

Document of
The World Bank

Report No:ICR000022

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(IDA-32420)

ON A

CREDIT IN THE AMOUNT OF
SDR 140.82 MILLION

(US\$ MILLION 193.07 CREDIT)

TO

India

FOR

Second National HIV/AIDS Control Project

September 20, 2006

South Asia Human Development Sector.
World Bank Office: New Delhi
SOUTH ASIA

CURRENCY EQUIVALENTS

(Exchange Rate Effective 07/25/2006)

Currency Unit = Rupee

Rupee 1.00 = US\$ 0.021

US\$ 1.00 = Rupee 46.81

Fiscal Year

1 April - 31 March

ABBREVIATIONS AND ACRONYMS

| | |
|-------|---|
| AAA | Analytical and Advisory Work |
| APAC | AIDS Prevention and Control Project |
| ART | Anti-retroviral Therapy |
| BCC | Behavior Change Communication |
| BMGF | Bill and Melinda Gates Foundation |
| BSS | Behavior Sentinel Surveillance |
| CAS | Country Assistance Strategy |
| CBO | Community Based Organization |
| CHC | Community Health Center |
| CIDA | Canadian International Development Agency |
| CMIS | Computerized Management Information System |
| DO | Development Objective |
| DP | Donor Partner |
| DfID | Department for International Development |
| GFATM | Global Fund to Fight AIDS, Tuberculosis and Malaria |
| GOI | Government of India |
| HCWMP | Health Care Waste Management Plan |
| ICHAP | India Canada HIV and AIDS Project |
| ICR | Implementation Completion Report |
| IDA | International Development Association |
| IDU | Injecting Drug User |
| IEC | Information, Education and Communication |
| INP+ | Indian Network of Positive People |
| ISR | Implementation Status Report |
| KPI | Key Performance Indicators |
| MSM | Men Who Have Sex With Men |
| MSW | Male Sex Worker |
| MTR | Mid-Term Review |
| NACO | National AIDS Control Organization |
| NACP | National AIDS Control Program |
| NGO | Non Government Organization |
| OI | Opportunistic Infection |
| OPD | Out Patient Department |

| | |
|--------|--|
| PAD | Project Appraisal Document |
| PD | Project Director |
| PIP | Project Implementation Plan |
| PLHA | People Living with HIV and AIDS |
| PPTCT | Prevention of Parent to Child Transmission |
| PSR | Project Status Report |
| QA | Quality Assurance |
| RCH | Reproductive and Child Health |
| RTI | Reproductive Tract Infection |
| SC | Scheduled Castes |
| ST | Scheduled Tribes |
| STI | Sexually Transmitted Infection |
| SW | Sex Worker |
| TI | Targeted Intervention |
| TLO | Technical Liaison Officer |
| TRG | Technical Resource Group |
| TTL | Task Team Leader |
| UNAIDS | Joint United Nations Programme on HIV and AIDS |
| USAID | United States Agency for International Development |
| VCTC | Voluntary Counseling and Testing Center |
| WHO | World Health Organization |

| |
|---|
| <p>Vice President: Praful C. Patel Country Director: Michael F. Carter Sector Manager: Anabela Abreu Project Team Leader: Cornelis P. Kostermans</p> |
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India
Second National HIV/AIDS Control Project

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| 1. Basic Information | | | |
|---|------------|-------------------|--|
| Country: | India | Project Name: | Second National HIV/AIDS Control Project |
| Project ID: | P045051 | L/C/TF Number(s): | IDA-32420 |
| ICR Date: | 08/24/2006 | ICR Type: | Core ICR |
| Lending Instrument: | SIL | Borrower: | GOI |
| Original Total Commitment: | XDR 140.8M | Disbursed Amount: | XDR 140.4M |
| Environmental Category: C | | | |
| Implementing Agencies | | | |
| National AIDS Control Organization | | | |
| Cofinanciers and Other External Partners | | | |

| 2. Key Dates | | | | |
|---------------------|------------|-------------------|---------------|--------------------------|
| Process | Date | Process | Original Date | Revised / Actual Date(s) |
| Concept Review: | 01/13/1998 | Effectiveness: | 11/09/1999 | 11/09/1999 |
| Appraisal: | 12/05/1998 | Restructuring(s): | | |
| Approval: | 06/15/1999 | Mid-term Review: | | 06/05/2003 |
| | | Closing: | 07/31/2004 | 03/31/2006 |

| 3. Ratings Summary | |
|--------------------------------------|-------------------|
| 3.1 Performance Rating by ICR | |
| Outcomes: | Satisfactory |
| Risk to Development Outcome: | Low or Negligible |
| Bank Performance: | Satisfactory |
| Borrower Performance: | Satisfactory |

| 3.2 Quality at Entry and Implementation Performance Indicators | | | |
|---|--------------|-------------------------------|---------|
| Implementation Performance | Indicators | QAG Assessments (if any) | Rating: |
| Potential Problem Project at any time (Yes/No): | No | Quality at Entry (QEA): | None |
| Problem Project at any time (Yes/No): | No | Quality of Supervision (QSA): | None |
| DO rating before Closing/Inactive status: | Satisfactory | | |

| 4. Sector and Theme Codes | | |
|---|--------------------------|------------------------|
| | Original | Actual |
| Sector Code (as % of total Bank financing) | | |
| Central government administration | 2 | 2 |
| Sub-national government administration | 2 | 2 |
| Health | 96 | 96 |
| | Original Priority | Actual Priority |
| Theme Code (Primary/Secondary) | | |
| Participation and civic engagement | Secondary | Secondary |
| Gender | Secondary | Secondary |
| Population and reproductive health | Primary | Primary |
| HIV/AIDS | Primary | Primary |

| 5. Bank Staff | | |
|----------------------|------------------------|---------------------|
| Positions | At ICR | At Approval |
| Vice President: | Praful C. Patel | Mieko Nishimizu |
| Country Director: | Michael F. Carter | Edwin R. Lim |
| Sector Manager: | Anabela Abreu | Richard Lee Skolnik |
| Project Team Leader: | Cornelis P. Kostermans | Prabhat K. Jha |
| ICR Team Leader: | Mariam Claeson | |
| ICR Primary Author: | | |

6. Project Context, Development Objectives and Design

6.1 Context at Appraisal

The first case of HIV in India was identified in 1986 in Chennai and by 1998, NACO estimated that India had about four million (<1%) HIV infected people. Analysis at the time indicated that, without immediate intervention, HIV infection could grow to at least 5% of the adult population - more than 37 million people - by 2005. It predicted a narrow time period in which to prevent the HIV epidemic from becoming generalized, after which it would be much more difficult and costly to control. HIV infection was already spreading rapidly among high risk groups, and in the general community in some states.

The GOI had launched the first National AIDS Control Project (NACP 1) in 1992, financed by an IDA Credit of US\$84 million equivalent (Credit 2350-IN) and established the National AIDS Control Organization (NACO) as the autonomous nodal agency within the central Ministry of Health and Family Welfare (MOHFW), tasked with implementing HIV prevention and control activities. Campaigns to raise awareness of HIV and AIDS were launched, targeted interventions were piloted and blood banks were re-vamped across the country. To strengthen implementation at the state level, the management of HIV and AIDS control programs were decentralized to State AIDS Control Cells. These cells within Ministries of Health, encountered serious funding bottlenecks. Based on the Tamil Nadu model, quasi-government “societies” headed by IAS officers were instead established that could more easily receive and disburse funds without cumbersome government processes. In 1998, in response to the epidemic growth, there was growing government commitment to proactively address the issue. In his address to Parliamentarians in December 1998, the then Prime Minister, Mr. A. B. Vajpayee, called HIV and AIDS “India's most important public health problem”. The GOI engaged public, private and voluntary sectors in the preparation of plans, moving implementation of services to states and municipal corporations, expanding State AIDS Societies (SACS) to all states, and completing a baseline survey of HIV prevalence. The GOI also established a consortium of external partners who worked under the leadership of NACO.

At the time, IDA was the only donor with the capacity to assist India on the scale and longer time frame needed to control HIV and AIDS nationwide. The value added of Bank support included its technical and economic experience and its ability to work with other partners, such as UNAIDS, within one NACO-led HIV developmental framework. In addition, lessons learned from the implementation of NACP 1 could be applied to the new project, especially with regard to institutional arrangements and capacity building. The World Bank Group's Country Assistance Strategy for India placed special emphasis on improving the coverage, cost effectiveness, and equity of social programs.

6.2 Original Project Development Objectives (PDO) and Key Indicators (as approved)

The two key project objectives were to reduce the rate of growth of HIV infection in India and strengthen India's capacity to respond to HIV/AIDS. These objectives were realistic, achievable and consistent with government policies. Original key indicators were not well defined, as discussed in 7.3 and 8.2.

6.3 Revised PDO and Key Indicators (as approved by original approving authority), and reasons/justification

N/A

6.4 Main Beneficiaries, original and revised

The main beneficiaries of the project were:

1. Groups at high-risk of contracting HIV: including sex workers (SWs), truck drivers, migrant laborers, men who have sex with men (MSM) and injecting drug users (IDUs). While the exact size of these populations was unknown, it was estimated at about 5% of the adult population. About a quarter of project costs were to be devoted to targeted interventions (TIs) which would reduce transmission of HIV, and contribute to decreasing the burden of HIV and other sexually transmitted infections (STI) among these groups.
2. People living with HIV and AIDS (PLWHA): A growing number of people were already suffering from AIDS. The project was to provide treatment for opportunistic infections (OI) and other types of low-cost care, and launch campaigns to reduce stigma and discrimination against PLWHAs.
3. The general community: Mass media campaigns on HIV awareness, enhanced safety of blood products, treatment of STI and increased availability of voluntary counseling and testing services were to benefit all members of the community.
4. Women: Within the general population, women are more biologically susceptible to HIV infection, more likely to be marginalized both socially and economically if found to be HIV positive, and more vulnerable to sexual abuse and violence, both risk factors for contracting HIV. The most vulnerable women, female SWs, were important beneficiaries.
5. Tribal Populations: In states with large tribal populations, state Project Implementation Plans (PIPs) included a strategy for reaching out to tribal populations with locally appropriate community education programs, training and services.

In addition, there were other important benefits from the program. A large number of NGOs developed the capacity to participate in and implement HIV program interventions.

6.5 Original Components (as approved)

IDA was to finance 85% (net of taxes) of the requirements to implement two components:

Component 1: Deliver Cost-Effective Interventions against HIV and AIDS (US\$162.7 million; 71% of total project costs) through (i) priority targeted interventions for groups at high risk (US\$52.8 million; 23% of total project costs); (ii) preventive interventions for the general community (US\$77.4 million; 34% of total project cost); and (iii) low-cost AIDS care (US\$32.5 million; 14% of total project cost).

Component 2: Strengthen Capacity (US\$67.1 million; 29% of total project cost) through (i) institutional capacity strengthening (US\$57 million; 25% of total project cost) and (ii) inter-sectoral collaboration (10.1 million; 4% of total project cost).

In addition, the project supported five key policy and institutional reforms, included in the National Policy Letter (NPL) from GOI to IDA: (i) shifting the focus from raising awareness to changing behavior through targeted interventions, particularly for groups at high risk of contracting and spreading HIV; (ii) decentralizing service delivery to the states and municipalities, and developing a new facilitating role for NACO; (iii) protecting human rights by encouraging voluntary counseling and testing, and discouraging mandatory testing; (iv) supporting structured and evidence-based annual reviews and ongoing operational research; and (v) encouraging management reforms within state-level AIDS Control Societies (SACS) and improved drug procurement practices.

6.6 Revised Components

N/A

6.7 Other significant changes

Re-allocation of funds between categories occurred twice during the project period - once in August 2004 and again in February 2006. The project was also extended from July 31, 2004 to March 31, 2006. Both these actions were largely due to expenditure and disbursement lags, caused by (i) low allocations to the project from the Planning Commission; (ii) capacity constraints at State level in absorbing funds made available by NACO; and (iii) availability of large amounts of additional funding from other donor agencies. With increasing awareness of the challenge posed by the epidemic and the need for an enhanced response, several other donors came forward to participate in the program. Proceeds of the IDA Credit were utilized only for those activities agreed in the Project Appraisal Document (PAD) and legal documents.

Among the benefits of these changes and new partners were the provision of technical support and capacity building by donor partners in their focus states. The foundation was laid for a broad stakeholder coalition, but availability of additional funds from donors for the implementation of TI resulted in reductions in budgetary allocations to NACO, with donor funds substituting IDA funds. This led to a reduction in the number of TI being implemented with project funds and contributed to the disbursement lags (see Section 7.2).

7. Key Factors Affecting Implementation and Outcomes

7.1 Project Preparation, Design and Quality at Entry

A Quality Enhancement Review (QER) was conducted in November 1998. The QER found that the project was very likely to meet the three key factors for success at entry: (i) ownership by the client (including state governments and NGOs); (ii) clarity and realism of design and approach; and (iii) readiness for implementation.

Readiness was based on efforts during project design to ensure state level autonomy and capacity building, proposal for partnering with private voluntary sector, strengthening of sentinel surveillance and central management information system with annual implementation reviews, and project funding that would substantially increase financial resources allocated for HIV/AIDS. At entry, state PIPs were ready for all priority states and all but two states had established SACS. Analysis of available evidence informed the project design: early, aggressive, preventive interventions among high risk groups were identified as the most effective strategy to curb the epidemic*. Early treatment of co-infections and inter-related diseases, such as STI and TB, would also substantially reduce the burden of HIV and AIDS.

Recommendations of the ICR of NACP 1 were incorporated, including: (i) decentralization of implementation to enhance program management by providing flexibility at the state level, due to inter-state variability in the epidemic and in implementation performance; and, (ii) strengthening systems for monitoring, surveillance, procurement and financial management.

Stakeholders were adequately consulted during project preparation: (i) NGO consultations were held on the way forward in expanding GOI/NGO collaboration; (ii) NGOs, SWs and PLWHAs participated in state-level planning workshops; (iii) representatives of large industries and labor organizations worked with NACO in developing workplace-based interventions; (iv) bi-laterals and other donor agencies joined the IDA team on mission; and (v) state-level PIPs were prepared with the active participation of state Department of Health officials and other stakeholders.

*The analysis was based upon: (a) D. Naylor; P. Jha; et al. *A Fine Balance: Some Options for Public and Private Health in Urban India*, World Bank, 1999; (b) P. Piot and M. Over, HIV/AIDS and STDs, in Jamison et al, *Disease Control Priorities in Developing Countries*, Oxford University Press, Oxford, 1994; (c) Institute of Medicine, *Evaluating HIV/AIDS Control Programs*, National Academy Press, Washington DC, 1997; (d) Over, M. and M. Ainsworth, *Confronting AIDS: Public Priorities in a Global Epidemic*, World Bank, 1997; and (e) J. Dayton, *World Bank HIV/AIDS Intervention: Ex Ante and ex-post evaluation*, *World Bank Discussion Paper No. 389*, 1998.

7.2 Implementation

The project faced substantial variation between states in the pace of implementation. The main factors that impacted the interstate variation were: **availability of experienced NGOs, delays in NGO contracting, presence of bilateral/donor agency partners and implementation capacity.** *Actions* to address these factors included development of guidelines (e.g., guidelines for contracting of NGOs), supervision frameworks and staff management capacity. Partnerships were established, for example, Karnataka, despite having high HIV prevalence, did not have any

external partners at the start of NACP 2 but were able to develop such partnerships mid-way through the project. All states established SACS to implement the program based on state-level needs and could change the Annual Action Plan (if the changes were within a component). The evolution from State AIDS Control Cells to State AIDS Control Societies during the early phase of NACP 2 significantly improved timeliness of decentralized disbursement of project resources; but still, shifts between components required NACO approval which was often delayed due to insufficient capacity within NACO to respond expeditiously. The mid-term review (MTR) * identified these bottlenecks, and *actions* included: improved training, strengthened supervision of program activities by NACO to SACS, and by SACS to NGOs. The MTR also recommended to begin to link disbursement to observed results – however, this is not yet implemented although a performance based approach had already been tried out in NACP I which provided an incentive to well performing states that received additional resources based on results **.

Other factors influencing implementation were **stigma, discrimination and denial**. Most of the vulnerable groups at risk are highly stigmatized and marginalized populations, difficult to reach and often outside the ambit of the law: SWs, IDUs, MSWs, MSM and street children. Working with these communities was often difficult for implementing agencies, and challenges included police interference and lack of support from the legal system. To counteract this, *actions* included mainstreaming of HIV prevention in key sectors under NACP2, such as the judiciary system, to facilitate legal and other actions to de-stigmatize and increase reach and effective coverage. Political commitment at the center was high throughout NACP 2, but varied between states. In states with high HIV prevalence, political leadership was aware of the dangers of an escalating epidemic and largely supportive of prevention and control efforts. However, in some of the low prevalence but highly vulnerable states, political leadership remained in denial. The political economy of addressing issues of human behavior, social values, sex and sexuality also influenced the varied political backing for the program. Finally, **staffing gaps and lack of continuity** of key staff was a constant challenge. Frequent changes or shortages in staff caused disruption and delay in implementation. Many of the actions that were initiated under NACP2 to speed up implementation need to continue under NACP 3 – and be reinforced widely.

* Aide Memoire, Mid-Term Review; July 2003; **OED India National AIDS Control Project Project Performance Assessment.

7.3 Monitoring and Evaluation (M&E) Design, Implementation and Utilization

The M&E system of the NACP 2 had several elements, including computerized management information system (CMIS), sentinel surveillance and behavioral surveillance surveys (BSS) that were designed, revised and strengthened during the duration of the project. But, there are still state level functionaries that need to be trained to fill in the forms, and the data should be better utilized for state level analysis, timely problem solving and informed decisions at local level. Recognizing the need to routinely monitor performance, a dash board is being developed for the third phase of the program.

The NACP 2 has shown a growing commitment to expanding and improving surveillance. It is the only country in Asia with a surveillance system based on ANC data, rather than vulnerable group data. Depending on the National Family Health Survey (NFHS 2006) findings, this may need to be revisited since the major aim of a surveillance system is to understand and identify

sources of new infection and potential epidemic inroads. ANC data captures the tail-end of a long infection chain and does not serve this purpose. The strength of the system, on the other hand, is the comprehensiveness of the ANC system, which is being expanded, even in the north, which historically has had fewer sites. The NFHS 2006 is the world's largest population-based HIV survey and the first combined bio-behavioral survey in the general population. The NACP has historically had very few SW, MSM and IDU sites with questionable sampling and representativeness, and the formal surveillance system has not yet undertaken bio-behavioral surveys of these vulnerable groups. However, in 2006, the Avahan project (supported by the Bill and Melinda Gates Foundation) is undertaking the world's largest bio-behavioral survey of vulnerable groups - including SW, clients, truckers and IDU - which NACO is reviewing and may include in the surveillance system.

Triangulation of sentinel surveillance, behavioral surveillance and other sources of data has been lacking as a central part of program evaluation but the elements of a strong M&E have been put in place. This includes, quality review of the technical aspects of the sentinel surveillance and estimation of prevalence by an expert committee headed by Director General, Indian Council of Medical Research, and members drawn from WHO, UNAIDS and various research institutions.

Regarding the project M&E indicators identified in Annex 1 of the PAD, the intent was to update them bi-annually. However, the DO indicators and several output indicators were not well defined from the start and lacked specified targets. In addition, there was overlap between indicators for DO 2 and for Component 1. In early 2005, these indicators were changed, and a much shorter list was adopted and reported on in Aide Memoirs and ISRs, and formed the basis for ISR ratings. The revised list is repetitive and omits all indicators for Component 2, due to limiting factors such as measurability..

7.4 Safeguard and Fiduciary Compliance

Tribal Strategy: The tribal strategy called for culturally appropriate community awareness programs and training. States with large tribal populations have utilized local media and messages as appropriate, although the impact of these IEC efforts has not been tracked and reported on systematically.

Environment: The project was rated Environmental Category C. This was usual for AIDS projects approved by the Bank's Board at the time: of nine such projects approved between 5/22/1997 and 9/12/2000, seven were Category C, including this project. GOIs *Notification of Bio-Medical Waste (Management and Handling) Rules 1998* was already in effect; and NACO published waste management guidelines for VCTCs, blood banks and PPTCTs. The project supplied 10,000 needle crushers for the destruction of sharps and provided for the training of staff in the safe handling of blood products since the hospitals that house the VCTCs, blood banks and PPTCTs often do not have a waste management system in place for the final disposal of sharps, blood samples, glass vials and other infectious waste generated by the project. Retraining of staff is also essential since there is a high turnover of laboratory technicians and other staff at the facility level.

Financial Management: An assessment of financial management under NACP 2 (Report on Developing Financial Management Assessment Plan (draft), AF Ferguson and Co., New Delhi,

February 2006) identified a set of issues: (i) lack of robust financial systems at all levels; (ii) a person-dependent system; (iii) absence of staff who are appropriately qualified, trained and motivated; (iv) the need for financial harmonization of donors, with common reporting systems; and, (v) financial accountability of NGOs.

During the NACP2 funds flow and financial management faced problems due to a cap on budgetary allocations placed by the Planning Commission, whereby allocations to NACO within the Health Budget were determined independently of both requirements expressed in the Annual Plan and of funds available through the IDA Credit and other sources. This issue was raised repeatedly by Bank supervision missions as well as other donors. In 2004, the Planning Commission conceded that funds that were given as grants to the program would be routed directly, and would be exempt from the cap. IDA funds, however, since they are loans, continue to be subject to scrutiny and caps. The records show that adequate funding was made available to the SACS to undertake their planned activities although there were lags. **Error! Hyperlink reference not valid.**

| | 1999-2K | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 |
|---------------------------------|---------|---------|---------|---------|---------|---------|
| Funds Released | 109.75 | 108.72 | 150.27 | 164.62 | 157.77 | 248.37 |
| Total Expenditure as per Claims | 105.19 | 84.54 | 144.51 | 141.16 | 146.45 | 141.98 |

Rs. in Millions

These expenditure lags were caused by: (i) delays in approval of work-plans submitted by the SACS, resulting in delay in release of first tranche by NACO to the SACS; (ii) inadequate financial delegation at the SACS level in many states, resulting in pending files/approvals; (iii) delays/lags in submission of financial reports from district level entities and from NGOs implementing the TI, resulting in lower expenditure reporting by the SACS and the consequent impact on release of the second and subsequent tranches by NACO to the states. The capacity of NGOs to manage the financial aspects of their program remains poor; better systems and capacity building at the NGO level is urgently required. A computerized Project Finance Management System (PFMS) was developed for the project, following Loan Administration Change Initiative (LACI) guidelines, and effectively implemented. Consolidated Project Management Reports (PMRs) were generated by the system at the NACO level, and furnished to the Bank. The audit reports were generally received on time from the SACS and were consistent and with uniformity in the accounting

Procurement: A review of procurement under NACP 2 was undertaken as part of NACP 3 preparation (Procurement Capacity Assessment of NACO and other Implementing Agencies under NACP 3 (draft); Global Procurement Consultants Ltd., Mumbai, February 2006). The report identified several issues with regard to procurement under NACP 2, including: (i) delays in procurement as compared to the Procurement Plan; (ii) delays in finalizing technical specifications of items to be procured; (iii) repeated extensions of bid validity; and, (iv) delays of a year or more in awarding contracts. Procurement capacity at both NACO and the state level needs to be strengthened substantially. Two procurement agents were hired by NACO; the first proved unsatisfactory and the second is still tested. For a long period, there was a single individual within NACO undertaking this important activity, which resulted in delays of all

procurement. Some procurement was decentralized to the states; however, capacity was equally poor in the SACS and no procurement training was provided to them. Some SACS have also expressed a preference for leaving all procurement to NACO, since it places undue pressure on them from local interest groups.

[1] Analysis of Release and Utilization of Funds (1999-2K to 2004-05) undertaken by the Financial Management Specialist, World Bank.

7.5 Post-completion Operation/Next Phase

NACP 3 is under appraisal, scheduled to go to the Board in FY 07. A Project Implementation Plan (PIP) is being finalized, based on the Strategic Framework developed through extensive consultation with stakeholders and development partners. NACP 3 will continue to support the overall strategy of NACP 2 and further scale up interventions targeted at high-risk groups. To achieve the national goal of halting and reversing the HIV epidemic by 2011, the targeted interventions need to be significantly scaled up, while creating a more enabling environment that will increase the reach and involvement of those at highest risk. The PIP will lay out how to bring up the performance level across states, including an institutional framework for efficient delivery of the program. The PIP will also include a Governance and Accountability Plan, taking into account best practice with respect to review of procurement of goods, works and services under Bank support.

8. Assessment of Outcomes

8.1 Relevance of Objectives, Design and Implementation

The objectives, design and implementation arrangements of NACP 2 were highly relevant. HIV and AIDS were widely recognized at the time of preparation as the biggest challenges to development globally. If effective prevention efforts were not implemented and sustained over the long term, modeling at the time suggested that India could have about 37 million people infected with HIV by 2010[1],[2]. The project design chose a well-defined strategy [3] focused on the delivery of interventions among marginalized groups at high risk of contracting HIV and it was designed to scale up cost-effective strategies that would: (a) reduce future social and financial costs of treating AIDS cases; (b) concentrate on preventive interventions among the groups at highest risk of transmitting HIV; and (c) decentralize service delivery so that appropriate local solutions could be devised. Twenty three percent of the budget was allocated for targeted interventions, while other approaches were complementary and would help create the necessary enabling and reinforcing environment. As discussed (6.1), the project fit well with the World Bank Group's Country Assistance Strategy for India (CAS; Report No. 17241-IN, dated December 17, 1997), which placed special emphasis on improving the coverage, cost effectiveness, and equity of social programs. The implementation arrangements were relevant for the stage of the epidemic and context with decentralized management to state level and contracting with NGOs to reach vulnerable populations at high risk. The support to key policy and institutional reforms were also highly relevant: including those related to management reforms, human rights, decentralization and shift from awareness raising to a focus on TIs.

[1]Nagelkerke, N.J.D., and S.J. de Vlas (2002). The potential impact of an HIV vaccine on the HIV/AIDS

epidemic in southern India. Rotterdam: Department of Public Health, Erasmus University. [2]Rao Seshadri, S; P. Jha and P. Subramaniam The Potential Demand for and Strategic Use of an HIV-1 Vaccine in Southern India. Health & Population Policy Research Working Papers 3066; The World Bank, Development Research Group, Washington DC; 2003. [3]Mead Over and Martha Ainsworth. Confronting AIDS: Public Priorities in a Global Epidemic. Oxford University Press; 1997.

8.2 Achievement of Project Development Objectives

The Bank's contribution to the AIDS control program in India increased substantially between NACP 1 and 2, from about \$83.6 million to \$190 million. New components were added, such as TIs and care and support. Funding towards strategic planning, policy development, intersectoral collaboration and program management of the expanded program increased significantly while components such as blood safety, which comprised almost half the program during NACP 1, constituted only about 20% of the program during NACP 2. The Bank's contribution to IEC/BCC, TI and care and support was significant (about 80% of total programming; of which 23% were for TIs), while it contributed a smaller proportion of total funding for blood safety, surveillance and management, largely due to salary costs of personnel and maintenance of facilities, both of which were contributed by the government.

Bank Contribution to AIDS Control Programming in India 1992-2006 (US\$000)

| | Program 1992-99 | Of which IDA* | Program 1999- 2006 | Of which IDA** |
|---|--------------------|------------------|-----------------------|-------------------|
| Strategy/Policy Development/Program Management | 10,505 | 4,415 | 68,533 | 40,400 |
| Surveillance | 15,379 | 8,801 | 6,377 | 2,695 |
| Blood Safety | 45,017 | 39,141 | 60,533 | 38,833 |
| IEC/BCC | 23,786 | 16,955 | 25,933 | 28,600 |
| STI Management | 18,642 | 14,338 | | |
| Targeted Interventions | | | 59,022 | 50,600 |
| Care and Support | | | 36,288 | 28,900 |
| Total | 113,329 | 83,650 | 256,688 | 190,000 |

* Additional support for NACP 1 was provided by WHO (US\$2,192,000) and GOI (US\$27,487,000). (Source: PPAR; OED Report, 2003, Annex D)** US\$ amounts have been calculated on the basis of 1\$=Rs.45. (Source: NACO Report; April 2006). Figures presented here are the Appraisal Estimates; final figures will be furnished by July 31, 2006. Additional funds have been provided by GOI and bilateral agencies, BMGF and GFATM.

DO 1: Reduce the rate of growth of HIV infection in India

Achievement of this DO is *Satisfactory*. The goal was to contain the epidemic at less than 5% of the adult population in the high prevalence states and at less than 3% in the low prevalence states. The latest round of sentinel surveillance shows that adult prevalence is at 0.91% overall for the country; 3.79% in the high prevalence states, and at between 0.12% and 1.29% in medium and

low prevalence states. Thus the stated goals for the project with regard to containing the epidemic have been achieved. Although project attribution is always difficult to establish at national level when a programmatic approach is taken and many partners and projects are contributing to common objectives, Annex 4 shows the project inputs and outputs by component and the coverage rates of high risk groups. Overall, HIV prevalence at ante-natal care (ANC) clinics was 0.88% during the latest round of surveillance (2005), suggesting that the epidemic is stabilizing in the general population. However, this overall figure masks inter- and intra-state differentials. NACO has determined that the epidemic has declined since 1999 in 13 states, remained constant in nine states, and increased in 13 states. The epidemic is highly variable in its dynamics between states, and between districts within the same state. In 2005, the overall HIV prevalence among high risk groups which the program targeted were 8.5% in SWs, 5.6% in STI clinic attendants, 10.6% in IDUs and 8.7% in MSM, with great variations (the same data is not available for previous years to enable trend analysis

Annual HIV prevalence rates among different population groups in India(2003-2005)

FIGURE TO BE INSERTED

The evidence base is strong for a causal link between increased effective utilization coverage of TIs (outputs) and improved outcomes. Selected utilization coverage rates can serve as proxies for outcomes, i.e. condom use, and clean needle exchange. The TI projects (for example the Sonagachi CBO program in West Bengal) and the states with the highest coverage rates (for example Tamil Nadu) are where HIV prevalence seems to be leveling off (Kumar, Jha et al., 2006). For example, one-third decline in HIV prevalence among young women in South India may be due primarily to high levels of condom use in the context of commercial sex attributed to NACP 2 interventions. In absolute numbers, an estimated 5.2 - 5.7 million people are now HIV+ across the country, up from about 3.86 million in 2000. Men constitute a little over 60% of the burden, about the same as in 2000, and about 60% of the infections are now in rural areas, up from 24% in 2000. High prevalence states now account for about 70% of all infections, down from about 74% in 2000.

DO2: Strengthen India's capacity to respond to HIV and AIDS

Achievement of this DO is *Moderately Satisfactory*, based on the following key performance indicators:

- Percentage of states/municipalities in which State AIDS Control Societies (SACS) are functioning: SACS have been established in all states and in three major municipalities (Ahmedabad, Chennai and Mumbai). As noted (Section 7.2) there was a dramatic positive change in financial management when the SACS were established. However, vacancy of staff is about 20%^[1]; and turnover of PDs at all SACS (except Andhra Pradesh) has been unacceptably high, as was noted repeatedly in Aide Memoirs. The process of orientation and sensitization of a string of short-duration PDs caused some disruption in programming.
- Percentage of states/municipalities that are effectively managing TIs, including mapping and scaling-up: All states, and the three municipalities, are implementing TI. Mapping of high-risk groups has been completed in all states. Six regional workshops were organized by

NACO to build capacity of SACS to manage TIs; and all states have now prepared plans for scaling-up TI to saturate all key populations, in addition to TIs supported by the Bill & Melinda Gates Foundation, UNDP, UNODC, ICHAP etc. Other complementary projects were implemented in several states. More than half of all TIs are being implemented in the six high prevalence states, and targets in those states have been exceeded. The shortfall has been due to poor performance in states such as Madhya Pradesh, Uttar Pradesh, Orissa, Rajasthan, Chattisgarh, Punjab, Uttaranchal, Goa, and Meghalaya. These low performing states were categorized as low prevalence states; delays in scaling-up TI in these states may be a sign of complacency which may prove to be a costly mistake in the long run since some of these states are also among the ones now ranked as high vulnerability states. These are also the same states that perform poorly across most programs, with institutional weakness and poor track record in general, not particular to the NACP2.

- **Access coverage:** About 35-45% of female SWs, 46% of IDUs, and only 6% of MSM and MSW have been reached by TIs. The mapping exercise was an important first step in estimating the size and location of high-risk populations. This assisted NACO in planning TIs and also helped broadening the base for interventions with SWs, to include street based and home based workers. NACP 2 had planned for coverage of 80% of the high-risk population; however, it is now clear that the *numbers* to be covered are far larger than had been envisaged, and NACO estimates that it will need to increase the number of TIs 3-4 fold in order to saturate the target populations under NACP 3.

[1] IDA Supervision mission Aide Memoire; September 2005.

8.3 Efficiency

As shown in Annex 5, the benefit-cost analysis estimated considerable economic returns to investment. In addition, the cost effectiveness analysis, led to a selection of the most cost-effective interventions for program implementation (interventions for sex worker and men at high risk, STI management and VCTC). Ex post, measurable results and actual costs validate the initial cost-effectiveness analysis, as discussed in 8.2 and Annex 3 and 4. Regarding the benefits-cost estimates, there is not enough evidence yet to comment ex post, but ongoing analysis of economic impact might add further strength to the original benefit cost analysis.

8.4 Justification of Overall Outcome Rating

Rating: **Satisfactory**

The most important objective of the project was to ensure that there was no explosive growth in the epidemic; this has been achieved as shown in 7.2 – 7.5. The impact of this in terms of Disability Adjusted Life Years (DALYs) gained, human suffering avoided, economic losses averted, and human development overall, is impressive. The institutional mechanisms for ensuring that such efforts are scaled up and sustained will continue to be strengthened, since commitment to reversing the epidemic is strong at both national and state levels.

8.5 Overarching Themes, Other Outcomes and Impacts

(a) Poverty Impacts, Gender Aspects, and Social Development

The outcomes and impact of the project on poverty, gender and social development is difficult to estimate for the following reasons: The project did not undertake specific studies or evaluations of the impact of project interventions on poverty or gender aspects. There is a paucity of such material overall, with a few studies done by other agencies or academia on these topics. A Bank funded socioeconomic impact study is underway reviewing the economic consequences of HIV and AIDS, and also a costing study to estimate the cost of scaling up ART in India. There is also a small body of literature that has studied the socio-economic impacts of the HIV epidemic, in particular among vulnerable groups, cited in a recent publication of the Health Policy Research Unit of the Institute of Economic Growth, Delhi (*India Database on HIV/AIDS: Program Management and Socioeconomic Vulnerability and Impact*; Health Policy Research Unit, Institute of Economic Growth and UNAIDS). Stigma and discrimination are important factors that have influenced the effectiveness of the program, dis-proportionally so among vulnerable population groups. Globally, stigma and discrimination against PLWHAs have been widely recognized and a recent study on hospital-based stigma found that (Mahendra V. S. et al. *Reducing AIDS-related stigma and discrimination in Indian hospitals*. Horizons Final Report; New Delhi: Population Council; 2006): (i) stigma can lead to delay and denial of treatment; (ii) both individuals and institutions discriminate against PLWHAs; and (iii) interventions to increase awareness of HIV related issues and reduce stigma can be effective in improving attitudes of health care workers. Much more attention needs to be paid to the impact of stigma and to destigmatization through a strategic communications plan and other multi sector interventions in various contexts, including the family, community, educational settings, workplace and health system.

(b) Institutional Change/Strengthening

Significant institutional change took place during the duration of the project to manage a large coordinated response. A review of the following factors and project contributions, show a nuanced picture with both institutional strengths and weaknesses:

- (i) Development of management capacity: Capacity has been built centrally at NACO to manage a large coordinated response to HIV and AIDS. Technical and managerial capacity has also been built, although there is still a way to go, both at NACO and SACS to partner effectively with NGOs and CBOs in addressing a multi-dimensional problem among often marginalized communities. For example, a central function of program management is procurement, including capacity to contract with NGOs and CBOs -- a main vehicle for reaching higher coverage and scaling up. This critical management function has remained weak while other functions have been consistently stronger.
- (ii) Decentralization to SACS: With the SACS in charge of state-level program implementation, it has been possible for the program to scale up substantially, albeit with some variation across the country, including in NGO contracting, as discussed under (i). Absorptive capacity of NACP has grown impressively as a result of decentralization with NACO programming increasing six-fold.
- (iii) CMIS: The establishment of the CMIS was an important step in institutionalizing management of the program. It needs further strengthening and follow-up; reports are not yet being received regularly from all states, and information is not being used

effectively for management decision-making at state level. Strengthening of Surveillance is discussed under 7.3.

- (iv) Blood Banks: A network of certified blood banks has been established across the country, a National Blood Policy is in place and quality assurance and training programs have been developed to ensure safe and rational use of blood.
- (v) Partnerships: Most importantly, the NACP is leading a collaborative effort of a consortium of donors, all working within the same framework, under the overall administration of NACO which is evolving into a coherent program. This has had a positive impact on the quality and coverage of the program.
- (vi) Mainstreaming project strategies: Several strategies initiated by the project have now been mainstreamed by different sectors, although more needs to be done. One example is the school AIDS program, which has been taken over by the Education Ministry and will be implemented by them. Another example is STI management under TI: in states such as Tamil Nadu, this has been mainstreamed into the General Health Service, with staff, drugs and consumables being provided from the state health budget.

(c) Other Unintended Outcomes and Impacts:

1. Adopting a Programmatic Approach: The programmatic approach adopted by NACP 2, and facilitated by the Bank and other development partners, has laid the foundation for the “three ones”; it has brought together the many donors in support of one national program, one framework for action and striving towards one monitoring and evaluation system.
2. NACO’s response to the feminization of the epidemic: The proportion of women living with HIV has increased as expected in the states with generalized epidemics. NACO has been proactive in its response to this development, setting up a Gender Desk at NACO tasked with assisting women to access services; as well as to develop programs focusing on women’s empowerment and involving them in the program. The expected impact of the gender desk will depend on its ability to include gender aspects in policies, strategies and program implementation.
3. Networking of PLWHAs: While development of networks of PLWHAs was on the agenda of NACP 2, their growth in numbers and membership and the influence that they have been able to exert on programming and policies has been well beyond what had been envisaged under the project. Active PLWHA networks have raised human rights issues and increased focus on access to treatment.

8.6 Summary of Findings of Beneficiary Survey and/or Stakeholder Workshops

N/A

9. Assessment of Risk to Development Outcome

Rating: **Low**

The risk to development outcome is **Low**. The government’s commitment to mitigating risks to

the overall objective of reversing the epidemic is reflected in the following:

Financial: GOI has been able to tap a large amount of funding from a range of donors, including USAID, DfID, AusAID, CIDA, UNDP and GFATM.

| Projects | Existing Allocation (US\$ million) | Allocation approved by EFC for expansion of NACP-II (routed through GOI budget) (US\$ million) | Period of Project |
|---------------------|---|---|--------------------------|
| WB assisted NACP-II | 242. 55 | 242. 55 | 1999-2004 |
| USAID PSH | 34. 86 | 34. 86 | 2000-2007 |
| DFID | 21. 48 | 102. 27 | 2000-2007 |
| USAID APAC | | 13. 56 | 2002-2007 |
| AusAID Project | | 5. 18 | |
| CIDA Project | | 7. 94 | 2001-2006 |
| UNDP Project | | 1. 36 | 2002-2004 |
| GFATM | | 25. 78 | 2004-2006 |
| TOTAL | 298.89 | 433.50 | |

As a result, IDA's share of the total funding applied towards NACP 2 was about 56% (Rs. 11150 million of a total of Rs. 20646.50 million). The preparation for NACP 3 is well underway; it is to be funded by a consortium of donors, who are working together in preparing the project. The National Planning Team that has been constituted for this purpose has estimated that a total funding of around 1.5 billion is required in the next five years for India to sufficiently scale-up services to reverse the epidemic. IDA contribution to NACP 3 is expected to be about US\$250 million equivalent. The government will also significantly scale up its contribution.

Technical: NACP 2 adopted and developed global best practices: TIs, focusing on groups at high-risk of transmitting and contracting HIV, teamed with STI services, voluntary counseling and testing for HIV, and care and support for those with AIDS related illness. NACP 3 will focus on scaling-up these interventions across the country to increase access and coverage. However, the quality of services provided by state health systems is generally poor; and the program will need to put in place mechanisms for capacity building, quality assurance and monitoring of program-specific services with stronger linkages to overall health systems strengthening. In addition, capacity to monitor the program and track the epidemic has been substantially enhanced; greater use of such information needs to be made in the future to inform strategic choices.

Institutional: Decentralization of HIV control activities to the state level was accomplished under NACP 2. This will be continued and strengthened, with further decentralization to the district level and by convergence with relevant programs, for example, the Reproductive and Child Health and TB control programs. Plans are also underway to strengthen contracting and capacity building of NGOs, as well as procurement, since the demands on these functions are growing. The challenge will be to ensure adequate staffing at both NACO and SACS to implement these

activities Robust systems need to be established for monitoring performance of NGOs.

Social: Awareness of HIV across all age groups and geographical regions has grown and initial progress has been made in reducing stigma against PLWHAs through IEC/BCC and with the establishment of INP+ networks. Demand for services such as STI treatment and voluntary HIV testing and treatment is rising. Civil society organizations as well as media have taken up HIV prevention and treatment as important issues and raise them in various national and international foray.

Political/Government Ownership: At the national level, and in most states, governments and political leadership have made strong statements regarding the need to stem the epidemic. This will be further strengthened under NACP 3. States that undertook an aggressive program with strong political backing are showing signs of success; this is likely to serve as impetus for other states. [1] Report for World Bank Completion Mission; prepared by NACO; March 2006. The government has made commitments to significantly increase the funding which reflects both growing commitment and ownership (see finance above).

10. Assessment of Bank and Borrower Performance

10.1 Bank

(a) Bank Performance in Ensuring Quality at Entry

Rating: **Satisfactory**

The Banks performance in ensuring quality at entry was *Satisfactory*. Global expertise and lessons learned were tapped in order to design the project and best practice in the area of HIV prevention was applied to the Indian context. Key sector issues and risks were identified and steps were taken to mitigate them. The QER Panel supported the approach taken by the project, in particular:

Technical Issues: The technical approach taken by the project, to target interventions to groups whose practices put them at high risk of infection, was based on globally accepted best practice; as well as rigorous economic analysis. Public financing of the project was justified due to the 'public good' nature of HIV prevention activities, the positive externalities associated with treating STI and TB, and the disproportionate vulnerability of the poor and marginalized to HIV infection. In addition, a decision was made to include some broader complementary components, aimed at the general population.

Institutional Arrangements: The institutional arrangements were clear and adequate. It was decided that state-level Societies would be used for project implementation based on the successful experience in Tamil Nadu. The PAD recorded that, at Negotiations, all but two states had formed Societies and that staffing at national and state levels, including of PDs, had begun. State PIPs for priority states were complete, and the national level PIP had also been furnished to the Bank. Based on comments received from the QER, the team also documented GOIs efforts to develop an overall framework, identifying strategic areas of financing by different funding partners and the part to be played by IDA financing.

The preparation process was highly participatory, with the Bank providing technical assistance to GOI through Technical Liaison Officers (TLOs), both senior officials with experience in HIV

prevention and control. Teams headed by the TLOs and comprising other experts in the field and World Bank consultants held workshops in each of the large states and priority states in the North East to prepare state-level PIPs that were responsive to the needs of individual states. Procurement documents for first year activities were completed and technical bid evaluation of the short-listed procurement agencies was also completed.

(b) Quality of Supervision

Rating: **Moderately Satisfactory**

Supervision performance is rated *Moderately Satisfactory* for the following reasons: (i) High turnover of Task Team Leaders (TTLs); six from preparation through the end of the project, causing disruptions in dialogue with the government. (ii) The mid-term review (MTR) was inordinately delayed, which was an important opportunity lost in providing timely feed-back and support to the government and to undertake project restructuring if necessary. The MTR composition was the right one in identifying problems and solutions and having the right team composition vis a vis the key issues (See 7.2). The project was then four years into implementation with only one year left before Project Closing. Disbursement was at only 55%; with two problem flags against the project. The reasons given for the delay were scheduling difficulties and frequent informal interaction between the TTL and PD, NACO for troubleshooting and resolving day-to-day issues. (iii) Concerns were expressed regarding the justification for the Family Health Awareness Campaign. There was a considerable cost implication to these campaigns **Error! Hyperlink reference not valid.**; however, the results and contributions of these campaigns to the development objective of the project were not assessed, and action was not taken by Bank to halt or strengthen the campaigns, which were held regularly for several years. (iv) The monitoring framework was not adequately managed and updated. As of May 2005, however, a different set of indicators has been reported on. With the introduction of ISRs, the task team was advised to report on relevant indicators already being collected by NACO, through the CMIS.

The Bank regularly provided on-going supervision focused on the implementation of TIs and capacity building issues that were important to scaling-up effective interventions. The Bank team was proactive in several areas: (i) it engaged GOI in policy dialogue which eventually resulted in the budgetary cap to allocations to NACO being re-considered and revised; (ii) consultations were held with women's groups that were initially opposed to SW interventions, and agreement on the parameters was reached with them so that the program could continue; and (iii) technical assistance was provided to clarify the debate on the total number of HIV+ people in the country as well as number of AIDS deaths. This was important since the debate on numbers was detracting focus from important implementation issues. For a long period, supervision was shifted from HQ to the New Delhi Office, resulting in more regular interaction between the Bank and Borrower and enabling day-to-day problem solving. Aide Memoirs and PSRs were detailed and documented progress on DOs and implementation comprehensively. Bank-supported AAA was carried out to assist GOI to fine-tune program priorities, such as on the cost-effectiveness of drug therapy. Management generally supported actions recommended by the supervision team, and provided thoughtful comments in the PSR.

Error! Hyperlink reference not valid. Letter from Peter Heywood, Principal Health Specialist, SASHP to Mr. J. V. R. Prasada Rao, Additional Secretary and Project Director (NACO) dated September 13, 1999.

(c) Justification of Rating for Overall Bank Performance

Rating: **Satisfactory**

The Bank team was able to focus the program on the development outcomes and their proxies through best practices addressing the epidemic. This focus is now well internalized into the system, and will be further strengthened in NACP3. Supervision focused on implementation progress of effective interventions, the most important objective of NACP 2. The Bank team also facilitated the shift towards a programmatic multi-sector approach to HIV and the “Three Ones” , ensuring smooth transition arrangements after credit closing and into the third phase of the national program

10.2 Borrower

(a) Government Performance

Rating: **Moderately Satisfactory**

Government commitment to the overall program was expressed in the National Policy Letter[1]; however, this was not reflected in adequate allocations made to the program. An important reason for slow disbursements under the project was due to low allocations made towards HIV control activities. The mid-term review notes that while the amount of donor funds (under the Bank projects and bilateral agreements) available for HIV has increased over time, the HIV budget level has not increased relative to increased funding assistance. As a result, NACO and SACS were unable to scale-up the interventions as planned, a major objective of NACP 2 and a core contributory factor to the success of the program in several states.[1] Annex 3, Project Appraisal Document.

(b) Implementing Agency or Agencies Performance

Rating: **Satisfactory**

Implementing Agency Performance

National AIDS Control Organization (NACO)

The overall performance of NACO was *Satisfactory* although performance varied over time, with an initial slow start and two extensions. NACO was able to establish its credibility as an entity capable of managing a large program, attracting and managing a large amount of support from a range of donors. NACO was able to expand its program to include many new elements (such as ART and PPTCT) which had not been envisaged under NACP 2, initiate new programs such as the sentinel surveillance and BSS to enhance the understanding of the epidemic, and keep the program largely on course. During NACP 2 it expanded from a fairly modest program focused on blood safety to one of the largest HIV prevention programs in the world.

NACO was responsible for program implementation at the national level. Due to the nature of the organization, it was not possible for NACO to exercise control of some important aspects of implementation. For example, NACO had no control over the appointment and tenure of officers at the state level, in order to reduce transfers of key officers. Even within NACO, staffing was a continual issue, with several posts remaining vacant for almost the entire duration of the project.

Some functions were outsourced to special agencies, such as procurement, but this arrangement was not smooth and proved to be ineffective. Procurement was delayed throughout the project period and financial management problems had been flagged during implementation. Due to the large number of implementing agencies (SACS and NGOs), there were delays in submission of SOEs, leading to delays in submissions of claims. As a result, the project experienced significant disbursement delays. Progress has been made towards more timely resolutions of implementation constraints, improved fiduciary arrangements and adequate monitoring during the last period of the NACP 2 which has contributed to the overall satisfactory rating at project closing.

State AIDS Control Societies (SACS)

Performance of the SACS ranged widely, but the states with the greatest burden and most urgent needs performed the best – ranging from *Satisfactory to Moderately Satisfactory*. States with high capacity were able to scale-up their programs substantially with evidence to show that this may already have had a positive impact in slowing the epidemic in these states, as discussed previously.[1] Many of the low capacity states were those classified as low prevalence and have not geared up to provide a coherent response. However, overall the SACS have been able to scale up the program substantially and to manage a large number of contracts with NGOs, a relatively new activity for them and an area requiring further attention across all states, as discussed in 8.5.

[1] Rajesh Kumar, Prabhat Jha, Paul Arora, Prem Mony, Prakash Bhatia, Peggy Millson, Neeraj Dhingra, Madhulekha Bhattacharya, Robert S Remis, Nico Nagelkerke, for the International Studies of HIV AND AIDS (ISHA) Investigators. Trends in HIV-1 in young adults in south India from 2000 to 2004: a prevalence study. Lancet; March 30, 2006.

(c) Justification of Rating for Overall Borrower Performance

Rating: **Satisfactory**

The GOI, NACO and the SACS have put in place a comprehensive national program, involving a wide spectrum of stakeholders, to ensure that a coherent response is in place to fight the HIV epidemic. The system needs to be strengthened on many fronts, but a firm basis is in place on which future efforts can be built. The program has been able to garner widespread support among leaders, administrators and civil society; and, as a result, there is a commitment to scale-up efforts at all levels with the objective of reversing the epidemic. The program has adopted evidence based interventions and has been able to increasingly provide for other interventions than prevention, such as treatment, care and support.

11. Lessons Learned

The NACP 2 has provided some important lessons for the next phase of the program, NACP 3, and for HIV prevention and control efforts globally:

1. An important lesson learned from NACP 2 is that the states that were able to show results by scaling up their programs and decrease HIV prevalence demonstrated a combination of **strong political commitment, a programmatic focus on TIs, good management with continuity of trained staff and good surveillance**. In addition, they were adequately resourced with both

technical assistance and financial support.

2. Learning from NACP 2, successful implementation of TIs required identification of high risk groups and coverage gaps through comprehensive micro-site mapping that is repeated periodically since high-risk groups are mobile and dynamically changing populations. Participatory mapping involving community-based organizations has been a best practice. In the next phase (NACP 3) coverage of targeted interventions among MSM, IDUs and SWs and their clients has to be saturated; such a substantial scale-up will require further capacity building of NGOs and CBOs to implement and monitor quality TIs as NACP 2 has shown.

3. The NACP 2 has also highlighted the central role of surveillance. Increasing the number of sites in the southern states provided a strong evidence base; this is required in all states, particularly among highly vulnerable but low prevalence states, and among high-risk groups everywhere. The NACP 2 has also highlighted the problem encountered when there is not a strong program monitoring system in place from the beginning of the project to track a set of indicators consistently throughout the project period. Ensuring that baseline data is available and on record is crucial and project preparation teams need to ensure that the necessary technical assistance as well as time is made available for this purpose.

4. A lesson from decentralized management of finance and procurement by SACS is the need for a full contingent of trained and skilled staff in key posts, such as a NGO Advisor. With plans for expansion of activities under NACP 3, it will be necessary to enhance staffing of SACS, particularly to liaise with, and build capacity of NGOs, and to carry out the program monitoring. Ensuring continuity of staff is equally important, particularly of the PD, as relatively successful SACS have shown. Capacity building of SACS, particularly in low performing states, cannot be emphasized enough. Sensitization of staff to the program is not enough; a program of continuing education needs to be developed to keep staff abreast of the latest technical developments, management issues, and monitoring methodologies and to learn from each other.

5. Several lessons can be drawn from NACP 2 about the central role of partnership with donors, NGOs and CBO, for example, partnering with NGOs with a strong track record of program implementation has helped ensure quality as well as reach. States that have done well, have all had the benefit of technical assistance from partners. While the modalities for providing technical support need to be spelled out, the experience of the states clearly shows that it provides an essential boost to implementation. This is particularly important in poor performing states that are struggling to scale up interventions.

6. The relationship between NGOs and SACS is critical to successful scale-up. Donors need to agree on standard contracts for NGOs and CBOs; and, more information regarding NGO selection criteria and participation in the program needs to be in the public domain to increase transparency in the NGO contracting process. Learning from good performing states, regular visits from NACO and SACS to NGO sites both prior to selection and during implementation need to be built into the contract, and the monitoring forms from NGOs to SACS need to be streamlined. The experience of TNSACS, derived from the USAID-funded APAC system and later incorporated into the design of NACP 2 (described in detail in the NACP 2 PIP) of

contracting, managing and monitoring NGOs, needs to be rigorously applied in NACP 3.

7. The lessons from 5 and 6 - that NGO and CBO partnerships are essential, the program requires inputs from partners to make this work, and more dissemination of learning and technical strengthening is needed as the program expands -- provide a strong argument for a programmatic approach. Another lesson learned from NACP 2 is that the program needs increased multi sector involvement in key areas to address some of the underlying determinants and create an enabling environment -- including a legal framework -- to reduce stigma, increase awareness, educate and increase access and use of prevention and treatment services. The multi sector approach needs to be strategic and selective to focus on mainstreaming HIV prevention interventions in key sectors. Convergence with the RCH program and incorporation in the newly created National Rural Health Mission, where integration with the AIDS program is a stated objective, offer opportunities for synergy and expansion of the health services component of the program that have not yet been captured.

8. Finally, there needs to be continuity of task management at the Bank. Frequent turnover of staff supervising the project risk interrupting the flow of dialogue between the Bank and the Borrower...

12. Comments on Issues Raised by Borrower/Implementing Agencies/Partners

Annex 1. Results Framework Analysis
Project Development Objectives (from Project Appraisal Document)

The two key project objectives were to: (a) reduce the rate of growth of HIV infection in India; and (b) strengthen India's capacity to respond to HIV/AIDS.

Revised Project Development Objectives (as approved by original approving authority)

N/A

(a) PDO Indicator(s)

| Indicator | Baseline Value | Original Target Values (from approval documents) | Formally Revised Target Values | Actual Value Achieved at Completion or Target Years |
|-------------------------------------|--|--|--------------------------------|--|
| Indicator 1 : | Reduce the rate of growth of HIV infections in India. (The reduction in the rate of HIV spread would be reflected in the stabilization of the annual percentage increase of HIV prevalence.) | | | |
| Value (quantitative or Qualitative) | 0.7% | <5% in high prevalence states <3% in low prevalence states | | 0.8% |
| Date achieved | 11/09/1999 | 03/31/2006 | | 12/30/2005 |
| Comments (incl. % achievement) | | | | |
| Indicator 2 : | Strengthen India's capacity to respond to the epidemic. (to be measured by several indicators). | | | |
| Value (quantitative or Qualitative) | Mapping, targeted intervention expansion, expansion of health based services--see outcome indicators. | Mapping in 38 states and territories completed, all SACS functioning with full staffing. | | Mapping in all States completed, 1088 (731 WB funded) targeted interventions, 70% of staff on board. |
| Date achieved | 11/09/1999 | 03/31/2006 | | 03/31/2006 |
| Comments (incl. % achievement) | | | | |

(b) Intermediate Outcome Indicator(s)

| Indicator | Baseline Value | Original Target Values (from approval documents) | Formally Revised Target Values | Actual Value Achieved at Completion or Target |
|-----------|----------------|--|--------------------------------|---|
|-----------|----------------|--|--------------------------------|---|

| | | | | Years |
|--|--|------------|------------|---|
| Indicator 1: | Completion of participatory mapping of groups at high risk. | | | |
| Value (quantitative or Qualitative) | 0 | 38 | | 38 |
| Date achieved | 11/09/1999 | 03/31/2006 | | 03/31/2006 |
| Comments (incl. % achievement) | | | | |
| Indicator 2: | Number of targeted interventions implemented to reach high risk groups. | | | |
| Value (quantitative or Qualitative) | 157 | 1500 | 1432 | 1088 |
| Date achieved | 11/09/1999 | 03/31/2006 | 03/31/2006 | 03/31/2006 |
| Comments (incl. % achievement) | | | | |
| Indicator 3: | Percentage of population aware of HIV/AIDS | | | |
| Value (quantitative or Qualitative) | 76% overall, range 22-99% | 100% | | Urban 89%; Rural 82% (BBC World Service Trust) |
| Date achieved | 07/31/2000 | 03/31/2006 | | 06/30/2005 |
| Comments (incl. % achievement) | | | | |
| Indicator 4: | Number of sites offering Voluntary Counseling and Testing (VCT) | | | |
| Value (quantitative or Qualitative) | 62 | 900 | | 1114 |
| Date achieved | 11/09/1999 | 01/31/2006 | | 03/31/2006 |
| Comments (incl. % achievement) | | | | |
| Indicator 5: | Number of STD clinics established. | | | |
| Value (quantitative or Qualitative) | 504 | 757 | | 922 |
| Date achieved | 11/09/1999 | 03/31/2006 | | 03/31/2006 |
| Comments (incl. % achievement) | | | | |
| Indicator 6: | Number of Prevention of Parent to Child Transmission Centers established | | | |
| Value | 0 | 600 | | 804 |

| | | | | |
|--------------------------------|------------|------------|--|------------|
| (quantitative or Qualitative) | | | | |
| Date achieved | 11/09/1999 | 03/31/2006 | | 03/31/2006 |
| Comments (incl. % achievement) | | | | |

Annex 2. Restructuring (if any)

| Restructuring Date(s) | Board Approved PDO Change | ISR Ratings at Restructuring | | Amount Disbursed at Restructuring in US\$ Millions | Reason for Restructuring & Key Changes Made |
|-----------------------|---------------------------|------------------------------|----|--|---|
| | | DO | IP | | |

Annex 3. Project Costs and Financing

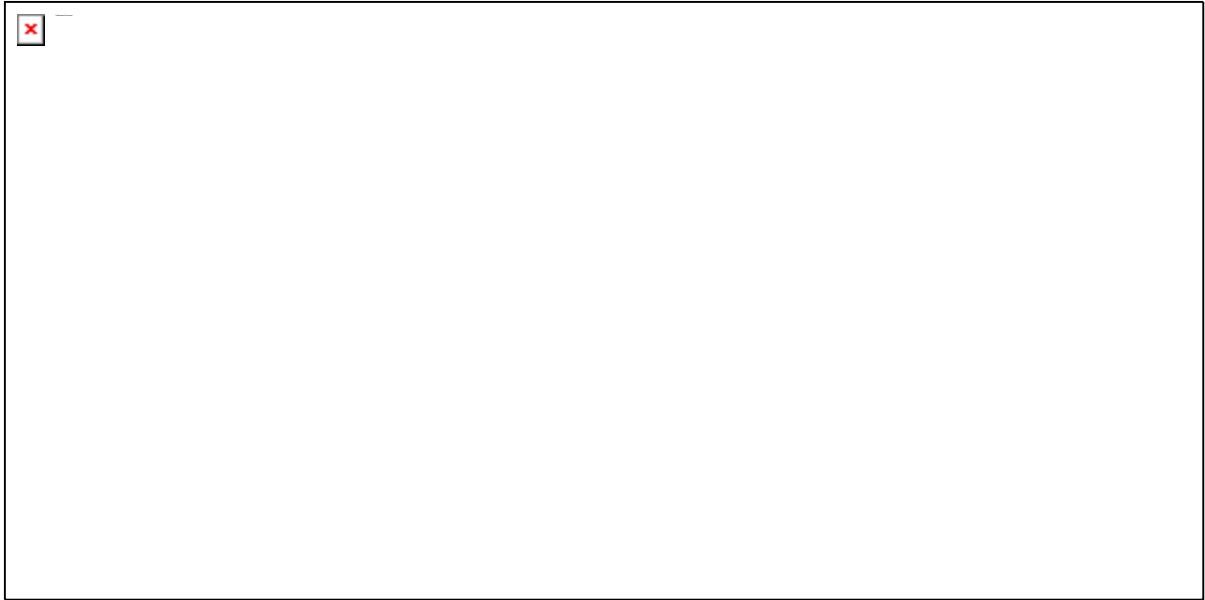
(a) Project Cost by Component (in US\$ Millions equivalent)

| Components | Appraisal Estimate (US\$ Millions) | Actual/Latest Estimate (US\$ Millions) | Percentage of Appraisal |
|---|------------------------------------|--|-------------------------|
| PRIORITY TARGETED INTERVENTIONS FOR GROUPS AT HIGH RISK | 52.8 | 33.5 | 63.4 |
| PREVENTIVE INTERVENTIONS FOR THE GENERAL COMMUNITY | 77.4 | 136.9 | 176.9 |
| LOW-COST AIDS CARE | 32.5 | 10.6 | 32.6 |
| INSTITUTION STRENGTHENING | 57.0 | 49.9 | 87.5 |
| INTERSECTORAL COLLABORATION | 10.1 | 1.6 | 15.8 |
| Total Baseline Cost | 229.8 | 232.5 | |
| Physical Contingencies | 18.6 | 0.0 | 0.0 |
| Price Contingencies | 3.8 | 0.0 | 0.0 |
| Total Project Costs | 252.2 | 232.5 | |
| Project Preparation Facility (PPF) | 0.0 | 0.0 | 0.0 |
| Front-end fee IBRD | 0.0 | 0.0 | 0.0 |
| Total Financing Required | 252.2 | 232.5 | |

(b) Financing

| Source of Funds | Type of Cofinancing | Appraisal Estimate (US\$ Millions) | Actual/Latest Estimate (US\$ Millions) | %age of Appraisal |
|-----------------|---------------------|------------------------------------|--|-------------------|
| BORR | | 38.8 | 0.0 | |
| IDA | | 191.0 | 193.7 | 101.4 |

(c) Disbursement Profile



Annex 4. Outputs by Component

NACP 2 had the following components:

Component 1: Deliver Cost-Effective Interventions against HIV (US\$ 162.7 million; 71% of total project costs) through (i) priority targeted interventions for groups at high risk (US\$52.8 million; 23% of total project costs); (ii) preventive interventions for the general community (US\$77.4 million; 34% of total project cost); and (iii) low-cost AIDS care (US\$32.5 million; 14% of total project cost).

Component 2: Strengthen Capacity (US\$ 67.1 million; 29% of total project cost) through (i) institutional strengthening (US\$57 million; 25% of total project cost) and (ii) inter-sectoral collaboration (10.1 million; 4% of total project cost).

The overall rating for Implementation Progress is *Satisfactory*. The rating is based on the following achievements:

Component 1: Deliver Cost-Effective Interventions against HIV

Component 1: Sub-component 1. Priority targeted interventions for groups at high-risk: This component comprised three activities: (i) targeted interventions to high-risk populations; (ii) STI treatment; and (iii) condom promotion. Progress on these activities is as follows:

Targeted Interventions (TI) were the key strategy implemented under NACP 2. TIs were intended to deliver a complete package of prevention services to high-risk groups, including SWs, MSM, IDUs and bridge populations including truckers, migrant labor and street children. The package included: (i) Behavior Change Communication (BCC), (ii) condom promotion through free distribution and social marketing, and, (iii) treatment of Sexually Transmitted/Reproductive Tract Infections (STI/RTI).

The first step was to map all high-risk groups. This was done in all states, micro-site maps were drawn and estimates were validated through national consultations. Each NGO implementing a TI completed a baseline assessment of the high-risk population in their area. The mapping was able to provide reasonably estimates on the number and location of SWs, IDUs and MSMs. Although progress was made, the expected coverage of 80% was not achieved (Table A) due to administrative problems in several states in contracting enough TI and to the limitations in the capacity of those NGOs. The estimated coverage of TI of different high-risk groups ranges from 6% to 46% (Table A).

Table A: Estimated size and Coverage of High Risk Groups by NACO*

| SR.NO | HIGH RISK GROUPS | ESTIMATED SIZE** | ESTIMATED*** COVERAGE | % COVERAGE |
|-------|------------------|------------------|-----------------------|------------|
| | | | | |

| | | | | |
|---|------------------|----------------------|----------|------------|
| 1 | Sex Workers | 8,31,677 - 12,50,115 | 4,44,186 | 35% to 45% |
| 2 | IDUs | 96,463 1,89,729 | 88,194 | 46% |
| 3 | MSM | 23,52,113 | 1,26,883 | 6.0% |
| 4 | Male sex workers | 2,35,213 | | |

* Data does not include coverage of HRGs by Agencies like Bill and Melinda Gates Foundation, ICHAAP, etc. **Source- Mapping of HRGs conducted by SACS*** Source- Consolidated CMIS reports December 2005

Despite the challenges, there has been a steady rise in the numbers of TIs over the past 5 years, with more than half of TI projects located in the high prevalence states of Andhra Pradesh, Maharashtra, Tamil Nadu, Karnataka, Manipur and Nagaland:

FIGURE TO BE INSERTED

Source: Data from NACO CMIS

Capacity Building of the NGOs: A number of trainers and institutions have been identified to impart managerial and technical training of NGOs. Training included visits to successful TI projects. Seven regional workshops were conducted to assist the NGOs to improve the quality of the interventions. In addition, NACO has identified seven Regional Research and Training Centers of the Ministry of Social Justice and Empowerment (MSJE) to continually enhance the capacity of the NGOs. DFID assisted the program by establishing a Resource Center for Sexual Health and HIV in New Delhi. However, a lot more needs to be done, since the quality of TI is variable (no systematic evaluation has, however, been conducted). Partners such as DfiD and USAID provided technical support in their focus states, however, such technical assistance has not been available to all states, and the quality of TI has suffered as a result.

Monitoring Systems: NACO developed a CMIS (Computerized Management Information System), and data on TI are being monitored on a monthly basis. To guide the process, there are Central and State Level Technical Advisory Committees. Partnership Forums of NGOs have been formed in several states to assist SACS in participatory monitoring.

Since STI and HIV are linked behaviorally and epidemiologically, STI treatment is an important part of the program. Quality STI services and condom promotion were used as the entry point for prevention programs among vulnerable communities. STI services were provided as follows under NACP 2:

STI Clinics: NACO supported the establishment of STI Clinics up to district level hospitals. At present, there is at least one STI Clinic functioning in each district hospital in the country except at 11 newly formed districts, since no District Hospital has been established there yet. Despite this expansion, only a small proportion of the total estimated number of STI is being treated at these clinics; it is important to develop strategies to partner with the private sector to ensure better quality of care, reporting,

referral and follow-up of patients.

STI Services through Private Sector: Due to perceived lack of privacy, confidentiality and associated stigma in seeking treatment from the public sector health facilities, most STI patients seek management of STI from the private sector. NACO has focused on enhancing STI services through private practitioners and SACs have organized training of private health providers, including doctors, nurses and paramedics.

Collaboration between NACP with RCH II: Since both the RCH and NACP cover persons within the sexually active age group (15-49) and the presence of STI/RTI enhances the risks of contacting HIV, convergence of NACP with RCH program has been attempted. Based on the recommendations of the Task Force set up for convergence of NACP and RCH programs, the STI program, so far limited up to the district level, has been extended down to the primary care level. The package of HIV related services including STI services have been expanded up to the Community Health Center and Primary Health Center with the help of available manpower and infrastructure under the RCH program with additional support from NACP. The additional support is in terms of providing training, laboratory testing logistics, counseling and monitoring.

Since the inception of NACP, public provisioning and promotion of condoms has been done through the Department of Family Welfare. There are currently over six manufacturers with a combined capacity of over 2.5 billion condoms per annum. Condoms are being distributed through free distribution (main channel) and social marketing. Significant progress has been made on improving the quality of condoms, with each batch tested by the manufacturer and in public laboratories. Condom distribution figures have increased substantially from 128 million pieces in 2002-03 to 394.78 million pieces in 2005-06, which includes 325.87 million pieces under the Free Distribution Scheme and 68.90 million pieces under Social Marketing Scheme.

Component 1: Sub-component 2. Preventive interventions for the general community: Activities under this sub-component include: (i) IEC; (ii) voluntary counseling and testing; and (iii) blood safety. Progress on these activities is as follows:

(i) The IEC targets set for NACP 2 were: (i) to attain awareness of HIV among at least 90% of youth and others in the reproductive age group; and (ii) to achieve condom use of 90% among high risk categories like SWs. In order to accomplish this, the IEC framework adopted a comprehensive approach stressing awareness generation on the known routes of transmission, increasing condom usage, provision of information regarding services like VCTC, PPTCT, ART, building a positive environment for PLWHA, and dispelling stigma and discrimination. The IEC strategy was implemented at two levels: the national level was responsible for designing policy and strategy, framing guidelines for IEC activities for states and monitoring IEC activities undertaken by SACs; the state level was responsible for the actual implementation of the strategy, including conducting a Communication Needs Assessment (CNA), designing a state-specific IEC strategy, responding to local priorities and communication in local languages. Major IEC activities included developing source books on IEC/BCC,

producing quality TV spots in collaboration with BBC World Trust as well as infotainment serials.

The impact of the IEC activities has been measured by a recent study conducted by BBC World Service Trust (2005) in 17 states amongst 22,800 respondents, and shows the following change in knowledge, attitudes and practice:

| Awareness | BBC WST KAP 2005 (%) | | BSS 2001 (%) | |
|---|----------------------|-------|--------------|-------|
| | Urban | Rural | Urban | Rural |
| Heard of HIV AND AIDS | 75/89 | 64/82 | 89 | 72 |
| Protection by use of condom | 73 | 63 | 73 | 54 |
| Protection by having one faithful partner | 80 | 71 | 68 | 54 |

It is difficult to give a national figure for HIV awareness, since states use various definitions for awareness. The BBC WST KAP survey 2005 showed that 89% of the urban population had heard of HIV while the percentage was 82% for the rural population.

(ii) Voluntary Counseling and Testing Centers (VCTCs) were set up under NACP 2. The functions of these centers were to:

- Increase peoples access to knowledge and understanding of HIV status on a voluntary basis
- Facilitate early uptake of services for HIV positive and negative people
- Provide tools for adoption of safe behavior
- Increase awareness & information in communities
- Reduce stigma and discrimination

The first VCTC was started in 2000 in Delhi and there are currently 1,114 VCTCs working across all states. This exceeds the project goal of 900. Of the 603 districts in the country, 576 districts have a VCTC. Between January 2003 and December 2005, 1,662,245 clients were counseled at VCTCs, and of them 236,498 tested positive (2.2%). However, utilization of services (client/day) has not been optimal. In 2003, around 30% of clients were voluntary walk-in clients and 70% were referred from within the hospital setting, mainly for pre-operative screening. With less than half a million people tested per year convergence with other programs seems justified. Convergence would also allow for VCTC to become available at PHC level facilities.

Performance of VCTCs

| | 2003 | 2004 | 2005 |
|--|----------|----------|----------|
| No of persons tested for HIV AND AIDS at VCTC during the period | 7,85,658 | 4,38,014 | 4,38,573 |
| No. of persons testing sero- positive after undergoing the 3 specified tests | 1,13,392 | 61,532 | 61,574 |

| | | | |
|---|----------|----------|----------|
| % of persons testing sero-positive after undergoing the 3 specified tests | 14.51% | 14.06% | 11.93% |
| No of women tested (VCTC & PPTCT) | 6,73,022 | 7,85,658 | 4,38,573 |
| No of women found positive | 90,155 | 1,12,538 | 61,574 |

(iii) Ensuring blood safety was an important part of NACP 1. Under NACP 2, NACO supported the installation of 42 additional Blood Component Separation Units; and modernization of all major blood banks at state and district levels. 255 major blood banks, 835 district level blood banks have been modernized and seven state of the art blood banks were established in identified under-served areas. NACO also focused on enhancing awareness of the need to access safe blood and blood products; and procured equipment, test kits and reagents for the blood banks. New programs have been introduced, such as the accreditation of blood banks, External Quality Assessment Scheme (EQAS) for HIV testing, workshops on Appropriate clinical use of blood for clinicians and Quality Management Program in Blood Transfusion Services and Promotion of Voluntary Non-Remunerated Blood Donation. Government of India adopted a National Blood policy formulated by NACO in April 2002. Subsequently, an Action Plan on Blood Safety has been finalized and adopted.

In line with a Supreme Court judgment (1992), National and State Blood Transfusion Councils were registered as societies in 1996, and supported by NACO. At state levels, these councils maintain oversight over voluntary blood donation and the appropriate clinical use of blood, training and manpower development, and supervision of blood transfusion services.

Although there has been a gradual increase in voluntary blood donation; it remains less than 50% of all blood required in many states. The proportion of blood units collected through voluntary blood donations throughout the country in 2004 was 52.2% and 53.4% for 2005. Some states like West Bengal (86.3%), Maharashtra (84.6%), Tamil Nadu (72.7%), Chandigarh (72.3%), Gujarat (65%) and Himachal Pradesh (63.3%) have done reasonably well by comparison. In some of these states, SACS have undertaken activities with NGOs to promote public awareness of the need for blood donation.

Component 1: Sub-component 3. Low-cost AIDS care: The level of provision of treatment for opportunistic infections (OI) remains far lower than the original target. Reportedly, many HIV-positive patients seek care for OI in general out-patient clinics and go unrecorded.

UNICEF provides support for Prevention of Parent to Child transmission (PPTCT), along with funding from the GFATM-Round II. The program has been implemented since May 2005 for a period of five years. The program plans to establish 444 PPTCT centers by the end of the project. The PPTCT package consists of (i) increasing awareness of HIV risk factors; (ii) IEC; (iii) condom promotion; (iv) nutritional counseling, including breastfeeding; and (v) management and treatment of STI. In addition, HIV counseling/testing, NVP prophylaxis and ART is given to women, their

partners and children free of cost. However, data for 2003-2005 show that only about half of the HIV-positive women and their babies are given Nevirapine at the time of delivery. The figure might be explained by the fact that many women deliver at home or in a private clinic.

Other care and support components include: (a) post-exposure prophylaxis (PEP) drugs have been provided to all States; (b) 85 community care centers established and run by NGOs; (c) an ART program which is being rolled out, albeit slowly; and (d) 70 drop-in centers established in high prevalence States.

Component 2: Strengthen Capacity

Component 2: Sub-component 1. Institutional strengthening. This component includes: (i) establishment of State AIDS Control Societies in all states; (ii) strengthening leadership capacity at NACO; (iii) improve surveillance; (iv) conduct training; (v) build capacity for monitoring; and (vi) increase capacity for research. Progress on these activities is as follows:

(i) State AIDS Control Societies (SACS) have been established in all states; however, their performance has been variable between states. The presence of the SACS has increased ownership and accountability of the program at the state level, but there are several management issues of concern in the functioning of the SACS. SACS often have a vacancy rate of 20% or higher. There is also high turnover of key staff, particularly the PD. There were also considerable vacancies at NACO. The position of Joint Director IEC was recently filled. The design of NACP 3 will require a thorough review of the skills and staffing requirements and the need for institutional and systems strengthening at NACO and SACS.

(ii) NACO: While NACO has increasingly taken on a leadership role there are still issues that have not yet been fully addressed. The role of NACO in supervision and quality control of the program needs to be strengthened considerably. Although all SACS are in place, not all have the capacity to run an efficient program. NACO needs to provide continual follow-up and support in such cases, so as to upgrade the capacity of the SACS to implement the program.

(iii) Expansion and improvement of the surveillance system has been achieved by increasing the number of sites from 180 in 1998 to around 750 sites, including antenatal clinics, STI clinics, and sites of TI and several TB clinics. HIV data will also be obtained from army recruits, while the DHS 2006 will include taking blood samples, thus providing household data on HIV prevalence for men and women of reproductive age. Routine testing for HIV in lab samples is under consideration. Estimates of the number of HIV positive people in India are now around 5.7 million, which will mean a dramatic increase in the coming years of people living with AIDS. An assessment of the present surveillance system and strengthening requirements will be carried out during preparation for NACP 3.

One of the challenges faced by the surveillance system is of how representative the sites are of the most-at-risk population (FSW, MSM and IDU) and other populations. The expert committee established by NACO on surveillance and estimation of prevalence, under the Chairmanship of the Director General, Indian Council of Medical Research, has recommended that more sites for most-at-risk population groups across the country need to be established. The number of sites will be increased, with an additional 435 sentinel sites proposed among the most at-risk groups.

Behavior Sentinel Surveillance (BSS) was conducted in 2001 to collect baseline data on knowledge of HIV and risk behavior among core risk groups and general populations. The end line BSS is to be initiated shortly. In addition, Tamil Nadu, Kerala, Andhra Pradesh, West Bengal, Gujarat, Maharashtra and Orissa have conducted mid-line BSS.

(iv) Training was to be provided to all health care providers under NACP 2. Orientation training was provided to all categories of health workers; while specialized training was provided to Laboratory Technicians and those handling ART, counseling, and PPTCT. NACO issued guidelines for conducting the training based on financial norms. SACS have been organizing the training courses through mobiles training teams after completing training of the trainers.

State Health Administration has been given responsibility and authority to organize training programs based on an action plan. The strategy consists of Training of the Core Trainers to develop a pool of resource persons at state and district level for various categories of trainees. SACS report quarterly to NACO on the type of training, category of manpower trained etc. The target for training during 2005-06 was to train 100,000 staff. The number of staff trained during 2005-06 (through December 2005) was 88,954 (88.9%) with 780,000 people trained in total from 2000 through December 2005.

(v) Monitoring and Evaluation: Concurrent M&E was designed for NACP 2. As part of the Three Ones, it is planned that a Nationwide Strategic Information Management System (SIMS) (including monitoring and evaluation) will be implemented under NACP 3. In addition, the M&E mechanism undertook several activities in accordance with the PIP: (i) trained NACO staff and health specialists in evidence based health program management: Five regional workshop conducted during 2003-2004 for Project Directors and M&E in-charge of all SACS/MACS for Evidence Based Management Program, (ii) conducted baseline, midterm and final evaluation, (iii) conduct the Annual Performance Review (APER), and (iv) conducted the National Performance Review (NPR) under National AIDS Control Board.

(vi) Research: NACP 2 designed a network of 12 Technical Resource Groups (TRGs) composed of experts from across the country to conduct research and analysis on key areas of interest. These TRGs were not made operational due to disagreements on the most effective way of deploying their expertise. In the absence of the TRGs, there was not consistent technical assistance to the states on developing, refining and scaling up technical paradigms or to improve their knowledge base. States with external assistance from various donor agencies (notably DfID and USAID) have been fortunate in receiving

technical assistance through those agencies. It is vital that all states have access to such expertise in order to improve the quality and content of programming. Some independent research initiatives were taken up under NACP 2 including HIV vaccine research in collaboration with IAVI, and research into microbicides. There are another 13 NACO supported biomedical and socio-behavioral research studies.

Component 2: Sub-component 2. Inter-sectoral collaboration. During NACP 2, the program was successful in developing strong links with the Department of Education, Ministry of Human Resource Development and with school AIDS programs run by the Department, in place in all States. The program also developed significant links with the Ministry of Home Affairs and initiated programs with the Ministry of Surface Transport in the railways, Ministry of Labor with the Employees State Insurance and Ministry of Tourism. An inter-ministerial committee was formed under the chairmanship of the Minister of Human Resources, involving ministries such as Railways, Labor, Steel, Social Justice and Empowerment, Defense, Youth Affairs, Home Affairs etc. The Government also constituted a National Council on AIDS (NCA) with the Prime Minister as the chairman. This council comprises 31 Ministers, seven Chief Ministers from three different categories of states and 15 representatives from civil society. The objective of the council is to mainstream HIV in all Ministries and Departments, to implement a multi-sectoral response to HIV with a special focus on youth and the work force and review inter-sectoral commitment. The council will meet once a year to review progress on the multi-sectoral response/mainstreaming process and partnerships. The first meeting was in February 2006, when they endorsed the HIV plans for 26 Ministries, approved the strategies proposed to scale-up the media efforts and the strategies to involve the corporate sector, faith based organizations and NGOs. To intensify the mainstreaming efforts further, the Prime Minister has constituted a sub-committee comprising of 18 Ministers/Ministries, which will meet from time to time.

Annex 5. Economic and Financial Analysis (including assumptions in the analysis)

Cost-benefit and cost-effectiveness analyses were undertaken during project preparation. The direct costs of the project over the period 1999-2004 were estimated at US\$ 189 million (total investment cost of the project was US\$ 230 million), given the expected disbursement profile, and discounted at 8% per year. The direct benefits were estimated based on the reduction in HIV infections, and consequent reduction in treatment costs and avoidable deaths.

Based on a dynamic computer model prepared for the project, it was estimated that there would be an additional 4.2 million HIV infections in the period 1999-2004 in the absence of the project; project interventions, even if only 50% successful, were expected to reduce this number to 3.7 million i.e. 564,000 infections would be averted due to the project. Given this, the direct costs averted within the public sector due to the project yielded a benefit cost ratio of 1.03:1. If the private sector was included, total direct costs averted during the period 1999-2004 were estimated as having a NPV of US\$512 million, yielding a benefit-cost ratio of 2.79:1. If the indirect costs of foregone wages and costs of treatment were to be included, or if the timeframe were extended beyond the immediate project period, the benefit-cost ratio would rise even further.

Due to the absence of reliable baseline figures, projections of the course the HIV epidemic might take in India were difficult, and the above calculation was based on the following assumptions:

- Annual contacts of clients with SWs is 50 (approximately one per week), with about 20 % of men seeking SW services at any one time;
- 67 % of SW client contacts were unprotected by condoms, with a female to male risk of acquiring HIV of 0.002;
- On average, an HIV infected individual would infect less than one partner;
- Two million SWs, two million infected clients and one million infected non-SW or non-clients;

In fact, the total number of infections went up from 3.86 million in 2000 to 5.21 million in 2005 an increase of 1.35 million[1]; this is well below the with- and without-project scenarios that had been predicted during project preparation. Unfortunately, due to the absence of a control group, it is not possible to estimate the number of infections averted; and thereby calculate the actual benefit-cost ratio of the project.

Economic justification for the project was also based on the limited involvement of the private sector and market failure in this regard. Due to the public good nature of preventive interventions against HIV, and the marginalized groups affected, there was very limited incentive for the private sector to get involved. This necessitated a largely public sector response; more so since the stigma attached to being perceived as an AIDS clinic would cause the private sector to offload their patients onto the public system. Equity concerns also argued for a public response: a beneficiary survey undertaken

during project preparation indicated that the average income of AIDS patients was about \$45 per month, and average duration of education was only five years.

The cost-effectiveness of six major project interventions was also estimated; assumptions were made in these calculations based on knowledge of such interventions implemented in India and internationally. The results are summarized in the table below[2]:

Summary of cost-effectiveness analysis

| | HIV infections averted after 5 years | Infant HIV averted after 5 years | Program cost over 5 years | Cost per HIV infection averted | Cost per DALY saved | HIV prevalence after 5 years |
|--------------------------------|--------------------------------------|----------------------------------|---------------------------|--------------------------------|---------------------|------------------------------|
| Sex worker intervention | 5,610,000 | 160,000 | \$298,560,000 | \$53 | \$2.66 | 0.8% |
| STI management | 3,230,000 | 90,000 | \$780,000,000 | \$47 | \$2.35 | 1.1% |
| High risk men | 5,610,000 | 160,000 | \$1,887,000,000 | \$308 | \$15.42 | 0.8% |
| VCTC | 3,520,000 | 110,000 | \$782,631,570 | \$199 | \$9.96 | 1.0% |
| Youth interventions | 3,520,000 | 110,000 | \$5,203,687,500 | \$1,324 | \$66.20 | 1.0% |
| MCTC | 350,000 | 350,000 | \$898,800,000 | \$2,568 | \$128.40 | 1.5% |

The interventions emphasized by the project sex worker interventions, STI management, high-risk men and VCTCs were the most cost-effective. Although MCTC is less cost-effective than intervening upstream in the infection chain, with the availability of new technologies as well as funding sources for this program, NACO did take up a large-scale MCTC intervention. Here again, it is not possible to estimate the number of HIV infections averted by any particular intervention with the available data. However, estimates are available of HIV prevalence in various sub-populations, that could be compared to predicted figures above:

% HIV infection in various sub-populations

| | 2000 | 2001 | 2002 | 2003 | 2004 |
|--------------------------------------|------|------|------|------|------|
| Clients attending STI clinics | 1.44 | 1.37 | 1.44 | 1.49 | 1.33 |
| Women attending ANC clinics | 1.75 | 1.91 | 2.36 | 3.48 | 3.60 |
| Injecting drug users | 0.04 | 0.03 | 0.03 | 0.01 | 0.01 |
| Female sex workers | | | | 0.07 | 0.14 |

As can be seen, prevalence amongst STI clinic attendees was at 1.33% at the end of five years of intervention, close to the 1.1% predicted by the analysis; amongst FSWs, it was

0.14%, much lower than the 0.8% predicted.

[1] HIV/AIDS Epidemiological Surveillance and Estimation Report for 2005; NACO; April 2006.

[2] Annex 5, Table 1; Project Appraisal Document, NACP 2.

Annex 6. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team members

| Names | Title | Unit | Responsibility/Specialty |
|------------------------------|--------------------------------|-------|--------------------------|
| Lending | | | |
| Anuschka Alvarez von Gustedt | Operations Analyst | SASHP | |
| Ayda Aysun Yurekli | Consultant | ECSHD | |
| Dean T. Jamison | Consultant | WBIHD | Health Economist |
| Gertrude Cooper | Program Assistant | SASHD | Assistant |
| Hiroko Imamura | Sr Counsel | LEGMS | Lawyer |
| Ian T. Anderson | Sr Economist | SASHP | Economist |
| Jane Mukira | Program Assistant | SASHD | Assistant |
| Julie Mittman | Consultant | LCSES | |
| Kathleen Finn | Consultant | AFTH2 | |
| Laura M. Kiang | Operations Officer | SASHD | Operations |
| M. Kent Ranson | Consultant | SASHD | Public Health |
| Maj-Lis A. Voss | Consultant | HDNSP | Operations |
| Mam Chand | Sr Procurement Spec. | SARPS | Procurement |
| Prabhat K. Jha | Consultant | LCSHH | Task Team Leader |
| Rajat Narula | Senior Finance Officer | LOAG2 | Financial Management |
| Ramendra N. Basu | Private Sector Development Spe | PSDKM | |
| Salim J. Habayeb | Lead Public Health Specialist | LCSHH | Public Health |
| Shreelata Rao-Seshadri | Consultant | SASHD | Social Development |
| Son Nam Nguyen | Health Specialist | AFTH1 | |
| Tawhid Nawaz | Operations Adviser | HDNOP | Economist |
| William B. Marke | Division Manager | LOAG2 | Financial Management |
| Supervision/ICR | | | |
| Asha Bhagat | Consultant | SARFM | |
| Bernhard Schwartlander | Adviser | AFTHV | M&E |
| Cornelis P. Kostermans | Lead Public Health Specialist | SASHD | Task Team Leader |
| Hnin Hnin Pyne | Sr Operations Off. | WBIRC | Public Health |
| Isabel Noguera Zambrano | Consultant | LCSHH | |
| K. Sudhakar | Sr Health Spec. | SASHD | Task Team Leader |
| Kelechi O. Ohiri | Young Professional | YPP | Public Health |

| | | | |
|----------------------|------------------------------------|-------|--------------------------|
| Mam Chand | Sr Procurement Spec. | SARPS | Procurement |
| Mariam Claeson | Program Coordinator | SASHD | |
| Meera Priyadarshi | Sr Nutrition Spec. | SASHD | Nutrition |
| Mohan Gopalakrishnan | Sr Financial Management Specia | SARFM | Financial Management |
| Manoj Jain | Sr Financial Management Specialist | SARFM | Financial Management |
| Nina Anand | Program Assistant | SASHD | Assistant |
| Om Prakash | Consultant | SARPS | Procurement |
| Peter F. Heywood | Consultant | EASHD | Public Health |
| Roselind R. Hari | Team Assistant | SASHD | Assistant |
| Ruma Tavorath | Environmental Spec. | SASES | Environmental Safeguards |
| Salim J. Habayeb | Lead Public Health Specialist | LCSHH | Public Health |
| Sandra Rosenhouse | Sr Public Health Spec | SASHD | Task Team Leader |
| Suneeta Singh | Sr Public Health Spec. | SASHD | Task Team Leader |

(b) Ratings of Project Performance in ISRs

| No. | Date ISR Archived | IP | DO | Actual Disbursements (US\$ Millions) |
|-----|-------------------|--------------|--------------|--------------------------------------|
| 1 | 09/21/1999 | Satisfactory | Satisfactory | 0.00 |
| 2 | 12/27/1999 | Satisfactory | Satisfactory | 0.00 |
| 3 | 03/31/2000 | Satisfactory | Satisfactory | 5.00 |
| 4 | 11/23/2000 | Satisfactory | Satisfactory | 26.03 |
| 5 | 06/25/2001 | Satisfactory | Satisfactory | 41.36 |
| 6 | 12/20/2001 | Satisfactory | Satisfactory | 52.31 |
| 7 | 06/27/2002 | Satisfactory | Satisfactory | 79.05 |
| 8 | 12/26/2002 | Satisfactory | Satisfactory | 86.15 |
| 9 | 06/28/2003 | Satisfactory | Satisfactory | 100.15 |
| 10 | 12/01/2003 | Satisfactory | Satisfactory | 111.19 |
| 11 | 06/04/2004 | | Satisfactory | 134.31 |

| | | | | |
|----|------------|--------------|-------------------------|--------|
| | | Satisfactory | | |
| 12 | 12/08/2004 | Satisfactory | Satisfactory | 141.20 |
| 13 | 05/19/2005 | Satisfactory | Satisfactory | 158.01 |
| 14 | 10/24/2005 | Satisfactory | Satisfactory | 178.79 |
| 15 | 04/10/2006 | Satisfactory | Moderately Satisfactory | 193.07 |

(c) Staff Time and Cost

| Stage of Project Cycle | Staff Time and Cost (Bank Budget Only) | |
|------------------------|--|--|
| | No. of staff weeks | USD Thousands (including travel and consultant costs) |
| Lending | | |
| FY00 | | 1.43 |
| FY01 | | 0.00 |
| FY02 | | 0.00 |
| FY03 | | 0.00 |
| FY04 | | 0.00 |
| FY05 | | 0.00 |
| FY06 | | -0.05 |
| FY07 | | 0.00 |
| Total: | | 1.38 |
| Supervision/ICR | | |
| FY00 | | 164.44 |
| FY01 | | 81.79 |
| FY02 | | 55.11 |
| FY03 | | 84.41 |
| FY04 | | 147.20 |
| FY05 | | 139.18 |
| FY06 | | 155.41 |
| FY07 | | 1.40 |
| Total: | | 828.94 |

Annex 7. Detailed Ratings of Bank and Borrower Performance

| Bank | Ratings | Borrower | Ratings |
|----------------------------------|-------------------------|--------------------------------------|-------------------------|
| Ensuring Quality at Entry: | Satisfactory | Government: | Moderately Satisfactory |
| Quality of Supervision: | Moderately Satisfactory | Implementing Agency/Agencies: | Satisfactory |
| Overall Bank Performance: | Satisfactory | Overall Borrower Performance: | Satisfactory |

Annex 8. Beneficiary Survey Results (if any)

N/A

Annex 9. Stakeholder Workshop Report and Results (if any)

N/A

Annex 10. Summary of Borrower's ICR and/or Comments on Draft ICR

Major factors affecting the project:

Progress was slow in the initial years because of issues of managerial and absorptive capacity. The number of states able to adhere to the program requirements and perform increased during the project period. States like Uttar Pradesh, Madhya Pradesh, etc. continue to be a cause of concern and will need prolonged handholding. Continuing high turnover of state level Project Directors in some important states resulted in limited continuity and variability in performance across States. Capacity of NGOs and their lack of availability in some of the states limited the expansion of the Targeted Interventions especially in Northern States.

Multiplicity of external donor agencies brings in expertise but also comes with transaction cost arising out of different mandate and requirements, as well as areas of focus. Harmonizing the resources available continues to be a challenge. The original projects in TIs have been handed over to agencies like DFID, BMGF, etc. which may lead to believe that the performance under the sector is not up to the mark.

Key Lessons Learnt

There are a number of lessons, which need to be taken into consideration while designing the next phase of the Programme:

Program Design and Management

- The need for greater ownership of the program at the State level which can reduce the frequent changes in the senior programme managers levels and also reduce the vacant positions in the SACS.
- The need for strengthening of managerial and technical capacities of low performing SACS to enable them to harness the opportunities available due to decentralization and devolution of powers.
- Development of an appropriate district level structure to enhance scaling up of the program.
- Greater integration with the mainstream health programmes to draw on the synergies and avoid the pitfalls of standalone vertical programmes.

Surveillance

- AIDS mortality and under reporting are issues that deserve more attention as these have a bearing on the sero-surveillance data. This requires careful examination of available methodologies and choice of the best available method suited for the Indian context. Similarly, about 84% of transmission being sexual, it would be necessary to find out how much of this is caused by lower access by women and to what extent this could be due to greater practice of MSM. There are only three sites in the country that conduct sero-surveillance on MSM although this number has now been revised. Until surveillance

- covered all the districts its results could not be representative.
- One of the challenges the surveillance system in India is facing is the representativeness of the sites between most-at-risk population (FSW, MSM and IDU) and the other population. More number of sites for most-at-risk population groups across the country are needed. It is also required to improve the AIDS case and death reporting mechanism in the country using standard case definition.

Targeted Interventions

There was an expansion in the number of Targeted Interventions. The saturation of mapped High Risk Groups (HRG) population is yet to be accomplished.

Differentiation between Targeted Interventions aimed at HRGs and Interventions aimed at Composite Groups may result in dilution of the affects of this important and effective component and the tendency has to be checked.

Interventions on MSM, IDU need to be expanded.

Prevention amongst General Population.

Condom promotion activities to increase coverage needs special emphasis.

Mainstreaming HIV and AIDS activities amongst various stakeholders needs to be scaled up especially amongst Government, youth and civil society organizations.

Banks Performance

The Bank's overall performance was satisfactory. The project design had sufficient inbuilt flexibilities to allow the State level societies to adapt the project to their requirements without going beyond the framework laid down. The supervision missions mounted by the Bank, especially the MTR helped provide the necessary remedial actions and modification of plans. Excellent cooperation existed between the Bank staff and NACO during the implementation of the project. Banks support helped NACO develop the Computerized Project Finance Management System (CPFMS), which contributed towards better program management. Procurement, however, remains a lengthy process and needs streamlining at NACO level.

Overall, the contribution of the Bank was valuable.

Annex 11. Comments of Cofinanciers and Other Partners/Stakeholders

Annex 12. List of Supporting Documents

PAD. Report No: 18918-IN; May 13, 1999

NACP 2 PCD. January 12, 1998

Kumar, Jha et.al. Lancet, March 30, 2006
