

**Department of AIDS Control  
Ministry of Health and Family Welfare  
Government of India**

**ANNUAL REPORT 2008-2009**



**National AIDS Control Organisation**  
India's voice against AIDS



## **CONTENTS**

<b>Sl. No.</b>	<b>Highlights</b>	<b>2-3</b>
1	Current Epidemiological Situation of HIV/AIDS	4-5
2	National Response to HIV Epidemic	6-8
3	Priority Targeted Interventions for populations at high risk	9-11
4	Preventive interventions for the general population	12
5	Integrated Counseling and Testing Services	13-14
6	Sexually Transmitted Infections (STI) Services	15-17
7	Information, Education & Communication, Mainstreaming & Condom Promotion	18-22
8	Blood Safety	23-26
9	Care, Support and Treatment for People Living with HIV/AIDS	27-30
10	Institutional Strengthening and Capacity Building	31
11	Strategic Information Management	32-38
12	Conclusion	39

## Highlights of the Annual Report

1. India had an estimated 1.8 – 2.9 million HIV positive persons in 2007, with an estimated adult HIV prevalence of 0.34% (0.25%–0.43%). As the HIV Prevalence among the high risk groups (HRG) is very high compared to that among the general population, India continues to be in the category of concentrated epidemic. The sexual mode continues to be the major mode of transmission, though transmission through injecting drug use and Men having Sex with Men are on the rise in many new pockets. The annual HIV sentinel surveillance covered 1,215 sites in 2008-09.

2. The National AIDS Control Programme (NACP) Phase-III (2007-2012) has the overall goal of halting and reversing the epidemic in India over the five-year period. It places the 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. Prevention of new infections in high risk groups and general population through:
  - a. Saturation of coverage of high risk groups with targeted interventions (TIs)
  - b. Scaled up interventions in the general population
2. Providing greater care, support and treatment to larger number of persons living with HIV/AIDS (PLHA).
3. Strengthening the infrastructure, systems and human resources in prevention, care, support and treatment programmes at the district, state and national level.
4. Strengthening the nationwide Strategic Information Management System.

The specific objective is to reduce new infection as estimated in the programme's first year by 60% in high prevalence states so as to obtain reversal of the epidemic; and by 40% in the vulnerable states so as to stabilize the epidemic. NACP's organizational structure was decentralized to implement programmes at the district level, with priority for Category A and B districts.

3. On 31 March, 2009, 1,271 Targeted Interventions projects were operational under various State AIDS Control Societies and about 200 more were managed by partners. These TIs covered 55% of FSW, 73% of IDU and 77% of MSM and transgender populations. The State Training and Resource Centres were established in 14 states to ensure the capacity and technical skills of the TI staff. The HRG mapping exercise was conducted in 17 states and validated in March, 2009. The existing centres implementing Oral Substitution Therapy to address the HIV risk among the Injecting Drug Users were assessed and accredited, procurement of the medicines was carried out, and a supply chain mechanism drafted. The Link Worker Scheme specifically covers highly vulnerable villages and addresses population with high-risk behaviours and young people.

4. As a part of the preventive interventions for the general population, NACO is developing a communication strategy to make a paradigm shift from awareness generation to effecting behaviour change. NACO has focused on the reduction of stigma and discrimination, promotion of services. A special emphasis has been given to youth and women who are more vulnerable to the HIV infection. Several multi-media, mid-media and mass media campaigns primarily targeted high priority districts. The Red Ribbon Express Project is the world's largest mass mobilization campaign on HIV/AIDS. The train was flagged off on 1<sup>st</sup> December, 2007 (World AIDS Day) from Delhi and completed its journey on 1<sup>st</sup> December, 2008 after traveling over 27,000 kms covering 180 district/halt stations. The project covered 41,334 villages and reached out to 6.2 million people. 68,244 persons were trained and 1,16,183 persons counseled on HIV/AIDS. An allocation of Rs. 167.3 crores was made under IEC for NACO and SACS during 2008-09.

5. The National Council on AIDS has been constituted under the chairpersonship of Hon'ble Prime Minister with representation

of 33 ministries and departments to strengthen the Government's multisectoral response to prevent the spread of HIV. The State Councils on AIDS guide and support the mainstreaming efforts at the state level.

**6.** Condom use was promoted and condoms provided at all ICTCs, ART centres and STI clinics. During 2008-09, 7,50,000 condoms were sold through 8,500 condom vending machines. NACO scaled up the Female Condom Programme in Andhra Pradesh, Tamil Nadu, Maharashtra and West Bengal to saturate all the female sex worker TIs. During 2008-09, 15 lakh female condoms were procured

**7.** Access to safe blood was ensured through a network of 1,092 Blood Banks including 104 Blood Component Separation Units and 10 Model Blood Banks. Of the blood units collected in 2008-09, 61.7% was through voluntary blood donation. A total of 56,568 blood donation camps were organized.

**8.** The Integrated Counseling and Testing Centres (ICTC) increased from 982 in 2004 to 4,987 in March 2009. The number of persons tested increased from 17.5 lakhs in 2004 to 101 lakhs in 2008-09. In 2008-09, 24,320 HIV-TB co-infected patients were diagnosed. The ICTCs provided counseling and testing to 46.3 lakh pregnant women, of whom 21,483 were found HIV positive. A total of 10,494 mother-baby pairs were given prophylaxis dose of Nevirapine.

**9.** The number of designated STI/RTI clinics being supported by NACO increased from 845 in March 2008 to 886 in March 2009. The number of patients accessing STI/RTI services from these clinics and STI clinics in TI projects increased from over 20.2 lakh in 2006 to 34.8 lakh in 2008. In addition, over 31 lakh STI/RTI episodes were

managed through sub-district level health facilities under NRHM in 2008 bringing the total number of STI/RTI episodes managed to 66.7 lakhs in the country during 2008-09. The STI services are being expanded through effective integration with RCH-II programme and involvement of private sector. The centrally-procured colour-coded syndromic drug kits and RPR/TPHA test kits were supplied to the designated STI/RTI clinics. The STI/RTI service delivery for HRG population has been strengthened through the preferred private provider model.

**10.** The free ART programme was scaled up to 211 centres, and 2,17,781 patients were receiving free ART as of March, 2009. Ten Regional Centres of Excellence provide state-of-art services for PLHAs. The rollout of second line ART was expanded to these 10 centres from January 2009, where 401 patients receive second line drugs. As of 31 March, 2009, 254 Community Care Centres were operational. Under the National Paediatric HIV/AIDS Initiative, 47,784 CLHA had been registered for HIV care at ART centres, and 14,303 CLHAs received free ART as of March 2009.

**11.** The Strategic Information Management Units at national and state levels address strategic planning, monitoring & evaluation, surveillance and research. The SIMS project and the smart card project for ART patients are in progress.

**12.** During 2008-09, a sum of Rs 1,037 crores was spent on NACP against the Revised Estimate of Rs. 1,123.36 crores.

**(K. Sujatha Rao)**  
**Secretary, Department of AIDS Control**  
**& Director General,**  
**National AIDS Control Organisation**

## 1. Current Epidemiological Situation of HIV/AIDS

HIV situation in the country is assessed and monitored through regular annual sentinel surveillance mechanism established since 1992. The sentinel surveillance started with 180 sentinel sites which later expanded to 1134 sites, covering most of the districts of the country. These sentinel sites have been established in 646 Antenatal clinics representing general population and 488 at High Risk sites, representing High Risk Population. The high risk sites are among Injecting Drug users (52 sites), Female Sex workers (137 sites), Men having Sex with Men (40 sites) and STD Clinic attendees (248 sites).

According to the recent estimates using the internationally comparable Workbook Method and using multiple data sources (expanded Sentinel Surveillance System, NFHS-III, IBBA and Behavioural Surveillance Survey), there were 1.8 – 2.9 million (2.31 million) people living with HIV/AIDS at the end of 2007. The estimated adult prevalence in the country is 0.34% (0.25% - 0.43%) and it is greater among males (0.44%) than among females (0.23%). The prevalence rate of HIV infection in the country has stabilized over the last few years as shown in Figure 1.

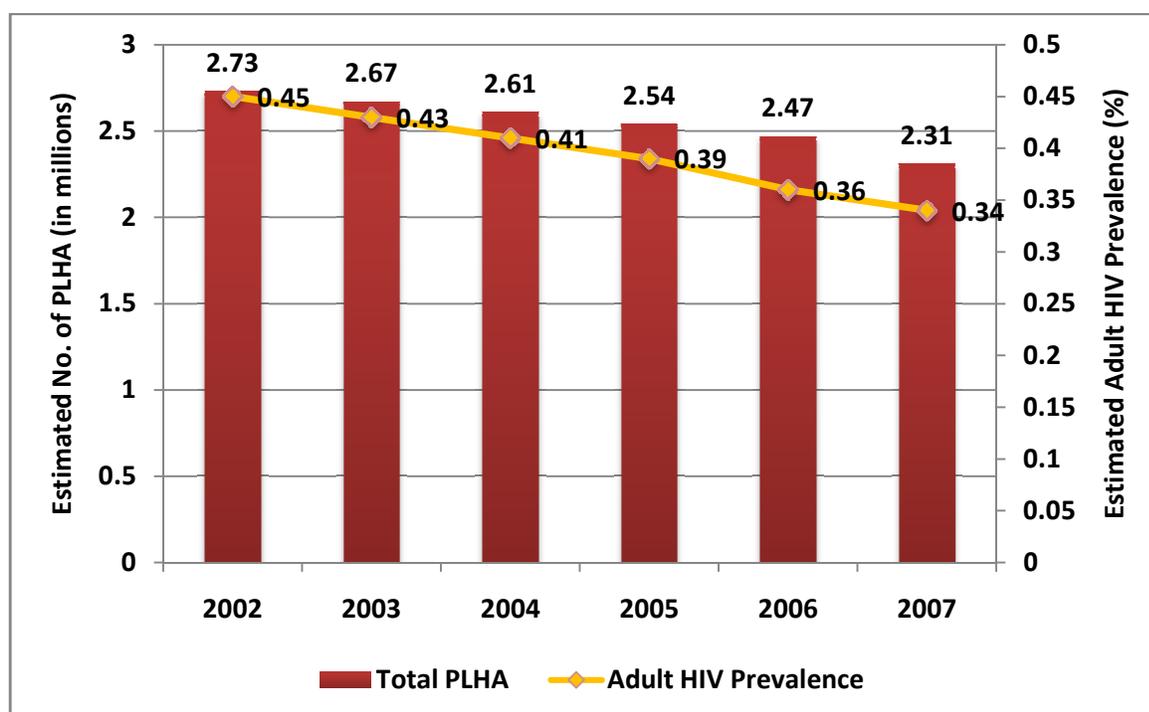


Figure 1: Estimated Adult HIV Prevalence and number of PLHA, India, 2002-07

The overall HIV prevalence among different population groups in 2007 continues to portray the concentrated epidemic in India, with a very high prevalence among High Risk Groups – IDU (7.2%), MSM (7.4%), FSW (5.1%) & STD (3.6%) and low prevalence among ANC clinic attendees (Age adjusted - 0.48%).

Except Andhra Pradesh with HIV Prevalence of 1%, all other states have shown less than 1% Median HIV Prevalence among ANC Clinic attendees. At the district level, a

total of 87 districts (117 sites) have shown HIV prevalence  $\geq 1\%$  among ANC clinic attendees in 2007. Out of these, 13 districts are in moderate and low prevalence states. 10 districts have shown a very high prevalence of  $\geq 3\%$  among ANC clinic attendees. 9 districts have been identified as having ANC HIV prevalence  $\geq 1\%$  for the first time in low and moderate prevalence states which includes 3 districts in Bihar, 1 district each in Chhattisgarh, Gujarat, Kerala, Madhya Pradesh, Orissa and West Bengal.

An overall decline in HIV prevalence among ANC clinic attendees is noted at all India level and in high prevalence states in south and northeast. Rising trend among ANC clinic attendees is observed in some low and moderate prevalence states, especially in the four states of Gujarat, Rajasthan, Orissa and West Bengal.

47 districts (48 sites) have shown  $>5\%$  HIV Prevalence among FSW, which also include FSW sites in low prevalence states namely West Bengal, Bihar and Gujarat. FSW sites in Pune, Mumbai and Thane have shown  $> 30\%$  HIV prevalence among FSW. Among FSW, there is a decline in South Indian States reflecting the impact of interventions, while rising trends are evident in the North East suggesting a dual nature of the epidemic.

Expanded surveillance among MSM has revealed more than 5% HIV prevalence in Karnataka (17.6%), Andhra Pradesh (17%), Manipur (16.4%), Maharashtra (11.8%), Delhi (11.7%), Gujarat (8.4%), Goa (7.9%), Orissa (7.4%), Tamil Nadu (6.6%) and West Bengal (5.6%).

Among IDUs, Maharashtra (24.4%), Manipur (17.9%), Tamil Nadu (16.8%), Punjab (13.8%), Delhi (10.1%), Chandigarh (8.6%), Kerala (7.9%), West Bengal (7.8%), Mizoram (7.5%) & Orissa (7.3%) have shown high prevalence of  $\geq 5\%$ . New pockets of epidemic among IDU identified during 2006 continue to show high HIV Prevalence in 2007. Trends among IDUs are on a decline in Manipur, Nagaland and Chennai while there is a clear rise in Meghalaya, Mizoram, West Bengal, Mumbai, Kerala and Delhi.

The epidemic is greater in urban areas than rural areas, greater among males than females, decreases with increasing education level, and is found to be highest among women whose spouses work in transport industry.

Based on the sentinel surveillance data for the last three years (2004-2006), all the districts in the country have been classified into four categories: there are 156 A category districts, 39 B category districts and the remaining are in categories C & D.

Thus, HIV epidemic in India is a dual epidemic driven by sexual and IDU routes of transmission, concentrated in nature with high HIV prevalence among high risk groups and heterogeneous in spread with pockets of infection found in various districts of the country.

## 2. National Response to HIV Epidemic

### 2.1. National AIDS Control Programme – Phase I & II

The first phase of National AIDS Control Programme was initially from 1992 to 1997 and was extended to 1999. NACP-II commenced from April 1999 with the twin objectives of reducing the spread of HIV infection and strengthening the capacity of Central and State Governments to respond to HIV/AIDS on a long term basis. Targeted interventions were initiated for high risk groups and measures were taken to prevent HIV transmission among the general population. Anti-Retro Viral Therapy was provided to AIDS patients at selected centres.

The programme implementation has been completely decentralized to states and UTs. Each state and UT has registered a State AIDS Control Society (SACS) responsible for implementing the programme at the State/ UT level. Mumbai, Chennai and Ahmedabad have formed Municipal AIDS Control Societies to effectively implement the programme.

Important policy initiatives taken during NACP-II include adoption of National AIDS Prevention and Control Policy (2002); National Blood Policy; Greater Involvement of People with HIV/AIDS (GIPA); launch of the National Rural Health Mission; launch of the National Adolescent Education Programme; provision of anti-retroviral treatment (ART); formation of an inter-ministerial group for mainstreaming; and setting up of the National Council on AIDS, chaired by the Prime Minister.

### 2.2. National AIDS Control Programme – Phase III

The overall goal of NACP-III launched in June 2007 is to halt and reverse the epidemic in India over the next 5 years. Considering that more than 99% of the population in the country is free from infection, NACP-III will place the highest priority on preventive efforts while, at the same time, seeking to integrate prevention with care, support and treatment. This will be achieved through **a four-pronged** strategy:

5. Prevention of new infections in high risk groups and general population through:
  - a. Saturation of coverage of high risk groups with targeted interventions (TIs)
  - b. Scaled up interventions in the general population
6. Providing greater care, support and treatment to larger number of PLHA.
7. Strengthening the infrastructure, systems and human resources in prevention, care, support and treatment programmes at the district, state and national level.
8. Strengthening the nationwide Strategic Information Management System.

**The specific objective** is to reduce new infection as estimated in the first year of the programme by:

- Sixty per cent (60%) in high prevalence states so as to obtain the reversal of the epidemic; and
- Forty per cent (40%) in the vulnerable states so as to stabilize the epidemic.

The unifying credo of Three Ones, i.e., one Agreed Action Framework, one National HIV/AIDS Coordinating Authority and one Agreed National M&E System, Respect for

the rights of the PLHA, Civil society representation and participation are among the important guiding principles for NACP-III.

Given the spread of HIV infection into rural areas, NACP-III will further decentralize its organizational structure to implement programmes at the district level. The basic unit of implementation will now be the district. Accordingly, priority is given to the Category A and B districts in all the states.

Key achievements of NACP-III are summarized in Table 1.

**Table 1: Key achievements of NACP-III**

S. No	Activity/ Component	Baseline Sept 1999	June 2007	March 2009
1.	Establishment of Sentinel Sites for HIV trends	180	1,122	1,215
2.	Knowledge of HIV/AIDS & at least 2 methods of HIV prevention	50-80% (urban) 13-64% (rural)	43-83% (urban) 25-86% (rural)	-
3.	Consistent condom use among female sex workers	50.3%	73.4%	-
4.	Coverage of schools and colleges for AIDS awareness	0	1,12,000 schools	97,279 Schools
5.	Condom vending machines installed through NACO	0	11,025	19,525
6.	Condoms distributed		231.07 crores (2006-07)	221.31 crores (2008-09)
7.	Modernisation of blood banks	960	1,086	1,092
8.	Voluntary Blood donation (% of requirement)	20%	59.1%	61.7%
9.	Establishment of ICTC	0	4,132	4,987
10.	HIV tests conducted	0	100 lakhs	102 lakhs
11.	Centres providing PPTCT services	0	2,418	3,452
12.	Centres providing HIV-TB Collaborative services	0	2,684	4,987
13.	Government STI clinics	504	845	886
14.	Anti-Retroviral Therapy Centres	0	127	211
15.	Patients on ART	0	85,915	2,17,781
16.	Children on ART	0	6,300	13,961
17.	Community Care Centres	0	101	254
18.	PLHA Networks	0	90	259
19.	Drop-in Centres	0	84	204
20.	Coverage of High-Risk Population across the country through targeted intervention projects	300	764	1,271

### 2.3 Financial allocation:

To implement the wide range of interventions, NACP-III requires an investment of Rs. 11,585 crores. Of this budget, 67.2% is for prevention activities among high risk groups and general population, 17% for Care, Support and Treatment of People living with HIV/AIDS. 8% for programme management, 3% for Strategic Information Management including Monitoring & Evaluation, Surveillance and Research, and 5% for contingency.

Out of Rs.11,585 crores, Rs.8023 crores is provided in the budget, the rest being extra budgetary funding largely from private donations, direct funding from bilaterals and UN organisations. Year-wise details of fund allocation and utilization during NACP-II and NACP-III are shown in Table 2.

**Table 2: Year-wise details of Fund Allocation and Utilisation  
- 2002-03 to 2008-09**

Year	Revised Estimate (in Rs crores)	Expenditure Incurred (in Rs crores)	Percent spending
2002-2003	242.00	240.00	99.2%
2003-2004	233.40	231.88	99.4%
2004-2005	426.00	422.25	99.1%
2005-2006	533.50	532.69	99.9%
2006-2007	705.67	682.63	96.7%
2007-2008	943.34	917.56	97.3%
2008-2009	1,123.36	1,037.00	92.3%

### 3. Priority Targeted Interventions for populations at high risk

One of the most important components of the National AIDS Control Programme (NACP)-III is the Targeted Intervention (TI) projects that aim to interrupt HIV transmission among highly vulnerable populations. These populations are at a greater risk of acquiring and transmitting HIV infection due to more frequent exposure to HIV because of higher levels of risky behavior and insufficient capacity or power to decide to protect themselves. Such population groups include - commercial sex workers, injecting drug users, men who have sex with men, truckers, and migrant workers. Providing peer counseling, condom promotion, treatment of sexually transmitted infections are the major service interventions that are supported by structural interventions such as enhancing community ownership and creating enabling environment. This activity is being delivered through non-government organizations and community based organisations.



**Promoting condom use among high risk groups**

Currently, 1,271 Targeted Intervention projects are operational in the country under various State AIDS Control Societies and around 200 TIs are managed by other partners. These TIs cover 55% of FSW, 73% of IDU and 77% of MSM & Transgender populations. The contract renewal of NGOs/CBOs is based on the annual reviews conducted by external experts using a standardised tool developed by NACO. For effective saturation of coverage of target population, mapping has been conducted in 17 states.

Experience has demonstrated that addressing issues of empowerment of high risk groups is a successful strategy for obtaining their adherence to safe sex behaviour. During NACP III high risk groups will be supported to organise themselves into Community Based Organisations (CBOs) (i.e., organisations managed by the target Community themselves) so as to ensure sustainability and reduce their continued dependence on NGOs for accessing critical services. Saturation of all high risk groups through 2,100 TI projects and development of ownership by community to ensure the services accessibility to all is the target aimed at during NACP-III.

In order to ensure the quality of TI programme, capacity building and enhancing the technical skills of NGO/CBO staff is very important. Therefore, in order to provide uniform, quality training to different categories of staff working with NGOs/CBOs, viz., program managers, counsellors, finance accountants, outreach workers, peer educators and link workers, NACO has institutionalized the training and capacity building process with the establishment of the State Training and Resource Centres (STRC). STRCs function with the objectives of 1) ensuring need based training of TIs as per NACP III's technical and operational guidelines; 2) enhancing the capacity of NGOs and civil society organizations in proposal development for NACP funded targeted intervention projects; and 3) undertaking operational research and evaluation of TIs. STRCs have been established in 14 states and 6 more are being established. Training modules for programme managers have been developed and modules for rest of project staff are in process.



**Peer education session for truckers**

A new intervention that has been taken up in NACP-III for addressing the HIV risk among Injecting Drug Users is provision of Oral Substitution Therapy (OST), which has been seen to be an effective strategy worldwide. After obtaining approval of the



Expenditure Finance Committee, the existing centres implementing OST were assessed and accredited. Simultaneously, the medicines were procured, and a supply chain mechanism drafted.

NACO has also taken initiative to standardise interventions among truckers. As per NACP III, truckers' interventions are to be focused on high priority locations i.e. major trans-shipment locations (TSLs) with 5,000 or more

long distance truckers halt on a monthly basis. NACO commissioned a nation-wide mapping of truckers' sites so as to identify locations where interventions could be set up | were identified, out of which

**Monthly meeting of Link Workers**

100% sites were high priority; 30% were medium priority. Of high priority TSLs, 41% were in the North Zone. Nearly 70% of the high priority TSLs are in Andhra Pradesh, Uttar Pradesh and Mumbai. In addition, the mapping study also provided micro-maps of the locations, indicating the presence of condom outlets and STI service providers.

At present, there are 52 truckers interventions, of which 17 are in high-priority locations. The projects are being implemented by NGOs, although Truckers Associations have been involved in Tamil Nadu, Andhra Pradesh and Maharashtra. The revised costing guidelines for truckers are being followed and each intervention aims to provide BCC, IPC, condoms and STI services to a minimum of 5,000 truckers every month. NACO has established a Technical Support Group (TSG) for truckers to manage these interventions. The Transport Corporation of India Foundation (TCIF), functioning as the TSG, oversees quality of services, provides capacity building support, promotes advocacy with key stakeholders, and regularly monitors the key activities.

The Link Worker Scheme (LWS) under NACP-III has been designed specifically to address population with high-risk behaviours (including High Risk Groups and Bridge Populations) with the premise that there are significant numbers in rural areas and we need to reach out to them in order to saturate the coverage of these groups. In addition the scheme will cover young people. LWS is a medium term, meso-level strategy, whose scope is limited to five years. The services established through LWS will be linked to local health governance system at three levels. This will again ensure mainstreaming of the HIV response project and, therefore, the project sustainability can be assured beyond five years.

The LWS envisions a new cadre of worker, the Link Worker, who are motivated, community-level, paid female and male youth workers with a minimum level of education, at the village level who are able to discuss intimate human relations and practices of sex and sexuality and help equip high-risk individuals and vulnerable young people with information and skills to combat the pandemic. The Link workers are covering highly vulnerable villages in districts selected through mapping exercises. They work in each cluster of villages around a 5,000+ population. They are supported in their work by village-level volunteers selected from the available groups in the community.

In every district, the LWS is being implemented through one or two District Resource Persons, one Monitoring & Evaluation Officer, four Supervisors and 40 Link Workers. Presently, the LWS is being implemented with support from UNDP, UNICEF, USG and GFATM Round 7 as follows:

UNDP: (Through lead NGOs: Plan India, ActionAid & Aide et Action) in 25 districts in the States of Uttar Pradesh, Bihar, Rajasthan, Chattisgarh and Orissa

UNICEF: (Directly through DAPCU/district organization) in 25 districts in the states of Bihar, Andhra Pradesh, Orissa, Rajasthan, Karnataka, Tamil Nadu, Maharashtra, Gujarat, West Bengal and Uttar Pradesh

US Government: (USAID and CDC through KHPT) in 16 districts in the state of Karnataka.

GFATM (NACO directly through 8 NGOs) in 26 districts in the states of Andhra Pradesh, Goa, Gujarat, Karnataka, Kerala, Madhya Pradesh, Manipur, Mizoram, Nagaland, Tamil Nadu, Tripura, and West Bengal.

#### **4. Preventive interventions for the general population**

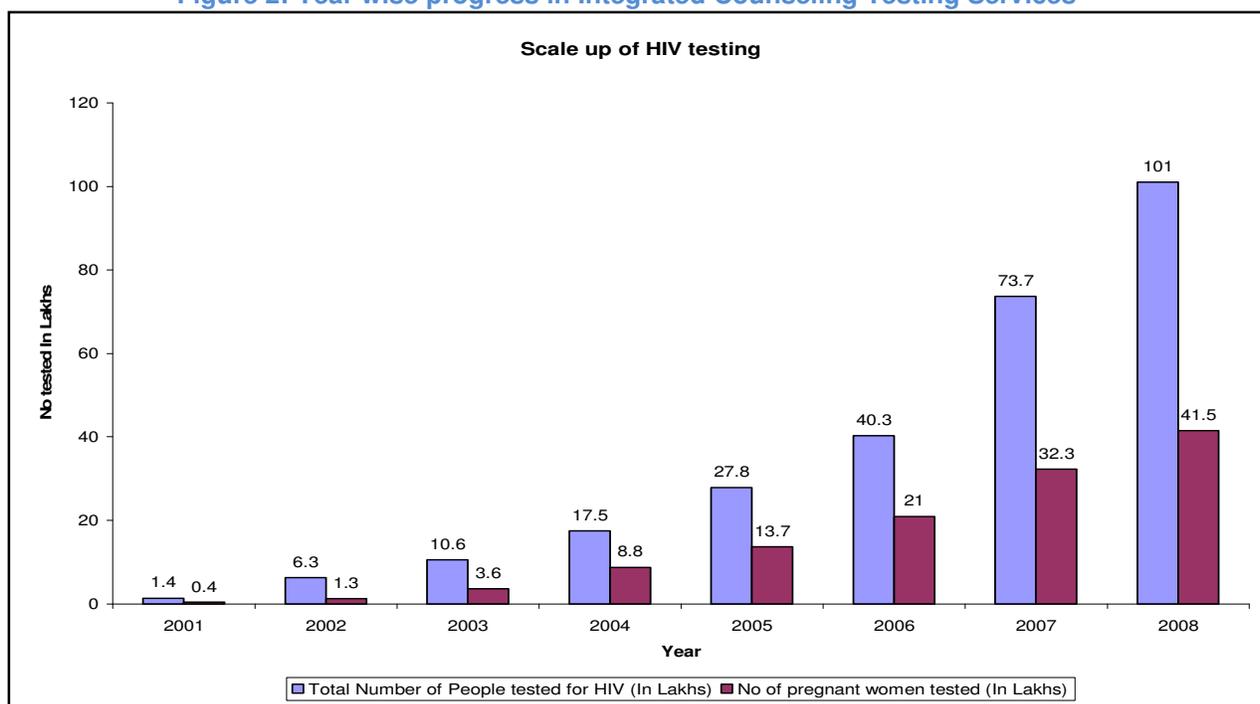
Prevention has always been the main stay of addressing the HIV/AIDS epidemic. Under NACP-III, it is proposed to integrate and scale-up service delivery to sub-district and community levels through existing infrastructure in the public and private sectors. The following is the package of preventive services provided under NACP-III:

- i. Creating awareness about symptoms, spread, prevention and services available through a strong IEC campaign
- ii. Condom promotion
- iii. Promotion of voluntary blood donation and access to safe blood
- iv. Integrated Counseling and Testing (ICT)
- v. Prevention of Parent To Child Transmission
- vi. Management of STI and RTI
- vii. Post Exposure Prophylaxis (PEP)
- viii. Promotion of safe practices and infection control
- ix. Intersectoral coordination and mainstreaming

## 5. Integrated Counseling and Testing Services

Analogue More than 50% of those infected with HIV are aware about their status but there is need to extend access to the counseling and testing facilities and increase demand generation to cover the rest of 50%. The Counseling and Testing Centres have been established at medical colleges, district hospitals, sub-district level hospitals and community health centres across the country.

Figure 2: Year wise progress in Integrated Counseling Testing Services



Under NACP-III, Voluntary Counseling and Testing Centres (VCTC) & Prevention of Parent to Child Transmission Centres (PPTCT) have been remodeled together as ICTC (Integrated Counseling and Testing Centre). The number of integrated counseling and testing centres increased from 982 in 2004 through 1,476 in 2005, 4,027 in 2006, and 4,567 in 2007 to 4,987 in March 2009. The number of persons tested in these centres increased (Figure 2) from 17.5 lakhs in 2004 to 27.8 lakhs in 2005, 40.3 lakhs in 2006, 73.7 lakhs in 2007 and 102 lakhs in 2008-09.

The impact of TB and HIV is interlinked and it is difficult to control one of them without managing the other. NACP and RNTCP share implementation arrangements such as ICTC and sputum microscopy centres. HIV/TB coordination earlier emphasized only on cross referral of clients between the RNTCP microscopy centres and the ICTCs but now it is being extended to also cross referrals between ART Centres, CCCs & RNTCP to ensure confirmation of diagnosis and early treatment of TB and starting on ART at the earliest for identified HIV/TB patients with CD4 counts less than 350 as per the new guideline. In 2007, there were 91,807 cross referrals from ICTCs, 1,32,146 cross referrals from RNTCP and 20,925 patients were detected having HIV-TB Co-infection. In 2008, ICTC referrals were 2,49,870 and RNTCP referrals were 1,87,004; 24,320 HIV-TB co-infected patients were diagnosed.



**A pregnant woman being counseled under the PPTCT program**

ICTCs also provide PPTCT services to pregnant women. The number of pregnant women counseled and tested was 1.8 lakhs in 2004, 13.7 lakhs in 2005, 21 lakhs in 2006, 32.3 lakhs in 2007 and 46.31 lakhs in 2008. In 2008, 21,483 pregnant women were found to be HIV positive. Women who are HIV positive are given a single dose of Nevirapine prophylaxis at the time of labor and newborn is also given a single dose of Nevirapine within 72 hours of birth. In 2008, a total of 10,494 mother-baby pairs were given prophylaxis dose of Nevirapine.

NACP-III aims to accomplish the following targets to expand the outreach of ICTC services:

- All Community Health Centres to have HIV counseling and testing services
- 24hr Primary Health Centres and Private hospitals are also being involved
- Mobile ICTCs in hard to access areas in collaboration with NRHM
- Internal and External Quality assurance mechanisms
- Target of 10-15 tests per day per centre

## 6. Sexually Transmitted Infections (STI) Services

As STI increase the risk of HIV transmission significantly, their care has been given high importance in NACP-III (Table 3). NACP-III envisages that about 15 million episodes with STI/RTI will be treated through the programme. The STI /RTI services are being delivered through designated STI/RTI clinics, TI STI clinics, a network of STI/RTI private preferred providers and NRHM at sub-district facility. The Regional STI Reference Research and Training Centres are providing high quality laboratory support to generate scientific evidence for providing good quality STI/RTI services through monitoring drug resistance to gonococci and implementing Syphilis EQAS so as to review the syndromic protocol on a periodic basis.

**Table 3: Details of STI Services provided under NACP-III**

S.No.	Name of Centre	Number of Centers	Location
1.	Designated STI clinics	886	Medical Colleges, District hospitals, selected area hospitals and large CHCs under SACS/NACO.
2.	Targeted Intervention Clinics	1271	In the each district to cater the high risk population
3.	Community based STI/RTI services delivery through network of "Private Preferred Providers" "Janani" Scheme in Bihar	8515	STI/RTI services to be provided to the HRG and the clients of HRG through the network of Private providers (Allopath and non allopath) in 100 high priority districts.
4.	NRHM facilities	26,415 PHC/CHC	STI/RTI services delivered at sub district level through NRHM facilities.
5.	Regional STI Reference, research and training centers	7	In medical colleges - Safdarjung & Maulana Azad Medical College in Delhi, Osmania Medical College in Hyderabad, B.J. Medical College in Ahmedabad, Institute of Serology and Calcutta Medical College in Kolkata, Institute of Venereology in Chennai & Government Medical College in Nagpur.

**Table 4: STI/RTI episodes managed under NACP III (2008-2009)**

S.No.	Name of the health care facility	Number of cases (in lakhs)
1.	Designated STI/RTI Clinics	25.7
2.	TI STI clinics	9.1
3.	PPP Scheme	1.0
4.	NRHM facilities	31.0
<b>Total</b>		<b>66.7</b>

A total of 66.7 lakh STI/RTI episodes were managed through STI control programme in 2008-09 (Table 4) against the target of 100 lakh episodes, giving an achievement of 66.7%. The number of designated STI/RTI clinics (situated at government health care facilities at district level and above) being supported by NACO has increased from 845 in 2008 to 886 in 2009. The reported number of patients accessing STI/RTI services

from these designated STI/RTI clinics and STI clinics in Targeted interventions (TI) for HRG population supported by NACO has sequentially increased from over 22 lakhs in 2006, 25.9 lakhs in 2007 to 34.8 lakhs in 2008-09. About 0.8 lakh STI/RTI episodes were also managed by the network of private providers. In addition, as per available data, over 31 lakh episodes of STI/RTI have been managed through sub-district level health facilities under NRHM in 2008. There has been an improvement in the reporting through CMIS formats.

To provide good quality STI/RTI services through designated STI/RTI clinics infrastructure were strengthened, computers were provided for streamlining reporting, one counselor was posted in each of these clinics, mentoring and supportive supervision through the medical college faculty are being provided to improve the STI/RTI service delivery. In order to provided standardize quality of STI/RTI care NACO has procured and provided color coded drug kits and RPR/TPHA testing kits to all the designated STI clinics for free distribution to the patients. Capacity building and training to the staffs were provided. Training material was developed in joint consultation with NIHFV and NIRRH, cascaded model of training was done. Total of 3,230 staff were trained (Table 5).

**Table 5: Progress in Training under STI Services (2008-09)**

<b>Sl no.</b>	<b>Training of staff</b>	<b>No. of Staff trained</b>
1.	National Resource Faculties	44
2.	State Resource Faculties	183
3.	Regional Resource Faculties	302
4.	Medical Officer of designated STI/RTI clinics	1,022
5.	Paramedical Staff (laboratory technician and staff nurse)	595
6.	Counsellors	200
7.	NRHM staff	884
<b>Total</b>		<b>3,230</b>

During NACP-III, STI/RTI services are being expanded though effective integration with the RCH-II programme. NACP and RCH programmes have been providing training in STI/RTI to the medical and paramedical personnel based on a uniform curriculum. NACO and RCH division have jointly drafted technical guidelines on management of STI/RTI so as to ensure uniformity of service delivery across all facilities and also to build capacities of physicians working at sub district facility. The color coded drug kits will be supplied to the NRHM facilities for free distribution to the patients availing g its services. NACO has taken initiative to do procurement of the color drug kits for NRHM facility to ensure their availability in all the CHC/PHC.

During 2008-09, a Public Private Partnership scheme was launched in 91 priority districts in 14 zones in 16 states involving 7 agencies. This scheme was implemented as a pilot wherein the agencies identified 8,515 private practitioners (including 2,233 allopaths and 6,282 non-allopaths) who were high volume STI/RTI service providers in and around hot zones in the selected districts. These networked providers were trained

and provided with colour-coded STD drugs to administer the syndromic treatment and provided on-site supervision. Demand generation activities were also carried out alongside. As of 31<sup>st</sup> March, 2009, 1,975 (88%) allopaths and 5,528 (88%) non-allopaths had been trained; 1,06,684 STI/RTI cases treated; 1,49,880 clients counseled; and 15,226 clients referred.

Efforts are being made to strengthen the STI/RTI service delivery through targeted intervention programme for the HRGs. The services to the HRG are provided through TI STI clinics, Preferred Private Providers and through linkages to the designated STI/RTI clinics. A total of 9 lakh episodes of STI/RTI were managed in this group in 2008–09.

## 7. Information, Education & Communication

Information, Education and Communication (IEC) is a cross-cutting and integral part of all programme components of NACP-III. NACO's campaigns focused on promotion of safe behavioral practices, reduction of stigma and discrimination, promotion of services for counseling & testing and ART, increasing condom use and voluntary blood donation. Special emphasis was given to address youth and women who are more vulnerable to HIV infection. An allocation of Rs. 167.3 Crores was made under IEC for NACO and SACS during 2008-09.

### 7.1. The Response to Red Ribbon Express Project:

The Red Ribbon Express (RRE) is one of the world's largest mass mobilization campaign on HIV/AIDS. Conceptualized by the Rajiv Gandhi Foundation, the campaign was implemented by NACO in collaboration with the Ministry of Railways, Ministry of Youth Affairs and UNICEF to spread awareness on HIV/AIDS and promote safe behavioral practices. The RRE train consisted of seven coaches with three coaches having exhibition on issues concerning HIV/ AIDS and NRHM messages, one coach dedicated to orientation/sensitization of selected groups such as government officials, teachers, members of panchayati raj institutions, anganwadi workers, self help groups,



youth and women, and one coach earmarked for counselling with referral services. The train was flagged off by Mrs. Sonia Gandhi, Chairperson, UPA on the World AIDS Day i.e. 1st December 2007 from Delhi. It completed its journey on 1.12.2008 after traveling

over 27,000 kms during the year covering 180 districts/halt stations. Attached to the train were two buses with song and drama troupes and condom demonstration outlets which covered the periphery of the districts through which the train passed. The cultural troupes of NYKS travelling in the train spread to nearby villages of the halt stations to spread HIV/AIDS messages covering 30,685 villages. The project covered 41,334 villages and reached to 6.2 million people. 68,244 people were trained on board the train in the districts though which it passed and 1,16,183 people were counseled on HIV/AIDS.





## 7.2. Mass Media Campaign:

The messages on different aspects of HIV/ AIDS were disseminated through mass media including TV (Doordarshan and Cable & Satellite channels) and Radio (AIR and private FM radio stations). The major campaigns conducted through mass media included three phases of campaign on condom normalization namely, “*Jo Jeeta Wohi Sikander*” (*kabaddi*, ring tone and dog), “Condom, it’s OK”, campaigns on ICTC and PPTCT services, HIV-TB linkage, ART, voluntary blood donation and stigma & discrimination. Eight episodes on HIV/ AIDS were broadcast as part of the *Kalyani* programme on Doordarshan on the state networks of nine states of Uttar Pradesh, Uttarakhand, Bihar, Jharkhand, Madhya Pradesh, Chattisgarh, Rajasthan, Assam and Orissa in December 2008-January 2009. Radio programmes were started by 13 states on state networks focusing on youth and women. NACO released over 27,000 spots on radio and 51,000 on various TV channels on different themes related to HIV/AIDS in addition to releases made by the SACS.

## 7.3. Multi-Media, Mid-Media and other initiatives:

Building on the success of RRE field campaign through IEC vans, NACO implemented a mid-media campaign in collaboration with SACS primarily targeting A and B category districts and some high priority districts with high out-migration. The campaign branded as “*Zindagi Zindabad*” comprised exhibition and film shows through IEC vans, folk theatre shows by song and drama troupes and condom demonstration stalls. This campaign launched in the states of Andhra Pradesh, West Bengal, Maharashtra,

Uttarakhand, Jammu & Kashmir, Madhya Pradesh, Gujarat, Orissa, Himachal Pradesh, Chattisgarh, Jharkhand and Kerala received an overwhelming response. A total of 10,000 folk/street theatre performances were done during the field campaigns.

#### **7.4. Mainstreaming HIV for multi-sectoral response:**

**7.4.1. Constitution of the State Councils on AIDS (SCA):** As a follow up to the formation of National Council on AIDS, 23 States / Union Territories have constituted the SCA which are guiding and supporting the mainstreaming efforts at the state level. Several ministries are in the process of mainstreaming HIV/AIDS issues into their policies and programmes. Some noteworthy achievements are inclusion of HIV/ AIDS as an agenda point for discussions in the meetings of the three-tier Panchayati Raj Institutions, installation of condom vending machines in ITDC hotels, concession in railway fare to People Living with HIV/ AIDS for visiting the nearest ART centre, training on HIV/ AIDS of about one lakh persons from different ministries/departments, corporate and NGOs/CBOs, establishment of seven ART centers in Public Private Partnership with five more in the process of establishment. In order to address the vulnerabilities of women, a policy document and operational plan on “women and HIV” was released to facilitate mainstreaming of HIV/ AIDS with women issues under the various programmes of the government. Action plan with operational guidelines for addressing the vulnerabilities of the tribal population is being finalized.

**7.4.2. Mainstreaming with civil society organizations:** Along with mainstreaming HIV within the training and education system of cooperatives to reach 500,000 members of cooperatives of fisheries, agriculture, labour, dairy and weavers, NACO is also supporting 13 innovative short term projects on stigma and discrimination through which children affected by HIV, their families and issues of livelihood will be addressed.

**7.4.3. Greater Involvement of People Living with HIV (GIPA) under NACP-III:** NACP III has outlined steps in establishing systems, structures and various activities to meaningfully involve people living with HIV (PLHIV) in programme design and implementation to reduce stigma and discrimination associated with the infected and affected persons. This will also enhance their access to prevention and quality treatment, care, insurance and legal services. Support from NACO has enabled the Indian Network of Positive People to establish and strengthen up to 22 state level networks and 221 district level networks of people living with HIV. These networks aim to mobilize the communities to ensure community access to various services, like ART Centres, Community Care Centres, and Drop-in centers (DIC). At present, a total of 204 DICs are operational across the country out of which 127 are in the ‘A’ category districts and 27 in the ‘B’ category districts. NACO is working towards establishing DIC in all A and B category districts.



Interactive session in progress at a youth intervention site in Maharashtra

**7.4.4. Youth interventions, in-school, college, and out-of-school:** The Adolescence Education Programme (AEP) is placed as a key intervention to help adolescents cope with negative peer pressure, develop positive behavior, improve sexual health and prevent HIV infections. The Ministry of Human Resource Development is implementing the Adolescence Education

Programme (AEP) in collaboration with NACO as a classroom based co-curricular activity. During 2008-09, about 92,000 schools were covered under the programme as compared to 1,14,000 schools in 2007-08. The programme could not be implemented in some states during 2008-09 due to the ban/ suspension in view of the protests from some quarters against the toolkit (Flip Chart and Teachers Workbook) over certain pictures. As a follow up, a national toolkit review committee comprising of educationists, psychologists, representatives of NGOs, parents and teachers developed a prototype toolkit which is under the process of adaptation in different states through state level consultations with various stakeholders such as teachers, academicians, parents, NGOs, and media among others. The states which have completed the adaptation process of the material include Andhra Pradesh, Tamil Nadu, Kerala, Punjab, West Bengal, Assam, Jharkhand and Maharashtra. Workshops were organized by these States at State and District levels with various stakeholders such as parents, teachers, NGOs, media, political leadership to seek feedback for the finalization of the said material under the Adolescence Education Programme.

**7.4.5. Red Ribbon Clubs in colleges (RRC):** The formation of RRCs as a peer-based intervention in institutions of higher education was taken up as a major initiative during 2008-09. The RRCs organize a number of activities such as debates, quiz and essay competitions to spread knowledge on HIV/ AIDS. The promotion of voluntary blood donation is one of the major objectives of the RRCs. During 2008-09, 4,530 RRCs were functional in the colleges.

## 8. Condom Promotion

The NACP-III envisages significant expansion in the condom use through social marketing for which partnerships with private sector and social marketing organizations were planned.



Condom demonstration at an ICTC

**8.1. Scaling up condom social marketing:** NACO supported the social marketing programmes in various states during 2008-09. These programmes were initially extended for a six month period during which a total of 856 lakh condoms, against the target of 750 lakh condoms, were marketed and over 2.7 lakh outlets, against the target of 2.4 lakh outlets, were covered with socially marketed condoms. With the focus on expanding the retail outlet and coverage of non-traditional outlets, 71% of the outlets were the non-traditional outlets.

**Table 6: Retail Condom offtake**

(In lakh pieces)

	2006-07	2007-08	2008-09
Social market	6395	6393	8353
Commercial	3837	4386	6313
Free	12875	7750	7465
Total	23107	18529	22131

During 2008-09, socially marketed condom off-take of 83.53 Crore pieces (Table 6) and outlet reach of 12 lakhs were achieved.

**8.2. Scaling up Female Condom Programme:** Based on the pre-programme assessment of the Female Condom Programme, NACO scaled up the Female Condom Programme in Andhra Pradesh, Tamil Nadu, Maharashtra and West Bengal to saturate all female sex worker Targeted Interventions. The peer-led programme aims to build capacity of two lakh female sex workers. During 2008-09, 15 lakh female condoms were procured for the programme.



**8.3. Installation of Condom Vending Machines:** During the year 2008-09, four metro cities and two large towns in Uttar Pradesh were targeted for the installation of condom vending machines. Against 10,025 targeted number of CVMs, 8,500 CVMs have already been installed. During 2008-09, 7,50,000 condoms were sold through these CVMs.

Condom Vending Machine

## 9. Blood Safety:

10. The Blood Safety Programme under NACP-III aims to ensure provision of safe and quality blood to far-flung remote areas of the country in the shortest possible time through a well-coordinated National Blood Transfusion Service. The specific objective is to ensure reduction in the transfusion associated HIV transmission to 0.5 per cent. This is sought to be achieved by:

- ensuring that 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 health care system for availability of blood in far-flung remote areas;
- vigorously promoting appropriate use of blood, blood components and blood products among the clinicians; and
- developing long-term policy for capacity building to achieve efficient and self sufficient blood transfusion services.

### 9.1. Blood collection:

Access to safe blood is ensured by a network of 1,092 blood banks including 104 Blood Component Separation Units (BCSU) and 10 Model Blood Banks. NACO supported the installation of blood component separation units and also funded modernization of all major blood banks at state and district levels. In addition to constantly enhancing awareness about the need to access safe blood and blood products, NACO has supported the procurement of equipments, test kits and reagents as well as the recurring expenditure of government blood banks and those run by charitable organizations that were modernized.



**People donating blood at a Blood Bank**

Based on population standards, the requirement of blood for the country is estimated to be 100 lakh units annually, whereas the available supply was 74 lakh units in 2008-09. During this period, 61.7% of blood was collected through Voluntary Blood Donation programme. The states of West Bengal, Maharashtra, Tamil Nadu, Gujarat, Tripura, Andhra Pradesh, Orissa, Madhya Pradesh, Chandigarh and Himachal Pradesh crossed the national target with over 65% achievement in voluntary blood donation and are good performing states. The states of U.P., Uttarakhand, Rajasthan, Haryana, Punjab, Jammu and Kashmir, Bihar, Jharkhand, Chattisgarh, Kerala, Delhi, Assam, Manipur, Nagaland and Sikkim are poor performing states as their achievement for voluntary blood donation is under 45%.

Several activities have been undertaken, in collaboration with NGOs, to promote public awareness of the need for voluntary blood donation. In addition, through collaboration with the Indian Red Cross Society, voluntary blood donation camps and other activities are regularly undertaken to increase blood collection in the country. During the year 2008-09, 56,568 blood donation camps were organized. The target is to raise voluntary blood donation to 90 % by end of NACP-III.

## **9.2. Strengthening of Blood bank facilities:**

**9.2.1. District level Blood Banks:** In NACP-III, 39 newly created districts have been identified which do not have a full-fledged blood bank. NACO has taken the initiative with the respective State Health department for setting up a blood bank in these districts. Eight blood banks have been made operational. In six districts, construction of the building is going on and these will be made functional in 2009-10. In the remaining districts, instructions were issued to set up Blood Storage Centres, till the time the blood banks are made operational.

**9.2.2. Blood Component Separation Units:** In order to promote rational use of blood, 103 Blood Component Separation Units (BCSU) have been established. During NACP-III, 80 component separation facilities are proposed to be established in all the blood banks in tertiary care hospitals attached to medical colleges. During 2008-09, 19 blood banks were upgraded as BCSU. Procurement of essential equipment for the first 40 BCSUs was initiated in 2007-08 and the entire delivery schedule has been completed. For remaining 40 blood banks, the procurement will be completed by July-August 2009.

**9.2.3. Blood Storage Centres:** The Government of India has taken the initiative of setting up Blood Storage Units, in order to ensure safe and quality blood available in FRUs where a full-fledged blood bank is not feasible. The National Rural Health Mission (NRHM) and NACO have taken a joint effort to start Blood Storage Units in the First Referral Units (FRU). The NRHM will provide the requisite infrastructure and manpower, and procure the necessary equipments for storage and issue of blood. The NACO will provide an annual recurring grant of Rs. 10,000 for procurement of consumables, linking the centres with the nearest Regional Blood Transfusion Centres (RBTC) for supply of screened blood on a regular sustained basis and training of 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. During 2008-09, 425 blood storage units were made operational.

**9.2.4. Blood Refrigerated Vans:** NACO has taken the initiative to provide 500 refrigerated Blood Transportation Vans to the RBTCs/District Blood banks during NACP-III. These vans will transfer blood units to the BSC regularly and also on demand/emergency situations. During 2008-09, procurement of 250 Blood Transportation Vans and 1,000 Blood Transportation Boxes (4 Blood Transportation Boxes and 1 Blood Transportation Van is considered to be One Unit) was initiated by UNOPS. These vans will be supplied to states by December 2009.

## **9.3. Blood Safety Training Programme:**

Training is essential element to every aspect of blood safety. NACO has developed a uniform training curriculum for all aspects of blood transfusion. Centres have been identified across the country to impart training on all aspect of Blood Safety involving Blood Bank personnel, Clinicians and Donor Motivators. During 2008-09, 740 doctors, 1527 laboratory technicians and 587 nurses have been trained in 17 training institutions; 186 counsellors appointed in BCSU and Major blood Banks were also trained.

#### **9.4. Monitoring of blood banks**

It is envisaged that quality practices in blood bank activities can be improved by strengthening monitoring and evaluation system by making regular supervisory visit.

With a large network of blood banks and Blood Component Separation Facilities in the country, it is essential to supervise various activities undertaken both among blood bank as well as voluntary blood donation at different levels.

A State core team has been constituted in every state to carry out the inspection of each blood bank in the state and voluntary blood donation camps. This core team comprise of three members, which include 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 visit to the blood banks in their state to assess the functional status of the blood banks and prepare report identifying the various constraints and methods to rectify them.

During 2008-09, supervisory visits to 1068 blood banks were undertaken by these teams. Officials of NACO also made supervisory visits to blood banks during their visit to each State to inspect the quality checks, functional efficiency, identify crisis and to verify the facts as reported (checking of the maintained records).

#### **9.5. Newer initiatives**

**9.5.1. Centre of Excellence in Transfusion Medicine:** As a step to improve the blood transfusion services in the country, a proposal to set up four Modern Blood Banks as Centres of Excellence in the four metropolitan cities - New Delhi, Mumbai, Kolkata and Chennai - was submitted for approval. These Blood Banks are proposed to be the State-of-the-Art facilities. The Cabinet Committee approved the project on 31<sup>st</sup> July 2008. NACO is liaising with the State Governments of Delhi, Maharashtra, West Bengal and Tamil Nadu to provide land of 1,00,000 square feet for the purpose. Expression of Interest has been issued to invite various entrepreneurs for architectural layout and construction of the building. The process for finalizing the Architect and Construction Company is under way.

**9.5.2. Plasma Fractionation Centre:** Large volume of excess plasma in the country is getting discarded, as the Plasma Fractionation Centre in Mumbai has not been made functional. The plasma products are being imported from abroad to meet the patient's demand and thereby exposing the patients to diseases prevalent abroad but absent in India. There is an urgent need of a larger plant of Plasma Fractionation to meet the demand of the country. Under the National AIDS Control Programme – Phase III, one more Plasma Fractionation Centre with a processing capacity of more than 1,50,000 litres of plasma, which can fulfill the demand of the Nation, has been proposed. The Cabinet Committee has approved the project on 8<sup>th</sup> October 2008. The work on this project will be initiated after final approval on selection of site and DPR.

### **9.5.3. National Blood Transfusion Authority:**

The Government of India has taken the initiative to establish National Blood Transfusion Authority (NBTA) for development of a world class Blood Programme in India. NBTA Network will have the total and ultimate responsibility of ensuring that the country's blood, blood components and blood products supply is accessible, adequate, safe and of the highest quality. It will be responsible for assessing and consolidating the demand and utilization of blood, blood components and blood products throughout the country and ensuring that these requirements are met in the most efficient and effective manner. A Cabinet note on National Blood Transfusion Authority has been prepared and submitted to the Ministry for approval.

### **9.6. Status of utilization of funds**

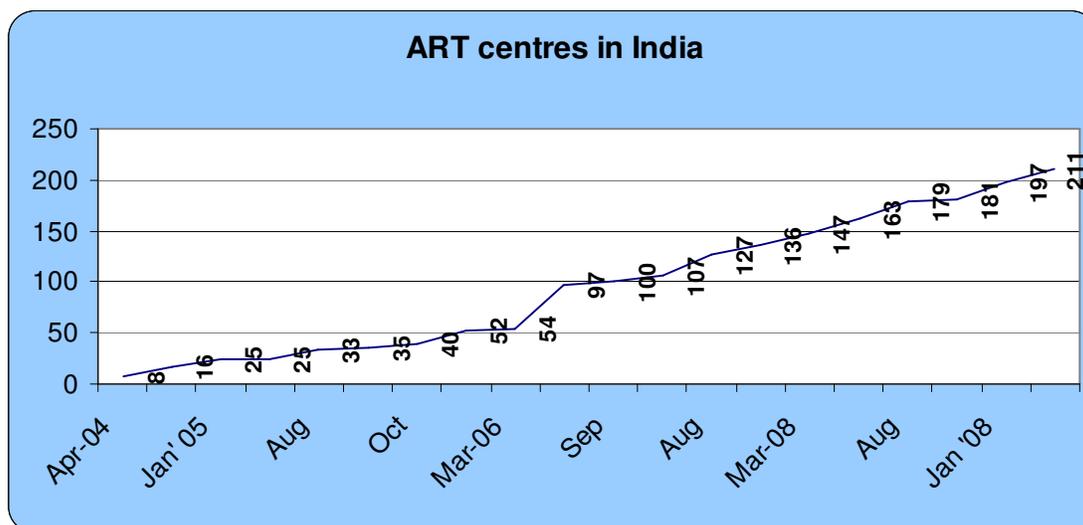
During 2008-09, Rs. 125.02 Crores was allocated for blood safety activities, and the total expenditure incurred was Rs. 120.8 Crores.

## 10. Care, Support and Treatment for People Living with HIV/AIDS (PLHA)

The Care, support and treatment programme under NACP III includes comprehensive management of PLHA with respect to treatment and prevention of Opportunistic infections, antiretroviral therapy (ART), psychosocial support, home based care, positive prevention and impact mitigation.

The treatment of Opportunistic infections has always been an integral part of National AIDS Control programme (NACP) right from the beginning. Since the launch of Phase – II of the National AIDS Control Programme (NACP) in 1999, the Government of India (GOI) starting providing low cost care to people living with HIV/AIDS, in order to mitigate the impact of HIV related opportunistic infections. However, high costs and demanding treatment regimens were the major barriers in introducing NACP. With advent of new ARV drugs with lesser side effects and lowered costs, it was considered appropriate to introduce provisioning free ART through public sector health facilities in a phased manner. The Union Ministry for Health & Family Welfare finalized and announced a strong policy-cum-programme commitment for provisioning anti-retroviral treatment free of cost, with implementation starting on 1<sup>st</sup> April, 2004.

Any person who has a confirmed HIV infection is subjected to further evaluation for determining whether he requires ART or not by performing CD4 count and other baseline investigations. All those eligible as per technical guidelines are started on ART.



**Figure 3 Expansion of ART Centres from April 2004 to March 2009**

The free ART programme launched in 2004 in eight government hospitals in six high prevalence states has since then been scaled up to 211 centres in March 2009 (Figure 3). The distribution of Centres in the country is shown in Figure 4. At the end of March, 2009, a total of 2,17,781 patients were receiving free ART in Government and intersectoral health sector (Figure 5).

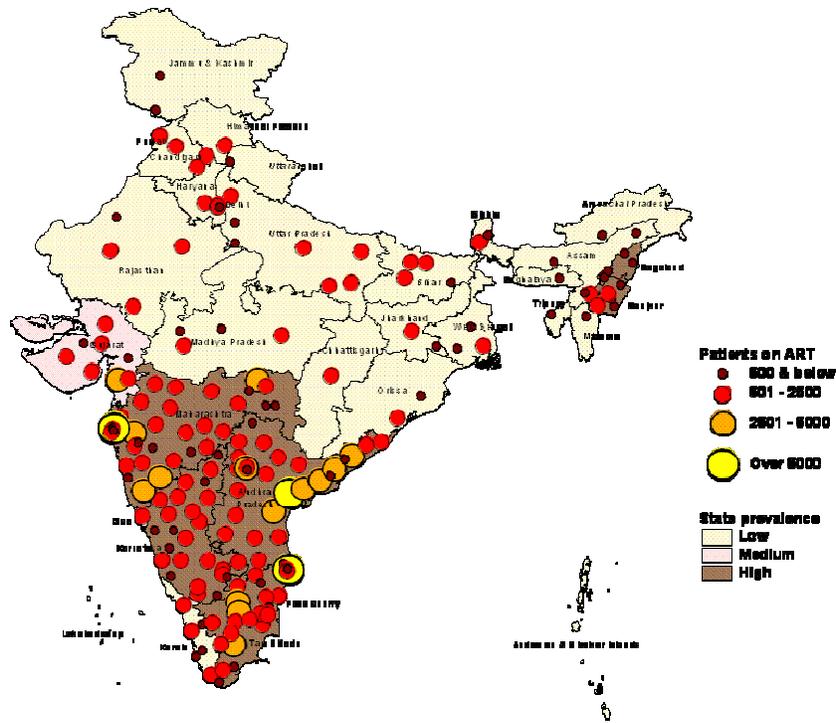


Figure 4. Number of patients currently on ART by centre - March 2009

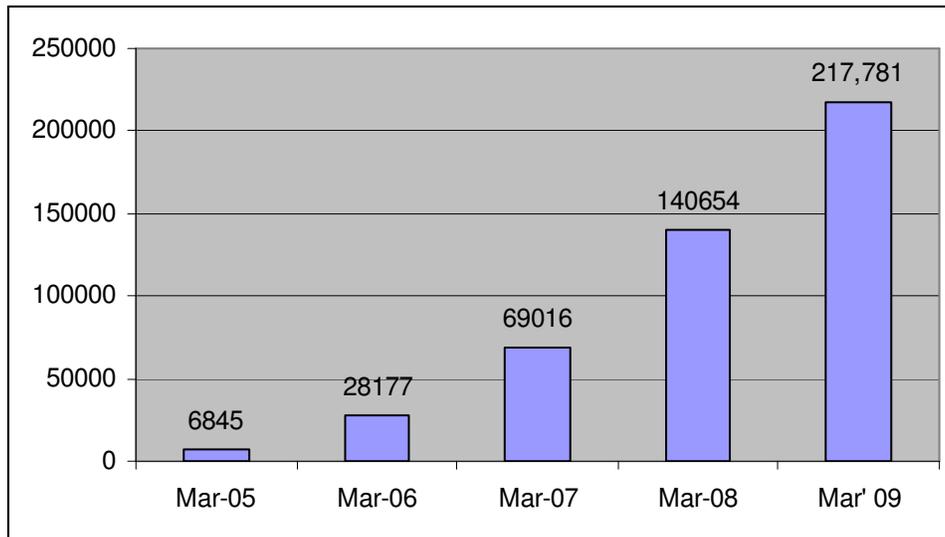


Figure 5. Trends of patients on ART at year end from 2004-05 to 2008-2009

10.1. The targets of the national ART programme are to:

1. provide free ART to 3,00,000 adult and 40,000 paediatric PLHAs by 2012 through 250 ART centres and 650 Link ART Centres
2. involve inter-sectoral partners, NGOs and Private partners, so as to have a comprehensive national framework of ART programme.
3. 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.
4. provide comprehensive care, support and treatment through establishment of 350 Community Care Centres by 2012.

**10.2.** During 2008-09, the following activities were undertaken to improve the quality of care offered to PLHAs:

- i) Revision of technical and operational guidelines on ART, Opportunistic Infections, Community Care Centres and Paediatrics
- ii) Preparation of training modules for doctors, counsellors and nurses.
- iii) Appointment of Regional Coordinators for Care, Support & Treatment to monitor quality of services
- iv) **Revision of Manpower at ART Centres.** The human resources at ART centres have been linked to the number of patients at the centre so that all patients get proper time for counselling and patient's satisfaction is increased.
- v) **Strengthening the capacity of laboratories for CD4 testing.** At the end of March 2009, 145 CD4 machines were installed in the country to take care of 197 centres, by way of a sample transport mechanism for centres without CD4 machines. The sample is transported by the lab technician who also brings back the report after testing at the Nodal Centre.
- vi) **Technical Resource Groups** have been constituted on ART, Paediatric issues, Lab. services and CCCs for discussion and recommendations on various technical and operational issues relating to the programme.
- vii) **Supply Chain Management for ARV Drugs.** All efforts are made to ensure continuity of drug supply to ART centres and in case of unexpected in number of patients at any particular centre, re-location of drugs is done in order to ensure that there are no stock outs.
- viii) **Conceptualization and operationalisation of the Link ART Centres.** The concept of Link ART centres was developed considering the large distances PHLAs had to cover to reach ART centres. These Link ART Centres are being developed at ICTC or CCC, whereby stabilised patients will get their drugs within easy reach and need to travel to the main ART centre only once in six months. A total of 300 Link ART Centres have been sanctioned so far.
- ix) **Collaboration with intersectoral partners, NGOs & CII.** NACO is strengthening the public private partnership by involving corporate sector, intersectoral partners and NGOs in ART roll out. Presently, eight ART centres are running in collaboration with different NGOs/Industries.
- x) **Community Care Centres.** In order to improve the quality of counselling and also reduce the inconvenience caused to PLHAs while being investigated at ART centres, all ART centres will be linked to a Community Care Centre, where patients can be admitted during the period of investigation and adherence counselling can be reinforced. At the end of March 2009, a total of 254 CCCs were operational. It is planned to have a total of 350 CCC across the country by 2012. Each CCC will be linked to the closest ART Centre.



A scene from Community Care Centre

- xi) **Ten Regional Centres of Excellence** have been established to provide state of art services for PLHAs, and be knowledge hubs, resource centres and centres for training of other doctors on HIV/AIDS. These centers are:
- 1) J.J Hospital, Mumbai, Maharashtra
  - 2) Government Hospital for Thoracic Medicine, Tambaram, Tamil Nadu
  - 3) Regional Institute of Medical Sciences, Imphal, Manipur
  - 4) School of Tropical Medicine, Kolkata, West Bengal
  - 5) BJ Medical College, Ahmedabad, Gujarat
  - 6) Institute of Medical Sciences, Banaras Hindu University, Varanasi, Uttar Pradesh
  - 7) Maulana Azad Medical College, New Delhi
  - 8) Bowring Hospital, Bengaluru, Karnataka
  - 9) Gandhi Hospital, Secunderabad, Andhra Pradesh
  - 10) PGIMER, Chandigarh
- xii) **The National Paediatric HIV/AIDS initiative** was launched on 30<sup>th</sup> Nov 2006 by Smt. Sonia Gandhi and Mr. Bill Clinton. While 47,784 CLHAs have been ever registered in HIV care at ART centres, 14,303 CLHAs were receiving free ART as on March 2009. Paediatric formulations of ARV drugs for 15,000 children were procured and supplied to ART centres. A total of 40,000 CLHA will be provided ART by the end of the NACP–III. Seven ART centres are being upgraded as Regional Paediatric Centres of Excellence to provide comprehensive specialized services to CLHA.

- xiii) **The Roll out of Second line ART** began from January 2008. Initially started at two sites –GHTM, Tambaram and JJ Hospital, Mumbai - on a pilot basis, it was expanded to 10 centres of excellence in January 2009. A provision was made for providing second line drugs to 3,000 patients during 2008-09. As of March 2009, 344 patients were receiving second line drugs.

## **11. Institutional Strengthening and Capacity Building**

The aim of NACP-III is to build capacity of the programme managers at the national, state and district levels in leadership and strategic management; technical and communication skills of the health professionals and health care providers at all levels of care and health care organizations, CBOs and NGOs; and technical, communications and counselling skills of the grass-roots level workers and functionaries of various government departments.

Strengthening Human Resource Capacity at NACO by enhancing strategic planning skills, disseminating best practices for TIs, establishing and managing a network of technical expertise through Technical Resource Groups (TRGs) in STI/HIV/AIDS, conducting OR and to oversee R&D activities nationwide, are some of the thrust areas for strengthening institutional capacity. NACO has also developed Project's financial management system for effective financial management of the programme.

Regional and state level training were organised as part of capacity building for health care providers. During 2008-09, a total of 1,35,615 persons were trained, including specialist doctors of medical colleges, general DMOs, nurses, IEC officers, counsellors, NGOs, laboratory technicians, blood bank officials and district nodal officers. During this period review and printing of training curricula, modules and materials was undertaken, guidelines for District Action Plans were laid down, training of national and state level trainers was completed and refresher/induction training and Training of Trainers were held.

## 12. Strategic Information Management

India's response to the evolving HIV epidemic is largely influenced by the available surveillance data, implementation capacities and political commitment at state level. The HIV surveillance system in India has been characterized by a growing network of sentinel and facility based HIV sero-prevalence surveys, used for measuring trends in HIV prevalence and developing state and national prevalence estimates. Behavioral surveillance surveys and research studies have also been conducted in a number of states to track HIV related risk behaviours. The Computerized Management Information System (CMIS), established nation-wide, is another source of strategic information for programme monitoring and evaluation. NACP has also successfully established a Computerized Project Financial Management System (CPFMS).

In order to maximize 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 and is being set up at state levels to address strategic planning, monitoring and evaluation, surveillance and research. 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 organizations are fulfilling their commitment to meet agreed objectives.

Key activities being undertaken are

- Establishing a Research Wing/ Division at NACO with strong linkages developed with research/academic institutions at regional/ state level;
- Strengthening 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.;
- Building capacity for monitoring and evaluating community based interventions, school based adolescent education programmes and support groups of positive people;
- Conducting two types of Behavioural Surveillance Survey, namely, a) annual risk assessment at the district level and b) methodologically rigorous Integrated Biological and Behavioural Surveillance (IBSS) at district level, once in three years.

### 12.1. Monitoring and Evaluation

Following activities were undertaken:

**12.1.1. Development of an integrated M&E Plan for NACP-III.** Based on the principle of three ones, using the M&E strengthening tool, a comprehensive M&E plan is developed. This plan lays 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 tracking the performance of the program in country. This consist of Operational Guideline for Strategic Information Management Unit (SIMU) and a handbook of core indicators giving details of definitions, source of collection, frequency, level of use and strengths and limitations.

**12.1.2. Strengthening systems for better M&E.** An assessment of existing systems was done including manpower, infrastructure, hardware and software and connectivity etc. Recruitment was closely monitored so as to have required capacities in place. To ensure supportive supervision, a system of quarterly review and training of M&E Officers is initiated. A review on quantity and quality of reporting is done. Directions & guidelines for on-site verifications are developed and sent to SACS.

### **12.1.3. Improving Component Specific M&E**

1) ART Centers: Training of Trainers organized for improving recording and reporting including computerization at ART centers. The training of ART staff is being organized across the country to cover all ART centers. The training focuses on basic definitions of indicators, orientation on M&E systems and data analysis and use on critical indicators. An M&E Training module is developed for purpose with support from WHO. The patient tracking software is further modified to give list reports and analytical reports for ART center in-charges and program officers at SACS and NACO level. Team approach was used for these training so that there is complete understanding of the issue and systems and roles and responsibilities. For these trainings, PSM in-charges of medical colleges were trained and are being used as resource.

2) Integrated Counseling and Testing Centres: For improving HIV-case reporting, it is essential that the recording systems at ICTC's are improved. The staff at ICTC also need to be oriented on M&E Systems and computerization. A client line-listing software has been prepared with support from KHPT and is being pilot tested. An extensive training of ICTC staff (mainly counselors) on M&E, including basics of computers and the software, is planned. NIIT Ltd. Is being contracted for undertaking this training.

3) STI/RTI Reporting: This is one of the components whose reporting performance is chronically sub-optimal. The overall efforts for improving the performance by simplifying the tools, training on the definition, communicating clear guidelines and highlighting issues for action in review meetings of M&E officers and program officers is helping in improving reporting – both quality and quantity. The M&E sessions in trainings of Joint Directors/Deputy Directors of STD in SACS has also an impact on betterment.

4) Community Care Centers: A simple uniform record-keeping system has been developed to implement at CCC's. An M&E manual has also been developed, which is being reviewed before undertaking the training of CCC staff on M&E.

### **12.1.4. Improving CMIS and overall Reporting**

For improving reporting, a systematic approach was taken. Some immediate changes in terms of refining and developing a few output reports, developing modules for non-existent components like ART/ AIDS Cases, visits to major non-reporting states to rectify problems of non-reporting, re-enforcing the uniform tools, organizing CMIS trainings, providing ongoing support in rectifying problems related to formats, software and clarifying issues regarding reporting masters helped improving the reporting percentages. An agency has been contracted to develop/upgrade the comprehensive software for SIMS with advanced features like on and off-line reporting, client tracking, GIS features and basic statistical analysis. A process for development of smart card is re-initiated for tracking of patients on ART.

## 12.2. HIV Sentinel Surveillance

**12.2.1. Scale-up of Sentinel Sites:** HIV Surveillance in India was started from 1985 when ICMR initiated the surveillance activity in blood donors and patients with Sexually Transmitted Diseases (STDs). After the National AIDS Control Organisation (NACO) was established in 1992, sentinel surveillance for HIV/AIDS in India had been initiated with sentinel sites confined to selected cities in the beginning. In 1998, NACO formalized annual HIV Sentinel Surveillance (HSS) across the country. The number of sentinel sites were increased from 176 in 1998 to 1,215 in 2008 (Table 7). The population groups monitored under HSS include pregnant women attending antenatal clinics (ANC), patients attending Sexually Transmitted Diseases Clinics (STD), 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 7: Scale-up of Sentinel Sites in India – 1998 to 2008**

Site type/year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
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
Fisherfolk	-	-	-	-	-	-	-	-	1	-	-
Seamen	-	-	-	-	-	1	-	-	-	-	-
<b>Total</b>	<b>176</b>	<b>177</b>	<b>224</b>	<b>320</b>	<b>384</b>	<b>699</b>	<b>649</b>	<b>703</b>	<b>1,122</b>	<b>1,134</b>	<b>1,215</b>

**12.2.2. 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 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:

1. determine the level of HIV infection among general population as well as high risk groups in different states;
2. understand the trends of HIV epidemic among general population as well as high risk groups in different states;
3. understand the geographical spread of HIV infection and to identify emerging pockets of HIV epidemic;
4. provide information for planning the programme in different states and districts, for prioritization of programme resources and evaluation of programme impact; and
5. estimate HIV Prevalence and HIV burden in the country besides HIV incidence, Mortality due to AIDS and ART needs.

**Table 8: Methodology of HIV Sentinel Surveillance**

S. No	Item	Surveillance among General Population	Surveillance among High Risk Groups (HRG)	Surveillance among Special Groups
1	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.
2	Sample size	400 through consecutive sampling	250 through consecutive sampling at service points or satellite points.	250 through consecutive sampling
3	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)
4	Testing Strategy	Unlinked Anonymous	Unlinked Anonymous with Informed Consent	Unlinked Anonymous
5	Testing Protocol	2-test protocol	2-test protocol	2-test protocol

**12.2.3. Methodology of HSS** (Table 8): 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 (HRG) - IDU, FSW, MSM, Single Male Migrants and Truckers - are sampled at service points – 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, the 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.

**12.2.4. 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 Quality Assurance Scheme (EQAS) for laboratory testing. Ten National Reference Laboratories are the nodal laboratories for EQAS where all positive samples and 5% 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 EQAS for the testing of DBS samples.

**12.2.5. Implementing Structure:** The national exercise of sentinel surveillance is implemented through coordination, support and supervision by National Institute of Health and Family Welfare, New Delhi as the national nodal agency and seven Regional Public Health Institutions in the country. 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 of 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, NIHFV, New Delhi conducts supervision through a group of senior public health experts and microbiologists who act as Central Surveillance Team Members.

**12.2.6. 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/ Counsellor/ 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.

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

**12.2.8. 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.

**12.2.9. Data Entry:** Data entry is done through the web-based data entry system developed and maintained by NIHFW, New Delhi. 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 was conducted at NIHFW, New Delhi for data entry operators and surveillance officers at SACS and RIs in the web-based data entry package. The data entry formats were centrally printed and supplied to all SACS.

**12.2.10. HIV Estimation:** 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 provided a unique opportunity when multiple data sources such as a community based HIV prevalence study of National Family Health Survey-III, Integrated Bio-behavioural Assessment Survey, Endline Behavioural Surveillance Survey could be utilized along with the data from the expanded sentinel surveillance system to arrive at more robust HIV estimates that are more closer to reality. The Workbook Model of WHO-UNAIDS is adopted that allows international comparability. Special statistical packages such as Random-effects Model and Spectrum Projection Software were utilized to make more accurate and reliable estimates during 2006 and 2007.

### **12.3 Evaluation and Operational Research**

The main objective of the research agenda is to position NACO as the leading national body, promoting and coordinating research on HIV/AIDS nationally and in the South Asia region through partnership and networking with stakeholders, supporting capacity building for research through established national academic and other research institutions, and as the central repository of all relevant resources, research documents and data base on HIV/AIDS in the country. New Initiatives taken by R&D Division, NACO include:

1. The “Network of Indian Institutions for HIV/AIDS Research (NIIHAR)” has been constituted. This consortium of research institutions will undertake operational, epidemiological and bio-medical research in HIV/AIDS. It will have linkages with universities, ICMR, CSIR, DST, ICSSR and others stakeholders including donor organizations, and 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. The following Indian Institutions were admitted as Members of NIIHAR:
  1. National Institute for Health & Family Welfare (NIHFW), New Delhi

2. National AIDS Research Institute (NARI), Pune
3. International Institute for Population Sciences, (IIPS), Mumbai
4. Institute for Economic Growth (IEG), New Delhi
5. National Institute for Medical Statistics (NIMS), New Delhi
6. National Institute for Communicable Diseases (NICD), New Delhi
7. All India Institute for Medical Sciences (AIIMS), New Delhi
8. PGIMER, Chandigarh
9. Tata Institute for Social Sciences (TISS), Mumbai
10. National Institute of Mental health and Neuro Science (NIMHANS), Bengaluru
11. Institute of Health and Management Research (IIHMR), Jaipur
12. Tuberculosis Research Center (TRC), Chennai
13. JJ Hospital, Mumbai
14. National Institute for Research in Reproductive Health (NIRRH), Mumbai
15. National Institute of Epidemiology (NIE), Chennai
16. National Institute of Cholera and Enteric Diseases (NICED), Kolkata

2. The NACO Research Fellowships Scheme for MD/M.Phil/Ph.D students started in 2008-09, facilitates 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. These fellowships serve as an incentive to take up quality and need-based research in HIV/AIDS.

3. The 'NACO Ethics Committee' has been constituted involving experts of bio-medical, clinical, epidemiological, behavioral and social disciplines, a legal expert and a representative of PLHA network. Its main function is to consider and provide ethical clearance for those research proposals and projects that involve participation and experimentation on human participants, where their mental, physical, social and emotional health and well-being may be affected by the proposed research. Two meetings of the committee were held in February 2009.

4. A list of priority areas for Evaluation and Operational Research was finalised in consultation with various stakeholders, donors, members of TRG and Heads of various program Divisions. The proposals received from members of NIIHAR and Centers of Excellence in response to NACO's invitation of proposals on Operational Research were reviewed by a panel of experts. The following three proposals were recommended by TRG-R&D at its meeting in January 2009 and then by the NACO Ethics Committee:

- Determinants of drug adherence associated with ART in India
- Factors affecting enrolment of PLHAs on ART in India
- Determining baseline CD4 Counts in Indian population

A study on "Impact Evaluation of Targeted Intervention in India" commissioned jointly by the World Bank and NACO will be carried out by a consortium of three research institutes led by PGIMER Chandigarh. NACO has initiated plans for a multi-centric study on 'Psycho-social burden on PLHAs attending ICTCs and ART Centres in India' with the Institute of Human Behaviour and Allied Sciences, Delhi as the Lead Research Institute.

## 12. Conclusion

In 2007, the country is estimated to have 1.8 – 2.9 million HIV positive persons, with an estimated adult HIV prevalence of 0.34% (0.25% – 0.43%). Trends of HIV infection indicate a mixed response in the country, with increase in some areas and decrease in other. As the HIV Prevalence among the high risk groups (HRG) is very high compared to that among the general population, India continues to be in the category of concentrated epidemic. Sexual mode continues to be the major mode of transmission, though transmission through injecting drug use and MSM is on rise in many new pockets.

NACP-III seeks to learn from the lessons of the previous two phases of programme implementation and build on the strengths thereof. The present programme is based on sound public health principles and NACP-III will place the highest priority on preventive efforts while, at the same time, seeking to integrate prevention with care, support and treatment. However, complexities of the epidemic and its exact dimensions are yet to be understood especially in the Northern and North Eastern states of the country. Decentralisation and devolution of decision-making powers to the SACS was a right step, but it has to be complemented with capacity development and technical support. Focused attention on the HRGs through TIs proved to be an effective strategy for preventing the spread of infection. However, saturation of coverage of HRGs nationwide is yet to be accomplished.

Moving over from awareness to behaviour change is the main focus of communication strategy. Sub-populations that have the highest risk of exposure to HIV will receive the highest priority for intervention. Those in the general population who have 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 will ensure that all persons who need treatment would have access to prophylaxis and management of opportunistic infections. Persons who need access to ART will also be assured first line ARV drugs. Mainstreaming and partnerships will be the key approach to facilitate multi-sectoral response engaging a wide range of stakeholders. Building up of a strong Strategic Information Management System and strengthening the Surveillance and Research components to provide evidence for planning and implementation will be given major thrust during NACP-III. National AIDS Control Programme is currently focusing on up-scaling of services to improve coverage and to improve the quality of services provided.