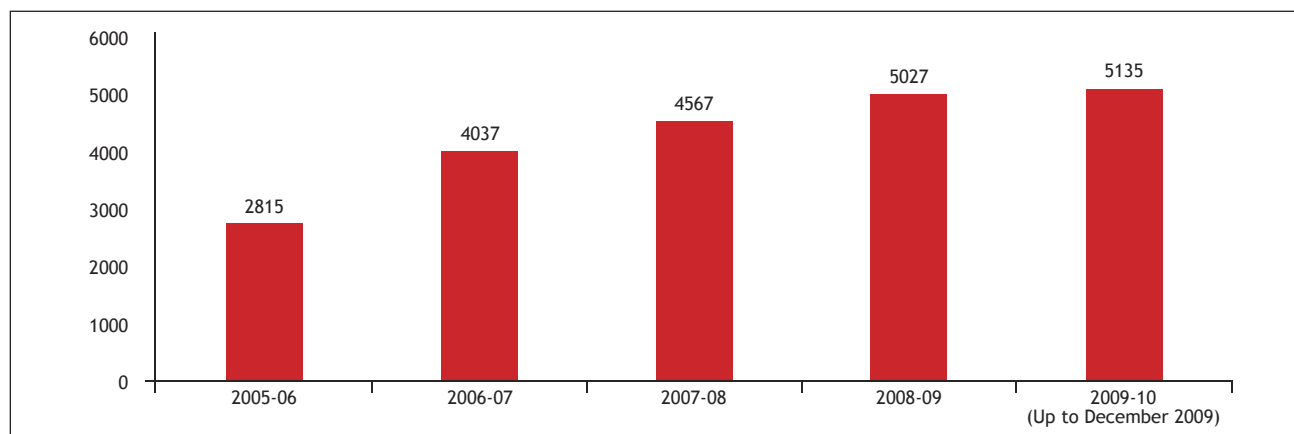
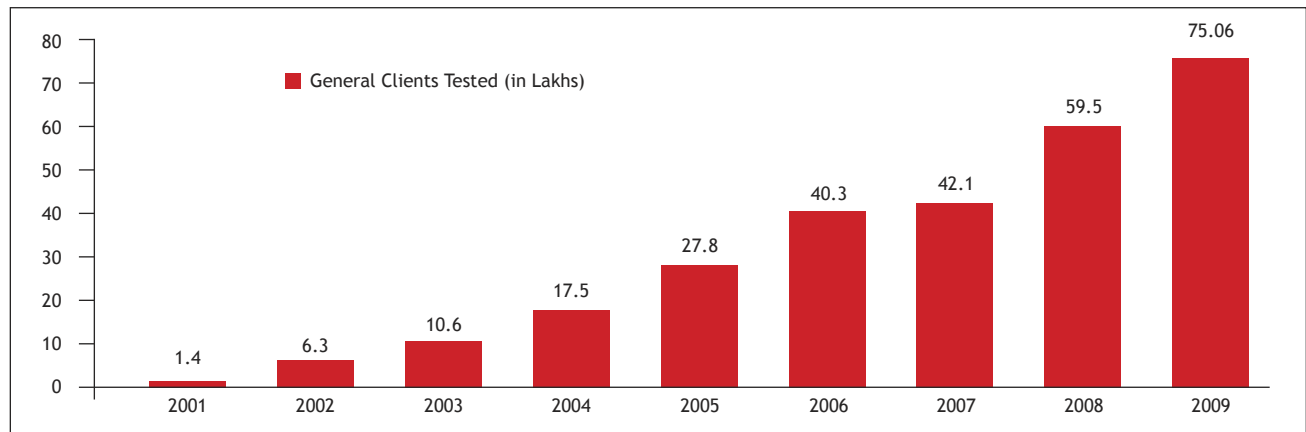


Fig 10.2: Increase in number of clients tested in ICTCs



Achievements in 2009-10

Establishment of Stand Alone ICTCs: The 'stand alone ICTCs' have a full fledged counselor and laboratory technician (LT) exclusively for HIV counseling and testing, and are established in health facilities with large client load such as District Hospitals, Civil Hospitals and CHCs. In 2009-10, against a target of 172, a total of 113 'stand alone ICTCs' have been established till December 2009. All states, except West Bengal and Jammu and Kashmir, have achieved the target. Statewise details are shown in Table 10.1.

Establishment of Facility Integrated ICTCs in 24x7 PHCs and Private Hospitals

The 'facility integrated model' for establishing ICTCs is a cost-effective one in which existing staff such as Nurse/ANM and LT perform HIV counseling and testing in addition to their other work. The success of the model depends on a close

Table 10.1: Statewise details of establishment of stand alone ICTCs

State	Target	Achievement
Chandigarh	1	1
Himachal Pradesh	3	3
Haryana	3	3
Jammu & Kashmir	5	0
Kerala	30	30
Jharkhand	10	10
Mizoram	1	0
Tripura	5	5
West Bengal	114	61
Total	172	113

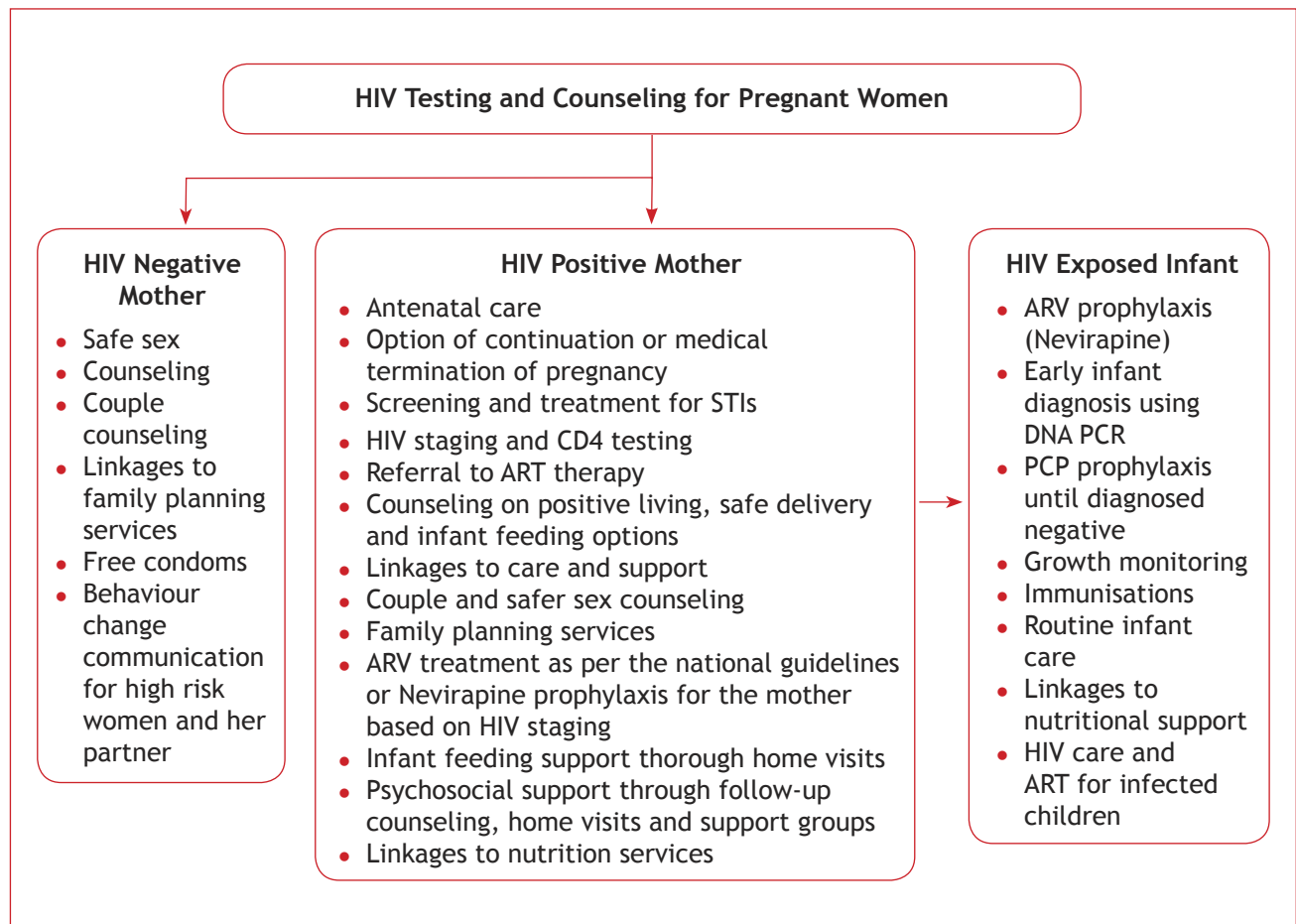
collaboration with the NRHM. The annual target (2009-10) for establishing ICTCs in 24x7 PHCs under this model was 2,183 of which 608 have been established till December 2009. While some states, such as Maharashtra (257), Tamil Nadu (200), Andhra Pradesh (56), Gujarat (67), Jharkhand (34), Punjab (27) and Himachal Pradesh (27), have made substantial progress in establishing ICTCs at 24x7 PHCs, others, such as Bihar, Chhattisgarh, Goa, Haryana, Meghalaya, Mizoram, Manipur, Nagaland, Orissa, Puducherry, Sikkim, Tripura, Uttarakhand and West Bengal, are yet to establish any under this model. Apart from 24x7 PHC, 144 ICTCs under the 'facility integrated model' have also been established in the current year in private/not for profit hospitals which fulfill certain criteria.

Testing of general clients: Against the annual target of 88.2 lakh, 60.8 lakh (69%) general clients were counselled and tested at ICTC as of December 2009. Of those tested, 2,17,050 were identified as HIV positive after three specified tests and referred to ART centres. Among those tested, priority was given to HRG, TB and STI patients. A total of 5,15,759 HRG, 3,52,793 TB patients, and 2,36,598 STI patients underwent HIV counseling and testing during the current year.

New initiatives

- Linkages of ICTCs with TI projects are being strengthened to improve uptake of high risk populations. Counselors of ICTCs will regularly perform outreach work on Saturday afternoons in hotspots to generate demand amongst these groups to HIV counseling and testing services.
- Identification of key villages and mobilisation of general population for HIV testing is being done by District ICTC supervisors.

Fig 10.3: The major components of the PPTCT programme



- Mystery clients and exit interview will be introduced in order to improve the quality of counseling.

Prevention of Parent to Child Transmission:

The prevention of parent to child transmission (PPTCT) programme involves counseling and testing of pregnant women, detection of positive pregnant women, and the administration of prophylactic Nevirapine to HIV positive pregnant women and their infants, to prevent the mother to child transmission of HIV. The major components of the programme are shown in Fig 10.3.

The programme was initiated in the country in 2001 following a feasibility study in 11 centres in the six high prevalence states, and since then it has made rapid strides. There has been remarkable improvement in the uptake of pregnant women under this programme in the past five years, especially in the six high prevalence states of Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland and Tamil Nadu, with funding support from the Global Fund. The

Fig 10.4: Counseling for a pregnant woman at ICTC



major landmarks in the expansion of PPTCT programme in the country are as follows:

- 2001-02: Feasibility study in 11 centres of excellence following which the PPTCT programme is launched
- 2004-05: Programme gets policy attention. Sanction of Global Fund Round two Project gives a major boost to the PPTCT services in the six high prevalence states

- 2006-07: Voluntary Counseling and Testing (VCT) and PPTCT merged to form ICTC which help expand coverage; CD4 count estimation commenced for HIV positive pregnant women
- 2007-08: Provider-initiated Testing and Counseling started for antenatal cases. HIV counseling and testing initiated in PHC in Category A and B districts in collaboration with NRHM.
- 2009-10: Community-based HIV screening through frontline health workers - ANM, and Early Infant Diagnosis using DNA PCR in high volume ICTC.

The remarkable improvements in counseling and testing of pregnant women and detection and coverage of HIV+ve pregnant women with prophylaxis are depicted in Fig 10.5 and 10.6.

Achievements in 2009-10: Between April and December 2009, 44 lakh (69%) pregnant women have been tested for HIV under the PPTCT programme, against an annual target of 63 lakh. Of those tested, 15,089 were detected HIV positive. Among those

detected positive pregnant women, 9,398 (62.28%) mother-baby pairs received Nevirapine prophylaxis to prevent the mother to child transmission of HIV.

New Initiatives: Despite the remarkable achievements under this programme, there is a long way to go. Only 20 percent of the estimated annual pregnancies of 270 lakh were counselled and tested for HIV in 2009. Further, only 30 percent of the annual load of 65,000 HIV+ve pregnant women were detected in the same year. The aim is to offer HIV testing to every pregnant woman in the country, so as to detect all HIV+ve pregnant women and eliminate transmission of HIV from mother to child. In order to achieve this, the following new initiatives are planned:

- Community-based HIV screening conducted by ANM to identify HIV +ve cases among pregnant women who do not come to health facilities for antenatal checkups. This will be immense benefit in states which have low rate of institutional delivery.

Fig-10.5: Improvement in uptake of pregnant women under PPTCT from 2005-2009

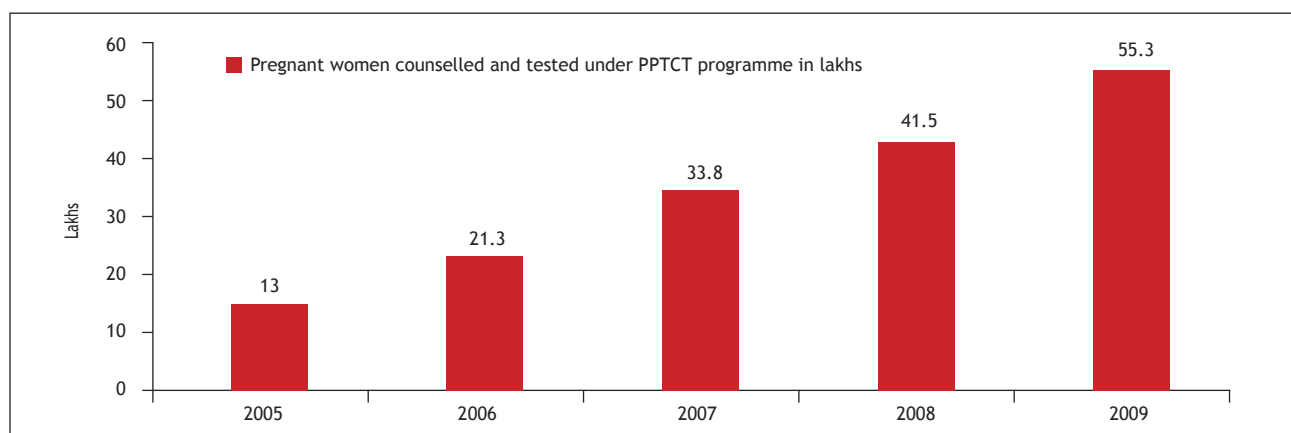
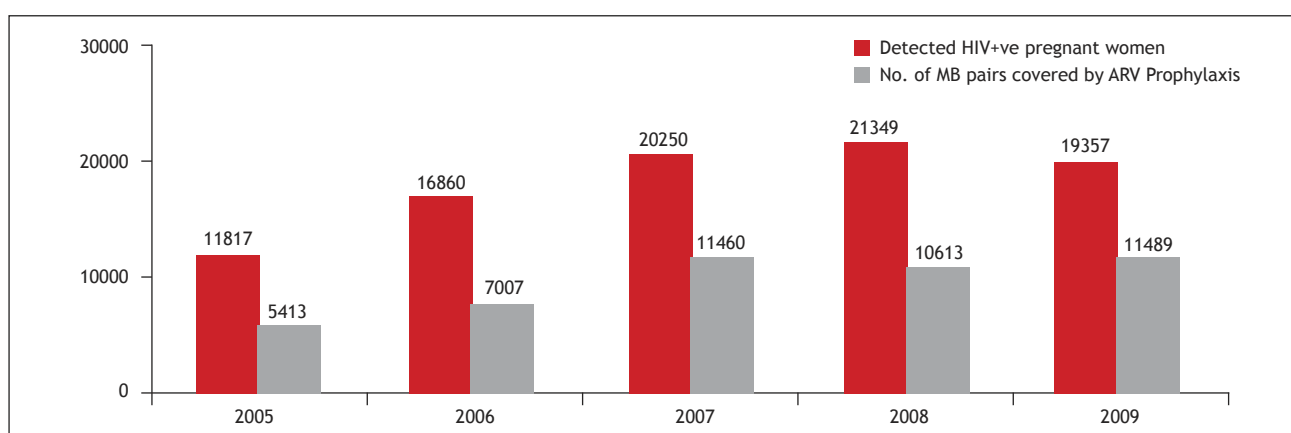


Fig 10.6: Trends in detection and coverage of HIV positive pregnant women with prophylaxis (2005-2009)



- Expansion of ICTC services to 24x7 PHC under the 'facility integrated model' in high prevalence districts in collaboration with NRHM to improve access to populations living in hard-to-reach areas
- Testing of every direct walk in/emergency labour room case using the user friendly whole blood finger prick testing
- More convergence with NRHM and securing the involvement of ASHAs in demand generation for PPTCT services through Incentive-based schemes.

HIV-TB Collaborative Activities: Active TB disease is the most common opportunistic infection amongst HIV-infected individuals. A high HIV positivity rate (~5%) is also observed amongst the new TB patients. Consequently, the dual burden of HIV and tuberculosis greatly amplifies the harmful effects of each disease. This increased burden requires close coordination and an integrated response by both RNTCP and NACP. Thus, the process of referrals of TB suspects at ICTCs for TB testing and referral of TB patients suspected of HIV to ICTC, was initiated to identify HIV Infected TB patients. Linkage of the identified HIV infected TB patients to care and treatment services were simultaneously focused. The overall objective of these activities is to decrease the morbidity and mortality due to TB in PLHAs and to decrease the impact of HIV in TB patients.

After a successful pilot testing of HIV-TB cross referral mechanism in Maharashtra, it was rolled out in the six high prevalence states in 2004. The cross referral mechanism was subsequently expanded to another 14 states during 2005-06. To quantify the magnitude of HIV-TB problem, an expanded surveillance of HIV amongst TB patients was undertaken in 15 districts of the country in 2007 which showed a HIV prevalence rate in the range of 1-13 percent amongst new TB patients. In the backdrop of the surveillance and the programme experience, a National Framework for Joint TB/HIV Collaborative Activities was jointly developed in 2007, with subsequent revisions in 2008 and 2009. This framework acts as a guiding principle to implement new activities and initiatives at all levels of the programmes.

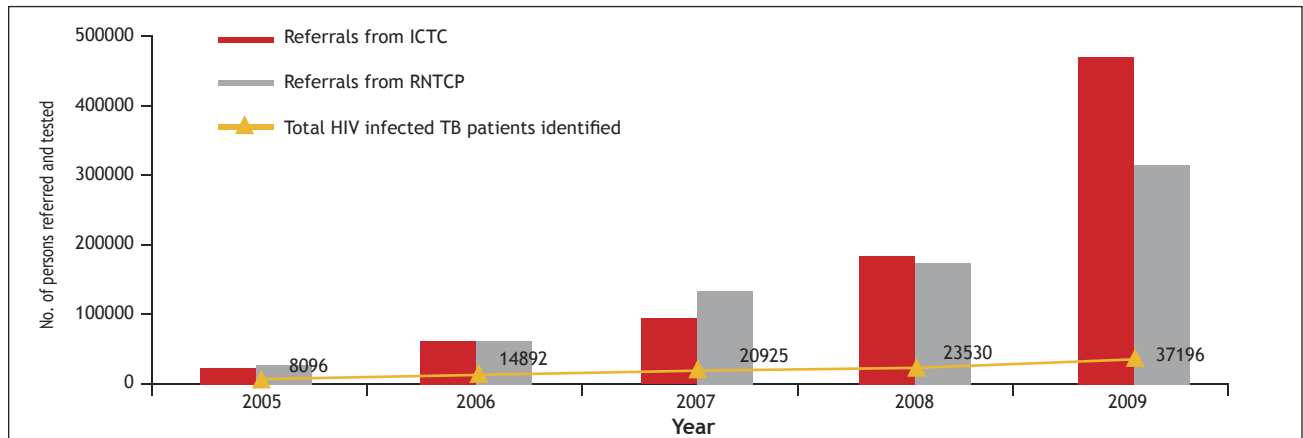
Intensified Package of HIV/TB Collaborative Activities: With the existing policy of only testing TB patients suspected of high risk behaviour, the identification of HIV infected TB patients was not improving. On the other hand, high HIV positivity rate amongst TB patients suggested a good yield of detecting HIV positives by testing more and more TB patients. Hence, it was decided to offer HIV counseling & testing services to all TB patients. This service was provided under the Intensified Package of HIV/TB collaborative activities. It also includes linking of all the identified HIV infected TB patients to Care and Support including treatment for TB, other OIs and ART and enhanced monitoring of all identified HIV/TB patients with provision of Cotrimoxazole Preventive Therapy (CPT) through the decentralised drug delivery mechanism of RNTCP. It was initially rolled out in nine states of Andhra Pradesh, Karnataka, Maharashtra, Tamil Nadu, Goa, Manipur, Nagaland, Mizoram and Puducherry in 2008. Considering the success of this package, in 2009, it was further rolled out in Delhi and Gujarat. The activities under this package have also been initiated in the six states of Assam, West Bengal, Rajasthan, Orissa, Kerala and Punjab. It is proposed to cover the entire country under this package by 2012.

Scale up of the Programme: During these years, cross referrals have progressively improved and a consistently increasing number of HIV infected TB patients have been diagnosed. In 2005, more than 54,000 people were cross referred and more than 10,000 HIV/TB co-infected cases were diagnosed. This has increased to cross referrals of more than 7,80,000 people between ICTC and Designated Microscopy Centres (DMC) in 2009 (Table 10.2). With a significant increase in HIV testing of TB patients, more than 27,900 have been diagnosed as HIV infected

Table 10.2: Achievements of HIV-TB collaborative activities in 2009

No. of ICTC clients tested for TB at RNTCP Diagnostic Facility	4,70,390
No. of TB patients tested for HIV at NACP ICTC	3,15,960
Total HIV Infected TB patients identified	37,196

Fig.10.7 : Scale up of HIV-TB Collaborative activities



TB patients during this period. The increase in cross referrals is largely attributed to the intensified HIV/TB package of services. Details are provided in Fig.10.7.

Oversight: Technical support and programme oversight is provided by a National Technical

working Group (TWG), comprising key officials from NACO and the Central TB division. Similarly, working groups at state level and coordination committees at state and district levels also conduct regular meetings to address issues in the implementation of HIV-TB collaborative activities.



Care, Support and Treatment

Provision of comprehensive Care, Support and Treatment to all HIV infected persons is one of the main objectives of NACP-III. For this, following targets have been set to be achieved by March 2012:

- Provide free ART to 3,00,000 adult and 40,000 children through 250 ART Centres;
- Achieve and maintain a high level of drug adherence and minimise the number of patients lost to follow up, so that drugs are effective for longer period of time; and
- Provide comprehensive care, support and treatment by establishing 350 Community Care Centre (CCC).

Progress made on Care, Support and treatment services in the first two and a half years (July 2007 to January 2010) is given below:

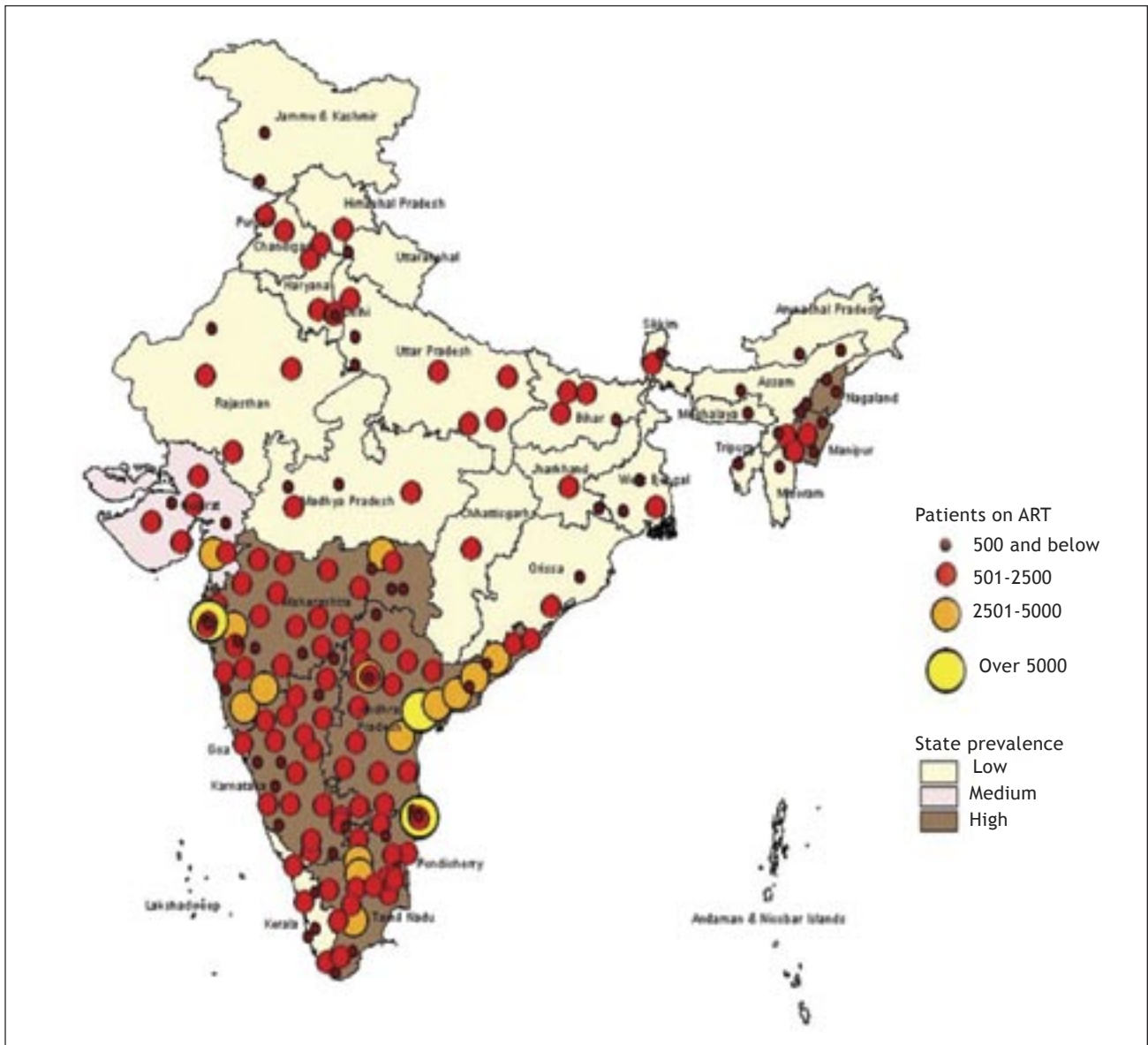
Infrastructure Development for CST

ART for eligible persons living with HIV/AIDS was launched on 1st April, 2004 in eight government

hospitals located in six high prevalence states. Since then, the programme has been scaled up both in terms of facilities for treatment and number of beneficiaries seeking ART. Currently (January 2010) there are 239 fully functional ART Centres against the target of 250 by March 2012. However, based on need and demand of ART, number of centres likely to be functional by March 2010 is estimated to be around 300 (Table 11.1).

Link ART Centres (LAC) were not originally planned under NACP-III. Following a NACO study on “Assessment of ART centres: Clients’ and Providers’ Perspectives”, which revealed that distance, travel time and costs were main constraints faced by PLHA, it was decided to set up these centres to facilitate the delivery of ART services nearer to the beneficiaries. Presently, 300 LACs are functional, and this number is likely to go up to 450 by March 2010.

Fig.11.1: ART services polarised based on disease burden



To facilitate provision of tertiary level specialist care and treatment, training, mentoring and operational research, Centres of Excellence, were envisaged under NACP-III. At present, 10 Centres of Excellence and seven Regional Paediatric ART Centres have been set up and are being strengthened.

With the mandate of providing a comprehensive package of Care, Support and Treatment (CST)

services, Community Care Centres (CCC) were set up in the non-government sector with the main objective of providing psycho-social support, ensure drug adherence and provide home-based care. Tracing patients lost to follow-up (LFU) and those missing to get ARV drugs as per schedule, were also envisaged in functioning of CCC. At present 287 CCCs are fully functional against a target of 350 by March 2012 (Table 11.1).

Table 11.1: Infrastructure for CST

Facility for CST	Baseline (March 2007)	NACP-III Target (March 2012)	Achievement (January 2010)
ART centres	107	250	239
Centres of Excellence	0	10	10
Regional Paediatric ART Centres	0	7	7
Link ART Centres	--	--	300
Community Care Centres	122	350	287

Table 11.2: Beneficiaries provided CST services in NACP-III

Services/Beneficiaries	Baseline (March 2007)	NACP-III Target (March 2012)	Achievement (January 2010)
Adults registered for ART	1,85,953	-	8,29,678
Adults ever Started ART	80,355	-	4,11,936
Adults alive and on ART	59,673	3,00,000	2,76,137
Children registered for ART	14,409	-	63,889
Children ever Started ART	4,925	-	25,499
Children alive and on ART	4,107	40,000	18,763
Opportunistic Infections Treated	70,099/year	3,00,000/year	3,04,369/year
Persons referred for 2 nd line ART	0	-	2,750
Persons alive and on 2 nd line ART	0	-	970

Provision of Services

Main services provided to PLHA (Table 11.2) under care, support and treatment may include:

- Registration for PLHA in ART and pre-ART services;
- Assessment of eligibility of ART based on physical examination and CD4 count;
- Provision of first line ART to all eligible PLHA and CLHA;
- Follow-up of ART by assessing drug adherence, regularity of visits and periodic examination and CD4 count (every six months);
- Care, support and home-based services
- Treatment of opportunistic infections (Fig 11.2); and
- Provision of alternate first line and second-line ART to those experiencing drug toxicities and treatment failure respectively

There has been significant progress in providing the above mentioned services through network of facilities developed under NACP-III. Most of the targets set under NACP-III are on course of being achieved and some are likely to far exceed. In fact, due to rapid scaling up, the Global Fund

(GF) advanced the end date of GF project under Round IV by six months and invited India to submit a proposal under Revolving Continuation Channel (RCC) for the next six years (April 2010- March 2016), The proposal submitted to the Global Fund has been approved by the GF board. The following grant negotiations are under process:

- Scaling up number of ART centres mainly in high prevalence districts and those districts where number of HIV+ persons detected was large (Fig. 11.3).
- Strengthening linkage, referral and feedback mechanism between ICTCs and ART centres, and HIV-TB cross-referral mechanisms.
- Close coordination between ART Centres, CCCs and networks of positive persons
- Regular uninterrupted supply of ARV drugs without any stock-out situation through better management of information, projections of ARV drugs based on new enrolment rates and consumption patterns and close monitoring of stocks
- Volume based provision of human resources to ensure good quality of services
- Training of PLHA lost to follow up and

Fig 11.2: Trends of Opportunistic Infections (April 2007-January 2010)

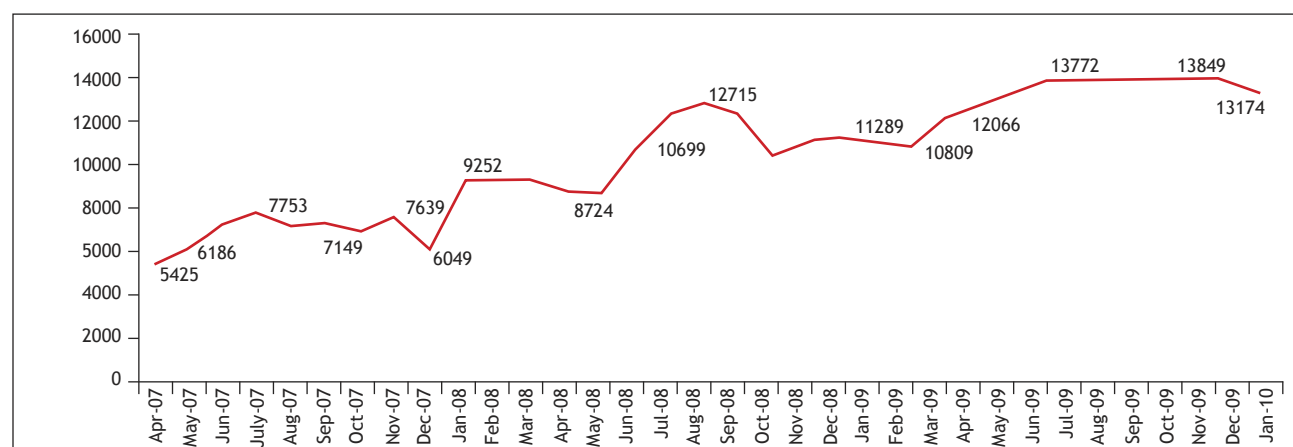
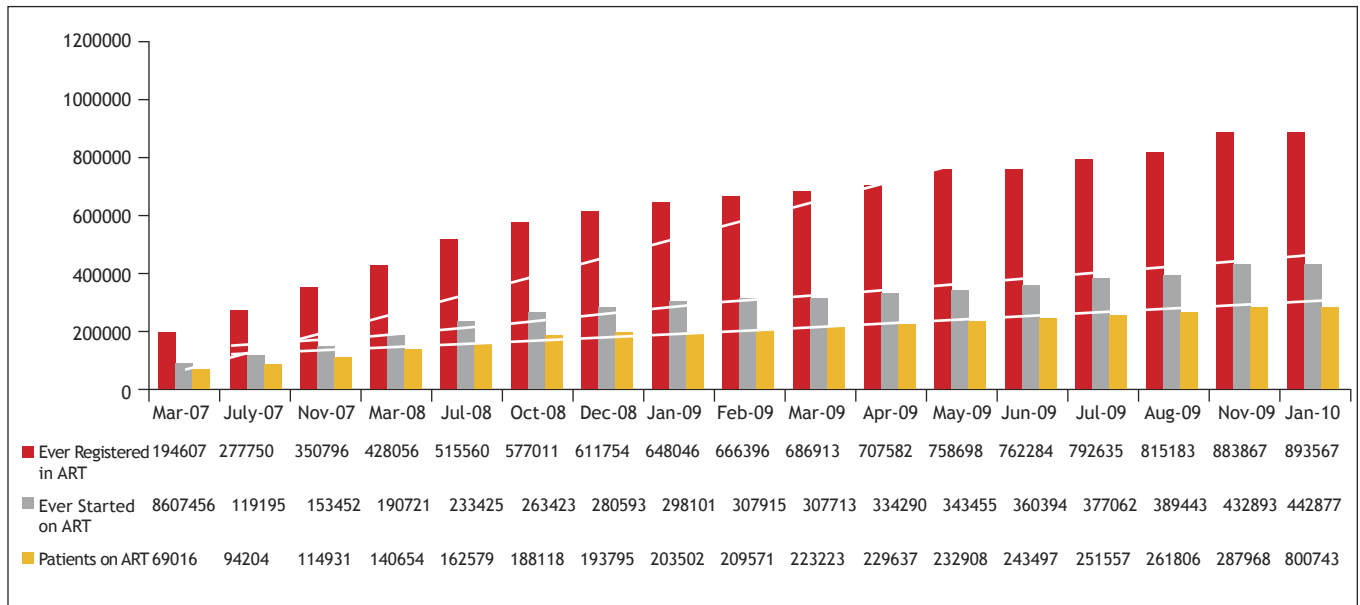


Fig 11.3: ART scale up in India



- missed cases and bring them back to ART
- Field level monitoring particularly of districts which lagged behind by Regional Coordinators, NACO and SACS officers
- Directives to SACS for provision of good quality comprehensive services and setting up a grievance mechanism at the State level
- Evaluation studies and operational research to improve implementation of the services
- Decentralising ART through Link ART Centres
- IEC activities through multimedia campaigns to improve utilisation of available services and public awareness about benefits of ART.

- Training of Laboratory Technicians for CD4 count: two days
- Training of Pharmacists (under process): three days.

Following Institutions have been recognised for training of doctors:

Centres of Excellence

1. Maulana Azad Medical College, New Delhi
2. J J Hospital, Mumbai
3. BJ Medical College, Ahmedabad
4. PGIMER, Chandigarh

Capacity Building for CST

Training for ART Personnel & Centres of Excellence

To ensure uniform standards of services, adherence to operational guidelines and treatment protocols, induction training is provided to various personnel using standard curriculum, training module and tools at identified institutions. Various training programmes organised under NACP-III include:

- Orientation of faculty of Medical Colleges/ District Hospital: five days
- Training of Medical Officers (SMO/MO) of ART Centres: 12 days
- Training of Medical Officer of CCC/Link ART centres (LAC): four days
- Training of Counselors: 12 days
- Training of Data Managers of ART Centres: three days

Balasahyoga: The project, launched by the Government of Andhra Pradesh in partnership with CHAI, FHI and CARE in April 2007, aims at improving the quality of life of children infected and affected by HIV/AIDS and their families through provision of comprehensive HIV/AIDS care, support and treatment services. Functioning under the leadership of APSACS in 11 districts in the state, the project takes a holistic approach to care, focusing on education, health, nutrition, psychosocial and food security impacts in parallel. In its second year of operation, the programme recorded a 38 percent increase in HIV testing uptake among registered children with 61 percent of eligible children tested, up from 23 percent in Year 1. In addition, seven of the 11 ART Centres identified for remodeling have been refurbished with updates including improved infrastructure, a child-friendly atmosphere, additional space for patient feedback, improved patient flow, and implementation of SOP for paediatric counseling and clinical care.

Table 11.3: State-wise number of ART centres and patients alive and on ART January 2010

State	No. of ART Centres	Total (Adult)	Total (Paediatric)	Total
Andhra Pradesh	31	60,328	3,304	63,832
Arunachal Pradesh	1	26	0	26
Assam	3	833	30	863
Bihar	4	4,970	232	5,202
Chandigarh	1	1,474	150	1,624
Chhattisgarh	2	1,345	129	1,474
Delhi	9	6,655	600	7,255
Goa	1	908	61	969
Gujarat	9	12,765	669	13,678
Haryana	1	1,425	87	1,512
Himachal Pradesh	2	708	85	793
Jammu & Kashmir	2	510	39	549
Jharkhand	2	1,435	89	1,524
Karnataka	33	36,220	3,003	39,223
Kerala	7	4,070	229	4,299
Madhya Pradesh	4	3,267	221	3,488
Maharashtra	43	65,409	5,102	70,511
Manipur	7	5,236	419	5,655
Meghalaya	1	75	2	77
Mizoram	1	635	52	687
Nagaland	4	1,534	97	1,631
Orissa	4	1,997	81	2,078
Puducherry	1	494	51	545
Punjab	5	4,253	264	4,701
Rajasthan	5	6,113	404	6,517
Sikkim	1	28	1	29
Tamil Nadu	36	36,947	2,439	39,586
Tripura	1	102	1	103
Uttar Pradesh	10	10,039	594	10,633
Uttarakhand	1	531	53	584
West Bengal	7	5,375	275	5,652
Total for NACO ART centres	239	2,76,137	18,763	2,95,300
Patients on ART in Other Centres				
- in Intersectoral Health Sector		2,458	21	2,479
- in GFATM Round II Centres		2,423	66	2,489
- in NGO Sector		435	39	475
Grand Total		2,81,453	18,889	3,00,743

5. Gandhi Hospital, Hyderabad
6. Bowring Hospital, Bengaluru
7. School of Tropical Medicine, Kolkata
8. Regional Institute of Medical Sciences, Imphal
9. Government Hospital of Thoracic Medicine, Tambaram
10. Institute of Medical Sciences, BHU, Varanasi

Others:

11. MDM Hospital, Jodhpur
12. Christian Medical College, Vellore

13. St Johns Medical College, Bengaluru
14. CSM Medical University, Lucknow
15. NARI & BJMC Consortium, Pune
16. NSCB Medical College, Jabalpur

Development of Operational Guidelines and Modules

The following guidelines have been developed for use by various facilities and SACS. These are available on NACO website also and have been revised from time to time on the recommendations

of the Technical Resource Groups.

- Guidelines for ART in adults & adolescents - March 2007, updated: April 2009
- Guidelines for ART in children - November 2006, updated: September 2009
- Guidelines for prevention and management of common Opportunistic infections and malignancies among adults and adolescents - March 2007
- Operational guidelines for ART centres - March 2007, updated: May 2008
- Operational guidelines for Link ART centre - June 2008
- Operational guidelines for Community Care Centres - August 2007
- Post exposure Prophylaxis guidelines - January 2009
- Technical guidelines on second line ART in adults and adolescents - November 2008
- Technical guidelines for alternate first line ART - January 2010)
- Technical Guidelines for Early infant diagnosis: January 2010
- Technical guidelines for second line ART roll out in children - October 2009
- Training Manuals for Medical Officers - May 2007 (revision under process)
- Training Manuals for specialists - May 2007, (revision under process)
- Operational guidelines for Link ART Centres
- Training module for Link ART Centre doctors
- Guidelines for HIV care for prisoners: September, 2009
- Guidelines for Air Borne infection control: September 2009

Technical Resource Groups on CST

Technical Resource Groups consisting of experts have been constituted on following subjects:

- Training on ART
- Paediatric HIV
- Community Care Centres
- Laboratory services

The TRGs review the progress and give valuable suggestion 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.

Strengthening the capacity of laboratories for CD4 testing

This has been detailed in Chapter nine on Laboratory Services.

Supply Chain Management for ARV Drugs

One of the most vital components of drug adherence is continuity of supply of drugs to the Centres. Monitoring is done centrally for all ARV drugs based on monthly consumption and stocks at the centres. As per guidelines, all ART centres must have a minimum of three months stock of drugs. In case of shortage, re-location of drugs is done in order to ensure that there are no stock outs. The supply chain management of ARV drugs and CD4 kits is done by a dedicated supply chain team appointed at NACO.

Monitoring, Evaluation and Research

Standard Monitoring Formats

A set of Monitoring and Evaluation Tools and Formats were printed for standardised recording and reporting from different centres. The monthly reporting format for sending the monthly reports from ART Centres to NACO has been modified. Also formats for reporting of patients on second line and alternative first line have been developed. The various formats are:

- Pre-ART register
- ART enrolment register
- Patient ART record (White Card)
- Patient ID card (Green Book)
- Drug stock register
- Drug dispensing register
- Monthly report format from ART Centres - (updated October, 2009)
- Monthly CCC reporting format
- Second line weekly summary report - November 2008
- Alternate first line weekly summary report - January, 2010
- Alternate first line and second monthly report format - January, 2010)

In the monthly ART Centre reporting format additions have been done to get more information on HRG, CD4 counts and socio-economic status of the patients. Separate reporting formats have been developed for patients who have been initiated on second line ART and alternate first line ART.

Monitoring and Supervision by Regional Coordinators:

For close monitoring, mentoring and supervision of ART Centres, various states have been grouped into regions and Regional Coordinators have been appointed to supervise the programme in their regions. The Regional

Coordinators visit ART Centres in their zone at least once in two months and send regular weekly and monthly reports to NACO. A monthly meeting of Regional Coordinators is held at NACO to review the various issues pointed out by them. In addition, consultants (Care Support and Treatment) have been appointed at most SACS. NACO & SACS officials also visit centres based on their monthly reports, feedback from Regional Coordinators, INP+, NGO etc. Currently there are 10 Regional Coordinators in various parts of the country.

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. During these meetings, the state officers give an update on the various CST related activities in their state and where required remedial measures are taken. Besides this, ART centre- CCC coordination meetings are also held in order to facilitate the induction of newly established CCC to facilitate the linkages and referral system between ICTCs, CCC the Department of AIDS Control, ART centres.

During May-July 2009, the Department of AIDS Control conducted 10 coordination meetings across the country. These meetings were attended by the Project Coordinators of the CCC, Medical Officers at the ARTs. Members of the Governing Board of the NGO running CCC have also been encouraged to attend these Meetings. These meetings provided a good platform to address the local operational issues surrounding the ART Centres and the CCC.

Action on Patients Lost to Follow Up

The information on patients lost to follow up (LFU) is captured in the CMIS through the monthly reports from the ART Centres. This information is monitored very closely and Centres with high rates of LFU are visited by senior officers of NACO. Presently the cumulative LFU has been reduced to nearly 6.2 percent. The responsibility of tracking and providing home-based counseling for patients LFU is shared between CCC through outreach workers, PLHA networks and counselors of ICTC in some places.

Smart Card System: NACO is in process of implementing the “Smart Card” Project. This card would act as a portable medical record and would

facilitate easy storage and analysis of data. The Smart Card project further mandates that all the treatment records at the ART Centres should be complete.

To ensure electronic data for all PLHA on ART, a drive was launched with a twofold objective of improving the quality of the present system of the data entry at the ART Centres, and to provide an impetus to complete the backlog of the existing incomplete records. The vision was to inculcate the importance of complete & correct record filling in the ART Centre staff. A “Complete ART Record” is one in which all errors or deficiencies have been corrected in all registers/ formats and has been properly secured and filed. There are six registers/records that need to be maintained, duly filled, at all the ART Centres.

After a successful pilot project, the Smart Card System has been planned under GFATM Round VI. The management is being done by M/s IL and FS, and M/s HCL Infosys is the Software Development Agency. This system will be operational from the year 2010-11.

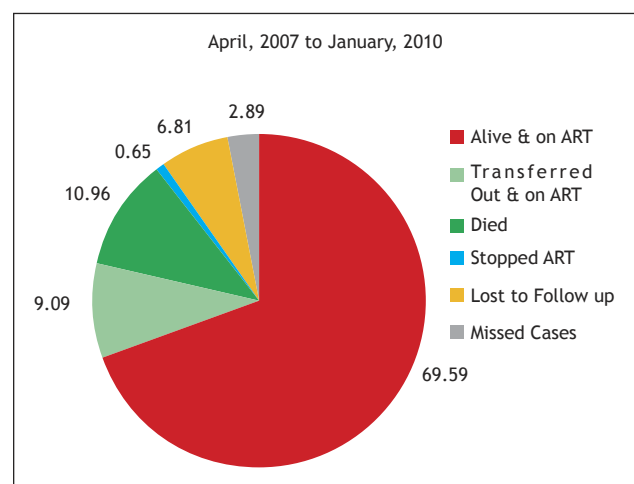
Evaluation & Operational Research

During the first half of NACP-III, various studies undertaken related to CST are:

Studies Completed

1. Assessment of ART Centres in India: Clients’ and providers’ perspectives
2. Baseline CD4 count of PLHA enrolled for ART in India
3. Assessment of Link ART Centres in India

Fig 11.4: Cumulative outcome of PLHA on ART



Source: Computerised Management Information System, NACP-III

Ongoing Studies

1. Resistance to first line ARV drugs
2. Baseline CD4 count of healthy adult population
3. Factors affecting enrolment for ART
4. Determinants of ARV drug adherence
5. Early Warning Indicators for Drug Resistance
6. Assessment of Community Care Centres in India
7. HIV Case Reporting and Cohort Analysis of PLHA on ART.

New Initiatives

Second Line ART for Adults and Adolescents: The levels of primary drug resistance in the population vary from country to country. At present we do not have any concrete data on primary resistance of HIV to first line ARV drugs. However this is thought to be in the range of 2-3 percent. Regarding secondary resistance, the global experience shows that the development of drug resistance occurs at a rate of five percent per year, after three years of treatment. It is estimated that presently around 3,000 patients may be in need of second line ART.

The main issues related to provision of second line drugs under the programme are:

- The cost of second line ART regimen under the national programme is around Rs 35,000 per patient per year.
- There are 7-9 pills to be taken in the second line ART regimen compared to just two in first line ART and thus, supporting patient adherence is very important.
- Special training of healthcare providers is required prior to roll out of second line drugs.
- Institutional strengthening is necessary particularly laboratories for viral load and drug resistance testing.
- Regulatory mechanisms for rational prescriptions by private practitioners need to be in place to minimise the chances of resistance due to wrong prescriptions.

The process for the roll out was initiated by NACO more than three years ago with national consultations on the need and feasibility of introducing second line drugs. This was followed by the formation of a TRG on ART at NACO which deliberated on various issues related to the provision of second line in the national programme. The WHO, Clinton Foundation, CDC and I TECH, private physicians, NGOs and INP plus were involved in the development process.

The second line ART roll out was started on a pilot basis at two centres in Jan 2008. On completion of this pilot project it was then expanded across at eight more centres in January, 2009. Currently, there are 970 patients on second line ART across the country.

Presently the roll out of 2nd line ART is restricted to 10 Centres of Excellence. For evaluation of patients for initiation on second line and alternate first line, a State AIDS Clinical Expert Panel (SACEP) has been constituted at each Centre of Excellence (COE). The members of this panel are:

- Nodal Officer of COE/ART centre,
- One more ART expert (panel to be formed by NACO, preferably not from the same ART Centre)
- Regional Coordinator/Jt. Director (CST)/ Consultant (CST) at SACS,

In addition to the above, there would be observers from the central level regularly for monitoring purposes.

The National ART programme at present provides Fixed Dose Combination (FDC) of Zidovudine + Lamivudine + Nevirapine/Stavudine + Lamivudine + Nevirapine & Efaviranz for patients co-infected with Tuberculosis. However, there are some patients who get toxicity (side effects) to both Stavudine and Zidovudine in the NNRTI group or to Nevirapine and Efavirenz in NNRTI group. Secondly, there is issue of HIV-2 treatment. The approximate prevalence of HIV-2 in the country is 3-5 percent (data being collected from NARI and other sources). The patients with HIV-2 infection do not respond to Nevirapine or Efavirenz. Therefore, it has been recommended by ART TRG that a Protease Inhibitor based regimen should be provided for all PLHA who are diagnosed with HIV-2.

The TRG of ART has approved the following regimen for alternative first line drugs. Guidelines for alternate first line ART have been approved and disseminated to the Centres of Excellence (COE) and regimens have been made available at the centres.

Early Infant Diagnosis: Addressing HIV/AIDS in children especially infants below 18 months is a significant global challenge. Recent evidence demonstrates that early HIV diagnosis and ART are critical for infants, and a significant number

of lives can be saved by initiating ART for HIV-infected infants immediately after diagnosis within the first 12 weeks of life. The programme has been rolled out from 1 March 2010 at 760 ICTC and 180 ART centres.

Objectives of the programme are:

- To identify the HIV-infected child early, prior to the development of clinical disease during the first months of life;
- To reduce paediatric mortality and morbidity due to HIV/AIDS; and
- To initiate ART in an infant with rapidly progressing HIV disease.

These objectives are proposed to be achieved through following strategies:

- Integration of early infant diagnosis by DNA PCR into the Care, Support and Treatment Services.
- Availability and accessibility for the HIV testing by DNA PCR test for the children below 18 months at all the ICTC centres (by Dried Blood Spot) and at the all ART centres by Whole Blood Sample. Nationwide coverage will be done in phased manner.
- Infant HIV testing algorithm to be universally followed and implemented on every HIV exposed infant to ensure equal and routine access
- Linkage of the Exposed and infected infants to appropriate referral and care and treatment services to ensure timely intervention to reduce infant morbidity and mortality due to HIV infection

Paediatric Second Line: While the first line therapy is efficacious, certain proportion of children shall show evidence of treatment failure. There is not much data on the failure rate on the Nevirapine based ART in children. However, the WHO estimates that the average switch rate from first to second line ART of three percent per year for adults (prioritising second-line antiretroviral drugs for adults and adolescents: a public health approach. Report of a WHO Working Group meeting, Geneva 2007. It is likely that similar rates are applicable for children as well. The current WHO guidelines for switching stipulate that clinical disease progression or a drop in CD4 cell count to pre-treatment baseline or fall of 50 percent from peak value are signs of treatment failure, and are recognised not to be sensitive for detecting early replication of HIV due

to emerging HIV drug resistance. It is important to have reliable estimates of the failure rate so as to plan roll out of second line therapy and plan the logistics. Till these estimates are available, the figure of three percent rate for switch from first line to second line ART may be used for the planning of the programme

A line list has been established between NACP and RNTCP. This will ensure fast tracking of patients co-infected with HIV and TB and also ensure proper treatment. For the same, guidelines have also been prepared in collaboration with CTD and HIV- TB division at NACO for training of medical officers on TB diagnosis and treatment posted at ART centres.

Air-borne Infection Control: Airborne pathogens are smaller than droplets (less than 5µm) and remain suspended in the air for a long period of time. They are transmitted when people inhale contaminated air. Examples of conditions include Pulmonary Tuberculosis, Measles, Varicella, Severe Acute Respiratory Syndrome (SARS) and Swine flu caused by A (H1N1) virus. Air-borne pathogens in healthcare environment pose considerable risk to immune-compromised patients who may inhale fungal spores, bacteria and viruses. Air borne microorganism can lead to life-threatening infections, costing healthcare services a substantial amount every year. Control of airborne infectious agents in healthcare facilities, is critical both to effective healthcare and to the control of direct and indirect healthcare costs.

HIV Care for Prisoners: Patients in prison have the same rights for healthcare just like those outside. HIV/AIDS is a serious health threat for prison populations in many countries, and presents significant challenges for prison, public health authorities and national governments. There are 1,305 prisons in India (Central prison-93, District prison-257, Sub-prison-850, Open Prison-2, Special prison-28, Women prison-17, Borstal Institution-13, and Juvenile and Lunatics Camps-13) having the authorised capacity of 2,14,241.

It has been also found that prison conditions increase the progression of HIV and the onset of AIDS and death. Prison environment governs the nutrition provided, status of stress and Opportunistic Infections in the positive inmates. Crowded, poorly ventilated cells, increase the

risk of TB for all prisoners. A study conducted in South African prisons found that 90-95 percent of deaths in prison are AIDS-related, primarily in conjunction with TB. Thus, prisons represent an intervention opportunity, a chance to reach a high risk segment of the population that might otherwise be missed. Healthcare, treatment, and education have been identified as the critical aspects.

ART Centres in the Non-Government Sector and Inter-Sectoral Co-ordination: It is understood that all the patients who require ART will not necessarily be accessing government health set-up and a significant number will be getting treatment from private sector, NGOs & other institutional/workplace healthcare facilities. Therefore it is planned to strengthen the public

private partnership by involving the corporate sector and NGOs. Some of the steps already taken in this direction are:

- NACO is partnering with Confederation of Indian Industries (CII), IBT, FICCI & other corporate sectors on workplace intervention & providing of care, treatment & other support to people living with HIV/AIDS. The MoUs have been signed with ACC and BILT, Bajaj Auto Limited, L&T and Godrej and ART centres have been set up.
- NACO is in regular interaction with the Army, Railways, SAIL, paramilitary forces and NGOs like YRG Care, Freedom Foundation, Swami Vivekananda Youth Movement, Private Medical Colleges, for Care & Support activities including ART.



Activities in North-Eastern States

In the North-Eastern region, the dual HIV epidemic driven by unsafe sex and injecting drug use is highly concerning. Moreover, there are many new areas in the north-eastern states where HIV is increasing, particularly among injecting drug users. As such the strategy of Prevention and Control of HIV infection in these States is largely focusing on prevention of HIV infection in this sub population along with other components of the programme.

Tracking HIV Epidemic in North-Eastern States

The HIV epidemic in the North-Eastern region of the country is largely driven by use of HIV infected syringes and needles by Injecting Drug Users (IDUs) and increasing transmission of HIV through sexual mode in the region. This dual HIV epidemic in the northeast, driven by IDUs and sex workers, remains unabated.

As per the HIV Sentinel Surveillance conducted in 2007, HIV seropositivity among pregnant women

was 0.75 percent, 0.60 percent and 0.75 percent in Manipur, Nagaland and Mizoram respectively. Although HIV prevalence among IDUs in Manipur has declined over the years, all four IDU sentinel surveillance sites in Manipur still have HIV prevalence more than 10 percent. In addition, HIV prevalence among sex workers appears to be increasing in Nagaland and Mizoram.

In all the states of the North-Eastern region, NACO had established sentinel sites among various risk groups to track the progression of HIV epidemic. The risk group-wise distribution of the sentinel sites included in each of the North-Eastern States for HIV Sentinel Surveillance round 2008, are shown in Table 12.1.

Every year, NACO conducts an annual round of HIV sentinel surveillance in these designated sentinel sites to monitor the trends of HIV infection in these States. The data collection for HIV Sentinel Surveillance round 2008 has concluded and

Table 12.1: Group-wise distribution of the sentinel sites in North-Eastern States for HIV Sentinel Surveillance Round 2008

State-wise Sentinel Site Distribution 2008 in NE States									
S. No.	State	STD	ANC	ANC(R)	FSW	IDU	MSM	Migrant	Total
1	Arunachal Pradesh	7	6	0	3	2	0	0	18
2	Assam	9	16	0	14	2	1	0	42
3	Manipur	2	10	4	3	4	1	0	24
4	Meghalaya	3	1	6	0	0	0	0	10
5	Mizoram	2	8	0	1	5	0	1	17
6	Nagaland	1	11	8	1	8	0	0	29
7	Sikkim	1	3	0	1	2	0	0	7
8	Tripura	7	2	0	0	1	0	0	10

Table 12.2: District categorisation in North-Eastern States (based on HSS 2004-2006)

S. No.	State	A	B	C	D
1	Arunachal Pradesh	1	0	6	9
2	Assam	0	1	13	9
3	Manipur	9	0	0	0
4	Mizoram	2	1	5	0
5	Meghalaya	0	0	7	0
6	Nagaland	10	0	0	1
7	Sikkim	0	0	3	1
8	Tripura	0	1	2	1
	Total	22	3	36	21

analysis of the data is in progress, report will be published after analysis of data.

Programme Components

DAPCUs have been established in all 22 A and 3 B category districts in the North-Eastern States.

The details of the institutions carrying out HIV/AIDS prevention and control activities in North-Eastern States are at Table 12.2.

Priority Targeted Intervention for Populations at High Risk: This component of the project aims to reduce the spread of HIV in groups at high risk by identifying target populations and providing counseling, condom promotion, treatment of sexually transmitted infections etc. It is delivered largely through non-government organisations, community-based organisations and the public sector.

Preventive Interventions for the General Population (Tables 12.4 to 12.9)

The main activities are: (a) IEC and awareness campaigns; (b) provide voluntary testing and counseling; (c) reduction of transmission by blood transfusion; etc.

Care, Support and Treatment

There are 18 ART centres functioning in the North-Eastern States. The details of these centres and number of patients on treatment are shown in Table 12.10

Institutional Strengthening: SACS have been strengthened in all North-Eastern States by providing them adequate financial and human resources for the effective implementation of programme components.

Table 12.3: Institutions carrying out HIV/AIDS prevention and control activities in the North-Eastern Region

State	Arunachal Pradesh	Assam	Manipur	Mizoram	Meghalaya	Nagaland	Tripura	Sikkim	Manipur (Others)	Nagaland (Orchid)
ART	1	3	6	1	1	4	1	1	1 (by MSF)	0
CCC	0	3	6	2	0	5	2	0	1 (by PFI)	0
Link ART	0	7	5	3	0	3	0	0	0	0
ICTC	41	83	54	25	9	45	14	12	0	0
STI	14	23	10	8	8	11	9	6	0	0
BB	13	31	3	10	6	8	6	2	0	0
TI-IDU	3	8	42	24	3	29	1	2	6 (Orchid)	4
Coverage(IDU)	2,012	3,100	31,750	15,200	1,500	12,806	650		9,500	8,580
TI-MSM	0	5	2	1	0	2	0	0	1(Orchid)	1
Coverage(MSM)	0	1,500	1300	300	0	500	400 (core composite)	0	800	300
TI-FSW	6	36	6	2	4	0	6	2	0 (Orchid)	3
Coverage (FSW)	3,562	19,600	6,360	1,470	2,500	425	5,750		1,360	2,400
TI- Core composite	6	0	0	7	0	6	2	0	9 (Orchid)	7
TI-Migrants	6	6	2	7	1	1	9	1	0	0
TI-Truckers	0	1	0	0	0	1	0	0	0	0
Total TI	21	56	52	41	8	39	18		16 (Orchid)	15
Alive and on ART (Adult) (Nov 2009)	26	789	5,103	551	72	4,164	93	32		
Alive and on ART (Paediatric) Nov 2009	1	28	411	48	2	90	1	1		

Table 12.4: Priority targeted interventions in states of NE region

State	No. of Targeted Interventions	No. of Female Sex Workers (FSW) targeted coverage	No. of Men having sex with Men (MSM) targeted coverage	No. of Injecting Drug Users targeted coverage	Migrants targeted coverage
Manipur	54	5,000	600	20,300	5,000
Nagaland	39	425	500	12,806	5,000
Highly vulnerable states					
Assam	58	17,800	1,500	3,300	30,000
Vulnerable States/ Union Territories					
Arunachal Pradesh	21	3,562	Nil	2,012	61,642
Meghalaya	05	2,354	Nil	2,473	Nil
Mizoram	41	1,270	308	14,900	46,000
Sikkim	06	223	Nil	374	1,730
Tripura	18	5,500	400	650	60,000
Total			3,308		

Scoring Goals Against HIV/AIDS

Football matches with a difference. NACO could not have found a more innovative way of reaching out to the youth of Mizoram to give message on drugs, HIV/AIDS, than by using the competitive power of football matches.

Aptly called the Red Ribbon Inter village Football Tournament, it involved 212 teams, divided into four groups with 53 teams each. The total number of matches played were 207, more powerful was the fact that it was the first time that state level football matches were organised at the Village Council level. It was the biggest football tournament ever organised for the social cause of HIV/AIDS in the state of Mizoram.

The matches started from January 2010 and concluded on 19 February 2010. 4,000 players who participated in the tournament wore jerseys with HIV/AIDS message written on it "Healthy living to prevent HIV/AIDS". They took pledge to work towards stopping HIV/AIDS. They also willingly underwent HIV testing and donated blood.

The football matches not only drew immense political support but also involved civil society, creating a collective ownership for all, on not just the football tournament but on the whole issue of HIV/AIDS. Nine matches were played after the quarter-finals; each was accompanied by a banner competition. Besides this, SMS quiz competition on HIV/AIDS was organised for the spectators and the first correct SMS received a prize. Prises were also given to the best supporting fans.

The tournament was implemented for NACO by UNODC, in partnership with the Mizoram SACS, Government of Mizoram, Media house Zonet cable network and Mizoram Football Association (MFA). On the day of the finals over 10,000 spectators cheered the two teams and it was shown live on the cable television, watched by over one lakh viewers. While Electric Veng club, won the tournament, by 2-0, against Dinthar Veng club, what mattered most was that people had come together to score against HIV/AIDS.



Table 12.5: Information, Education & Communication

State	No. of Drop in Centres	No. of Folk performances*
High Prevalence States		
Manipur	4	10
Nagaland	10	22
Highly Vulnerable States		
Assam	2	2
Vulnerable States / Union Territories		
Arunachal Pradesh		16
Meghalaya	1	11
Mizoram	7	25
Sikkim		16
Tripura		13
Total	24	115

*The folk performances are yet to start in these states

Table 12.6: Integrated Counseling & Testing Centres (ICTC)

State	No. of stand alone ICTCs	ICTCs in 24 hour PHC	ICTCs in PPP	No. of general clients tested	No. found seropositive	No. of pregnant women tested	No. found seropositive
High Prevalence States							
Manipur	54	0	1	5,666	654	7,471	63
Nagaland	65	0	0	16,783	566	5,543	52
Highly Vulnerable States							
Assam	83	13	4	17,148	310	39,430	35
Vulnerable States / Union Territories							
Arunachal Pradesh	35	0	0	4,249	6	2,573	0
Meghalaya	9	11	2	499	27	630	4
Mizoram	25	27	7	8,315	188	4,906	34
Sikkim	13	0	0	2,698	0	1,934	0
Tripura	9	0	0	2,248	0	1,254	0
Total	293	51	14	57,606	1,751	63,741	188

Table 12.7: Blood safety

State AIDS Control Society	No. of NACO supported Blood Banks	Model Blood Banks	MBB with Blood Component Separation Unit	Major Blood Banks	District Level Blood Banks	Total Blood Collection (2009-10) (In units) April 2009 to current	Proportion of voluntary blood collection (VBD %)	HIV seroreactivity in blood donors (2009-10)
High Prevalence States								
Manipur	3		1	1	1	5,947	13	0.2
Nagaland	8			1	7	2,717	76.1	0.35
Highly Vulnerable States								
Assam	32	2	1	3	26	55,735	49.6	0.1
Vulnerable States / Union Territories								

State AIDS Control Society	No. of NACO supported Blood Banks	Model Blood Banks	MBB with Blood Component Separation Unit	Major Blood Banks	District Level Blood Banks	Total Blood Collection (2009-10) (In units) April 2009 to current	Proportion of voluntary blood collection (VBD %)	HIV seroreactivity in blood donors (2009-10)
Arunachal Pradesh	3			1	2	1,345	93	0.1
Meghalaya	5		2	0	3	2,922	27	0.3
Mizoram	8		1	1	6	9,641	80.5	0.3
Sikkim	2			1	1	1044	62.7	0.15
Tripura	6		1	2	3	6,328	91.9	0.13
Total	67	2	6	10	49	85,679		

Table 12.8: STI-RTI services

State AIDS Control Society	No. of designated STI clinics as per NACO records	No. of new clinics proposed	No. of New Clinics Set up	No. of STI/ RTI episodes to be treated - SACS Target (inclusive of TI)	Achievement as per CMIS upto August 2009	Total Staff Trained
High Prevalence States						
Manipur	10	0	0	8,694	212	0
Nagaland	11	0	0	11,722	1,656	0
Highly Vulnerable States						
Assam	23	2	0	103,620	10,284	0
Vulnerable States						
Arunachal Pradesh	14	2	0	8,677	3,010	0
Meghalaya	8	0	0	7,534	515	0
Mizoram	8	0	0	5,952	1,696	30
Sikkim	5	1	1	2,292	373	0
Tripura	6	3	0	10,639	4,573	0
Total	85	8	1	1,59,130	22,319	30

Table 12.9: Link Worker Scheme under GFATM Round VII

LWS Implementation Plan			Coverage			Programmatic Update	
State AIDS Control Society	No. of Districts covered under LWS	No. of Districts to be covered in 2011	Total Population of the District Mapped (covered)	No. of Blocks in 2009	No. of Villages covered in 2009	Total no. of Link Workers recruited and trained in Year 1 (current year)	% of Human Resource Recruited and Trained @district level
Manipur	2	7	2,37,723	11	240	80	100
Nagaland	1	10	98,123	11	120	40	15
Assam		1					
Mizoram	1	3	1,18,657	4	100	40	100
Sikkim	1	1					
Tripura	1		4,03,310	7	120	40	98
Total	5	22	8,57,813	33	580	200	73

Table 12.10: Details of ART centres and number of patients

State AIDS Control Society	No. of ART Centres	No. of patients alive & on ART	No. of Link ART Centres	No. of Community Care Centres
High Prevalence States				
Manipur	6	5,284	6	6
Nagaland	4	1,327	7	5
Highly Vulnerable States				
Assam	3	709	7	3
Vulnerable States				
Arunachal Pradesh	1	23	1	0
Meghalaya	1	57		1
Mizoram	1	536	3	2
Sikkim	1	23		1
Tripura	1	493	1	2
Total	18	8,452	25	20

Table 12.11: Status of Facilities under National AIDS Control Programme as on August 2009

State	Number of ART Centre	Number of NACO supported Blood Banks	Number of Community Care Centre	Number of Integrated Counseling & Testing Centre	Number of Sexually Transmitted Infection Clinic	Number of Targeted Intervention	Number of Drop in Centre
High Prevalence States							
Manipur	6	3	6	54	10	54	4
Nagaland	4	8	5	65	11	39	10
Highly Vulnerable States							
Assam	3	32	3	83	23	58	2
Vulnerable States							
Arunachal Pradesh	1	3	0	35	14	21	0
Meghalaya	1	5	1	9	8	5	1
Mizoram	1	8	2	25	8	41	7
Sikkim	1	2	1	13	5	6	0
Tripura	1	6	2	9	6	18	0
Total	18	67	20	293	85	242	24

Financial Allocations: The Statewise financial allocation for each of the State in 2009-10 is shown in Table 12.12.

North-East Regional Office, Guwahati

NACO has a regional office at Guwahati, Assam the only such first sub-office demonstrating the commitment of the national programme to the North-Eastern States. This office has been involved since 2007 in extending support to strengthen the response of the states to the HIV epidemic in the region.

Table 12.12: State wise financial allocation during 2009-10

State	Financial allocation (Rs in lakh)
Arunachal Pradesh	814.8
Assam	1763.02
Manipur	2520.49
Meghalaya	459.5
Mizoram	1322.59
Nagaland	1938.71
Tripura	695.2
Sikkim	415.6

The NACO office is lead by Team leader with a team of 15 technical persons from NACO, UN agencies, BMGF and BBC-World Service Trust in addition to 23 district level staff specially engaged in building capacity of Targeted Intervention Programmes.

The office works to strengthen the capacity of SACS and key stakeholders for quality and sustainable programme implementation of NACP-III in the eight states of North-East including:

- facilitating the improvement in performance of the SACS and key stakeholders to deliver quality programmes with a special focus on the 13 high prevalent districts
- strengthening existing systems ensuring quality management process and better implementation of National AIDS Control Programme by the states
- creating an enabling environment in partnership with other donor agencies.

Key Areas of Technical Support to SACS:

- Facilitate development of project implementation plans, annual action plans for

HIV prevention, treatment, care for the eight North-Eastern states

- Support implementation of annual action plan by providing strategic technical assistance at the local level and establishing close collaboration with the other programmes of the Government of India and civil society
- Facilitate establishment of coordination mechanisms at districts, states and regional levels and ensure effective deployment of technical and financial resources from all partners
- Capacity building: The NACO Sub Office in Guwahati pays a key role in coordinating between Institutions identified for capacity building of the states and programme components and State AIDS Control Society to ensure training programmes gets completed on time and equipping the training institutes to monitor the quality of the training programmes.
- The sub-office is facilitating formation and roll out of DAPCU in the category A and B districts to start with.

Strategic Information Management

13.1 Monitoring & Evaluation

The NACP-III believes that a strong Strategic Information Management System (SIMS) acts like an 'early warning mechanism,' to effectively support evidence-driven management. The Department of AIDS Control is committed to strengthen the Monitoring and Evaluation (M&E) system countrywide so that issues related to data collection, compilation, analysis and use are effectively addressed. This involves establishing and strengthening institutional mechanisms and capacities at National and state level.

In order to maximise effective use of all available information and implement evidence based planning, NACP-III established a Strategic Information Management Unit (SIMU). It is set up at national level and is also being set up at state levels. SIMU will assist NACP-III in tracking the epidemic and the effectiveness of the response and help assess how well NACO, SACS and all partner organisations are fulfilling their commitment to meet agreed objectives.

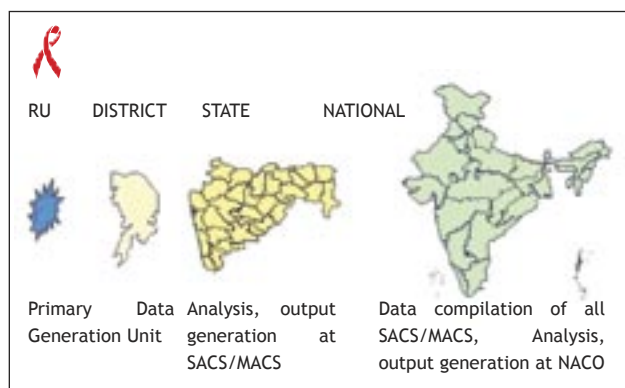
Integrated M&E Plan for NACP-III

A sound strategy has been developed laying down the conceptual framework for M&E under NACP-III in the Project Implementation Plan. For developing M&E Plan, an assessment using GFATM diagnostic tools, along with all implementing partners was done and a comprehensive M&E plan was developed. This e plan laid down the basic rules, definitions and operating procedures to ensure a strong M&E system to monitor progression of HIV epidemic in India as well as track the performance of the programme in country. The Operational Guideline for Strategic Information Management Unit (SIMU) and a handbook of core indicators give details of definitions, source of collection, frequency, level of use and strengths and limitations.

Strengthening Systems for Better M&E

An assessment of existing systems was done including manpower, infrastructure, hardware and software and connectivity.. Recruitment was closely monitored so as to have people with required capacities in place.

Fig 13.1: Data collection flow under NACP-III



To ensure **supportive supervision**, a system of quarterly review and training of M&E Officers was initiated. A review on quantity and quality of reporting is done. Directions and guidelines for on-site verifications were developed and sent to SACS.

Component specific consultations are organised to assess the information needs, current information sources and tools being used to identify gaps and discuss proposed plan for better monitoring so as to improve programme outcomes.

Improving Timeliness and Completeness of CMIS Reporting: For improving timeliness and completeness of CMIS reporting, a systematic approach has been undertaken. Visits to major non-reporting states resulted in rectifying problems of non-reporting. It helped reinforce uniform tools, through CMIS trainings along with ongoing mentored support. This improved the reporting tremendously.

Supporting Development of Strategic Planning: Evidence-based planning is the key to effective

programme outcomes. The programme data was extensively used while developing and reviewing plans for the establishment of new Centres or for fixing the annual targets. It is proposed to enhance the Annual Action Plan (AAP) based on the performance on the action taken.

Capacity Building: Strengthening M&E

Capacity Building is in-built in national M&E plan. Accordingly regular sessions for M&E and programme staff are undertaken.

Training of M&E Officers: In April 2009, Training on Bio-statistical methods and Analysis through SPSS was organised for M&E Officers and Team Leaders (Strategic Planning) of TSU at CMC Vellore. Similar trainings were organised for M&E Officer of North Eastern States and Union Territories in 1st week of August, 2009 at Guwahati.

MESST Workshop: NACO in collaboration with UNAIDS organised a two days National Stakeholders Workshop in New Delhi on 18-19 February 2010, using M&E System Strengthening Tools (MESST) that was suggested by the Global Fund. The workshop, intended for key stakeholders discussed the National M&E system for HIV.

The workshop was organised with following objectives:

- Orient the participants/stakeholders about the M&E systems strengthening tool.
- Assess the M&E Plan of the HIV/AIDS Programme, data management capacities, and the reporting systems of the Programme per area.

Table 13.1: Various M&E trainings organised from April, 2009-Jan, 2010

Training organised for	Name of the training	No. of Participants	Date & Duration of the training	Venue
Monitoring & Evaluation Officer and TSU Team Leader (Strategic Planning)	Training on Bio-statistical methods & Analysis through SPSS	23	20-24 April 2009	CMC, Vellore
Newly appointed Monitoring & Evaluation Officer of Delhi, Goa, Madhya Pradesh, Himachal Pradesh & Orissa	Induction training	5	26-28 May, 2009	NACO Office, New Delhi
Monitoring & Evaluation Officer of North Eastern States and Union Territories	Training on Bio-statistical methods & Analysis through SPSS	17	3-6 August, 2009	Guwahati
Monitoring & Evaluation Officer of North Eastern States	Workshop for CMIS troubleshooting	8	3-5 September, 2009	Guwahati

- Develop a cost effective Action Plan to address the M&E weaknesses and shortcomings at the three levels (M&E Plan, data management capacities and reporting systems).

There were 65 participants in the workshop which included State M&E Officers from selected SACS (Andhra Pradesh, Karnataka, Delhi and Gujarat), representatives from all the Principal Recipients (PR), selected Sub-Recipients (SRs) of GFATM, representatives from NACP-III Development Partners, UN agencies and Officers from the Department of AIDS Control.

Development of Strategic Information Management System (SIMS): The contract for development of SIMS was awarded to M/S iBilt Technologies (now M/s Vayam Technologies Ltd) in December 2008. The agency undertook a detailed systems requirement study and developed data input tools in consultation with all programme divisions and submitted the System Requirement

Specifications (SRS) and Design Document for review to NACO. The User acceptance test was completed on November and pilot tested in the December 2009. The Web-based application with central server and sophisticated tools available for data analysis and integration from different data sources/platforms will be functional in 2010.

Website of the National AIDS Control Organisation (NACO) (www.nacoonline.org): The National AIDS Control Organisation has revamped its website (Fig 13.2). The new website is driven by a content management system (CMS). The Strategic Information Management Division is maintaining and updating the website on a regular basis.

Working in collaboration with divisions of Department of AIDS Control, it ensures timely update of the content on the website and that the content uploaded are correct and authentic.

Table 13.2: Dashboard for NACP-III (2008-09, 2009-10)

S. No.	Indicators	Target for NACP-III by 2012	April-June, 2009	July-Sept, 2009	Oct-Dec, 2009
1	Number of Targetted Intervention Projects (By category) - Total	2,100	1,271	1,247	1,290
	a. FSW		439	424	437
	b. MSM		130	131	132
	c. IDU		219	220	230
	d. Truckers		48	58	67
	e. Migrants		192	195	204
	f. Core Composite		243	219	220
2	Number of TI's reporting condom Stock-out in last month (%)	Nil	50 (3.9%)	23 (1.8%)	12 (1%)
3	a. Number of ICTC Clients Tested (Non-Cumulative)	2.2 crores/year	29,99,002	3,234,884	34,82,079
	b. Number of ICTC Clients post test counseled and recd result		29,00,785	3,199,700	33,75,668
4	Number of HIV positive pregnant women (mother & baby) receiving complete course of ART prophylaxis (Non-cumulative)		2,578	3,193	3,514
5	Percentage of blood units provided by voluntary blood donors	90%	62	70	67.2
6	Number of ART centres	250	210	226	239

(Contd...)

S. No.	Indicators	Target for NACP-III by 2012	April-June, 2009	July-Sept, 2009	Oct-Dec, 2009
7	Number of eligible persons with advance HIV infection receiving ART (Cumulative Total)	3,00,000	2,44,202	2,68,180	2,82,526 *
	a. Male		1,37,168	1,49,265	1,56,696 *
	b. Female		90,986	1,01,548	1,07,469*
	c. Children		15,668	16,940	17,894*
	d. TS/TG		380	427	467*
8	Percentage of SACS with HRG representatives included in SACS decision making bodies	100	63 (22/35)	97 (34/35)	77 (27/35)
9	Percentage of districts with at least one functional PLHA Network	100	46 (289/625)	48 (301/625)	50 (315/630)
10	Percentage of funds disbursed relative to target	100	40	40	44
11	Percentage of SACS having approved financial and administrative delegations	100	88.5(31/35)	85.7(30/35)	85.7(30/35)
12	Percentage of states where Donor Partnership forum met last quarter	100	28.5(10/35)	31.4(11/35)	60(21/35)
13	Percentage of SACS where JD(TI)/AD(TI)/DD(TI) position in SACS filled	100	74(26/35)	86(30/35)	54(19/35)
14	Percentage of SACS where Project Director is sole in-charge of SACS for more than one year	100	62	86	72
15	Percentage of SACS with at least 80% CMIS reporting	80	89	71	86.2
16	Percentage of SACS which submit Dashboard to NACO regularly	100	97.4	97.4	97.4
17	Percentage of due procurement contracts awarded during original validity period	100	88.8	88.8	88.8
18	Number of ICTC's reporting test kits stock out during quarter	Nil	120(N=4,955)	130(N=4,955)	171(N=5,089)
19	Number of ART centres reporting drugs stock-out during quarter	Nil	3	0	0
20	Percentage of SACS where Governing body met during the reporting quarter?	100	49(17/35)	88(31/35)	60(21/35)
21	Number of districts with District Unit (DAPCU) established	195	125	149	181

* As of November 2009

Note: 225 TIs are supported by donor agency

The website is updated regularly by coordinating with different divisions of NACO, SACS, other government departments and partners.

Efforts are underway to develop the website as a knowledge hub, provide more interactive features including Dashboard and Key Process Indicators, Geographical Information System (GIS), and facilities for Interactive Data; Messaging solution, Document Management, Bulletin Board and Chatting, Effective Feedback and Communication.

13.2 Surveillance

HIV Sentinel Surveillance (HSS)

India has the largest HIV surveillance system in the world. In the two-and-a-half decade long journey of HIV surveillance in India, the system has gone through a remarkable development both in terms of coverage, processes and implementing structure. This impressive expansion and improvised strategies make it one of the best HIV surveillance systems globally.

Scale-up of Sentinel Sites: HIV surveillance in India has started from the year 1985 when ICMR for the first time initiated the surveillance activity in blood donors and patients with Sexually Transmitted Diseases (STDs). After NACO was established in 1992, sentinel surveillance for HIV/AIDS in India was initiated with sentinel sites confined to selected cities initially. In 1998, NACO formalised annual HSS across the country. Over the years, the numbers of sentinel sites were increased from 180 in 1998 to 1,215 in 2008 (Fig 13.3). The population groups monitored under HSS include pregnant women attending antenatal clinics (ANC), patients attending STD Clinics, Female Sex Workers (FSW), Men who have Sex with Men (MSM), Injecting Drug Users (IDU), High Risk Migrants/ Single Male Migrants and Long distance Truckers (Table 13.3).

Objectives: For HIV sentinel surveillance, specific sites are selected across the country to cover different target populations and a stipulated number of samples are collected for HIV testing. Since data is collected from the same selected

Fig 13.2: A screen shot of NACO website

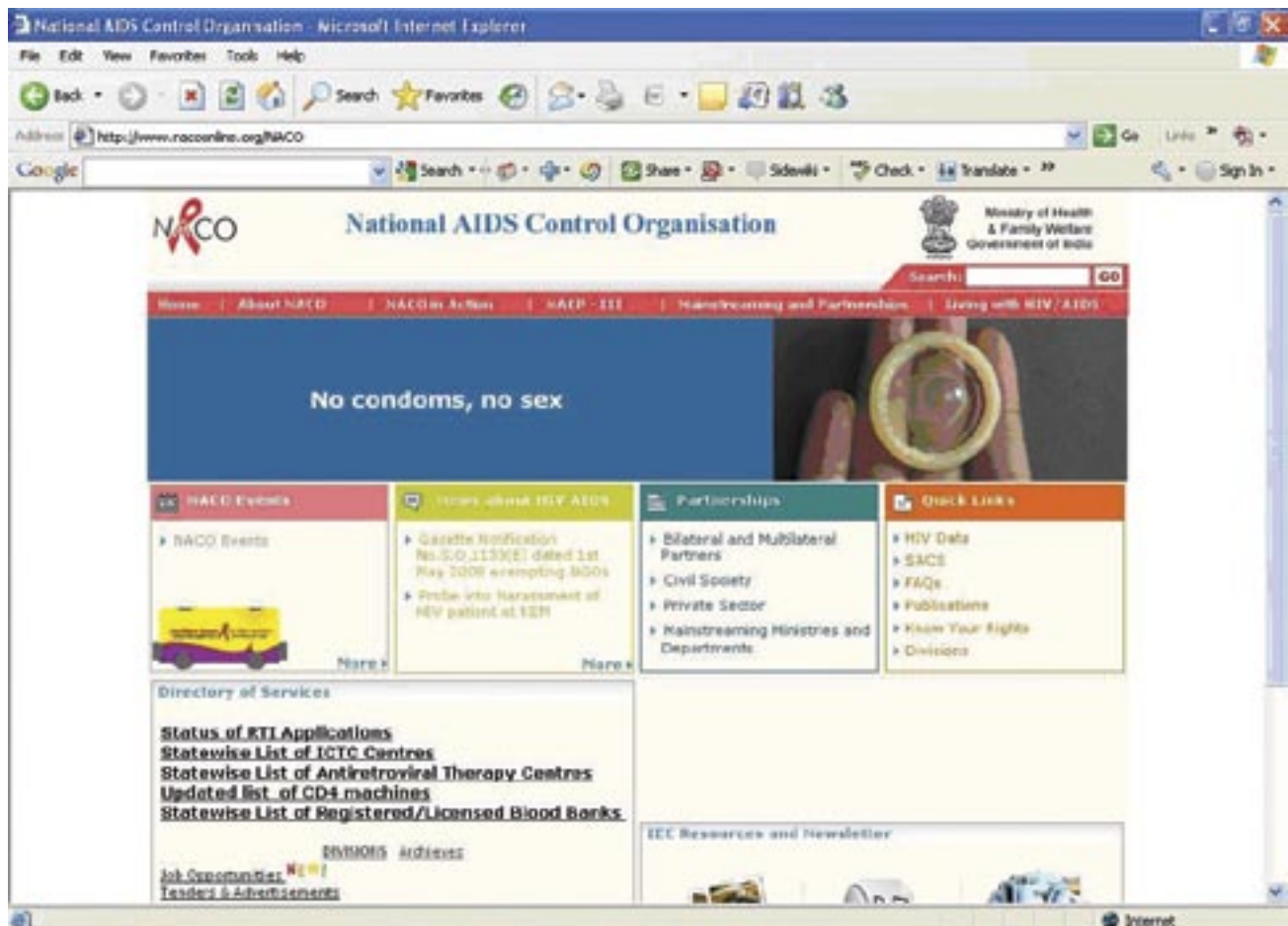
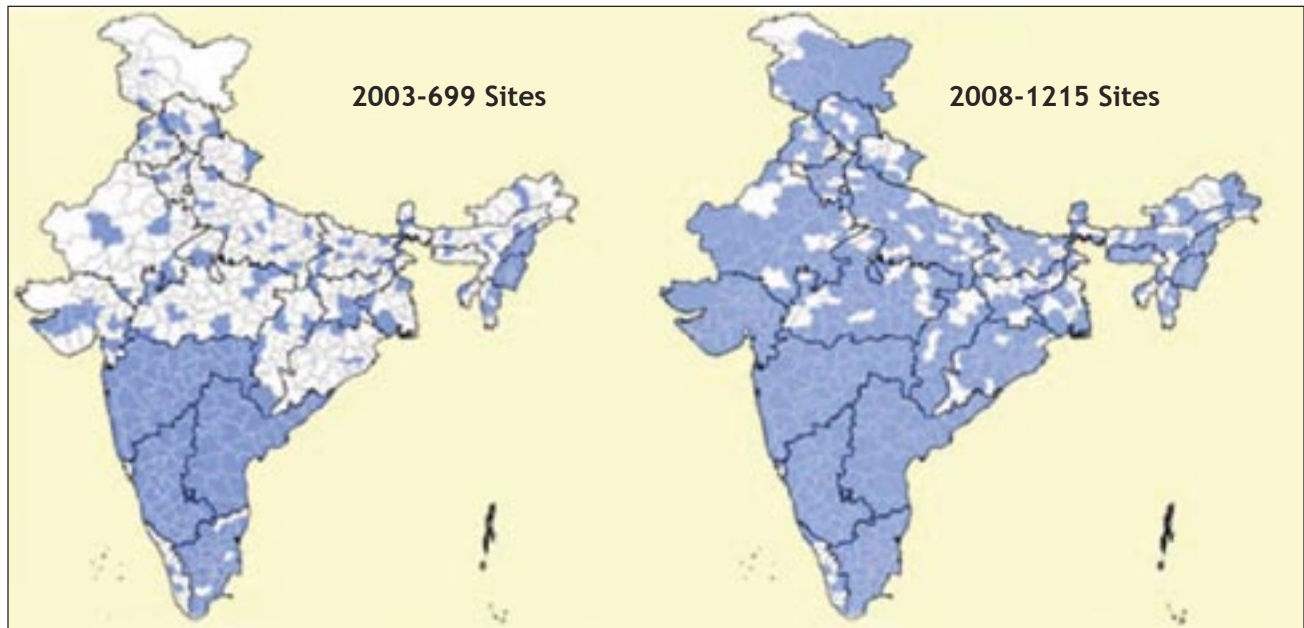


Fig 13.3: Expanded network of HIV Sentinel Surveillance



sites every year, it provides important information to understand the trends of HIV epidemic in different geographical regions as well as in different population groups. The data is also used for the purpose of estimation of HIV infected persons in the country, HIV incidence, Mortality due to AIDS and ART needs.

The objectives of HIV Sentinel Surveillance are:

- To understand the levels and trends of HIV infection among general population as well as high risk groups in different states.
- To understand the geographical spread of HIV infection and to identify emerging pockets of HIV epidemic
- To provide information for planning the programme in different states and districts, for prioritisation of programme resources and evaluation of programme impact
- To estimate HIV Prevalence and HIV burden in the country besides HIV incidence, Mortality due to AIDS and ART needs.

Methodology of HSS: Sampling is done at selected sentinel sites annually for a period of three months. At ANC and STD sites, strategy adopted is unlinked anonymous and some additional variables are collected with the specimen. Pregnant women attending antenatal clinics are taken as proxy for general population. Consecutive women aged 15-49 years attending the designated antenatal sites (ANC) who meet the inclusion criteria are included. A portion of venous samples collected for routine testing at the ANC clinic is separated for HIV

testing after removing all the personal identifiers. Women are enrolled till the sample size of 400 is reached or until the end of the surveillance period, whichever is earlier. In case of STD sites, the samples are collected from two sources, STD clinic and Obstetrics and Gynaecology (OBG) clinic located in the same hospital. A total of 150 samples from individuals in the STD clinic and 100 samples from individuals in the OBG clinic are collected for a sample size of 250. Only consecutive new cases of STDs diagnosed syndromically (i.e. cases of genital ulcer, urethral or cervical discharge and genital warts) are recruited.

Individuals from high risk groups - IDU, FSW, MSM, Single Male Migrants and Truckers - are sampled at service points (Table 13.4) for example, de-addiction centre, drop-in centres, NGO clinics until the sample size of 250 is reached or until the end of the surveillance period, whichever is earlier. Strategy adopted is unlinked anonymous with informed consent. At the HRG sites, Dried Blood Spot (DBS) method of sample collection has been introduced during the current round. An operational feasibility study was carried out by AIIMS, New Delhi to understand the feasibility issues in implementing this method at HRG sites (Table 13.4).

Testing of Samples and Quality Control: Two test protocol is adopted for determining the positivity. The samples from ANC and STD sites are tested at designated testing laboratories in the respective state. There is a well-defined system of External

Table 13.3: Scale-up of sentinel sites in India - 1998-2008

Site type	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008-09
STD	76	75	98	133	166	163	171	175	251	248	217
ANC	92	93	111	172	200	266	268	267	470	484	498
IDU	5	6	10	10	13	18	24	30	51	52	61
MSM	-	-	3	3	3	9	15	18	31	40	67
FSW	1	1	2	2	2	32	42	83	138	137	194
ANC-Rural	-	-	-	-	-	210	122	124	158	162	162
TB	2	2	-	-	-	-	7	4	-	-	-
Migrant	-	-	-	-	-	-	-	1	6	3	8
Eunuchs	-	-	-	-	-	-	-	1	1	1	1
Truckers	-	-	-	-	-	-	-	-	15	7	7
Others	-	-	-	-	-	1@	-	-	1*	-	-
Total	176	177	224	320	384	699	649	703	1,122	1,134	1,215

@ Seamen *Fisher Folk

Quality Assurance Scheme (EQAS) for laboratory testing. Ten National Reference Laboratories are the nodal laboratories for EQAS where all positive samples and five percent of negative samples randomly selected from all the testing labs are retested for quality assurance. DBS samples from HRG sites are tested at eleven laboratories designated and trained for DBS testing. NARI, Pune provides Quality Control for the testing of DBS samples.

Implementing Structure: The national exercise of sentinel surveillance is implemented through coordination, support and supervision by the National Institute of Health and Family Welfare, New Delhi as the national nodal agency and seven Regional Public Health Institutions. These include Post-Graduate Institute of Medical Education and Research, Chandigarh; All India Institute of Medical Sciences, New Delhi; National AIDS Research Institute, Pune; National Institute of Epidemiology, Chennai; All India Institute of Hygiene and Public Health, Kolkata; National Institute of Cholera and Enteric Diseases, Kolkata; and Regional Institute of Medical Sciences, Imphal. Apart from these, every state has a State Surveillance Team, comprising public health experts and microbiologists who take care of the training of the personnel involved in sentinel surveillance system as well as supervision and monitoring. NACO has also appointed epidemiologists at the SACS to support data analysis at the state level. Besides, NIHF, New Delhi conducts supervision through a group of senior public health experts and microbiologists

who act as Central Surveillance Team Members (Fig.13.4).

Training under HSS: All training programmes in HSS are conducted under the close supervision of regional institutes and state surveillance teams. Operational Feasibility Study for implementation of Dried Blood Spot (DBS) method in HIV Sentinel Surveillance (HSS) has indicated that training is the crucial element for successful implementation of DBS technique. Accordingly, a two-tier training plan was developed for HRG sites. The first level Training of Trainers (TOT) was conducted at all Regional Institutes (RI) where the RI teams, State Surveillance Teams and SACS officials were trained as trainers. Experts in DBS method from NFHS-III team were involved as Master Trainers for TOTs. The second level Training of high risk group (HRG) site personnel was conducted at the respective RI/SACS. Lab Technicians, nurse/counselor/doctors were identified at every HRG site for collection of DBS samples. Both the above trainings were of three days duration with one and half day for skill-building practical/ field exercises. Structured training curriculum, trainers' modules and trainees' modules were developed with the support of NARI, Pune and WHO. TOTs and Training for HRG site personnel were held during December 2008 and January 2009. One day Refresher training for HRG site personnel was held in all the states during March-April 2009.

Procurement and Supplies: The Operational Guidelines were revised, printed and distributed

Table 13.4: Methodology of HIV Sentinel Surveillance

Item	Surveillance among General Population	Surveillance among High Risk Groups (HRG) & Bridge Population	Surveillance among Special Groups
Population Group	Pregnant women attending ANC Clinics of 15 - 49 years age group.	Female Sex Workers, Men who have Sex with Men, Injecting Drug Users, Eunuchs, Migrants, Truckers of 15 - 49 years age group.	Patients attending STD Clinics of 15 - 49 years age group.
Sample size	400 through consecutive sampling	250 through consecutive sampling at service points or satellite points.	250 through consecutive sampling
Method of sample collection	Routine method of blood collection at ANC Clinics (Intra-Venous Samples)	Dried Blood Spot (DBS) Method at HRG sites (Drops of blood collected through finger prick)	Routine method of blood collection at STD Clinics (Intra-Venous Samples)
Testing Strategy	Unlinked Anonymous	Unlinked Anonymous with Informed Consent/ Assent	Unlinked Anonymous
Testing Protocol	2-test protocol	2-test protocol	2-test protocol

to all the sentinel sites, participating institutions and SACS. Central Procurement (Import) and supply of consumables required for DBS method has been completed. Special Sample Transportation Boxes were developed with the support of India Post and Indian Institute of Packaging, Delhi. Speed Post has been engaged for sample pick up from sentinel sites and transport of DBS samples to the testing labs.

Supervision and Quality Review: Four tiers of supportive supervision are in place during the period of HIV Sentinel Surveillance - Central Surveillance Team Members, Regional Institute Teams, State Surveillance Teams and SACS officers. On-site training is provided to the sites where problems are noticed during supervisory visits. Special teams are also constituted to revisit problem sites, review the quality of surveillance process and to validate the data emerging from these sites.

Data Entry: Data entry is done through the web-based data entry system developed and maintained by NIHF, New Delhi. Double data entry at SACS and RIs is undertaken followed by matching to rule out any data entry errors and to ensure clean data for analysis. Special training is conducted at NIHF, New Delhi for data entry operators and surveillance officers at SACS and RIS in the web-based data entry package. The data entry formats have been centrally printed and supplied to all SACS.

HSS Activities during 2009-10

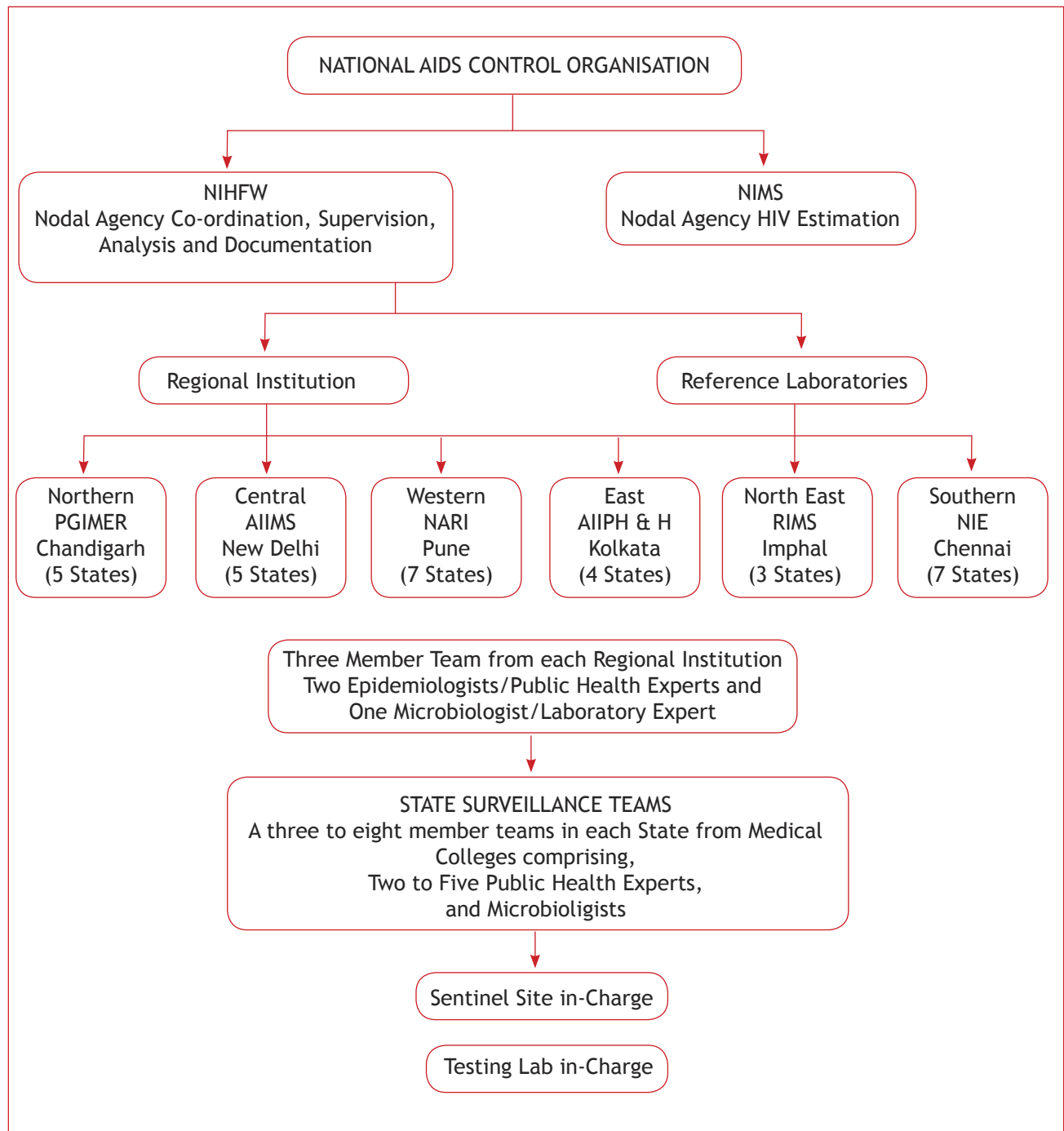
Epidemiological investigation was undertaken into unusual findings from ANC surveillance

in the states of West Bengal, Assam, Haryana, Karnataka, Tamil Nadu and Manipur. Expert teams were constituted and the HIV prevalence figures were validated.

HIV Sentinel Surveillance at High Risk Group sites was conducted from 15th April 2009 to 15th July 2009 at 335 sites in 29 states (Table 13.3). State-wise details of number of sites are provided in the table below. Training was provided to around 1000 site-level personnel including site in-charge, lab technician and nurse/counselor at each site. Consumables were provided to the sites for sample collection and transport. Forty central team members, 30 Regional Institute members, 120 state surveillance team members and 45 SACS officials conducted supervisory visits during the round. Overall, around 80,000 Dried Blood Spot samples were collected during HRG surveillance in 2009. The samples were tested in eleven designated and trained laboratories. NARI, Pune provided external quality assurance for the DBS samples. Double data entry was done at SACS and Regional Institutes. WHO India assisted in matching and finalisation of database.

Strategic Improvements in HIV Sentinel Surveillance: During NACP-III, many efforts are being made to improve the surveillance system, technically as well as operationally. It is also being ensured that surveillance system is shaped to fulfill the epidemiological requirements of the new dynamics of HIV epidemic in the country. While revising the recruitment strategy and improving the sample collection method at high risk groups sites are the major strategic changes on the technical front,

Fig.13.4: Implementation structure of HIV Sentinel Surveillance



focus on establishing an effective & structured training programme and institutionalising a strong monitoring & supervision system are the important strategic efforts on the operational front. Overall, quality has been the central focus in HIV Sentinel Surveillance programme during NACP-III.

The following important developments were initiated in HSS during 2008-09:

Strategy

a. Greater focus on high risk group (HRG)

- surveillance - major expansion of HRG sites
- Making ANC surveillance reflect epidemic patterns in rural areas as well as to capture the epidemics due to migration in low prevalence states - establishing rural composite ANC sites at PHCs
 - Dropping STD sites in high prevalence states as per recommendations of the Technical Consultation on HIV Surveillance in India, held in April 2008
 - Decreasing the number of testing labs for ANC and STD samples and limiting them to well performing laboratories with ELISA facilities,

to ensure better quality of testing as well as close supervision

Technique and Methodology

- a. Introduced Dried Blood Spot Method (DBS) of sample collection from HRG sites to overcome the logistic problems at these sites.
- b. Introduced Informed Assent/Consent at High Risk Group sites to address the ethical concerns; Developed Informed Assent/Consent Form and Standard format of registers to document refusals and their reasons; Informed Assent/Consent form translated into all local languages
- c. Piloted random sampling method of recruitment, instead of consecutive sampling, at HRG sites in Gujarat. Need to consolidate the experience and carry the lessons forward.
- d. Thorough technical validation of new sentinel sites by Regional Institutes before including the sites in surveillance. Poor performing sites dropped.
- e. Epidemiological Investigation into unusual findings (sudden rise or decline in prevalence) for understanding the reasons and making necessary corrections

Implementation Mechanisms

- a. Developed National Action Plan for HIV Sentinel Surveillance
- b. Established two new Regional Institutes to strengthen HSS in the North Eastern States
- c. Provided additional manpower to RIs for effective coordination of HSS activities in the allotted states
- d. Pre-surveillance Planning meetings and Post-surveillance review meetings at national and regional levels
- e. Sensitisation meetings in some states to sensitise the district health authorities and heads of institutes to the importance of HIV Sentinel Surveillance activities in their district/facility to create a better administrative environment
- f. Improvised operational guidelines for HIV Sentinel Surveillance
- g. Developed clear guidelines for DBS sample management at HRG sites as well as testing labs apart from Standard Operating Procedures (SOP) for testing of DBS samples

Training

- a. Two-tier training plan with TOTs followed by training of site personnel

- b. Standardised the training schedule across the states with uniform session plan
- c. Training Modules and Facilitators Modules were developed in the form of presentations so that the same content is delivered across the states
- d. Rigorous skill-based training on DBS method of sample collection involving experts from NFHS-III as Master Trainers; Practical field exercises in administering informed consent and DBS sample management were also included for the first time.
- e. Supervision on Trainings improved
- f. Trained 350 lab technicians in DBS sample collection and eleven national laboratories in testing of DBS samples

Procurement and Sample Transport

- a. Centralised procurement and import of best quality consumables for DBS method at HRG sites
- b. Developed customised filter paper cards for HSS and NACO
- c. Standardised the specifications of consumables to be procured by SACS for HSS
- d. Encouraged the use of standard sample transportation boxes for transport of venous samples from sentinel sites to testing labs
- e. Special Pre-printed Sample Transportation Boxes with Thermoaccol lining are developed, in collaboration with India Post and Indian Institute of Packaging, to ensure protection of samples from moisture and extreme temperatures during transport
- f. Engaged Speed Post for pick up and transport of DBS samples from HRG sites

Supervision and Monitoring

- a. Strengthened all the four tiers of supervision of HSS activities - Central Team, Regional Institutes, State Surveillance Teams and SACS
- b. Strengthened State Surveillance Teams in each state by increasing their capacity
- c. Involved officers from TI division in supervision at SACS level
- d. Every HRG site visited during the last round
- e. Emphasis on first visit to the sentinel sites during the first fifteen days so that mistakes are rectified in the early part of surveillance
- f. Improvised and Standardised reporting formats for supervisory visits
- g. Introduction of Electronic Reporting from laboratories testing DBS samples for Real Time

Successful Implementation of Dried Blood Spot (DBS) Method

Dried Blood Spot Method of sample collection was successfully implemented at 335 High Risk Group sites during the last round of HIV Sentinel Surveillance. Specific consumables such as Protein Saver Cards, Self-retractable safety lancets, less-permeable ziplock bag, desiccant packs and drying racks were imported from US to ensure uniform quality of consumables. Protein Saver Cards were specially customised for HIV Sentinel Surveillance with label of NACO on every card. Standard Operating Procedures, Training Manuals and Electronic Reporting Formats were developed. Rigorous skill-based training was provided to 350 lab technicians at sentinel sites in DBS sample collection and management and 11 national laboratories in testing of DBS samples. EQAS mechanism was put in place to ensure quality of testing.

Positive feedback was received from the sentinel sites as well as testing labs on the DBS method. It has improved the convenience of storing and sending samples from the NGO sites. It has also enhanced willingness of the High Risk Group individuals to participate in surveillance. Greater participation was noted among Injecting drug users due to change of method of sample collection from venous route to finger prick method. Proportion of invalid samples from HRG sites has decreased significantly.

Advantages of DBS Method in HIV Sentinel Surveillance:

- Sample collection through finger prick - a method that can be practiced by anyone with minimal training.
- Sample processing made easy - drying and packing
- No requirement of any equipment for storage and serum separation
- No dependence on electricity supply
- Samples can be kept at room temperature for a reasonable duration
- No problems of leakage/haemolysis/fungal growth etc.
- Non-infectious when dry. No chance of cross-contamination
- Labeling can be improved and less chance of mislabeling
- Generation of less amount of biomedical waste - simpler bio-safety measures
- No risk of needle stick injuries due to the use of self-retractable safety lancets
- Transport of samples is extremely simple, less expensive and safe
- Adequate Sample for Quality Control/retesting/other tests
- Long-term storage is easier. Requires significantly less space for storage.
- Greater acceptability among respondents, especially among IDUs
- Quality & reliability of surveillance outcomes enhanced

Monitoring of quality and coverage of sample collection

- h. Immediate feedback from the testing laboratories to the HRG sites on the quality of samples

Data Management

- a. Improved Data Forms with additional epidemiological questions
- b. Double Data Entry at SACS and RIs followed by data matching to eliminate errors at data entry

Budget

- a. Release of separate budget for HSS to SACS from Domestic Budgetary Source and maintenance of separate accounts
- b. Incorporation of surveillance component in CPFMS of NACO to allow better financial

monitoring of expenditures in HSS

- c. Revised pattern of financial assistance to sentinel sites and testing labs for effective utilisation of funds

Estimation of HIV Burden in India

The National Institute of Medical Statistics, New Delhi is the nodal agency for developing national estimates of HIV prevalence and burden in India. The first HIV estimation in India was done in 1994 based on data from 52 sites. Since then, the process of estimation of HIV infected persons in the country has evolved to a very great extent. Since, the sample from which data is collected through sentinel surveillance is not exactly representative of the general population, certain assumptions were

used to generate estimates for the general population. Over the years, these assumptions were gradually refined with the help of other available data sources.

The year 2006 is a landmark year in the history of HIV estimation in India due to the significant improvements that were achieved in the methods and data sources used. Globally comparable estimates were derived using the WHO/UNAIDS Workbook and Spectrum software package, specially designed to estimate the HIV burden in low and concentrated epidemics. It was the result of protracted discussion and consultation with national and international agencies and experts. The revised estimates released in 2007 formed the basis for planning of NACP-III activities.

Till 2005, HIV estimates were derived using only one data source - HIV Sentinel Surveillance and using some assumptions. In 2006, the availability of multiple data sources provided ample scope to replace the assumptions with evidence-based values and added valuable inputs towards improving and refining the HIV estimates in India. The credibility of the revised HIV estimates is very high because they are derived from, not one, but many authoritative data sources:

- An expanded and upgraded Sentinel Surveillance, spread over 1,122 sentinel surveillance sites and covering all districts in the country. This represents an increase of 400 sites since the last time, and an eight-fold increase from the 180 surveillance sites NACO began with in 1998.
- The National Family Health Survey or NFHS-3, a population- based survey conducted in 2005-06, with a sample size of over 100,000 people for HIV testing.
- The National Behavioural Surveillance Survey and the Integrated Biological & Behavioural Assessments Survey. These studies focus on high risk group as well as general population in different states.
- Size estimates of high risk group population from the “Report of Expert Group on Size Estimation for NACP-III Planning”.

Limitations of HIV estimation till 2005 were as follows:

- Estimation was based only on data from sentinel surveillance sites which are predominantly urban

- Assumptions were used for extrapolation of HIV prevalence from pregnant women to men and from urban to rural areas
- There was no evidence-based data to validate these assumptions
- Data from STD clinics was used in addition to the data from high risk groups which may lead to double counting of high risk group individuals who have greater chances of being HIV positive
- Estimates were derived through direct computation using a Worksheet

In 2006, in light of new evidence and improved methodologies available, the following refinements were taken up in the process of HIV estimation:

- Dropped the use of data from STD clinics to avoid double counting
- Smoothed sentinel surveillance data using Mixed Effects Modeling that accounts for inter-site and intra-site variations in the data
- Calibrated prevalence figures from ANC surveillance sites with population based HIV estimates from NFHS-III
- Replaced assumptions with evidence-based data from NFHS-III for calculating female: male and urban: rural ratios
- Used WHO/UNAIDS recommended Workbook and Curve Fitter to smoothen the sampling variations
- Used Spectrum Package to account for children and those aged above 49 years
- Derived state-wise HIV estimates and HIV epidemic curves
- The revised method has also been used to “back-calculate” the prevalence for years since 2002 based on the new set of assumptions and measures, so that they allow a fair comparison of year-on-year trends in HIV prevalence.

Back-calculation of figures for previous years using the new model helps us understand that **the new lower estimates do not mean a sharp decline in the epidemic**. But it only indicates an improvement and refinement in the methodology of HIV estimation.

During HIV estimations for 2008-09, Estimation Projections Package (EPP) is being used instead of Workbook, coupled with the updated version of Spectrum software released by UNAIDS recently.

Behavioural Surveillance Survey 2009

Objectives: As part of the studies to inform Mid Term Review of NACP-III, NACO has conducted BSS in six states to obtain measures on various knowledge and behavioural indicators among specific risk groups as well as general population and to understand the behavioural change related to HIV/AIDS. The specific objectives were to:

- measure changes in the key knowledge and behavioural indicators among general, high-risk and bridge population on HIV/AIDS and related areas since 2006, when the last round of BSS was conducted;
- highlight the possible impact of the interventions and identify persistent problem areas; and
- provide data to be used for cross-country and cross regional comparisons of behavioural risks.

States Covered: The survey was conducted in six states (in both urban and rural areas): Andhra Pradesh, Karnataka, Manipur, Tamil Nadu, Maharashtra (region-wise estimates for six regions and district level estimates for eight districts) and Uttar Pradesh (region-wise estimates for four regions).

Target Groups Covered

- Brothel-based FSWs - refers to women aged up to 49 years who have sold sex in the last one month prior to the survey within brothels.
- Non-brothel based FSWs - refers to women aged up to 49 years who have sold sex in the last one month prior to the survey at defined sex access points outside brothels.
- Men who have Sex with Men (MSM): Men in the age group of 15 to 49 years, who had sex (manual/oral/anal) with men in the last six months.
- Injecting Drug Users (IDU): Men in the age group of 15-49 years, who use any addictive drugs for non medical reasons, through injections, in the last three months. Female IDUs were surveyed for the first time in Manipur.
- Single Male Migrants (SMM): Single Male, in the age group of 15 to 49 years, living at a place other than “place of usual residence”

without his spouse or family, for the purposes of work and visiting his home town at least once a year.

- Youth in General Population (Urban and Rural): Unmarried male and female in the age group of 15 to 24 years.
- Male & Female in General Population (Urban and Rural): Male & Female in the general population in the age group of 15-49 years.

Thematic Areas Surveyed:

1. Knowledge of HIV/AIDS, Transmission Modes and Prevention Methods
2. Condoms
3. Stigma & Discrimination
4. STIs
5. Substance Use
6. Sex work and Migration
7. Sexual Behaviour and Condom use
8. Injecting Practices and Needle Sharing Behaviour and Practices
9. Awareness of HIV/AIDS Programmes
10. Exposure to Interventions
11. Risk Perception and HIV Testing
12. Empowerment and Community Mobilisation

Sampling Methodology is detailed in Table 13.6

Tools and Informed Consent

- Tools tested and used during two rounds of National BSS (2001 & 2006) conducted by NACO as well as different waves of BSS conducted in Tamil Nadu and Maharashtra were used for BSS 2009.
- A few additional indicators on awareness of programme interventions, community mobilisation and empowerment were added.
- Consent Form was developed based on the standard template recommended by NACO ethics committee. Assent of the respondent and consent from the parent/guardian was obtained for respondents aged 15-17 years.

Implementation Process

BSS 2009 was conducted through the following agencies. Supervisory teams from respective SACS and supporting partner agencies conducted visits during the sample collection.

Table 13.5: Details of States with supporting agencies

State	Supporting Partner Agencies	Research Agency
Tamil Nadu	USAID & APAC	IMRB
Andhra Pradesh	BMGF & PHFI	GFK Mode
Karnataka	BMGF & PHFI	GFK Mode
Maharashtra	USAID & AVERT	IMRB
Uttar Pradesh	USAID & FHI	GFK Mode
Manipur	UNAIDS	Sigma

Review of Findings and Finalisation of Reports

The draft findings from BSS 2009 were presented at MTR Dissemination Workshop chaired by Secretary & DG, NACO at NACO on 27 October 2009. On his instructions, a Technical Group constituted under the chairpersonship of Dr. Rajatashuvra Adhikary, Director (M&E), FHI India is reviewing the findings from BSS 2009 and is consolidating the summary. Standard method of data weighting was adopted in all the states to have comparable estimates. After the weighted estimates were derived, the agencies submitted the draft reports. Final summary report is being prepared for use at national level.

Epidemiological Profiling of HIV/AIDS Situation at District & Sub-District Level using Data Triangulation (PHASE-I & II).

Background and Rationale

Under NACP-III, the resources for HIV prevention, care and support interventions are allocated largely based on the district classification into A, B, C and D categories. In the absence of any other relevant data at the district level, the classification of districts was done using the data from HIV sentinel surveillance (HSS) on the prevalence among antenatal clinic attendees and high risk groups during 2004-2006. But now NACP-III is generating large volume of programme data as well as through several studies and research projects. During the first half of NACP-III, many more data sets are available for substantial number of districts in the country. For instance, district and sub-district level HIV prevalence among pregnant women and non-pregnant individuals is available through a large number of VCTC and PPTCT centres that were expanded on a big scale

during NACP-III. Similarly, with the expansion of ART centres across the country, data on PLHIV is made available. Recent mapping of HRGs in urban and rural areas has also made size estimation of different risk groups available at the district and sub-district levels. The integrated biological and behavioural assessments in selected districts of the six high-prevalence states also have provided rich data on HIV prevalence and behavioural risk factors among specific HRGs and the bridge population.

In this context of increased availability of data and decentralised planning at the district level, NACO undertook a project titled 'Epidemiological Profiling of HIV/AIDS Situation at District and Sub-district Level using Data Triangulation' in seven states (182 districts) during July - November 2009. This was done with the objective of developing district HIV/AIDS epidemic profiles based on which strategies, programme focus and prioritisation can be made more effective. This project aims at building the capacity of the state/district programme managers and M & E persons in data analyses, triangulation and use for programme review and planning. This will also contribute to refine district prioritisation as well as revising the Annual Action Plans of NACO and SACS.

The exercise in phase-I has been very successful and the experience has given some important lessons in terms of technicalities and operational issues. Consolidating the lessons learnt from the recent exercise, NACO is currently undertaking Phase-II of this project in 20 other important states (January - May 2010).

Objectives & Expected Outputs: Broad objective of the project is to consolidate the epidemiological profiles (epidemic scenario and programme response) at district & sub-district level with respect to HIV/AIDS for effective planning and implementation of response.

Specific objectives include:

- Identifying districts and focus areas within a district for priority attention in the Programme
- Resource & information collection in a systematic manner to understand the epidemic and response gaps in the district and facilitate evidence-based planning at district & state level

Table 13.6: Sampling methodology for different target groups

Target Groups	Sampling Methodology
High risk groups	
FSW - Brothel-based	2 stage cluster sampling design
FSW - Non-brothel based	2 stage cluster sampling design
MSM	2 stage cluster sampling design
IDU	2 stage cluster sampling design
SMM	2 stage cluster sampling design
General Population	
General Population - Urban and Rural	3 stage stratified cluster sampling design
Youth - Urban and Rural	3 stage stratified cluster sampling design

- Capacity building of district & state programme managers and M&E personnel in data analyses, triangulation and use of data for planning & programme review
- Expected Output** is a concise report for each district, describing epidemiological profile of the district and providing answers to the vital programme questions related to HIV/AIDS prevention & control in the district. The key questions that are attempted to be answered are:
- In a state, which districts should be prioritised for focused attention?
 - What are the levels, trends and burden of HIV epidemic in different districts?
 - What are the reasons for different scenarios in different districts?
 - In a district, where should Programme Focus its resources and Efforts?
 - What are the drivers of HIV epidemic?
 - What are the contextual factors that influence HIV epidemic?
 - What is the Programme Response to HIV and Response Gaps in the district?
 - What is the nature, scale, composition & coverage of programme response in the district, both in terms of Prevention and Care & Support?
 - What are the Information Gaps that hinder effective Strategic Planning for HIV/AIDS prevention and control in the district?
- Importance of District Profiling**
- Provides evidence-based inputs for refinement

Fig 13.5: Implementation structure for District Epidemiological Profiling

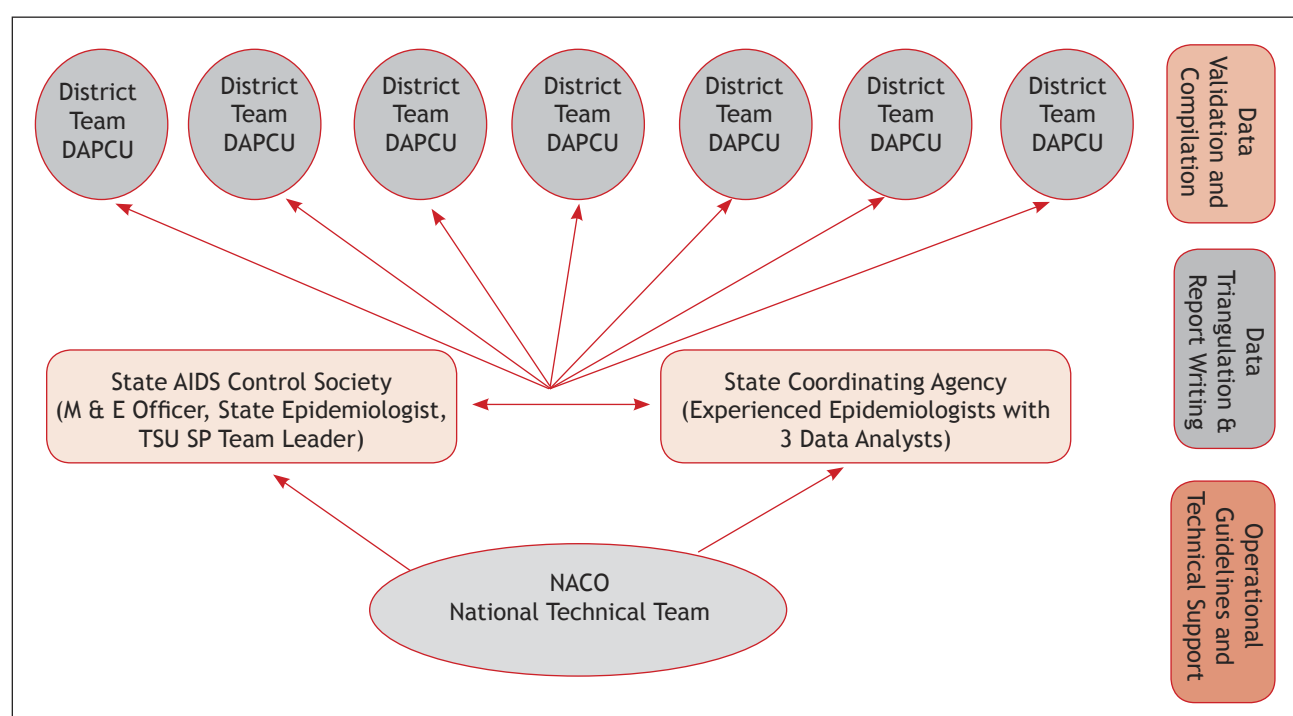
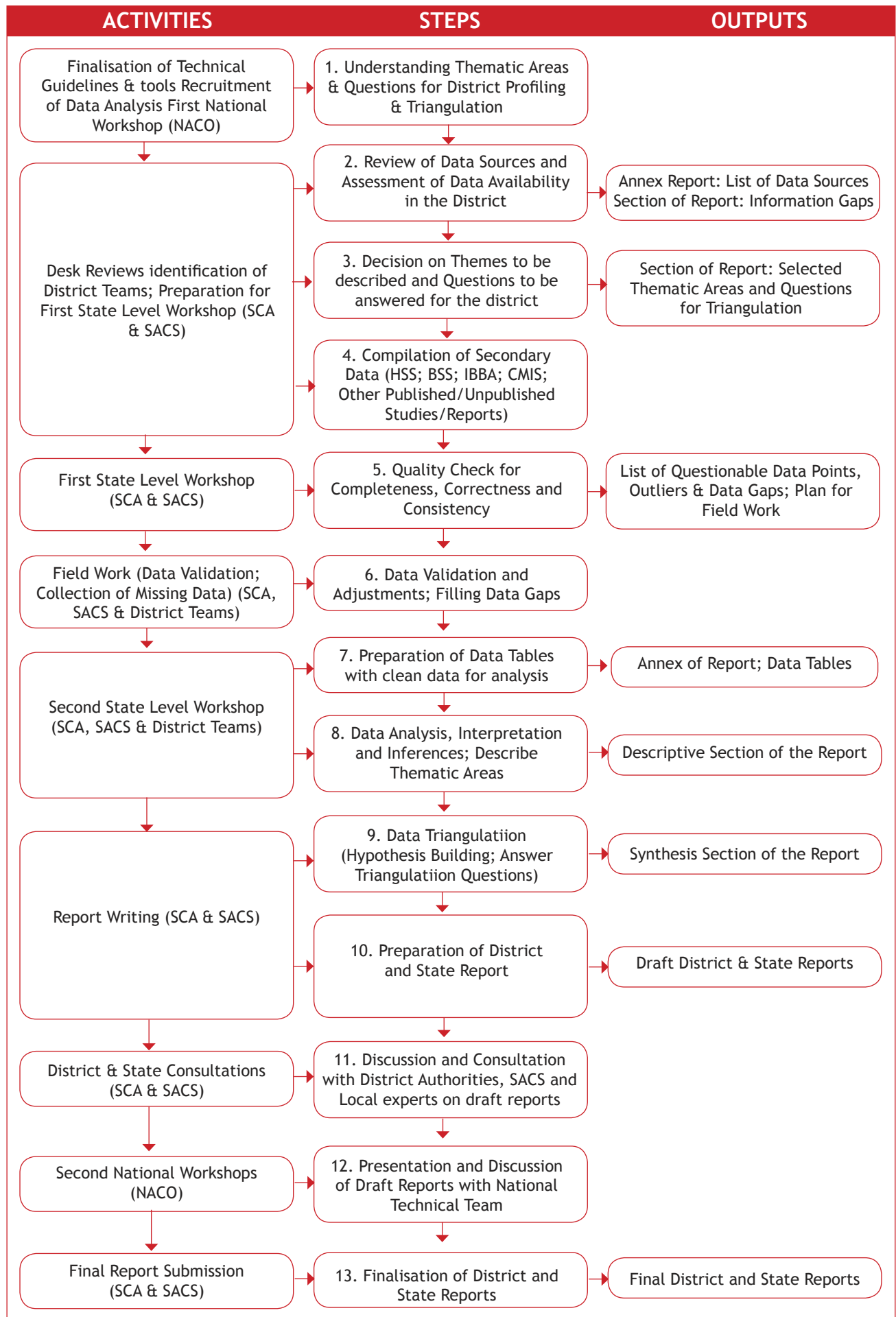


Fig 13.6: Process of District Epidemiological Profiling



of programme strategies

- Provides insights into development of a robust framework for prioritisation of districts
- Provides scope for developing district level Action Plans using data from multiple sources
- Develops a summary of programme response and response gaps in each district
- Identifies the important information gaps that hinder effective strategic planning
- Sets a baseline for programme monitoring and provide direction for future action in each state

The states covered in District Epidemiological Profiling are listed in Table 13.7 and 13.8.

Implementation Structure and Process

- a) NACO developed Technical Guidelines detailing the principles, methodology and tools for district epidemic profiling in a Technical Working Group meeting convened on 10 & 11 July 2009. These guidelines were improved after Phase-I. Guidelines and material for organising state level workshops as well as field work were developed. A National Technical Group provided technical support to the state teams during the process.
- b) In every state/two states, a public health institution was identified as State Coordinating Agency (SCA) and a Professor/Senior Epidemiologist nominated as the nodal person for this project in the state. SCA and SACS are primarily responsible for implementing the project in the state. The nodal person has the overall responsibility for data collection, validation, analysis and report writing.
- c) Each State Coordinating Agency recruited three experienced persons with epidemiology and statistics background to work full time for the project. They are supported by State Epidemiologist, TSU TL for Strategic Planning, ART Regional Coordinator and M&E Officer from SACS.
- d) A district team was identified for every district, comprising of DAPCU programme manager, DAPCU M&E Officer, ICTC supervisor, M&E Officer at TIs, ART Research Officers, district epidemiologists/NRHM District Programme officers wherever available. Where district level staff are not available, persons may be selected from any medical college or public health institutions in the state.

- e) Roles and responsibilities of NACO, SACS, State Coordinating Agencies and District Teams were clearly outlined.
- f) First National Workshop was conducted at NACO to train the State Coordinating Agencies and SACS on the technical guidelines and plan of action. All the data that is available at NACO level was compiled and provided to the state teams. State teams then developed data tables for each district and identified the data that needs validation or compilation.
- g) First state level workshops were conducted by each SCA in two batches to train and orient the district teams in the process of data cleaning, data validation through field work and compilation. Following the first state level workshop, all the district teams conducted field work for data validation and filling of data gaps. The field work was supervised by SACS, SCAs and National Technical Team members.
- h) After this, the second state level workshops were held where the district teams were trained and guided in data triangulation and deriving meaningful interpretations for their own districts. Then, the SCAs developed brief narrative reports on epidemic profile in each district and also state level summary.
- i) These were presented and discussed in detail in the second national workshop at NACO. Experts were invited to give feedback on the summaries prepared by the state agencies. After incorporating these suggestions and comments, final district and state reports were submitted by the agencies. These are currently being reviewed before final release to the public.

Important Outputs from District Epidemiological Profiling

- a) Training of around 500 district level officers in data cleaning, analysis and use of data for programmatic decision-making
- b) Systematic compilation of all the data related to HIV for each district at one place for future use
- c) Enhanced understanding among the programme managers of HIV epidemic in the state and different districts
- d) Better use of data in developing Annual Action Plans for SACS
- e) Development of district level action plans
- f) Reprioritisation of districts for programme interventions

Table 13.7: States covered in Phase-I (July - November 2009)

State	No. of Districts	Funding Agency	State Coordinating Agencies
Tamil Nadu	30	USAID	APAC, Chennai
Andhra Pradesh	23	BMGF	IIPH, Hyderabad
Karnataka	29	BMGF	NIMS, New Delhi & IHAT
Maharashtra	35	BMGF	TISS, Mumbai & IHAT
Uttar Pradesh	21	USAID	AIIMS, New Delhi
West Bengal	19	NACO	AIH&PH, Kolkata
Gujarat	25	NACO	NIHFW, New Delhi
Total	182		

Table 13.8: States being covered in Phase-II (January - May 2010)

State	No. of Districts	Funding Agency	State Coordinating Agency
Assam	27	NACO	Regional Medical Research Centre, Dibrugarh
Nagaland	11	NACO	
Meghalaya	7	NACO	
Manipur	9	UNAIDS	Regional Institute of Medical Sciences, Imphal
Mizoram	8	UNAIDS	
Delhi	9	NACO	Vardhaman Mahavir Medical College, New Delhi
Himachal Pradesh	12	NACO	Indira Gandhi Medical College, Shimla
Haryana	21	NACO	Post Graduate Institute of Medical Sciences, Rohtak
Punjab	20	UNAIDS	Government Medical College, Chandigarh
Chandigarh	1	UNAIDS	
Rajasthan	33	UNAIDS	State Institute of Health and Family Welfare, Jaipur
Uttar Pradesh	50	USAID	Chhatrapati Sahuji Maharaj Medical University, Lucknow
Uttarakhand	13	USAID	All India Institute of Medical Sciences, New Delhi
Bihar	38	BMGF	Rajendra Memorial Research Institute of Medical Sciences, Patna
Jharkhand	24	BMGF	National Institute of Health and Family Welfare, New Delhi
Chhattisgarh (Selected Districts)	12	UNAIDS	Mahatma Gandhi Memorial Medical College, Indore
Madhya Pradesh (Selected Districts)	28	UNAIDS	
Orissa	30	UNAIDS	SCB Medical College, Cuttack
Goa	2	NACO	Goa SACS, Panjim
Kerala	14	USAID	AMCHSS, Sree Chitra Thirunal Institute, Thiruvananthapuram
Total	369		

- g) Prioritisation extended upto Taluka/ Block level with high priority talukas identified
- h) Identification of Information Gaps at district and state level

Working Group on Reprioritisation of Districts

As per the directions of Secretary & DG, NACO, a **Working Group on Reprioritisation of Districts** was constituted under the chairpersonship of Dr. DCS Reddy, NPO, WHO-India, with the following Terms of Reference:

- Review the data tables, district reports and observations emerging from the data triangulation exercise carried out in the seven states
- Develop a framework for prioritisation of districts based on multiple data sources used in data triangulation
- Recategorise the 182 districts in the seven states based on the framework

The working group has held a series of meetings and a framework has been developed for prioritisation of districts based on data from multiple sources and the observations from district profiling. The draft framework was presented to Secretary and other senior officers of The Department of AIDS Control in February 2010. The final report of the committee is being prepared.

13.3 Evaluation & Operational Research

The “Network of Indian Institutions for HIV/AIDS Research” (NIIHAR)

India is a large multi-ethnic country with varying demographic and social framework. Any exploratory research conducted in a limited setting does not reflect the correct Indian scenario. Similarly, any intervention found effective in one setting may not work in another. The need was therefore felt for developing protocols on relevant research areas and conducting multi-centric studies to draw valid conclusions for policy formulation and programme management at national and/or regional level. Institutions with potential to undertake quality research.

NACO has constituted a national consortium of research institutions for undertaking operational, epidemiological and bio-medical research in the field of HIV/AIDS. This consortium named the ‘Network of Indian Institutions for HIV/AIDS

Research’ NIIHAR will have linkages with universities, ICMR, CSIR, DST, ICSSR and others stakeholders including donor organisations. It will pool resources and expertise to conduct high quality, collaborative, multi-centric research that will help evidence-based decision making on policy, management and evaluation of interventions. During 2009-10, 15 institutes joined as member of NIIHAR taking the total up to 42 members.

NACO Research Fellowships Scheme for MD/M.Phil/Ph.D students

NACO Research Fellowships are awarded to facilitate capacity building of young researchers in the country for undertaking HIV research including inter-disciplinary, multi-site, action, intervention and operations research, and to increase skills in communicating research findings for impacting policy and programme. Research fellowships provide opportunities to young researchers to pursue research invariably leading to MPhil/MD/PhD under experienced academicians and researchers. This may serve as an incentive for them to take up quality and need-based research in HIV/AIDS.

Any young scientist, below 35 years at the time of applying, who fulfils the prescribed criteria of age and educational qualifications can submit application to NACO to carry out research relevant to HIV/AIDS in bio-medical/clinical, epidemiological, behavioral and social disciplines.

NACO awards up to 20 Fellowships per year for financial assistance. The maximum grant for each fellowship is limited to Rupees 1.5 lakh. Thirteen young researchers were selected in March, 2010 for award of the NACO-Research Fellowships for the year 2009-2010.

Capacity Building Workshops/Trainings in Research

NACO has taken initiative to facilitate capacity building of young researchers in the country for undertaking HIV research and intervention. In this context, series of workshops have been planned with key aim to provide and understanding of the importance and methodology of undertaking operational research which would further help programme managers to take evidence based decisions so that it will be utilised in policy formulation. In the year 2009-10, three capacity building workshops were successfully organised by

NACO in November 2009 while two in collaboration with the National Centre for Disease Control, Delhi and the National Institute of Epidemiology, Chennai. About 60 young researchers from member institutes of NIIHAR and epidemiologists of NACO/ SACS were trained.

Technical Resource Group-Research & Development (TRG-R&D)

A Technical Resource Group (TRG) on 'Research and Development' was constituted under NACP-III in diverse disciplines such as epidemiological, clinical, behavioural and social sciences so as to contribute to a better understanding of the dynamics of the HIV/AIDS epidemic and measures to contain it. The main objective of the research agenda will be to position NACO as the leading body, promoting and coordinating research activities by developing strong linkages with research/academic institutions both Nationally and Internationally.

Prof. Ranjit Roy Chaudhury, National Professor in Pharmacology & Former Chair, Board of Directors, INCLIN is the Chairperson of the TRG-R&D.

The TRG is working to:

- Identify critical gaps in existing knowledge on HIV epidemic through a commissioned comprehensive research review in relevant disciplines (bio-medical, clinical, epidemiological, behavioural and social) to develop an appropriate research agenda for filling gaps at various levels.
- Support ongoing applied research programmes for better understanding of the epidemic - its spread and impact.
- Strengthen operations research and evaluation studies on the design, strategies, implementation and testing of HIV intervention programmes and measure their impact related to risk/vulnerability reduction, behaviour change, stigma reduction, HIV prevalence rate etc.
- Facilitate capacity building of researchers in the country for undertaking HIV research including inter-disciplinary, multi-site, action, Intervention and operations research, and to increase skills in communicating research findings for impacting policy and programme.
- Develop innovative methods to carry out studies on "hard to reach" and marginalised populations, mobile and migratory groups,

stigmatised populations and other vulnerable groups like youth, adolescents, children, housewives, MSM and transgender groups.

- Monitor and evaluate community- based interventions, school based adolescent education programmes and support groups of positive people.
- Build networks, alliances and partnerships with national, state and district level research organisations, universities, UGC, CSIR, ICMR, ICSSR, AIU, individual researchers, NGOs, PLHA networks and others, around key research themes (i.e. stigma, discrimination etc.) so as to produce contextualised knowledge for local initiatives.
- Promote a national research agency/consortium to organise national conference on HIV/AIDS research once in every two years to share new developments on HIV/AIDS research.

The TRG meets at least once in a year or as and when required. TRG-R&D met thrice in the year 2009-10.

NACO Ethics Committee (NACO-EC)

The NACO Ethics Committee was constituted in 2008-09 with the responsibility to ensure that ethical implications of any research proposed to be undertaken are afforded serious consideration prior to the commencement of the project, and that such research is consistent with legislative and statutory requirements. The rationale for ethical approval is to ensure that the process of research is conducted 'ethically', responsibly, protects privacy and is not exploitative of participants. This involves establishing procedures for the informed consent of the subjects involved in research, as well as appropriate handling of the research findings (e.g., secure storage of data).

The committee is chaired by Prof. Gauri Devi, Consultant Neuro-physician and former Director - Vice-Chancellor, NIMHANS, Bengaluru, and consists of experts in bio-medical, clinical, epidemiological, behavioural and social disciplines. A legal expert and a lay person from the community have been included.

The committee met thrice during 2009-10. The National Ethics Guidelines for Research in HIV/AIDS were finalised at a Joint meeting of TRG-R&D and NACO-EC held on 8 January, 2010.

The following 16 studies were recommended by the TRG-R&D and NACO Ethics Committee in the year 2009-10:

- Determinants of Drug Adherence Associated with ART in India.
- Factors Affecting Enrolment of PLHAs on ART in India.
- Determining Baseline CD4 Counts in Indian Adult Population.
- Assessment of Targeted Intervention on HIV/AIDS in India.
- Assessment of Link ART Centres in India: Client & Provider perspectives.
- Impact Assessment of Home Based Care and Support Services on Paediatric scale up, Retention and Quality of Service Delivery in India.
- Study to determine the onset of NVP related anti-HIV Drug Resistance mutations following single dose Nevirapine.
- Baseline survey on Condom Promotion Programme in India.
- Examining the Barriers to Accessing HIV Testing and Counseling Services among High Risk Populations in India.
- Reaching the unreached: An exploratory Study of Hidden and Difficult to Reach Sex Workers in Tamil Nadu.
- Impact Assessment for three Radio Programmes on HIV/AIDS awareness for youth, women and migrants in 10 states of Hindi Belt.
- HIV transmission among married women in Ganjam District, Orissa: Out-Migration and Beyond.
- Sexual behaviours and contraceptive use among HIV positive people
- Anaemia & nutrition among children with perinatally acquired HIV infection in India - Multicentric Study.
- Identification of bio-markers by proteomic and metabonomic analysis of body fluids of HIV infected persons.
- Study of pandemic H1N1 influenza in HIV infected persons.

The Department of AIDS Control also reviews proposals for research funding from foreign institutes/organisations received by ICMR and provides its comments to the Health Ministry's Screening Committee chaired by the Secretary, Department of Health Research and Director General, Indian Council of Medical Research.



Capacity Building

Recognising this criticality of well-trained human resources at all levels of programme implementation, NACP-III had developed plans for building capacity of the programme managers and health personnel at the various levels, in leadership and strategic management,

and technical and communication skills, and also community level workers. The plan targets all levels of care and healthcare organisations, CBOs and NGOs, as well as grass-root levels functionaries and workers of various government departments.

Table 14.1: Progress in capacity building of health personnel under NACP-III (April, 2007-January, 2010)

Category	No. trained			
	Induction	Refresher	Others	Total
Doctors	45,524	16,636	21,763	83,923
Conselors	49,172	39,215	11,201	99,588
Nurses	10,158	44,881	507	55,546
Lab Technicians	10,399	35,605	783	46,787
NGO Workers	30,426	10,095	31,072	71,593
Data Entry Operators	5,036	346	1,085	6,467
Community level workers	1,53,565	18,721	4,36,654	6,08,940
Total	3,04,280	1,65,499	5,03,065	9,72,844

Fig 14.1: Shri K. Chandramouli, Secretary & Director General, NACO with participants and resource persons at the inaugural of the MESST Workshop on 18 February, 2010



The progress in capacity building of various health personnel during the period April, 2007-January, 2010 is given in Table 19.1. Training conducted for health personnel are induction, refresher and others.

A training retreat for Project Directors of SACS on programme management and human resource management (2 days each) was organised by the Department of AIDS Control, with support from FHI and PHFI, at Gurgaon from 2-5 September, 2009. Officers from NACO also attended some sessions. The resource included faculty from IIM, Bengaluru and XLRI, Jamshedpur.

M&E System Strengthening Tools (MESST) Workshop: The Department of AIDS Control, in collaboration with UNAIDS, organised a National Stakeholders Workshop on assessment and strengthening of MESST suggested by the Global Fund on 18 and 19 February, 2010 in New Delhi. The workshop, inaugurated by Secretary & DG, NACO, was attended by 73 participants including State M&E Officers from selected SACS (Andhra Pradesh, Karnataka, Delhi and Gujarat), and M&E representatives from all the Principal Recipients and selected Sub-Recipients of Global Fund projects, and NACP-III Development Partners, and officers from the Department of AIDS Control.

New Initiatives in Capacity Building
Indian Institute of Advanced Nursing: The

proposed institute will be the first postgraduate nursing institute specialising in HIV/AIDS in the world. The institute, a product of the collaboration between the Ministry of Health, Government of India, the Tamil Nadu State Government, the Indian Nursing Council and the Clinton Foundation, will emerge as a unique public-private partnership between these founding partners, private sector donors and international nursing specialists. The Yale University School of Nursing will develop curricula for a range of post-graduate nursing courses to be offered through the institute. It is expected that, within three years of its opening, the institute will train around 15,500 nurses from India and other countries either directly or through Training of Trainers, and will contribute to an increase in the number of AIDS patients receiving treatment through ART Centres by 35 percent.

Diploma programme in HIV Medicine: A proposal for launching a post-graduate Diploma programme in HIV Medicine was approved by the National AIDS Control Board on 23 December, 2009. This one-year diploma course, to be rolled out in 2010 by the Department of AIDS Control in collaboration with the Indira Gandhi National Open University (IGNOU), will help standardise HIV Medicine training and bridge the gap in availability of trained manpower for ART centres. A dedicated "HIV Medicine Cell" will be established at IGNOU.



Results Framework Document

The Hon'ble Prime Minister has approved a 'Performance, Monitoring and Evaluation System' as an important initiative of the government which seeks to create a vision-driven government that is focused on results. The Results Framework Document (RFD) is the cornerstone of this initiative, and has the following five sections:

1. Vision, Mission, Objectives and Functions
2. Inter-se priorities among Key Objectives, Success indicators and Targets
3. Trend Values of the Success Indicators
4. Description and Definition of Success Indicators and Proposed Measurement Methodology
5. Specific performance requirements from other departments

Dr. S. Venkatesh, DDG has been designated as departmental coordinator for RFD. He attended a briefing meeting on October 22, 2009 in the Cabinet Secretariat. Four officers from the Department of AIDS Control attended Workshop on RFD organised by the Cabinet Secretariat on 5 and 6 November,

2009 at New Delhi. The Department of AIDS Control received the award for best RFD. Draft of RFD submitted to the Department of Programme Management on 30 November, 2009 received excellent ranking. Officers from the department attended meeting with the Ad-Hoc Taskforce for Finalisation of RFD held on 10.12.2009.

The RFD of the Department of AIDS Control for January-March, 2010 received the approval of Hon'ble Union Minister for Health & Family Welfare on 24 December 2009. The Department of AIDS Control received excellent ranking for timely submission of RFD. The RFD has been uploaded on the department's website www.nacoonline.org. The Department's officers developed skills in use of the Results Framework Management System (RFMS) at a workshop conducted at the National Informatics Centre, New Delhi on 12 January 2010; and successfully submitted RFD online in RFMS by 27 January 2010. The Results Framework Document (2010-11) was submitted on 5 March 2010, and discussed with the Ad-Hoc Task Force on 18 March, 2010.

Chapter 16



Administration

The Department of AIDS Control has been created as a new Department in December, 2008 under the Ministry of Health & Family Welfare which is headed by the Union Minister of Health & Family Welfare, Shri Ghulam Nabi Azad and is assisted by Ministers of State for Health & Family Welfare - Shri Dinesh Trivedi and Shri S. Gandhiselvan.

The Department of AIDS Control is headed by the Secretary to the Government of India who is assisted by Joint Secretary, two Deputy Directors General, three Assistant Directors General, a Director, a Joint Director and a Deputy Secretary (*Organisational chart is given Annex 1*). The total sanctioned strength of regular staff of the Department in Group “A”, “B”, “C” and “D” is 64 which include secretarial and technical posts. Besides, there are a number of contractual staff to assist the Department in discharging its assigned functions. In order to fulfill Government’s commitment to provide better healthcare facilities to combat the spread

of HIV in the country, the Department of HIV Control has taken various initiatives and steps to ensure that the Government’s policies and programme are implemented in a time bound and effective manner. It has enforced discipline and accountability amongst its officers and staff.

The allocation of the work to the newly created Department of AIDS Control are 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 the people and promotion of measures for effective protection against the spread of the infection.

- National AIDS Control Organisation (NACO).
- International co-operation, exchange programmes and advanced training in HIV/AIDS management and research.
- Promoting research studies in the field of HIV/AIDS prevention

Implementation of RTI Act

The Right to Information Act was passed by the Parliament in May, 2005 with a view to promote transparency and accountability in the functioning of the Government by securing to the citizens the right to access the information under the control of public authorities. This Act has already come into effect w.e.f 12.10.2005. Under the Act, eight Central Public Information Officers (CPIOs) and three Appellate Authorities have been appointed in the Department of AIDS Control. During 2009-10, 79 applications and 13 appeals have been received till 15 March, 2010.

Districts AIDS Prevention and Control Unit

Under NACP-III, Districts AIDS Prevention and Control Units (DAPCU) have been established for decentralising the management of HIV/AIDS giving greater responsibilities to districts. Each DAPCU is manned by a District Programme Officer (HIV/AIDS), an Assistant-cum-Accountant, M&E Assistant and support staff. The first priority is to establish DAPCUs in high prevalence and moderate prevalence states. Out of 195 Category A&B districts, 181 DAPCU are functional as of December, 2009 (Table 16.1).

Important visits abroad by Officers of the Department of AIDS Control

A delegation from the Ministry of Health & Family Welfare, Government of India led by the Hon'ble Minister of State, Shri Dinesh Trivedi, attended the 9th International Conference on HIV/AIDS for Asia and the Pacific on the theme "Empowering People Strengthening Networks" at Bali, Indonesia from 9-13 August, 2009. The delegation included Joint Secretary, Assistant Director General, Joint Director, two Programme Officers from NACO and two Project Directors of SACS.

Ms. K. Sujatha Rao, Secretary & Director General, NACO attended Bill & Melinda Gates Foundation Advisory Panel Meeting at London (30 April-9 May, 2009); 19th GFATM Board Meeting

Table 16.1: Progress in establishment of DAPCU State wise during 2009-10 (till December, 2009)

State	No. of A and B districts	No. of DAPCUs functioning
Andhra Pradesh	23	23
Arunachal Pradesh	1	1
Assam	1	0
Bihar	3	1
Chandigarh	1	0
Chhattisgarh	1	1
Delhi	4	4
Goa	2	2
Gujarat	10	11
Haryana	1	0
Karnataka	26	29
Kerala	2	2
Madhya Pradesh	8	8
Maharashtra	32	30
Manipur	9	9
Mizoram	3	3
Nagaland	10	10
Orissa	7	7
Puducherry	1	0
Punjab	2	2
Rajasthan	7	2
Tamil Nadu	27	27
Tripura	1	1
Uttar Pradesh	5	0
West Bengal	8	8
Total	195	181

at Geneva (3-6 May 2009) and 24th Programme Coordination Meeting of UNAIDS at Geneva (5-6 July, 2009).

Shri K.Chandramouli, Secretary & Director General, NACO attended the 20th Board Meeting of the Global Fund at Addis Ababa, Ethiopia (8-11 November, 2009) and 25th Meeting of the Programme Coordinating Board of UNAIDS (8-10 December, 2009).

Ms. Aradhana Johri, Joint Secretary visited Yogyakarta, Indonesia to learn about fight against AIDS (7-13 August, 2009) and attended 2nd Asian

Consultation on Prevention of HIV related Drug at Bangkok (21-23 January, 2010).

Dr S. Venkatesh, Deputy Director General, participated in the Expert Meeting of HIV/AIDS estimation and Projection Methods at Bangkok (27-29 April, 2009).

Dr Damodar Bachani, Deputy Director General, attended the Bi-regional Workshop on prevention & surveillance of HIV Drug Resistance at Bangkok (20-24 May, 2009), 2nd Independent Evaluation of UNAIDS Stakeholders Workshop at Geneva (3-4 June, 2009); Expert Consultation on Operation Research in PMTCT and paediatric HIV at Washington, and SAARC Meeting of the Managers of National TB and HIV/AIDS control Programmes at Male (21-23 December, 2009). He made field visits to Vietnam to study their experience in controlling HIV/AIDS (23-24 November, 2009).

Shri A.S. Bhatia, Director (Finance) attended the International Course on 'Making decentralisation work: Tools for policy makers & managers' at Boston, USA (8-19 June, 2009).

Dr Mohd. Shaukat, ADG attended the 6th International Meeting on Plasma Product Bio-Technology at Menoca, Spain (11-15 May, 2009).

Dr Ajay Khera, ADG attended the Joint SAARC-ASEAN workshop on HIV/AIDS in Bali (12 August, 2009) and the UNGASS meeting at Bangkok (29 September - 2 October, 2009).

Dr Neeraj Dhingra, ADG and Dr Ruchi Sogarwal, PO attended the impact evaluation workshop in Kathmandu (22-26 February, 2010).

Dr Sandhya Kabra, ADG attended the WHO Technical Working Group Meeting on Prequalification of HIV Virological Technologies at Geneva (1-2 October, 2009).

Mr P. P. Gupta, Monitoring & Evaluation Officer, Gujarat SACS attended the SAARC Regional Training on Data Management at Colombo (23-27 November, 2009).

Dr Yujwal Raj, TO and Dr Sheela Godbole, Scientist, NARI attended the CDC supported meeting on surveillance at Ho Chi Minh City, Vietnam (1-5 March, 2010).

Important delegations which visited the Department of AIDS Control

The Universal Access Mission from UNAIDS led by Shri J.V.R Prasada Rao, Director, Regional Support Team in Asia & Pacific, UNAIDS held discussions on 3 and 4 November, 2009 with Secretary & DG and Senior Officers. The Mission was briefed on India's progress towards Universal Access to prevention, care and treatment.

The Mid-Term Review Mission of NACP-III led by Dr Kees Kosterman, Country Sector Coordinator, World Bank comprising representatives from World Bank, DFID and other development partners reviewed the progress of the National AIDS Control Programme Phase-III from 16 November to 3 December, 2009. They also made field visits to five states - Karnataka, Mizoram Orissa, Punjab and Rajasthan.

Secretary & DG addressed the delegation from Sweden during the Indo-Swedish meeting on 2 February, 2010 at Vigyan Bhawan, New Delhi.

The Committee on Millennium Development Goal of the National Assembly of Federal Republic of Nigeria led by Hon'ble Adewale Aribisala visited the Department of AIDS Control on 3 March 2010. The delegation was briefed by Secretary & DG on the progress in NACP-III.

Important meetings and workshops held at the Department of AIDS Control

Dr (Smt) Syeda Hameed, Member (Health), Planning Commission reviewed the progress in NACP-III as part of Mid-term Review of the 11th Five-Year Plan on 29 September 2009. The meeting was attended by Secretary & DG and officers from NACO.

Two meetings of the National AIDS Control Board chaired by Secretary & DG were held on 11 May, 2009 and 23 December, 2009.

Two review meetings of Project Directors of SACS were taken by Secretary & DG on 1 September, 2009 and 14-15 December, 2009.

A team of six officers from India including three from the National AIDS Control Organisation the summer course on "Crafting Effective Responses to HIV/AIDS Epidemics in Asia" at East West Centre, Honolulu, Hawaii, USA from 2 June -2 July, 2009.

National Workshops on Data Triangulation were organised at:

- the Department of AIDS Control in New Delhi on 3-5 August, 2009 and 5-7 October, 2009 during phase I
- the State Institute of Health & Family Welfare(SIHFW), Jaipur on 18-20 January 2010 and CSM Medical University, Lucknow on 22-24 January 2010 during phase II

A National Consultation on Greater Involvement of People Living with HIV/AIDS (GIPA) was organised on 8 September 2009, at New Delhi.

A Dissemination Workshop on the various report of the studies conducted during Mid-Term Review was held at NACO on 26-28 October, 2009. The Workshop was attended by Members of MTR mission, development Partners, Project Directors of SACS and Senior Officers of NACO.

Secretary & DG was chief guest of screening of the film "Suee" held on 23 November 2009 directed by the Veteran Film maker Sai Paranjpe on injecting drug users. He also participated in the panel discussion and described the measures taken for this high risk group.

Under the internship programme introduced by the Ministry of Health & Family Welfare, summer internship was organised for a MBA student in the Division of Strategic information Management. A number of under graduate and post graduate Medical Colleges in Delhi, Armed Forces Medical College, Pune, and nursing students from the RAK College of Nursing, New Delhi were oriented on the activities under NACP-III.

Achievement

NACO won the best Result Framework Document (RFD) award at the Workshop organised by Cabinet Secretariat on 5 & 6 November, 2009 at New Delhi. Draft of RFD submitted on 30 November, 2009 received excellent ranking.

HIV/AIDS Bill

The draft of this Bill, presently being finalised for introduction in Parliament, seeks to protect the right of marginalised groups so as to create an enabling environment free from stigma and discrimination. It takes into account the interests of vulnerable groups, people living with HIV, the government and civil society.



Procurement

During the year, the United Nations Office for Project Services (UNOPS) continued to provide support to NACO as Procurement Agent. As the contract with UNOPS is expiring on 31-03-2010, NACO concluded the process for selection of new Procurement Agent following QCBS procedure of the World Bank. With No Objection from the World Bank at different stages of the selection process, a new procurement Agent (M/s RITES) has been selected and contract with the new Procurement Agent has also been signed on 16-02-2010.

As in the past, all the main items required for the programme, including test kits (HIV (Rapid), HIV (Elisa), HBs Ag (Rapid), HBs Ag (Elisa), HCV (Rapid), HCV (Elisa), RPR kits, drugs (ARV drugs, STI/RTI drug kits) and equipments (CD4 machines and Blood Bank Equipments) and blood bags were centrally procured and supplied to SACS. Expenditure has been incurred in procurement at the central level till 8.3.2010 is shown in Table 17.1.

Table 17.1: Expenditure has been incurred in procurement at the central level

	(Rs. in crore)
Budget Estimate	286.40
Revised estimate	307.25
Expenditure incurred (As on 15-03-2010)	291.96

Procurement at State level remained an area of importance for NACO. For smooth and efficient procurement at state level, handholding support to State AIDS Control Societies is being provided by the Procurement Division at NACO. For capacity building of procurement officials of SACS, a two-day workshop was organised for procurement and finance officials in October, 2009. Experts from World Bank, DFID and UNOPS participated as resource persons in this workshop, in addition to Procurement Specialists at NACO.



Financial Management

NACP-III (2007-2012) requires an investment of Rs. 11,585 crores to implement the wide range of interventions. Of this budget, 67.2 percent is earmarked for prevention activities among high risk groups and general population, 17 percent for Care, Support and Treatment of PLHA, eight percent for programme management, three percent for Strategic Information Management, and five percent for contingency.

Out of Rs 11,585 crores, Rs 8,023 crores is provided through the budget, the balance being extra budgetary funding. Details of fund allocation and

utilisation during NACP-III year-wise are shown in Table 18.1.

Over the years, steps have been taken to improve financial systems in SACS and NACO. These include:

- To avoid delay in implementation from late approval of Action Plan, action has been taken over the last three years to convey the sanction before the close of the previous financial year to enable activity to be properly planned and executed from the start of the implementing period.

Table 18.1: Year -Wise details of Fund Allocation and Utilisation - 2007-08 to 2009-10

Year	Revised Estimate (in Rs. crores)	Expenditure Incurred (in Rs. crores)	Percent spending
2007-08	943.34	917.56	97.3%
2008-09	1123.36	1037.00	92.3%
2009-10	980.15	890.77*	90.88*

* as on 15.3.2010

- Staff position improved in finance division of all the SACS.
- E-Transfer facility to avoid transit delays in transfer of funds to states. Steps taken for payment of salary to staff at district and peripheral units through e-transfer to minimise advances.
- Supportive supervision has been extended to weaker states so that better systems are in place in states.
- Three layer audit structure has been evolved to have better financial management and timely submission of utilisation certificates.
- Computerised Project Financial Management System (CPFMS) is developed and rolled out to have better financial management. The system is working in all SACS for tracking expenditure management, capturing financial data, and utilisation and monitoring of advance.

The most recent and important audit observations are given in Annex-IV.



Mid-term Review of NACP-III

The Mid-Term Review (MTR) of NACP-III was conducted from 16 November-3 December, 2009 by the MTR mission team with representatives from World Bank and Development Partners (Bill and Melinda Gates Foundation, Clinton Foundation, DFID, GFATM, UNICEF, UNAIDS, USAID and WHO). The mission carried out a comprehensive evaluation of strategies, plans, resources and activities undertaken in the first half of NACP-III.

Several studies were conducted to inform MTR on the effectiveness and impact of strategies, progress against the set targets, and areas needing mid-course corrections. These studies highlighted the challenges that are faced during the implementation of programme strategies, and also identified the opportunities that may be tapped to make the strategies more effective. While some studies evaluated the strategies and provided direction, some studies critically looked at the organisational mechanisms including HR and Finance. Overall, the studies provided critical

inputs to refine the programme interventions and enable them achieve greater impact. The findings were shared with the members of the MTR mission and Project Directors of selected SACS at a dissemination workshop organised by the Department of AIDS Control on 26-28 October, 2009.

Following a briefing in the Department of AIDS Control on 16 November, 2009, the Mission carried out field visits to five states - Karnataka, Mizoram, Orissa, Punjab and Rajasthan from 17 to 21 November, 2009. The mission, then, reviewed the progress with the officers at the Department of AIDS Control.

The Aide Memoire from the MTR mission submitted to the Department of Economic Affairs in January, 2010 mentioned that:

- By mid term, NACP-III has made excellent progress towards its goal to halt and reverse the HIV epidemic by 2011. The development

objective of NACP-III is well within reach. Many targets have been reached or even surpassed. Most encouraging for the programme, overall HIV prevalence is steadily declining in ANC, STD, FSW and MSM. Only for IDU is the trend less clear. The ART target for midterm (230,000 PLHIV - adult and children) has also been achieved.

- There are 251,240 adults and 16,940 children alive and on ART as of September 2009.
- NACP-III has achieved its midterm outcome targets according to coverage estimates from BSS in six states in 2009 (Manipur, Andhra Pradesh, Maharashtra, Karnataka, Tamil Nadu, Uttar Pradesh) which show that awareness of HIV prevention is widespread among risk groups and the general population, translating into safer practices. These preliminary results for behaviour change estimates need to be validated by further analysis and comparison with other survey data.
- HIV prevalence in the general population remains at 0.3 percent (2007 and 2008) with six states accounting for almost two-thirds of the HIV burden. HIV prevalence is 10-20 times higher among high risk groups, 5 percent among FSW, nine percent among IDUs and seven percent in MSM (NACO, 2008 national surveillance data), which shows the concentration of high prevalence among vulnerable groups most at risk. Prevalence amongst ANC clients has gone down from

0.8 percent (2003) to 0.5 percent (2008). Data indicate that the vast majority of new infections and the existing burden of disease are concentrated in 5-15 percent districts in India. NACO must focus its effort in identifying and further intensifying its activities in these areas - in the first half of NACP-III NACO has developed the managerial tools and instruments to do so successfully. The challenge of then scaling up targeted interventions in heterogeneous settings across India will require continued focus on mapping, micro planning and supervisory effectiveness of SACS, TSUs and NACO, flexible programming for tackling new typologies of HRGs, and a renewed focus on the highest risk sex workers (e.g., young, new, high volume). Incorporation of the new mapping data for HRG means that NACO will need to further scale up its interventions in TI beyond the present level.

- The number of people receiving ART has surpassed the midterm goal. However, there is a need to address the gender inequities especially for paediatric ART, and to increase HRG access as well as the proportion of pregnant PLHIV receiving a full course of ART prophylaxis.
- The Dashboard for monitoring of programme performance shows remarkable progress against most indicators, many targets have been exceeded. Overall, while coverage and infrastructure have been scaled up, the next

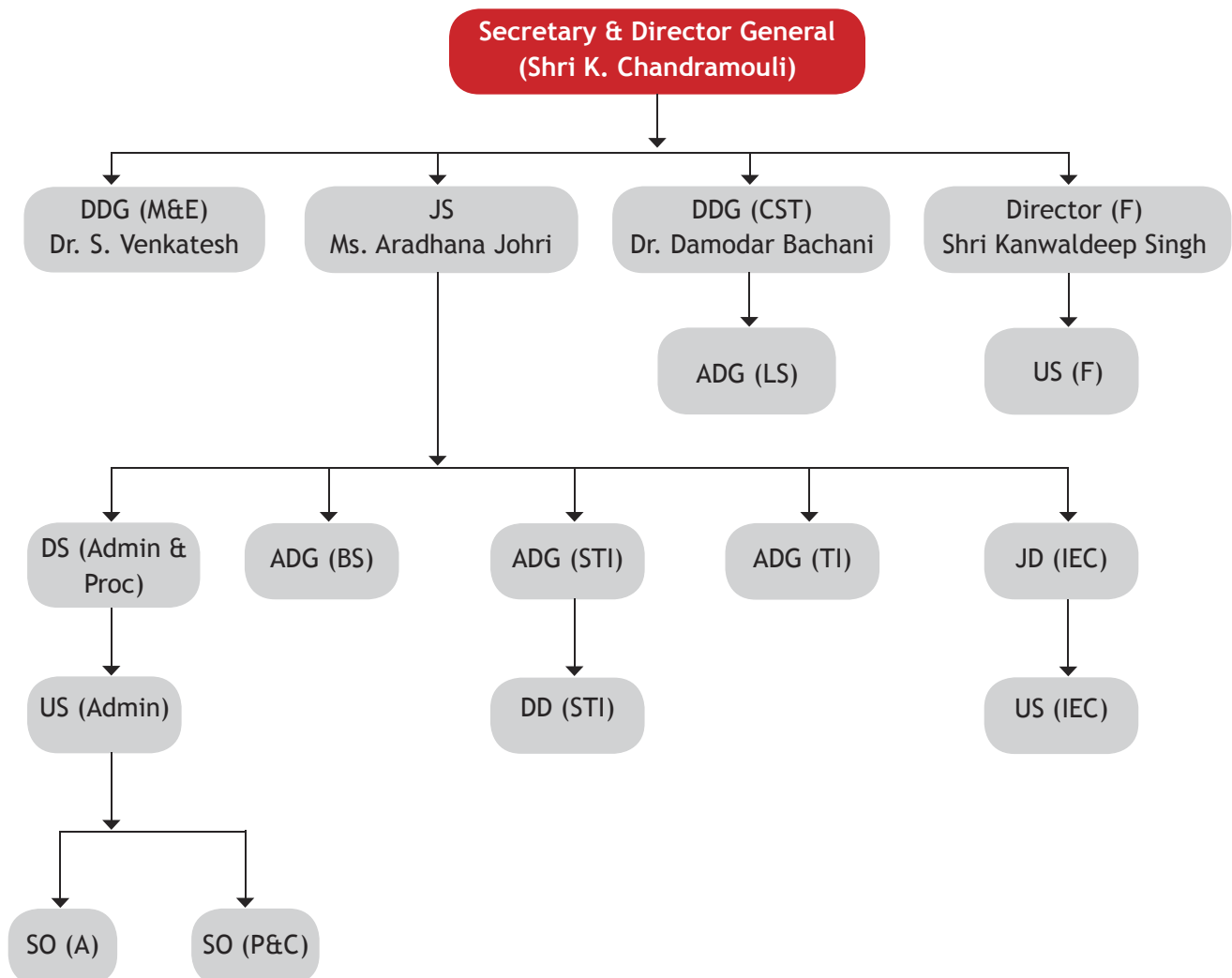
Project Outcome Indicators	Baseline 2006	Mid-Term Yr 3	
		Target	Achievement - mean [range]
Percentage of FSW who report using a condom with their most recent client	50%	70%	91% [83-97]
Percentage of MSW who report using a condom with their most recent client	20%	40%	86% [43-100]
Percentage of IDUs who have adopted behaviours that reduce transmission of HIV, that is who avoid both sharing injecting equipment during the last month AND who report using a condom with their most recent sexual partner.	30%	50%	Avoid sharing injecting equipment during last month - 62% [44-91] Report using a condom with their most recent sexual partner - 88% [77-95]
Number of people with advanced HIV infection receiving antiretroviral combination therapy	42,000	2,30,000	2,68,180 (on Sept 09)

phase of NACP-III should emphasise significant quality improvements especially in areas with high HIV prevalence and/or trends and high vulnerability (size and risky behaviours), building on the impressive gains in ART services, including increased monitoring, expansion and decentralisation of services.

- NACO has done a commendable job of scaling up ICTC and identifying PLHIV. In 2009-10, it is likely that 80 lakh general population will be tested of which 3,00,000-3,20,000 are expected to be positive, or ~15 percent of the total PLHIV in the country. There is an opportunity to stem the epidemic by working with discordant couples to prevent them from turning concordant. NACO should intensify the programme to track and review the status of discordant couples and offer regular and periodic discordant couple counseling and other services (e.g. free condoms) to prevent a large proportion of new infections in India.
- While the scaling up of infrastructure for care, support and treatment has been tremendous, the need of the hour is improvements in quality aspects such as ensuring gender equity for adult and paediatric treatment, reduction in lost to follow up and ensuring that those tested are registered for pre-ART. There is probably no other national programme of the Government of India which focuses more on marginalised groups than NACP-III, and the programme is a trail-blazer for many other government programmes. But, the dynamics of the HIV epidemic demand that NACO focuses on equal access for all who need NACP's services.
- The HIV epidemic in India continues to be fueled by sex work and injecting drug use. Programme targets for sex workers and injecting drug users are being achieved and NACO is paying more attention to bridge populations, such as truckers and migrants. While such broadening is welcome, NACO must guard that it will not come at the cost of decreasing attention to the focus of the epidemic.
- Convergence with the NRHM is now being implemented, while more progress can still be made in areas such as supply chain management and laboratory services.
- In preparation of the MTR, an analysis of the financing situation of NACP-III was done. NACO has been quite successful in achieving numerical targets during the first half of NACP-III, and it now needs to further scale up targeted interventions and enhance their quality. New HRG mapping exercise and data triangulation will lead to a recategorisation of districts and newly defined intervention packages for these. Only after these exercises have been completed, will NACO be able to carry out a costing exercise of NACP-III and indicate a possible financing gap.
- NACO agreed to work with pooling partners in amending the financing agreement to update fiduciary arrangements under the programme.

Annex I

Organisational Chart of the Department AIDS Control



A-Administration, ADG - Assistant Director General, BS-Blood Safety, CST - Care, Support & Treatment, DD - Deputy Director, DDG - Deputy Director General, DS - Deputy Secretary, F- Finance, IEC-Information Education & Communication, JD - Joint Director, JS - Joint Secretary, LS - Lab Services, P & C-Planning & Coordination, SO - Section Officer, STI- Sexually Transmitted Infections ,TI-Targetted Intervention, US - Under Secretary,

List of Category A and B districts based on HIV Sentinel Surveillance 2004 - 2006

Category A (156)		Category B (39)
ANDHRA PRADESH (23)	Kodagu	MIZORAM (2)
Adilabad	Kolar	Aizawl
Anantapur	Koppal	Champhai
Chittoor	Mandya	NAGALAND (10)
Cuddapah	Mysore	Dimapur
East_Godavari	Raichur	Kohima
Guntur	Shimoga	Mokokchung
Hyderabad	Tumkur	Mon
Karimnagar	Udupi	Phek
Khammam	Uttara_Kannada	Tuensang
Krishna	MADHYA PRADESH (5/48)	Wokha
Kurnool	Balaghat	Kiphera
Mahabubnagar	Dewas	Peren
Medak	Harda	Zunheboto
Nalgonda	Panna	ORISSA (4)
Nellore	Rewa	Anugul
Nizamabad	MAHARASHTRA (32)	Bolangir
Prakasam	Ahmadnagar	Bhadrak
Rangareddi	Akola	Ganjam
Srikakulam	Amravati_Rural	PUNJAB (1)
Visakhapatnam	Aurangabad_MH	Ludhiana
Vizianagaram	Bhandara	RAJASTHAN (1)
Warangal	Beed	Ganganagar
West_Godavari	Buldana	TAMIL NADU (22)
ARUNACHAL PRADESH (1/16)	Chandrapur	Coimbatore
Lohit	Dhule	Cuddalore
BIHAR (2)	Gadchiroli	Dharmapuri
Araria	Hingoli	Erode
Lakhisarai	Jalgaon	Kanniyakumari
CHHATTISGARH (1)	Jalna	Karur
Durg	Kolhapur	Krishnagiri
GOA (1)	Latur	Madurai
North_Goa	Mumbai	Namakkal
GUJARAT (6)	Mumbai (Suburban)	Perambalur
Banas_Kantha	Nagpur_Rural	Pudukkottai
Dahod	Nanded	Ramanathapuram
Mahesana	Nandurbar	Salem
Navsari	Nashik	Sivaganga
Surat	Osmanabad	Theni
Surendranagar	Parbhani	The_Nilgiris
HARYANA (1)	Pune	Thiruvallur
Bhiwani	Raigarh_MH	Tiruchirappalli
KARNATAKA (26)	Ratnagiri	Tiruvanmalai
Bagalkot	Sangli	Toothukudi
Bangalore_City	Satara	Vellore
Bangalore_Rural	Solapur	Viruddhnagar
Belgaum	Thane	UTTAR PRADESH (5/70)
Bellary	Wardha	Allahabad
Bidar	Yavatmal	Banda
Bijapur	MANIPUR (9)	Deoria
Chamarajanagar	Bishnupur	Etawah
Chikmagalur	Chandel	Mau
Dakshina_Kannada	Churachandpur	WEST BENGAL (4)
Davanagere	Imphal	Kolkata
Dharwad	Senapati	Puruliya
Gadag	Tamenglong	Barddhaman
Gulbarga	Thoubal	Uttar_Dinajpur
Hassan	Ukhrul	
		ASSAM (1)
		Sonitpur
		BIHAR (1)
		Katihar
		CHANDIGARH (1)
		Chandigarh
		DELHI (4)
		Delhi_Central
		Delhi_East
		Delhi_North
		Delhi_North_East
		GOA (1)
		South_Goa
		GUJARAT (4)
		Ahmadabad
		Bhavnagar
		Rajkot
		Boroda (Varodara)
		KERALA (2)
		Ernakulam
		Kozhikode
		MADHYA PRADESH (3/48)
		Indore
		Mandsaur
		Bhopal
		MIZORAM (1)
		Kolasib
		ORISSA (3)
		Baleswar
		Khordha
		Koraput
		PONDICHERY (1)
		Pondicherry
		PUNJAB (1)
		Bhatinda
		RAJASTHAN (6)
		Ajmer
		Alwar
		Barmer
		Jaipur
		Udaipur
		Tonk
		TAMIL NADU (5)
		Chennai
		Kancheepuram
		Tirunelveli
		Thanjavur
		Villupuram
		TRIPURA (1)
		North Tripura
		WEST BENGAL (4)
		Darjeeling
		Jalpaiguri
		Medinipur_East
		Murshidabad

Annex III

List of State/Municipal AIDS Control Societies

Andhra Pradesh AIDS Control Society, Directorate of Medical and Health Services, Sultan Bazar, Hyderabad - 500059.	Andaman & Nicobar AIDS Control Society, G.B. Pant Hospital Complex, Port Blair - 744104	Arunachal Pradesh State AIDS Control Society, Directorate of Health Services, Naharlagun, Arunachal Pradesh -791110
Assam State AIDS Control Society, Khanapara, Guwahati-781022	Ahmedabad Municipal corporation AIDS Controls Society, Old Municipal Dispensary, C.G.Road, Ahmedabad-380006	Bihar State AIDS Control Society, State Institute of Health & Family Welfare, Sheikhpura, Patna - 800014
Chennai Municipal Corporation AIDS Control Society, 82 Thiru Vi-Ka Salai, Mylapore, Chennai-600004	Chandigarh State AIDS Control Society, SCO No. 14-15, 1st Floor, Sector - 8C, Chandigarh - 160018	Chhattisgarh State AIDS Control Society, Directorate of Health Services, State health Training Centre, Near Kalibari Chowk, Raipur.
Dadra & Nagar Haveli State AIDS Control Society, Shri Vinobha Bhawe Civil Hospital Campus, Silvassa - 396230	Daman & Diu State AIDS Control Society, Community Health Centre, Moti Daman, Daman - 396220	Delhi State AIDS Control Society, Dr. Baba Saheb Ambedkar Hospital, Dharmshala Block, Sector-6, Rohini, Delhi - 110 085
Goa State AIDS Control Society, First Floor, Dayanand Smriti Building, Swamy Vivekanand Road, Panaji - 403001	Gujarat State AIDS Control Society, 0/1 Block, New Mental Hospital, Complex, Menghani Nagar, Ahmedabad - 380016	Haryana State AIDS Control Plot No. C-15, Awas Bhawan, Sector-6, Panchkula, Haryana
Himachal Pradesh AIDS Control Society, Block No. 38, Ground Floor, SDA Complex, Kasumpti, Shimla - 171009	Jammu & Kashmir AIDS Control Society, 48, Samandar Bagh, Exchange Road, Srinagar	Jharkhand AIDS Control Society, Sadar Hospital Campus, Purulia Road, Ranchi,
Karnataka AIDS Control Society, No.4/13-1, Crescent Road, High Grounds, Bengaluru	Kerala State AIDS Control Society, IPP Building, Red Cross Road, Thiruvananthapuram, Kerala - 695035	Lakshadweep State AIDS Control Society, Directorate of Medical and Health Services, UT of Lakshadweep, Kavaratti - 682555
Madhya Pradesh State AIDS Control Society, 1, Arera Hills, Second Floor, Oilfed Building, Bhopal - 462011	Maharashtra State AIDS Control Society, Ackworth Leprosy Hospital Compound, R.A. Kidwai Marg, Wadala (West), Mumbai- 400031	Manipur State AIDS Control Society, New Secretariat, Annexe Building, Western Block Imphal, Manipur-795001
Meghalaya State AIDS Control Society, Ideal Lodge, Oakland, Shillong - 793001.	Mizoram State AIDS Control Society, MV-124, Mission Veng South, Aizwal - 796005	Mumbai Districts State AIDS Control Society, Municipal Corporation of Greater Mumbai, R.A. Kidwai Marg, Acworth Complex, Wadala, Mumbai-400031
Nagaland State AIDS Control Society, Medical Directorate, Kohima - 797001	Orissa State AIDS Control Society, Oil Orissa Building, Nayapalli, Bhubaneshwar	Puducherry State AIDS Control Society, No : 93, Perumal Koil Street Puducherry-605001
Punjab State AIDS Control Society, SCO - 481-82, 1st Floor, Sector 35-C, Chandigarh	Rajasthan State AIDS Control Society, Medical & Health Directorate, Swasthya Bhawan, Tilak Marg, Jaipur - 302005.	Sikkim State AIDS Control Society, STNM Hospital, Gangtok, 737101.
Tamilnadu State AIDS Control Society, 417 Pantheon Road, Egmore, Chennai-600008	Tripura State AIDS Control Society, Akhaura Road, Opposite to I.G M Hospital, Agartala- 799001	Uttar Pradesh State AIDS Control Society, A-Block, 4th Floor, PICUP Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow
Uttarakhand State AIDS Control Society, Chandar Nagar, Dehradun	West Bengal State AIDS Control Society, Swasthya Bhawan, GN - 29, Sector - V, Salt Lake, Kolkatta - 700091	

Most Recent and Important Audit Observations

Sl. No.	Year	No. of paras/PA reports on which ATNs have been submitted to PAC after vetting by Audit	Details of the Paras/PA report on which ATNs are pending		
			No. of ANTs not sent by the Ministry even for the first time	No. of ATNs sent but returned with observations and Audit is awaiting their resubmission by the Ministry	No. of ATNs which have been finally vetted by audit but have not been submitted by the Ministry to PAC
1.	2004-05 Report No. 3 of 2004 entire report on National AIDS Control Programme	Report is under examination of Public Accounts Committee. Recommendations of PAC [19th Report of PAC 2005-06]. Further recommendations [vide 63rd Report of PAC 2007-08 on ATN of 19th Report]. ATN on recommendations made in 63rd Report sent to PAC on 29.6.09.			
2.	2008-09		Report No. CA 14 of 2008-09 Para 5.4 (ATN has been sent to audit)		



National AIDS Control Organisation

India's voice against AIDS

Department of AIDS Control

Ministry of Health & Family Welfare, Government of India

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