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PROJECT PERFORMANCE ASSESSMENT REPORT

INDIA

**NATIONAL AIDS CONTROL PROJECT
(Credit No. 2350)**

July 2, 2003

*Sector and Thematic Evaluation Group
Operations Evaluation Department*

Currency Equivalents (annual averages)

Currency Unit = Rupee

(As of January 19, 2000)

Rupee 43.5	US\$1.00
Rupee 1.0	US\$ 0.02299

Abbreviations and Acronyms

AIDS	Acquired immunodeficiency syndrome
BSS	Behavioral Surveillance Survey
CDC	United States Centers for Disease Control and Prevention
CSW	Commercial sex worker
DfID	Department for International Development (United Kingdom)
GOI	Government of India
GPA	Global Programme on AIDS/WHO
HIV	Human immunodeficiency virus
ICR	Implementation Completion Report
IDU	Intravenous drug user
IEC	Information, education, and communication
MOHFW	Ministry of Health and Family Welfare, GOI
MSM	Men who have sex with men
NACO	National AIDS Control Organization
NACP	National AIDS Control Programme
NFHS	National Family Health Survey
NGO	Nongovernmental organization
OED	Operations Evaluation Department
PIS	Prevention Indicator Survey
PPAR	Project Performance Assessment Report
PWA	Person living with HIV/AIDS
SACC	State AIDS Control Cell
SACS	State AIDS Control Society
TNSACS	Tamil Nadu SACS
STD	Sexually transmitted disease
TRG	Technical Resource Group
USAID	United States Agency for International Development
WHO	World Health Organization

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OED Mission: Enhancing development effectiveness through excellence and independence in evaluation.

About this Report

The Operations Evaluation Department assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank's self-evaluation process and to verify that the Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, OED annually assesses about 25 percent of the Bank's lending operations. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons. The projects, topics, and analytical approaches selected for assessment support larger evaluation studies.

A Project Performance Assessment Report (PPAR) is based on a review of the Implementation Completion Report (a self-evaluation by the responsible Bank department) and fieldwork conducted by OED. To prepare PPARs, OED staff examine project files and other documents, interview operational staff, and in most cases visit the borrowing country for onsite discussions with project staff and beneficiaries. The PPAR thereby seeks to validate and augment the information provided in the ICR, as well as examine issues of special interest to broader OED studies.

Each PPAR is subject to a peer review process and OED management approval. Once cleared internally, the PPAR is reviewed by the responsible Bank department and amended as necessary. The completed PPAR is then sent to the borrower for review; the borrowers' comments are attached to the document that is sent to the Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

About the OED Rating System

The time-tested evaluation methods used by OED are suited to the broad range of the World Bank's work. The methods offer both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. OED evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (more information is available on the OED website: <http://worldbank.org/oed/eta-mainpage.html>).

Relevance of Objectives: The extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, Operational Policies). *Possible ratings:* High, Substantial, Modest, Negligible.

Efficacy: The extent to which the project's objectives were achieved, or expected to be achieved, taking into account their relative importance. *Possible ratings:* High, Substantial, Modest, Negligible.

Efficiency: The extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. *Possible ratings:* High, Substantial, Modest, Negligible. This rating is not generally applied to adjustment operations.

Sustainability: The resilience to risk of net benefits flows over time. *Possible ratings:* Highly Likely, Likely, Unlikely, Highly Unlikely, Not Evaluable.

Institutional Development Impact: The extent to which a project improves the ability of a country or region to make more efficient, equitable and sustainable use of its human, financial, and natural resources through: (a) better definition, stability, transparency, enforceability, and predictability of institutional arrangements and/or (b) better alignment of the mission and capacity of an organization with its mandate, which derives from these institutional arrangements. Institutional Development Impact includes both intended and unintended effects of a project. *Possible ratings:* High, Substantial, Modest, Negligible.

Outcome: The extent to which the project's major relevant objectives were achieved, or are expected to be achieved, efficiently. *Possible ratings:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Bank Performance: The extent to which services provided by the Bank ensured quality at entry and supported implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of the project). *Possible ratings:* Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.

Borrower Performance: The extent to which the borrower assumed ownership and responsibility to ensure quality of preparation and implementation, and complied with covenants and agreements, towards the achievement of development objectives and sustainability. *Possible ratings:* Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.

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<p>This report was prepared by Timothy Johnston and Martha Ainsworth, who assessed the project in August 2002. The report was edited by William Hurlbut, and Pilar Barquero provided administrative support.</p>
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Principal Ratings

	<i>ICR*</i>	<i>PPAR</i>
Outcome	Satisfactory	Satisfactory
Sustainability	Likely	Likely
Institutional Development Impact	Substantial	Substantial
Bank Performance	Satisfactory	Satisfactory
Borrower Performance	Satisfactory	Satisfactory

* The Implementation Completion Report (ICR) is a self-evaluation by the responsible operational division of the Bank.

Key Staff Responsible

	<i>Task Manager/Leader</i>	<i>Division Chief/ Sector Director</i>	<i>Country Director</i>
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Preface

This is a Project Performance Assessment Report (PPAR) for the first India National AIDS Control Project (Cr. 2350). The project was approved on March 31, 1992, and provided financing for the government's National AIDS Control Program (NACP) to address the HIV/AIDS epidemic. The project was supported by an IDA Credit of US\$84 million. The credit was closed on March 31, 1999, following an 18-month extension of the original closing date. The credit amount was fully disbursed, with the final disbursements taking place on September 7, 1999.

This PPAR is based on findings from an evaluation mission in August 2002, comprising Timothy Johnston (OEDST), Martha Ainsworth (OEDST), and Sheila Dutta (AFRHV). Before departure, team members interviewed previous task managers for the project, reviewed project files and the project's Implementation Completion Report (ICR), and undertook an extensive review of the published literature on HIV/AIDS in India. In New Delhi, the team interviewed staff of the World Bank country office, current and former staff of the National AIDS Control Organization (NACO) and the Ministry of Health and Family Welfare (MOHFW), U.N. organizations and donor partners, nongovernmental organizations (NGOs), persons living with HIV/AIDS, representatives of professional organizations, researchers, and journalists. The mission visited six states and union territories to interview staff of State AIDS Control Societies (SACS), NGOs, and other stakeholders: Andhra Pradesh, Delhi, Maharashtra, Tamil Nadu, Uttar Pradesh, and West Bengal. Findings from these areas are highlighted in this report.

To ensure consistency in the information collected during the state visits, the team developed a common list of persons to be interviewed and a standard set of questions for each respondent type (e.g., donors, NGOs, SACS, and researchers). Persons interviewed included current and former members of the State AIDS Control Societies or Cells, including the directors, the NGO coordinator, and the sentinel surveillance specialist. When possible, a senior official in the state MOHFW was also interviewed. Several NGOs that received funding under the project were also interviewed in each state visited. A list of persons interviewed is attached in Annex B. The team also sought to collect common data during each state visit, including trends in HIV prevalence by site; a complete list of NGOs funded under this and the follow-on HIV/AIDS projects, the type of activity funded, and the amounts awarded; and examples of information, education, and communication (IEC) materials. The authors wish to express appreciation to all those who made time for interviews and provided documents and information.

This is the third of a series of PPARs that will be undertaken on the "first generation" of completed Bank-financed HIV/AIDS projects, as background for a larger OED evaluation of the development effectiveness of the World Bank's AIDS assistance.

Following standard OED procedures, copies of the draft PPAR were sent to relevant government officials and agencies for their review and comments. Comments from the National AIDS Control Organisation have been taken into account in the text. Following presentation to the World Bank's Executive Board this PPAR will be considered a public document.

Summary

This is the Project Performance Assessment Report prepared by the Operations Evaluation Department (OED) on the India National AIDS Control Project. The project was the first Bank-financed HIV/AIDS project in India, and only the second financed by the Bank globally. It was a US\$99.6 million project at appraisal, with an IDA credit of \$84 million, a government contribution of \$14.1 million, and \$1.5 million in cofinancing from the World Health Organization (WHO). The project was approved on March 31, 1992, and closed on March 31, 1999, following an 18-month extension of the original closing date, with the credit amount fully disbursed. The project ultimately expended \$113.3 million, with the government contributing nearly double its original contribution (\$27.5 million) and WHO an additional \$700,000.

The project's overall objective was to slow the spread of HIV by initiating a major effort in the prevention of HIV transmission. It was a start-up investment to launch expanded preventive activities. The specific objectives were to: (i) involve states and union territories in developing HIV/AIDS preventive activities with a special focus on the major epicenters of the epidemic; (ii) attain a satisfactory level of public awareness on HIV transmission and prevention; (iii) develop health promotion interventions among risk behavior groups; (iv) screen the majority of blood units collected for blood transfusions, and decrease the practice of professional blood donations; (v) develop skills in clinical management, health education and counseling, and psycho-social support to HIV sero-positive persons, AIDS patients, and their associates; (vi) strengthen the control of sexually transmitted diseases (STDs); and (vii) monitor the development of the HIV/AIDS epidemic in the country.

Due to the lack of monitoring and evaluation in this project, including the lack of baseline information, OED was not able to estimate the number of HIV infections averted – the project's broad objective. However, based on interviews with stakeholders in the field, OED found that this project likely advanced by several years the government response to HIV/AIDS, relative to the counterfactual of no project, and largely put in place the institutional mechanisms at the national and state level on which a broader response could be launched. In addition, the project greatly improved the safety of the blood supply and succeeded in establishing nationwide epidemiological surveillance of HIV. The project also enlisted the mass media and nongovernmental organizations (NGOs) to increase awareness of HIV/AIDS; piloted prevention interventions targeting groups at high risk of spreading HIV (commercial sex workers, truck drivers, intravenous drug users); and trained thousands of health providers in HIV/AIDS/STD care and prevention. The impact of these latter interventions is difficult to gauge due to the lack of baseline, output and outcome data during the life of the project. The strong institutional base built by the end of the project helped mobilize additional financial and technical support from other international partners.

Although there are promising signs of behavior change among those engaged in risky behavior, increased awareness of AIDS among the general population has not been sufficiently accompanied by specific knowledge of how HIV is and is not transmitted, and the project did not address sufficiently public attitudes toward people in high-risk groups and those living with HIV/AIDS. The project greatly overestimated the capacity of NGOs to design and implement HIV/AIDS interventions. Consequently, in most states a smaller percentage of risk groups were reached than might have been expected. There is a continuing need to build implementation capacity among NGOs and all levels of government if the quality of the response and its coverage is to be enhanced. Finally, aside from the successful

implementation of nation-wide epidemiological surveillance of HIV in the last year of the project, monitoring and evaluation was unsatisfactory. The design and ultimate effectiveness of public information campaigns and pilot interventions might have been greatly enhanced had the project invested in collecting the planned baseline data on attitudes, behavior, and HIV levels in the general population and key groups at the start of the project. OED believes that availability of critical information on nationwide patterns of HIV prevalence and risk behavior earlier in the project's life also would have been helpful in generating stronger political commitment and earlier action, preventing many more infections. Nevertheless, as a start-up investment for the national HIV/AIDS response, project outcome is rated **satisfactory**. Institutional development impact is rated **substantial**, and sustainability is rated **likely**. Bank and borrower performance are rated **satisfactory**. A second HIV/AIDS project, now under implementation, is building on the experience of the first project.

The experience of this project suggests a number of lessons that may be relevant in other countries.

- Building robust institutions for a national response requires substantial innovation and flexibility in implementation.
- Epidemiological and behavioral surveillance provide key information to build support for the response where denial is high and the epidemic is otherwise “invisible.”
- Projects that seek to enlist NGOs to implement HIV/AIDS interventions need to carefully assess NGO capacity in light of what is expected, and to ensure continuous training and technical support.
- When political commitment is heterogeneous in a decentralized system, channeling resources to effective programs in areas with higher commitment can serve as a powerful demonstration of the local feasibility of otherwise controversial programs.
- Targeted awareness and interventions for high-risk groups can be successful only to the extent that complementary efforts are launched to improve the environment for HIV prevention among these groups.
- Campaigns to increase awareness of HIV/AIDS and promote change in attitudes and behavior should be informed by local research on behavior and attitudes in their design and implementation and in such as way as to reduce stigma of people living with HIV/AIDS.
- Where most clients seek STD treatment in the private sector, engaging private and even traditional, non-allopathic practitioners is necessary to ensure coverage and impact.

Gregory K. Ingram
 Director-General
 Operations Evaluation

Introduction and Background

1. Since the discovery of the first cases of AIDS in India among female commercial sex workers in 1986, HIV has spread to all states and union territories in the country. Prevalence¹ of HIV remains highest among commercial sex workers (CSWs) and clients, men who have sex with men (MSM), intravenous drug users (IDUs), truck drivers, and sexually transmitted disease (STD) patients, whose behavior puts them at high risk of contracting HIV. More than 50 percent of CSWs in state of Goa and the city of Mumbai [Bombay] in Maharashtra are infected with HIV. In six states— Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland, and Tamil Nadu – more than 1 percent of women attending antenatal clinics (a relatively lower risk population) are infected and HIV prevalence among STD clinic patients is greater than 5 percent (NACO 2001a). Nationally, HIV prevalence among adults (ages 15–49) is less than 1 percent, but with a population of one billion, India has the world’s second-largest number of people living with HIV/AIDS—an estimated 3.97 million in 2000 (NACO 2000).

2. Nearly 43,000 AIDS cases had been reported to NACO through December 2002, with significant increases in recent years, reflecting both the progression of the epidemic and improvements in AIDS case reporting (see Table 1). Yet these are certainly under-estimates: only 5–10 percent of AIDS cases are currently reported. Among the reported AIDS cases since 1986, 84 percent can be attributed to sexual transmission² and 3 percent each to transmission by intravenous drug use, contaminated blood, and mother-to-child transmission. While nationally the extent of HIV transmission via IDU is small, it has been the leading mode of transmission in several northeastern states (e.g., Manipur, Nagaland). The contribution of unsafe injecting practices and other transmission in health care settings is not known.

3. Most Indian officials and the health establishment initially viewed HIV as an “imported” infection—one that would be confined to persons returning from abroad, to port cities and marginalized groups, and which was unlikely to spread more widely into Indian society. The Indian Council of Medical Research initiated limited HIV surveillance in 1985, and in 1987 the government established a National AIDS Control Program as a small unit within the Ministry of Health and Family Welfare (MOHFW). The program’s primary activity was monitoring HIV infection rates among risk populations in a few major cities, although the subsequent discovery of HIV in the blood supply led to the inclusion of blood safety in its mandate. HIV rose rapidly among CSW in Mumbai, from 1 percent in 1987 to nearly 35 percent in 1991, and in Vellore, from 2 percent in 1986 to nearly 30 percent in 1990 (US Bureau of the Census 2002). In a single year (1989-90), HIV among injecting drug users in the state of Manipur rose from roughly 8 percent to 60 percent (Stimson 1996). These findings were widely reported in

1. HIV *prevalence* is defined as the percent of a given population infected with HIV at a point in time. Prevalence levels in a specific population group can rise over time because of new infections (or *incidence*) in the group, fall because of AIDS mortality in the group, or change in either direction because of the arrival or departure of infected and uninfected individuals.

2. Most sexual transmission is assumed to be heterosexual; sexual transmission between men is under-reported because of stigma.

the national press, but unfortunately contributed to the impression among many political leaders and the public that HIV affected only marginalized groups.

Table 1. Cumulative Reported AIDS Cases in India, 1992–2002, Selected States and Nationally

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Andhra Pradesh	1	1	1	5	24	39	46	48	533	1,265	2,350
Delhi	31	45	64	89	116	206	219	219	283	641	720
Maharashtra	93	124	280	1,040	1,560	2,490	3,314	3,378	3,726	6,454	9,106
Tamil Nadu	92	153	345	382	581	1,102	1,634	4,364	8,570	15,054	18,276
Uttar Pradesh	1	8	8	8	56	109	125	166	259	461	804
West Bengal	5	17	27	39	50	57	57	57	57	725	930
National	260	512	969	2,016	3,067	5,050	6,652	9,989	17,223	31,362	42,947

Source: NACO

Note: Data are as reported through December 31, 2002. The first reported cases were in 1986.

4. Although some officials recognized the potential seriousness of the situation, the initial response to HIV was characterized by complacency, denial, and a resort to “law and order” measures. The latter included jailing infected sex workers and intravenous drug users, deporting HIV-positive foreign nationals, and calling for mandatory testing by some politicians (Dube 2001; Ramasubban 1998). The director of the Indian Council on Medical Research (ICMR), for example, advocated making sex with foreigners illegal (Jayaraman 1988). The AIDS Control Program did not make extensive attempts to raise public awareness. In 1989, however, the government developed a two-year medium-term plan for AIDS control with funding and technical assistance from the World Health Organization’s Global Program on AIDS (WHO/GPA) and an annual budget of about US\$2 million. It sought to take a more proactive approach to HIV prevention and initiated efforts to improve blood safety together with limited AIDS case management programs (Asthana 1996).

5. In 1991, the World Bank initiated a dialogue with the government regarding support for a series of disease control programs—including tuberculosis, leprosy, and HIV/AIDS. Because of a 1991 financial crisis, the Ministry of Finance was keenly interested in foreign exchange. There was skepticism among many within government regarding the relative importance of HIV/AIDS, however. As of September 1991, there were only 96 reported AIDS cases in India—13 of whom were foreigners—and 5,879 persons known to be infected with HIV out of a population of nearly 850 million people. Because of the lack of information on HIV prevalence in key populations of India and the long lag between HIV infection and AIDS, the problem appeared small relative to other pressing health issues. Further, the lack of information on the distribution of risk behaviors in the population made it difficult to assess the potential for a large epidemic and allowed to persist widespread denial that the conditions existed for an indigenous epidemic. Thus, the government initially requested World Bank support primarily for blood safety, even

though the majority of known infections at that time could be attributed to heterosexual transmission. Following an intensive dialogue with the Bank and WHO, the government prepared a comprehensive five-year (1992–97) National Strategic Plan for the Prevention and Control of HIV/AIDS. The project design represented a compromise: although blood safety still constituted more than a third of the planned project expenditures, the scope of the national program and project was broadened to encompass prevention of the major modes of HIV transmission, including sexual transmission among high-risk groups and raising AIDS awareness in the general population.

PROJECT DESIGN AND OBJECTIVES

6. The India National AIDS Control Project (\$99.6 million) was approved in 1992 and was funded by an \$84 million IDA credit supplemented by WHO/GPA co-financing of \$1.5 million and a planned government contribution of \$14.1 million. It was only the second stand-alone HIV/AIDS project financed by the Bank.

7. The overall objective of the project was to slow the spread of HIV by initiating a major effort to prevent HIV transmission. It was characterized as a start-up investment to expand preventive activities and to put in place the institutions and procedures necessary to fight the epidemic. The specific objectives were to: (i) involve states and union territories in developing HIV/AIDS preventive activities with a special focus on the major epicenters of the epidemic; (ii) attain a satisfactory level of public awareness on HIV transmission and prevention; (iii) develop health promotion interventions among risk behavior groups; (iv) screen the majority of blood units collected for blood transfusions and decrease the practice of professional blood donations; (v) develop skills in clinical management, health education and counseling, and psycho-social support to HIV sero-positive persons, AIDS patients, and their associates; (vi) strengthen the control of sexually transmitted diseases (STDs); and (vii) monitor the development of the HIV/AIDS epidemic in the country. To accomplish these objectives, the project had five components (see Box 1). The project design included a number of intermediate and outcome targets, including involving at least 100 NGOs in prevention programs in at least 12 states.

8. The project agreement included several conditions of effectiveness and “assurances” regarding HIV/AIDS policy and program implementation. As a condition of effectiveness, the government agreed to establish the National AIDS Control Organization (NACO) as a semi-autonomous body under the MOHFW, with the NACO Director having the status of an Additional Secretary within the MOHFW.³ The government provided several key assurances that were to be implemented soon after credit effectiveness, among them: each state and union territory was to establish an AIDS Control Cell in the state MOHFW to direct HIV/AIDS programs; the government agreed to select NGOs to participate in the project based on criteria and procedures satisfactory to the World Bank; in response to concerns about the poor quality of condoms (including frequent breakage), the government agreed to amend the national Drugs and Cosmetics

3. The project agreement actually specified creation of an independent National AIDS Control Authority, but by mutual agreement NACO was created within MOHFW (see Box 2, below). An Additional Secretary is second in rank only to the Secretary of the MOHFW, who reports to the Minister.

Act so that all condoms manufactured or sold in India conformed to WHO standards; and the government was to establish by 1992 a Technical Advisory Subcommittee on Social, Ethical, and Legal Issues, in response to concerns regarding discriminatory practices against HIV-positive persons. For both legal and pragmatic reasons, the Bank did not include any specific conditions related to changing existing or proposed discriminatory laws related to persons living with HIV/AIDS or the confidentiality of HIV testing. It nonetheless engaged the government in private dialogue on these issues, which may have contributed to the government's subsequent decision to amend or withdraw some discriminatory legislation at both national and state levels.⁴

Box 1. Components of the National AIDS Control Project (1992-1999)

- (1) Strengthening the management capacity for the HIV/AIDS prevention and control program through the formation and support of organizational structures at the national and state levels (\$7.7 million);
- (2) Promoting public awareness and community support for AIDS prevention with a primary focus on sexual transmission, behavioral change, and condom promotion through television and radio stations, private advertising agencies, nongovernmental organizations (NGOs), and the health system (\$31.1 million);
- (3) Improving blood safety by raising blood screening from 30 percent to 90 percent of the blood supply, enhancing the rational use of blood, and raising the share of voluntary donations (\$34.1 million);
- (4) Building surveillance and clinical management capacity to monitor the spread of the epidemic and to strengthen the skills of health staff and social workers in managing and counseling persons with HIV/AIDS (\$11.6 million); and
- (5) Controlling sexually transmitted diseases by improving clinical services and case management in the country's public STD clinics and in private practice in metropolitan areas (\$14.5 million).

9. Project design was based on a number of assumptions of implementation: (i) that states would be willing and able to use the money to design and implement HIV/AIDS interventions; (ii) that NGOs had the experience and capacity to deliver HIV/AIDS interventions, particularly to high-risk groups in urban areas; and (iii) that the existing health structures could be relied upon to reach rural populations. The assumption of state involvement was key, because health is constitutionally a state responsibility in India's federal system. Yet, neither states nor NGOs were consulted during project design.⁵ Further, while the design sought to avoid creating a parallel "vertical" structure for the HIV/AIDS program at district and local levels, the government's family planning and other disease control programs also had limited involvement in the design process.

4. Legislative changes included the amendment of the 1985 Goa Public Health Act to remove mandatory testing and other discriminatory measures against HIV-positive persons. In 1989, the government introduced an AIDS prevention bill in Parliament that called for forced testing and isolation of HIV-positive individuals and gave government broad powers of enforcement. The bill was withdrawn in 1992, following criticism by domestic activists and international organizations (see also Asthana 1996; Jain 2002).

5. The economic reform program launched in 1991 was accompanied by efforts to decentralize responsibility for many government programs and budgets to states. The project ultimately benefited from this government-wide process, but in the early 1990s central control was still very much in place.

PROJECT IMPLEMENTATION EXPERIENCE

10. Project implementation was slower than planned in the early years. Given that the organizational structures for implementing the national and state-level programs had to be built up nearly from scratch, this was not entirely surprising. In the first two years, NACO and 32 State AIDS Control Cells (SACCs) were established and functioning to varying degrees. But project implementation faced a number of bottlenecks. By the Mid-term Review in late 1995, nearly one-third of the total project budget (\$29 million) had been expended, most of it for blood safety equipment. This reflected the relatively higher priority the national and state governments attached to this component as well as its simplicity (mostly procurement of equipment). It also was a less politicized component because it did not require directly addressing sexual behavior. Only 29 sentinel surveillance sites had been set up and were functioning. IEC materials were slow to be produced and of mixed quality; progress on the STD component was limited; and fewer than two dozen NGOs had received funding for awareness-raising activities.

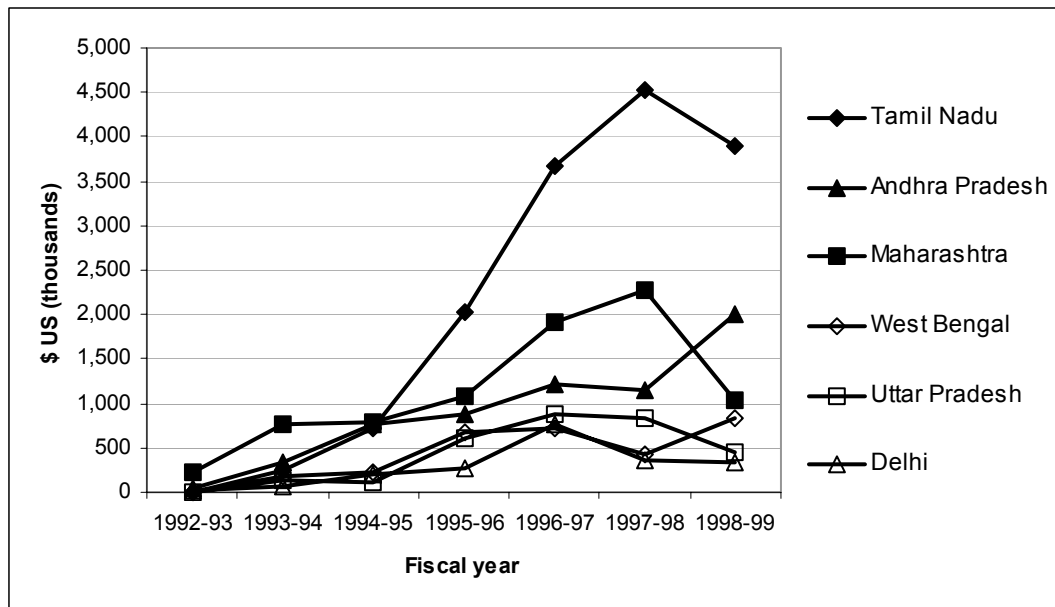
11. Several factors contributed to the slow pace of implementation. NACO staff had limited experience with Bank rules and procedures, particularly those for procurement and financial management. This contributed to delays in procuring equipment and supplies for the blood safety and STD components. While project design called for contracting out a substantial portion of the awareness-raising component either to private advertising firms or to NGOs, the government had limited experience with such arrangements. Moreover, technical capacity for HIV/AIDS program design and implementation were weak—within NACO, the SACCs, and the NGO community. Finally, despite the efforts of dedicated officials at the national and state levels, political commitment was mixed nationally and weak in many states, particularly those with few reported AIDS cases.

12. The effectiveness of State AIDS Control Cells was undermined by limited technical capacity, staff shortages and turnover, funding bottlenecks, and centralized control by NACO. As of 1995, one-third of the SACC posts remained unfilled, and turnover was high, in part due to a widespread perception of the Cells by career civil servants as a “punishment posting.” Although the project was almost entirely centrally funded, SACCs had to requisition funds through their state ministries of finance. Due to liquidity problems and competing priorities, the states often delayed release of funds by months, and even then released less than originally budgeted. This made it difficult to plan and execute programs, contributed to frustrations among committed government staff, and strained relations between state officials and NGOs (Sethi 1999).

13. The project succeeded in launching SACCs in all 25 states and 7 union territories, but due to significant variations in state commitment and capacity, project resources were spent disproportionately in a few—Tamil Nadu (24 percent), Maharashtra (10 percent), and Andhra Pradesh (10 percent). These and other “strong performer” states consistently spent 80–100 percent of their budget allocations, while “weak performer” states (such as Uttar Pradesh and Bihar) typically spent less than 10 percent of their allocated budgets

(see Figure 1).⁶ The high share in Tamil Nadu reflects in part its status as one of the most-affected states and greater commitment by the state government. But in 1994, Tamil Nadu also transformed its State AIDS Control Cell into a semi-autonomous State AIDS Control Society (SACS) led by a senior officer from the elite Indian Administrative Service (IAS). The autonomy of the SACS significantly helped to facilitate disbursement, and Tamil Nadu came to be seen as a model for other state programs.⁷ Adoption of the SACS model was made a condition for participation in the follow-on Second India National AIDS Control Project (1999-2004), and many states established SACS in the final year of the first project (including Andhra Pradesh, which doubled its annual HIV/AIDS spending following establishment of the SACS in 1998).

Figure 1: Reported Annual Expenditure from the First India National AIDS Control Project, Five States and Delhi, 1992–99 (\$US)



Note: Rupee values were converted to US dollars using to the average exchange rate for each period.

14. The project placed heavy reliance on NGOs for awareness raising and reaching high-risk groups. However, the Bank and national government significantly overestimated the capacity of NGOs to implement HIV/AIDS activities.⁸ Although NGOs had been

6. The Mid-term Review noted that about a third of the states were implementing the program satisfactorily (at least in terms of disbursements), but expressed concern that another third had mixed performance, and performance was weak in the final third. This remained unchanged through the end of the project.

7. Under Indian law, societies are quasi-governmental entities that can receive and disburse funds without going through the government's normal approval processes. Core staff were seconded from government ministries, while some additional technical staff could be on contract.

8. Other donors also overestimated NGO capacity. The USAID-funded AIDS Prevention and Control Project (APAC) in Tamil Nadu first advertised for NGOs in mid-1996. However, many NGOs that responded were small, had no experience working with risk groups or in the areas where interventions were

involved in health, family planning, and other development issues for decades, few in the early 1990s had experience in the design and implementation of HIV/AIDS activities or represented the marginalized groups at highest risk of HIV—commercial sex workers, intravenous drug users, or men who have sex with men. Many state governments were reluctant to devote substantial resources to NGO activities, and all NGO proposals had to be approved by NACO prior to funding, further contributing to funding delays.

15. As a result of both the administrative and budgetary encumbrances of the SACCs and limits to NGO capacity, components that relied on NGOs for implementation were among the slowest to disburse. By the Mid-term Review, 13 states had undertaken some training or funding for NGO activities (including workshops to help NGOs develop proposals), but the vast majority of NGOs were funded in just two states (Maharashtra and Tamil Nadu) (see Table 2). In addition, NACO funded two “nodal agencies” to provide technical support to small NGOs. However, except in Maharashtra, these played a limited role. NACO prepared guidelines and selection criteria for funding of NGOs, including a requirement that NGOs must have been in existence at least three years before receiving funding. The extent of NGO involvement as well as the modalities for NGO selection, financing, and technical support varied substantially among the states, with the process most developed in Tamil Nadu.

Table 2: Number of NGOs Financed by the Project^a in Selected States and by NACO, 1993–99

<i>State</i>	<i>1993-94</i>	<i>1994-95</i>	<i>1995-96</i>	<i>1996-97</i>	<i>1997-98</i>	<i>1998-99</i>
Andhra Pradesh	0	0	0	9	34	0
Delhi	0	0	0	8	4	1
Maharashtra	6	10	20	16	97	32
Tamil Nadu	0	17	22	63	88	106
Uttar Pradesh	0	0	3	8	13	0
West Bengal	0	5	6	10	10	10
NACO ^b	0	0	6	20	47	8

a. The number of NGOs awarded contracts in each year (not the number of interventions supported).

b. Contracts directly with NACO—not a national total.

16. Following the Mid-term Review, responsibility for selection and funding NGOs was increasingly devolved to the states, and the number of NGOs financed increased (Table 2). The Bank and NACO agreed to adopt a “performance-based” approach to improve the pace of implementation. Additional resources were allocated to the states that were implementing their programs more effectively. Although this accentuated differences in resource allocation across states, it introduced a performance incentive and provided experience in scaling up the response in a few “well performing” states. The project was extended by 18 months to allow completion of project activities.

17. The process for vetting NGO proposals also evolved. Initially, NGO contracts were only for one year and there were often delays in receipt of payment, particularly the

needed. APAC provided additional training before the first NGO interventions could be financed in 1997-98 (Bowers et al 2000).

final payment. NGOs were thus often left with gaps of 4 to 6 months between contracts with no support for the interventions they had launched. According to OED interviews with NGOs that participated in the program in five states and Delhi, some of the larger NGOs were able to bridge these gaps with their own resources, while others did not have resources from elsewhere and had to discontinue interventions. This experience led to an evolution to longer contracts (3 years), renewable annually, which was formally adopted as the norm for the second AIDS project. Thus, the project represented a learning process that helped refine the modalities for NGO support and contributed to a significant increase in the number and capacity of NGOs working in HIV/AIDS. While the number of NGOs was constrained by capacity and the coverage of interventions was far from universal, several of the states visited by OED were able to focus the limited existing capacity on priority areas by directing NGOs to submit proposals for specific types of interventions in specific locales. This likely improved the efficiency of the use of NGOs and guided them to interventions for high-risk groups that are difficult to reach.⁹

18. By project closing in March 1999, the credit had fully disbursed, with nearly 40 percent of project expenditures for blood safety, 21 percent for raising awareness and 16 percent for STD control (Annex C). The government spent nearly twice its originally planned counterpart contribution (\$27.5 million compared to a planned \$13.9 million). The project clearly exceeded its target of engaging 100 NGOs in 12 states.

Ratings

RELEVANCE

19. Project relevance is judged to be **substantial**. The project design was consistent with government and Bank strategies and helped improve the relevance of the government's HIV/AIDS strategy. It was generally sound technically, seeking to address the major modes of HIV transmission, and placing priority on regions and groups most affected by the epidemic. The project helped design the structures for the national AIDS response at both the national and state levels, and provided critical financing—at levels that would not have been forthcoming from national or state budgets. The project established a strong partnership with WHO/GPA, and later helped mobilize additional donor resources (including from DfID, USAID, and CIDA). In addition, the project engaged a wide range of stakeholders in the HIV/AIDS response, including NGOs. The main weakness in project design was that it did not adequately anticipate the constraints to implementing the program—both from an institutional and political perspective. Instead, the project helped to identify and address the complexities during implementation.

9. The states also commissioned NGOs to undertake awareness-raising activities for groups in the general population.

EFFICACY

Strengthening the National Response to HIV/AIDS

20. *The national response is farther advanced than it would have been in the absence of the project—although not where it could have been if political commitment had been stronger and more consistent.* The Bank and government deserve credit for launching the project when there were still relatively few visible signs of HIV/AIDS in most of India and denial was widespread. The project provided the majority of financing for the national program from 1992–98 and a framework that helped mobilize substantial additional donor financing. Because of competition for scarce government resources and uncertain political commitment to HIV/AIDS prevention during much of the 1990s, it is doubtful that the national and state governments would have been willing to allocate a similar level of resources from their own budgets. HIV/AIDS had a higher profile and priority than would have prevailed in the absence of Bank support.¹⁰

21. *The project helped establish and refine the institutional framework for the national HIV/AIDS response, a model that has endured and been strengthened* (Box 2). The organizational framework for NACO established during the early years of the project is still in place today.¹¹ The establishment of State AIDS Control Cells provided the basis for decentralizing the national response, and the subsequent adoption of the Society model further facilitated implementation. The Society model appears to have facilitated procurement and disbursements, and some informants perceive that leadership by IAS officers improved management, increased the influence of the SACCs, and facilitated a “nonmedical” response. On the other hand, many IAS officers do not perceive the SACS as a prestigious post, and turnover is very high (averaging once per year in many states). This is one of the major constraints to capacity and institutionalization of the response at the state level, and is particularly problematic because most IAS officers come into the position knowing little about HIV/AIDS and even after establishment of SACS, many had responsibilities in addition to HIV/AIDS.

22. *Although the IDA credits still constitute the majority of project funding, the national government’s own expenditures for HIV/AIDS increased during the project period—from about \$2 million annually in 1991 to roughly \$20 million in 1999.* Because of the availability of central funding, however, few states allocate their own funds for HIV/AIDS.¹² Of the states visited by OED, only Maharashtra contributed its own budget during 1992–99, and only Andhra Pradesh currently makes a substantial commitment of its own resources, committing an additional 27 percent beyond the NACO budget to augment the number of sentinel surveillance sites in 2001.

10. “International donors have been an important impetus for policy change and... [brought] in new scientific knowledge and technical skills, and methodologies in research in both the medical and social and behavioral services.” (Ramasubban 1998)

11. “The creation of NACO represented a turning point in Indian AIDS policy.” (Asthana 1996)

12. However, states do finance STD and blood bank staff and operation of major hospitals treating AIDS patients, such as the Tambaran Hospital in Tamil Nadu.

Box 2. Adaptation and innovation in India's institutional response

Both the national and state-level institutions that led the response to AIDS underwent changes in the course of the project to improve project performance and work within political and administrative constraints.

NACO: The Staff Appraisal Report (SAR) and Project Agreement called for the establishment of an independent National AIDS Control Authority, which would have functioned as an autonomous parastatal. However, when it became clear that Parliament would not approve such an arrangement, the Bank and government agreed to make NACO a semi-autonomous organization under the MOHFW and headed by a Director with the status of an Additional Secretary.

State AIDS Control Societies: The state response was initially located in State AIDS Control Cells within the state Ministries of Health, but the Cells encountered funding bottlenecks, as all funding requests and disbursements were funneled through the state Ministries of Finance. Tamil Nadu innovated by creating a quasi-government "society" in which to base its AIDS response, headed by an IAS officer. Under Indian law, societies can receive and disburse funds without going through the cumbersome government approval process. By the beginning of the second AIDS project, all states were following this model, although not all SACS are headed by IAS officers.

23. *The national strategy and project emphasized the importance of encouraging HIV/AIDS interventions in other sectors, but with a few notable exceptions, the response of other ministries was limited.* Given NACO's location within the MOHFW, intersectoral activities depended on the persuasion of NACO leadership, and the emergence of "champions" in other ministries. The "Universities Talk AIDS Program," launched in 1991, sponsored awareness-raising activities that reached an estimated 3.5 million students by 1999 (NACO 1999). Situated in the Department of Youth affairs in the Ministry of Education, the program—designed by UNICEF and UNESCO and expanded with project support—used students to design and carry out awareness-raising activities. The National Council for Educational Research and Training, which is responsible for developing national curriculum standards, developed a school curriculum in 1995 with support from UNICEF.¹³ States are responsible for final decisions on curriculum. As of 2002, the HIV/AIDS module is reportedly being offered in 10 percent of schools nationally and as high as 60 percent and 52 percent in the cities of Mumbai and Chennai, respectively.¹⁴ Several other sectors initiated HIV/AIDS activities during the project, including the ministries of Information and Broadcasting, Tourism, Mines, Labor, Social Justice and Employment, and Women's Affairs—but little evidence is available regarding the outcome of these activities.

24. *The project made limited progress integrating with other MOHFW programs.* Despite NACO's location within MOHFW, in many respects it functioned as a vertical disease control program. The project's main contribution to integration was its direct support of training for treatment of AIDS and STDs and the inclusion of HIV/AIDS issues in pre-service medical training. But OED found little evidence of follow-up on short-term training or that HIV/AIDS concerns had been integrated into MOHFW programming and supervision. Tuberculosis (TB) is one of the major opportunistic

13. The development of an AIDS curriculum coincided with the transfer of the first Project Director of NACO, Mr. Dasgupta, to Secretary, Ministry of Education.

14. NACO data, as of August 2002. National figures exclude the states of Haryana and Jammu and Kashmir, for which data were incomplete.

infections of AIDS patients, and prophylaxis and treatment of TB in HIV-infected patients is key in reducing morbidity. The Bank missed a major opportunity to coordinate HIV and TB when it launched a tuberculosis project with no links to the AIDS project.¹⁵ Efforts to coordinate HIV and TB have only emerged in the past several years, although some states have designated district TB officers as responsible for HIV/AIDS. The limited integration between AIDS and these other health programs reduced the “reach” of the HIV/AIDS program into rural areas, as evidenced in the low levels of HIV awareness in most rural areas (see below).

25. *The policy and legislative framework for HIV/AIDS has improved significantly, although a few key gaps remain, and policy implementation remains a challenge.* The project, through its support for NACO, helped refine the policy framework for HIV/AIDS. NACO has developed a wide range of specific policies and guidelines—including testing, blood safety, and treatment and care for AIDS patients (NACO 1996). Legislative changes have generally taken longer than expected—for example, the government fulfilled the condition for adopting WHO standards for condoms in 1996 rather than in 1992 as originally agreed, and the national AIDS policy was developed in the final year of the project and not approved until 2001 (NACO 2001b). Due in part to the difficulties in changing legislation through Parliament, a number of the key policy and legal changes were initiated through India’s activist Supreme Court, including mandating licensing for blood banks and banning professional blood donations. Although a progressive policy framework is now in place at the national level, policies have advanced farther than NACO’s ability to enforce them, as evidenced by the significant gaps between a number of policies (e.g., non-discrimination against AIDS patients, or confidentiality of HIV testing) and practice.¹⁶ Anti-sodomy laws continue to present significant problems for reaching MSM, and anti-solicitation laws have also been used as a pretext by local police for harassment of CSW outreach workers—creating a situation where activities financed by one branch of government have been subject to law-enforcement actions by another (Friedman 1996; Human Rights Watch 2002).

26. *Statements of support from political leaders have increased, but skepticism continues regarding the scope of the epidemic.* The HIV/AIDS program initially was supported by a few key officials, including the Secretary for the MOHFW. But the national government and most state governments continued to accord relatively low priority to HIV/AIDS through the mid-1990s. In 1994, the national Minister of Health and Family Welfare forcefully denied that HIV/AIDS was a problem in India (Haniffa 1994). By the final two years of the project, however, senior officials and political leaders at the national level began to speak publicly about the importance of HIV prevention and behavior change—including a speech by the Prime Minister in 1998 (NACO 1999). In 2002, the leader of the opposition Congress Party convened all the Congress Party Chief Ministers to call on them to take a more active role in HIV/AIDS prevention (Soniya Gandhi speech, NACO website). Support by political leaders at the state level has also

15. Tuberculosis Control Project (Credit 2936), approved in 1997.

16. “. . . problems of translating policy into practice in the Indian context may have been underestimated. . . [Moreover], the very progressive approach of national-level policymakers has been countered by conservative forces at the state and local levels.” (Asthana 1996)

improved overall, but varies substantially from state to state. In the states visited by OED, most Ministers of Health and, in some cases, Chief Ministers have been willing to make statements in support of HIV/AIDS programs, but many are still reluctant to speak explicitly about prevention. Andhra Pradesh is a notable exception; the state's Chief Minister became actively engaged in the state prevention program in 2000 after presented with the alarming finding that 2 percent of pregnant women at the state's sentinel surveillance sites were infected with HIV. Nevertheless, national and state political leaders remain sensitive to international reports regarding the potential scope of the HIV/AIDS epidemic in India (Eberstadt 2002; Lancet 2001).

27. *The project and the Bank contributed to political support through advocacy with senior officials and strengthening sentinel surveillance.* The project was launched despite low political commitment to addressing HIV/AIDS. Bank team members, including sector and country management, played a useful advocacy role in raising the importance of AIDS in dialogue with officials in health, finance, and other ministries at the national and state levels. Given the sensitivities regarding AIDS in the early years, there is no evidence that a more public advocacy role by the Bank would have strengthened national commitment; according to a range of informants, it instead could have strengthened the perception that the HIV/AIDS program was externally driven. The eventual expansion of HIV sentinel surveillance helped reduce denial and eventually contributed to political support; delays in establishing a national sentinel surveillance system represented a lost opportunity (see below).

Improving Blood Safety

28. The blood safety component, which represented 40 percent of project cost and nearly half of the Bank's credit, contributed to a significant improvement in the safety of the blood supply and is widely viewed as one of the project's major contributions. In 1992, less than 30 percent of the blood supply was screened for HIV. The blood banking system was poorly regulated, with many public and private blood banks operating without a license, and most with outdated equipment. Due to a shortage of blood, up to a third of donations were from low-income "professional" paid blood donors, who were at higher risk of HIV/AIDS, while only about 30 percent came from voluntary donations. Inefficient medical practices, including single-unit transfusions, contributed to wastage of scarce blood.

29. The project upgraded equipment (including refrigerators and centrifuges) in government blood banking facilities, facilitated technical assistance and advice on blood safety from CDC and WHO, and financed HIV test kits. It also sponsored IEC campaigns at both national and state levels to encourage voluntary blood donations and to increase awareness of the potential danger of unsafe blood from unlicensed blood banks or professional donors. That said, equipment procurement was not based on a facility-specific needs assessment. Some of the equipment procured appears to have been over-dimensioned and is under-utilized, particularly for lower-level facilities.¹⁷ In addition,

17. In a tertiary facility visited by OED, a 100 blood unit refrigerator procured during the first project sat unused next to a 30 unit refrigerator procured under the second project, which was in use and adequate for

the project provided no direct support to private blood banks, even though they account for 20 percent of the blood supply.

30. NACO was responsible for ensuring the safety of the blood supply but considered its ability to enforce a ban on “professional” blood donations and to strengthen licensing requirements to be inadequate. However, changes in the regulatory environment were generated by the Indian Supreme Court in 1996, in response to a lawsuit brought by an NGO. This ruling called for the banning of professional blood donations by 1997 and required that all blood banks be licensed in the next two years or face closure. The ruling shifted responsibility for ensuring safety to the national drug control authority. Many of the government’s blood banks would have faced difficulty meeting certification requirements.

31. There is a wide consensus that the blood supply is substantially safer than it had been previously.¹⁸ All facilities report that 100 percent of blood is screened—exceeding the project’s target of 90 percent—but screening may not be comprehensive at the district level and in some private facilities. Unfortunately, the current monitoring system is not sufficiently comprehensive to assess how safe the blood supply has become. As of 2000, the share of voluntary blood donations rose to 39 percent, with the remaining 61 percent “replacement” donations (NACO 2000). However, an estimated 5 percent of the replacement donations may still be from professional donors. This nevertheless represents a substantial decline in professional donations since the start of the project.

Promoting Public Awareness and Community Support

32. The project supported a wide range of activities to raise awareness of HIV/AIDS—for both the general public as well as risk groups. In a departure from typical government practices, many of the media campaigns were designed by private advertising agencies. The media campaigns initially were sponsored by NACO—which also negotiated free air time for AIDS messages with some media outlets—but subsequently a number of state Cells/Societies sponsored their own campaigns. Expenditures on IEC and public awareness campaigns were slow at first and concentrated in a few states, but the rate of disbursement accelerated in the later years.

33. HIV/AIDS awareness in the general population increased during the project. The absence of a comprehensive baseline survey on awareness and behaviors makes it difficult to assess impact, but a few key HIV/AIDS-related questions were included in the National Family Health Surveys (NFHS) of 1992/93 and 1998/99. Knowledge of AIDS

the hospital’s needs. OED received reports that in some district-level government facilities, which typically use only a few units of blood per month, the refrigerators were too large to be installed.

18. The percentage of AIDS cases attributable to infected blood has declined since the beginning of the project from 8 percent in 1992 to 3 percent in 1998. While this is often cited as evidence of success for the blood supply component, most of those developing AIDS in the late 1990s or early 2000s would have acquired the virus before the investments and policy changes under this component. Furthermore, the change in the share of AIDS cases due to contaminated blood reflects the dramatic expansion of cases due to heterosexual transmission. The mission was unable to obtain estimates of the change in number of new HIV infections due to contaminated blood over the life of the project.

(the response to the question, “Have you ever heard of AIDS?”) among women of reproductive age increased nationally from 17 percent to 40 percent and in all states for which data are available for both periods (Figure 2 and Appendix D). Although this increased awareness may be partly due to news coverage and other information sources,¹⁹ it seems plausible that the project contributed to the increase. Among the states visited by OED, those with the highest IEC expenditures (Tamil Nadu and Andhra Pradesh) also saw the greatest improvements in awareness (Figures 2 and 3).

34. While average “knowledge of AIDS” appears to have more than doubled among women of childbearing age, it was still low in absolute terms at the end of the project (only 40 percent). To be fair, the project targeted urban areas and, there, results were likely better.²⁰ Further, the increases in awareness among the states that used project resources most intensely were substantially better than the national average – rising from 23 percent to 87 percent in Tamil Nadu and 19 percent to 61 percent in Maharashtra. No nationally representative data on awareness among the general population of men were collected during the project.

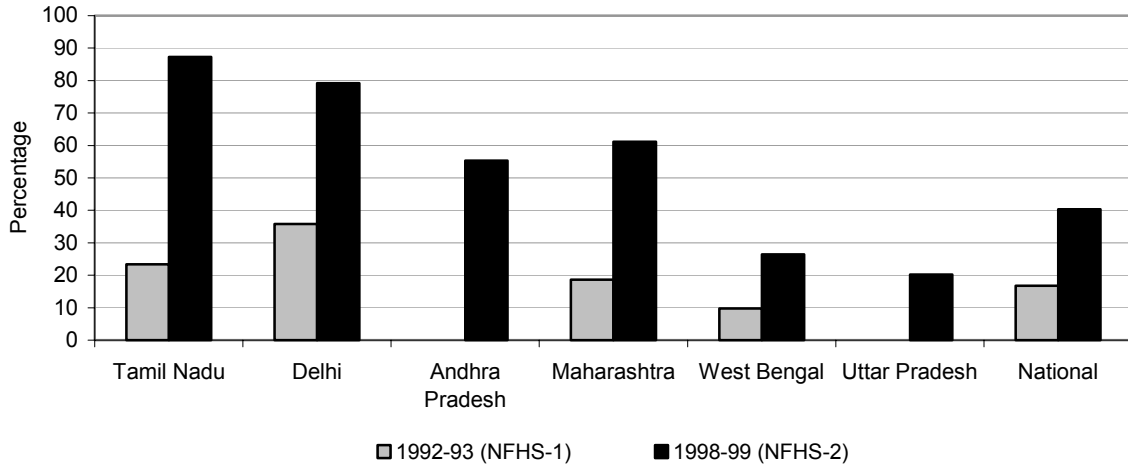
35. Of equal or even greater concern is whether those who had heard of AIDS had specific and correct knowledge regarding how HIV is transmitted and how it can be prevented. In 1998/99, for example, only 8 percent of women of reproductive age spontaneously named condoms as a means of preventing HIV/AIDS, a small increase from 5 percent in 1992/93 (Figure 4). A wide range of misconceptions also persist. In 2001, only 21 percent of the general population understood that HIV cannot be spread through mosquito bites or through sharing a meal with an infected person and that a healthy-looking person can have HIV (NACO 2001c). Only 30 percent of urban dwellers got all three of these questions correct, and only 29 percent of CSWs. There are no national trend data regarding other key behavioral indicators in the general population, such as the percentage reporting non-regular sex partners and condom use among non-regular partners.²¹

19. Differences in the level and rate of change of awareness across states can be explained by many factors, including education levels (Kerala and Delhi both have above average female literacy, for example) and the extent of exposure to mass media, particularly television (Balk and Lahiri 1997).

20. Unfortunately, the NFHS did not provide a breakdown of results for urban and rural areas.

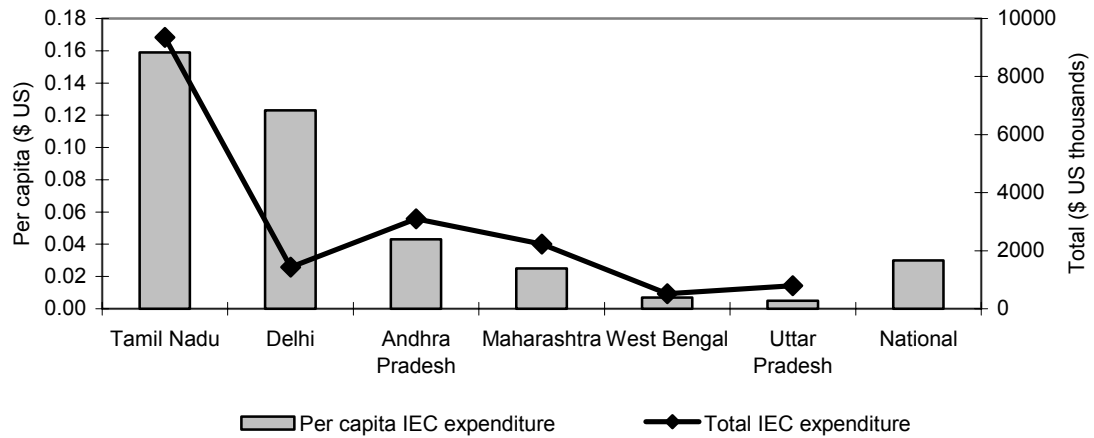
21. A direct comparison of the 2001 Behavioral Surveillance Survey (BSS) with the four states covered in a NACO-sponsored 1996/97 Prevention Indicators Survey suggests an *increase* in reported non-regular partners. However, this comparison is incorrect and misleading for the most part because the survey methodologies and areas covered are not strictly comparable (NACO 2001c, 1997a).

Figure 2: Increase in the Percent of Ever-Married Women 15-49 Who Have “Heard of AIDS”, selected states and nationally



Note: Data for Andhra Pradesh and Uttar Pradesh were not collected in the NFHS-1

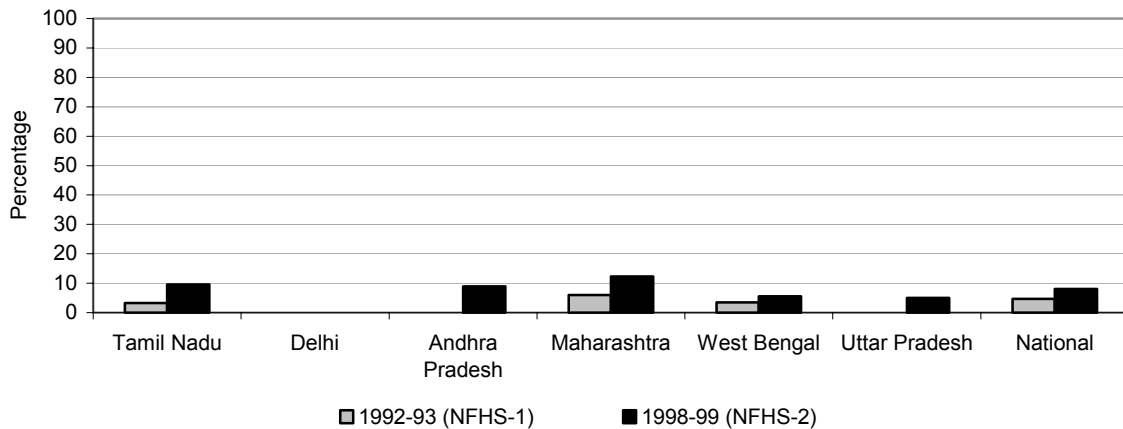
Figure 3: Expenditure on IEC in Selected States—Total and Per Capita



36. While the overall spending on awareness raising (\$23.8 million) was modest for a country of 1 billion people (amounting to only about 2.4 US cents per capita over the life of the project), there are reasons to believe that the component could have been more effective. First, only 76 percent of the amount allocated for public awareness (\$31 million) was spent, even though the resources available to the project exceeded the original budget. Second, the content of messages and materials at both the national and state levels was often inadequate and the targeting of messages to specific groups was weak. Many of the messages conveyed no information on how HIV is transmitted or how

it can be prevented (“Know AIDS for No AIDS”).²² Other messages emphasized fear or conveyed a moralistic tone (“A weak mind is the first step towards death”). Few staff at the national level, and fewer at state level, had expertise in the design and implementation of behavior change campaigns. Moreover, the dearth of research on sexual behavior, weak surveillance data, and near absence of information regarding the numbers and location of high-risk groups during the life of the project made it difficult to design and target awareness or behavior change interventions. The project sponsored some of the first qualitative research on sexual practices, including a 1995 study launched in several dozen cities (NACO 1997b). While these were used by some states to improve the design of IEC campaigns, the results were not widely disseminated (Pelto 1999). Private media firms were able to design sophisticated campaigns, though often with limited guidance on message design and targeting. Most fear-based messages were discontinued by the late-1990s but may have contributed to the prevailing high levels of stigma against persons with HIV.

Figure 4: Percent of Ever-married Women 15-49 Who Spontaneously Reported that Condoms Prevent HIV Transmission



Note: Data for Andhra Pradesh and Uttar Pradesh were not collected in the NFHS-1

Targeted Interventions for High-Risk Groups

37. The project fulfilled its objective of piloting high-risk group interventions in a dozen states and mega-cities. While the majority of NGO interventions financed by the project for high-risk groups were also for awareness, the project provided direct support and helped create political “space” for the piloting of interventions, such as condom distribution and STD treatment, focused on risk groups. The project’s reliance on NGOs for implementing interventions targeted to high-risk groups catalyzed development of a policy

22. Other messages included: “You can’t stop warring mothers and daughters-in-law, but you can stop AIDS” and “Be Aware, Take Care” (slogan from the Tamil Nadu SACS).

framework and guidelines for the financing of NGO activities. Bilateral projects provided complimentary additional financing and technical support for targeted NGO interventions in selected states.²³ No information is available regarding the percentage of risk populations reached during the project, even in the states where these activities were most developed. However, the activities launched in these states effectively demonstrated to the national audience of policymakers that targeted interventions could have an impact on behavior among risk groups in India. The experience helped develop and refine approaches that were appropriate to the Indian context for wider replication (Ramasundaram and others 2002).

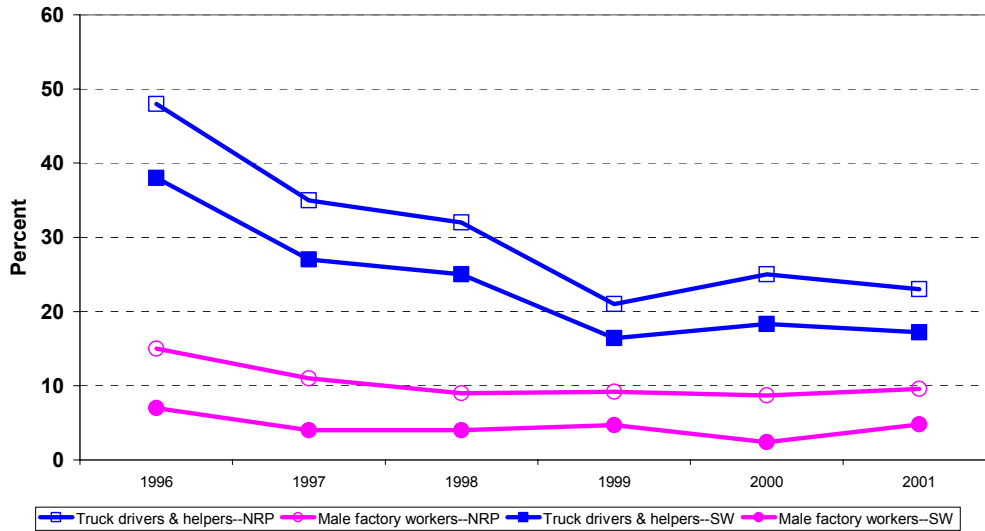
38. No nationally representative data on the behavior of high-risk groups were collected during the project. However, the USAID-sponsored APAC project in Tamil Nadu conducted annual behavioral surveillance surveys of risk groups in urban areas between 1996 and 2001 (APAC 2002). Between 1996 and the end of the first National AIDS Control Project in 1999, the percent of truck drivers reporting non-regular sexual partners or use of commercial sex dropped in half (see Figure 5). Condom use among sex workers and truck drivers who bought sex rose from already relatively high levels of roughly 55 percent in 1996 to 80-90 percent by 1999. Since the APAC-sponsored targeted interventions were not launched until 1997/98, the declines in risk behavior in 1996-98 are likely attributable in part to Tamil Nadu SACS or NACO awareness-raising activities—although general media coverage of the AIDS issue may also have contributed. And 1996 levels were no doubt higher than in 1992.

39. The large share of the condom market attributable to family planning and uncertainty concerning trends in use of this method make it difficult to discern the possible impact of AIDS awareness and interventions on condom demand for HIV prevention. Nationally, condom sales through social marketing increased by 50 percent during the 1990s. But the increases were offset by a decline in condoms distributed for free through government facilities (NACO 2001a). As a result, the total number of condoms distributed or sold remained unchanged over the course of the project. To the extent that uptake of socially marketed condoms reflects primarily demand for HIV protection, the shifting share of socially marketed condoms could be indicative of greater use of condoms for casual and commercial sex. However, no evidence was presented to substantiate this conclusion.

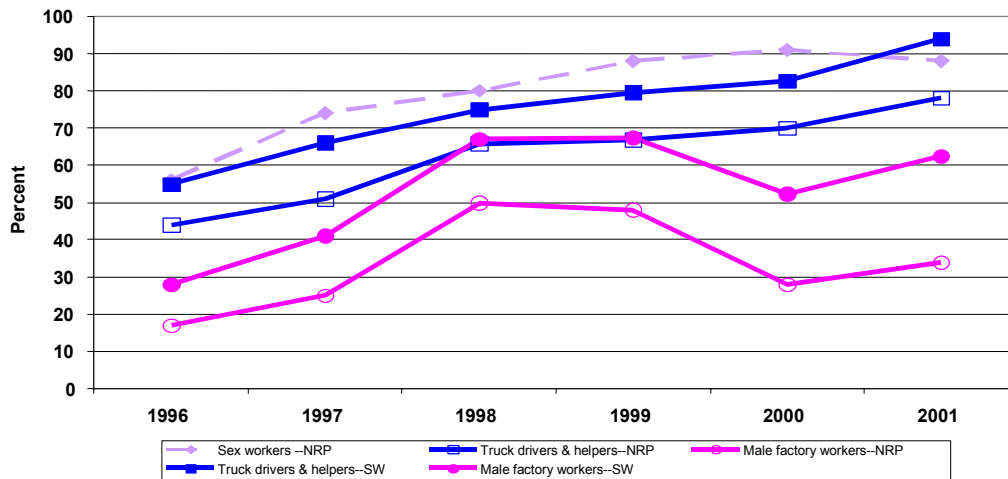
23. Donor projects supporting targeted interventions during the 1990s included the USAID-sponsored AIDS Prevention and Care (APAC) project in Tamil Nadu; the UK-sponsored Sexual Health Projects in Andhra Pradesh, Gujarat, Kerala, Orissa, and West Bengal, and the DfID-sponsored Healthy Highways Project, which targeted truckers.

Figure 5: Reduction in Risk Behavior Among High-Risk Groups in Tamil Nadu

Percent of high-risk groups having sex with a non-regular partner (NRP) or sex worker (SW) in the past 12 months, Urban Tamil Nadu (Source: APAC survey)



Percent of High-Risk Group Using Condoms with the Last Non-regular Partner (NRP) or Sex Worker (SW), Urban Tamil Nadu



Source: APAC (2002).

40. The sentinel surveillance system has monitored HIV prevalence in STD patients, many of whom are from high-risk groups.²⁴ In Tamil Nadu, with the strongest evidence of

24. Trends in HIV prevalence among STD patients are difficult to interpret because the same behaviors that might reduce HIV incidence (fewer partners, condom use, STD treatment) would also reduce STD incidence and the number of STD patients. While it is reassuring to know that the rate of co-infection of STD patients with HIV stabilized, trends in infection among other high-risk population groups (CSWs, IDU, truck drivers) are more useful in understanding the dynamics of the epidemic.

behavior change, HIV prevalence was high but had stabilized in four of the five high-risk group sentinel sites by the late-1990s. In Maharashtra, however, HIV prevalence among CSWs continued to climb rapidly through the mid-1990s, exceeding 50 percent in both Mumbai and Pune. A study of HIV incidence (the number of new HIV infections per year) among female STD clinic attendees in Pune in 1993-95 found an annual infection rate of approximately 26 per hundred person years among CSWs, and 8 per hundred person years among non-CSWs (Mehendale and others 1995). These high rates of incidence and prevalence may reflect the high prevalence of risk behavior and relatively low coverage of CSWs in the state, despite the mobilization of NGOs by the State AIDS Control Cell.

Controlling Sexually Transmitted Diseases

41. Evidence from India and elsewhere has demonstrated a correlation between the presence of sexually transmitted diseases (STDs) and HIV infection—both because the presence of STDs can facilitate HIV transmission and because they are contracted through the same risk behaviors. A national STD program was launched in the 1940s, but suffered from neglect. At the time of project appraisal STDs were among the top five causes of morbidity in India (Ramasubban 1998). The project gave renewed attention to STD control, providing equipment, pharmaceuticals, and training for 504 government STD clinics in public hospitals, exceeding the original target of 372 clinics. In addition, five regional referral centers were upgraded to provide training, research, supervision, and monitoring. The project also facilitated the development and dissemination of the syndromic guidelines for STD treatment, possibly its most important contribution.²⁵ In interviews with OED, physicians reported that the guidelines had been adopted in the public sector and to some extent in the private sector, but there are no data to confirm the extent of adoption or adherence to syndromic treatment guidelines. Although the majority of component expenditures focused on government STD clinics—including training for 19,000 medical officers—approximately 10,000 private doctors also received training in syndromic management through the Indian Medical Association (IMA).

42. Unfortunately, there is little evidence on which to judge the impact of this component. There are no representative data at the national or state level regarding compliance with these guidelines. The project did little to strengthen STD surveillance, which remains weak (Hawkes and Santhya 2001). There are no data on the change in incidence of STDs or the reported number of STD cases over the lifetime of the project.

43. While this modest component did represent an important invigoration of the STD control program, there are reasons to believe that its overall impact on STD incidence was also modest. First, although training was offered to some private practitioners, the project mostly financed inputs for public sector STD clinics. Yet, fewer than 10 percent of STD patients seek treatment in the public sector; most seek care from private or traditional, non-allopathic practitioners, or self-medicate. Government clinics supported by the project may see as few as a dozen STD patients per month. Second, the project's approach to both equipment and training was primarily input-oriented, with little

25. Developed by WHO, the syndromic approach to STD treatment is the process by which clinicians diagnose and treat STDs using standardized protocols based on symptoms (Dalabetta et al 1998).

monitoring of the quality and clinical effectiveness of treatment. Finally, while STD treatment combined with behavior change interventions has been shown to reduce HIV incidence among high-risk groups, such as CSWs, the project did not explicitly target these groups for STD treatment. Fourth, behavior change counseling and partner tracing remain weak (Hawkes and Santhya 2001).

44. In the final year of the project, the government began to pilot Family Health Awareness Campaigns, which seek to increase STD awareness and treatment-seeking in selected communities through “camps” that involve door-to-door awareness raising and, in some of the communities, STD screening and referral for treatment (Arora and others 2000). The approach has been expanded under the Second AIDS Control Project.

Improving Clinical Management of AIDS

45. While the overwhelming priority of the project was to enhance awareness and expand prevention, the project anticipated the need to enhance capacity for treatment and launched activities to train health providers – most of whom had never encountered an AIDS case—to identify and clinically manage AIDS patients. NACO developed and distributed training manuals in AIDS clinical case management. About 45,000 public and 7,500 private physicians received training under the project. NACO and WHO also jointly developed a training manual for nurses, but only a few states made substantial progress in nurse training.²⁶

46. Although very large numbers of people received training under the project, training was of short duration, little attention was placed on the interpersonal skills required for effective counseling, and there appeared to be little follow-up to assess the quality and effectiveness of training. NACO had limited capacity to monitor or enforce adherence to the treatment and counseling protocols or to encourage integration of care and support into supervision protocols. Although the availability of voluntary HIV counseling and testing increased under the project, interviews with people living with HIV/AIDS (PWAs) diagnosed during this period reveal that little counseling occurred (even in the event of a positive HIV test) and results were often not kept confidential. Many also reported being given incorrect information by health providers when informed of their HIV status (for example, that they had only weeks to live or should not touch their children), and being accused of immoral behavior.

47. Finally, several proposed studies that would have improved the design and selection of interventions for treatment and care—such as of the effectiveness of home-based care, the cost-effectiveness of alternative HIV testing techniques, the natural history of AIDS in the Indian population, and the effects of homeopathic remedies on those with HIV—apparently were not undertaken.

26. Manipur, one of the hardest-hit states, trained 60 percent of nurses according to the ICR.

Strengthening Surveillance, Monitoring, and Evaluation

48. Because of the long delay between HIV infection and AIDS, sentinel surveillance data that show spread of HIV even while the number of AIDS cases is low, provide extremely important evidence for mobilizing political commitment, as well as for tracking the epidemic and fine-tuning the response. The first sentinel surveillance sites for HIV were established in the late 1980s, covering only major cities in the south.²⁷ The project contributed to improving the coverage and quality of the national HIV sentinel surveillance system through support for equipment, training, and technical assistance. The project target was to provide HIV testing capabilities to 100 sites throughout the country, a subset of which would be used for sentinel surveillance. During the course of the project, HIV sero-surveillance capacity was developed in 140 centers and 180 sentinel sites nationwide, surpassing this target (see Table 3).

Table 3: Growth in the Number of Sentinel Surveillance Sites, Selected States and Delhi

	1994	1998	2000	2001
Andhra Pradesh	3	7	9	13
Delhi	0	4	7	9
Maharashtra	4	14	19	25
Tamil Nadu	5	9	11	17
Uttar Pradesh	0	10	13	21
West Bengal	0	8	9	15
National	55	180	232	306

Source: NACO for all national totals and state totals for 2000-2001.

49. Two factors limited the effectiveness of the sentinel surveillance. First, the usefulness of sentinel surveillance to enhance political commitment during the project's lifetime was greatly reduced because of delayed implementation. At the Mid-term Review, only 29 sentinel sites had been established. The system did not achieve adequate national coverage until 1998, the last year of the project, after NACO took a more proactive role in program design and technical support. The states with the greatest political resolve and that used funds most readily—like Maharashtra, Manipur, and Tamil Nadu—were those where the number of AIDS cases had already prompted public concern and surveillance had already been launched. Earlier implementation of sentinel surveillance in other states might have helped dispel denial earlier, generated stronger political commitment, and accelerated implementation of the rest of the project's activities.

50. Second, HIV surveillance of high-risk populations was and remains inadequate. At project appraisal, CSW, MSM, IDU, and truckers were identified as high priority for sentinel surveillance, in addition to patients at STD clinics and populations “without identified risk”, such as antenatal clinic attendees, voluntary blood donors, and

27. The SAR did not mention nor was OED able to confirm the number, type, and location of sentinel surveillance sites at the time that the project was launched.

outpatients. However, virtually all ‘high-risk’ sites implemented during the project are STD clinics: Of the 306 sites covered by the 2001 round of sentinel surveillance, 163 were in antenatal clinics, 121 in STD clinics, 13 among IDU, and only 2 each among CSW and MSM (NACO website 2002). STD patients represent a mix of people with high-risk and low-risk behavior who, by definition, are *not* using condoms. Thus, it is impossible to track the effects of behavior change on HIV levels among STD patients. The use of results for STD patients as a proxy for high-risk groups can lead to misleading assessments. For example, HIV prevalence among STD patients in West Bengal in 2001 was less than 1 percent, yet data from researchers have found that over 10 percent of CSW are infected (USBOC 2002). The project financed sites that are most easily set up – in public clinics—not those that are most relevant to tracking the epidemic.

51. The implementation of analytic work and monitoring and evaluation was unsatisfactory. At appraisal, the need to launch quickly behavioral and epidemiological studies was emphasized, to serve as a baseline for measuring impact and to improve the design and evaluate the effectiveness of pilot interventions. Thirteen specific studies were proposed, of which nine were to take place in the first year of the project. Only a few of the proposed studies to be undertaken were conducted. The Prevention Indicator Survey (PIS) in 1996 assessed the knowledge and behavior of the general population in urban and rural areas of five states (NACO 1997b), but it wasn’t until 2001—after the end of the project—that a national baseline Behavioral Surveillance Survey (BSS) was conducted (NACO 2001c). The methodology was so different between the two surveys that the results for most variables cannot be compared and there is effectively no benchmark against which to measure progress during the first project. A study of high-risk behavior practices was conducted in May 1995 in 65 cities, but results were eventually written up for only 18. There were no evaluations of the cost-effectiveness of the project’s interventions; a study of the cost-effectiveness of CSW interventions in the Sonagachi project in Calcutta was never completed. Of the nine studies conducted during the entire project listed in the ICR, only two could be located during the OED mission. In the states visited by OED, there was no system for the evaluation of NGO interventions financed by the first project.

52. Further, the sentinel surveillance results and reports generated by the project have not been sufficiently disseminated or available to the public, reducing their usefulness in improving the effectiveness of the response and informing the public. The 1996 Prevention Indicator Survey report has not been posted on the web, nor are the datasets for the PIS or the 2001 BSS available for analysis by researchers. Further analyses of the original 2001 BSS data could yield valuable insights into the determinants of levels of awareness and behavior, with implications for improving program design. Sentinel surveillance results are not posted on the NACO web site except in a summary form for all sites of a given type by state for the most recent year. The value of sentinel surveillance data is in tracking trends in the same population over time; they are not meant to be representative of any of the populations. To be meaningful, researchers need access to trends for multiple rounds *by site* within each state.

EFFICIENCY

53. Efficiency is **not evaluable**. In principle, the project financed a number of interventions that are cost-effective. However, the lack of a monitoring and evaluation

system make it impossible to assess the efficiency or cost-effectiveness of the interventions as implemented.

INSTITUTIONAL DEVELOPMENT IMPACT

54. Institutional development impact is rated **substantial**. The project established and refined the institutional framework at the central and state level for the national response to HIV/AIDS. The evolution of State AIDS Control Cell to State AIDS Control Society significantly improved the timeliness of decentralized disbursement of project resources. Dialogue associated with the project led to the modification of a number of key national policies. While the extent of NGO involvement was limited in relation to the size of the country and the task, the project launched important capacity building activities to strengthen the NGO response and made substantial resources available for NGOs. Procedures were developed and refined for the vetting, selection, and monitoring of NGOs. Capacity was also built among government officials and health providers through the project's training programs.

55. A main shortcoming of the project's design that slowed institutional development was that it severely underestimated the need to provide technical support and capacity building at the national, state, and NGO levels. HIV/AIDS was a new disease that required a different approach than previous disease control programs—infection is “invisible”, AIDS develops after many years, there is no cure, and issues of private behavior must be addressed to effectively prevent the infection. Yet, NACO was conceived of as a coordinating body with relatively few technical staff. Thus, for example, while NACO is responsible within the MOHFW for the national STD control program, it did not and still does not employ a full-time STD specialist. Technical capacity was even more limited at the state level. The technical specialists funded by WHO/GPA, together with experts from the CDC, were too few to provide regular implementation support to the states. The project helped establish a number of Technical Resource Groups, but the terms of reference were never clearly defined, funding was limited, most of the groups met infrequently, and staff in SACCs and NGOs did not know how to access their expertise. Finally, although NACO and the Cells/Societies provided some training for NGOs—particularly to help them develop proposals—the state AIDS Cells/Societies did not have sufficient capacity to provide ongoing technical support and capacity building for NGOs (although in some states, bilateral programs—financed by USAID or DfID—provided both direct financing and extensive technical support to NGOs). These weaknesses still have not been fully remedied in the second project.

56. Staff turnover at the national and particularly the state level is detracting from building and sustaining capacity, however. While IAS officers are perceived to be excellent managers, their tenure is often short. Since 1994, for example, the six Project Directors for the Tamil Nadu AIDS Control Society (TNSACS) had an average tenure of only 16 months (range from 5 to 27 months). IAS officers generally have no technical background or previous experience in HIV/AIDS activities. With such short tenure, the Project Directors leave the program just as they have learned enough to be most effective. Turnover is not exclusive to IAS officers: there have been 8 Project Directors for the Andhra Pradesh SACC/SACS in 10 years, only two of them IAS, with nearly identical

tenure as the TNSACS. High turnover resulted in considerable loss of institutional memory and reduced the scope for learning from experience.

SUSTAINABILITY

57. Project sustainability is rated **likely**. The Second India National AIDS Control Project (\$229.8 million, 2001-2004) has built upon the lessons and accomplishments of the first project, and further strengthened the institutional framework for the response. While the majority of funding for the national HIV/AIDS program continues to come from the IDA credit, the national government has steadily increased its contribution and spent more than planned. Additional resources have been forthcoming from DFID, USAID, and CIDA during the second project period, and more recently from the Gates Foundation (\$100 million) and the Global Fund to Fight AIDS, Tuberculosis, and Malaria (\$26 million for AIDS over the next two years with a five year maximum of \$100 million). Evidence from expanded epidemiological and behavioral surveillance as well as the growing number of AIDS cases in the most affected states and major cities has weakened denial and helped strengthen political support for HIV/AIDS prevention and control. To the extent that it exists, uncertainty about sustainability hinges on whether the huge increase in resources will out-strip the institutional capacity to manage and implement these funds effectively at the national, state, and local level. *The government and other donors are effectively relying on the same pool of NGO capacity for implementation; thus, continued investment in increasing NGO and local capacity is critical to sustaining the response.*

OUTCOME

58. Due to the lack of monitoring and evaluation in this project, including the lack of baseline information, OED was not able to estimate the number of HIV infections averted – the project’s broad objective. However, based on interviews with stakeholders in the field, OED found that this project likely advanced by several years the government response to HIV/AIDS, relative to the counterfactual of no project, and largely put in place the institutional mechanisms at the national and state level on which a broader response could be launched. In addition, the project greatly improved the safety of the blood supply and succeeded in establishing nation-wide epidemiological surveillance of HIV. The project also enlisted the mass media and nongovernmental organizations (NGOs) to increase awareness of HIV/AIDS; piloted prevention interventions targeting groups at high risk of spreading HIV (commercial sex workers, truck drivers, intravenous drug users); and trained thousands of health providers in HIV/AIDS/STD care and prevention. The impact of these latter interventions is difficult to gauge due to the lack of baseline, output and outcome data during the life of the project. The strong institutional base built by the end of the project helped mobilize additional financial and technical support from other international partners.

59. Although there are promising signs of behavior change among those engaged in risky behavior, awareness of AIDS among the general population has not been sufficiently accompanied by specific knowledge of how HIV is and is not transmitted and the project did not address sufficiently public attitudes toward people in high-risk groups and those living with HIV/AIDS. The project greatly overestimated the capacity of

NGOs to design and implement HIV/AIDS interventions. Consequently, in most states a smaller percentage of risk groups than anticipated were reached. There is a continuing need to build implementation capacity among NGOs and all levels of government if the quality of the response and its coverage is to be enhanced. Finally, aside from the successful implementation of nation-wide epidemiological surveillance of HIV in the last year of the project, monitoring and evaluation was unsatisfactory. The design and ultimate effectiveness of public information campaigns and pilot interventions would have been greatly enhanced had the project invested in collecting the planned baseline data on attitudes, behavior, and HIV levels in the general population and key groups at the start of the project. OED believes that availability of critical information on nationwide patterns of HIV prevalence and risk behavior earlier in the project's life also would have been helpful in generating stronger political commitment and earlier action, preventing many more infections. Nevertheless, as a start-up investment for the national HIV/AIDS response, project outcome is rated **satisfactory**.

Table 4. Summary OED Ratings of Outcome by Objective

<i>Major Objective</i>	<i>Importance*</i>	<i>Outcome</i>
Involve states and union territories in developing HIV/AIDS preventive activities with a special focus on the major epicenters of the epidemic	High	Satisfactory
Attain a "satisfactory level" of public awareness on HIV transmission and prevention	High	Moderately Satisfactory
Develop health promotion interventions among risk behavior groups in some states	Substantial	Moderately Satisfactory
Screen the majority of blood units collected for blood transfusions, and decrease the practice of professional blood donations	High	Satisfactory
Develop skills in clinical management, health education and counseling, and psycho-social support to HIV sero-positive persons, AIDS patients, and their associates	Modest	Moderately Unsatisfactory
Strengthen the control of sexually transmitted diseases (STDs)	Modest	Moderately Satisfactory
Monitor the development of the HIV/AIDS epidemic in the country	Substantial	Moderately Satisfactory

* Importance is judged by the priority accorded to the objective in project design, based both on the project description and the amount of funds allocated.

BANK PERFORMANCE

60. The Bank's overall performance was **satisfactory**. The Bank worked closely with international partners to convince the government to borrow for HIV/AIDS prevention while the country was still in the early stage of the epidemic, AIDS was invisible to most policymakers, denial was high and there was little support for preventive measures beyond improving the safety of the blood supply. The Bank established good working relationships with government and international partners and helped mobilize additional funds through donors. During supervision, it provided good technical advice (both through Bank staff and through the CDC) and maintained continuity in the project team. Policy dialogue and

conditions contributed to several important changes, including improved condom quality, increased political commitment, and legislation to reduce discrimination.

61. A major shortcoming in Bank performance—noted by a range of stakeholders, particularly outside government—was the failure to ensure monitoring or accountability for project outcomes, as opposed to project outputs and disbursement. In addition, more attention could have been devoted to research on the nature and scope of the epidemic, as well as to the cost-effectiveness of the interventions that were piloted. Some promising initiatives were launched—including a study of the cost-effectiveness of CSW interventions in Calcutta—but they were not completed. Finally, in retrospect, the Bank underestimated the institutional challenges and capacity building involved in implementing a comprehensive HIV/AIDS program in a challenging context, including the need for technical assistance. However, the Bank was not alone in this respect; similar miscalculations were made by other donors and agencies involved in the response.

BORROWER PERFORMANCE

62. Borrower performance is also rated **satisfactory** overall. Despite reluctance in some quarters, the government deserves credit for borrowing to expand HIV/AIDS prevention when it seemed invisible because few were yet dying from the disease. National political commitment was mixed through much of the project, but appears to have steadily strengthened during the final two years of implementation. There was heterogeneity in the performance of states; the states most affected by the virus were among the stronger responders. However, HIV/AIDS activities are still not well integrated into non-health ministries and are even not well integrated into family planning programs. Police harassment of outreach workers continues to hinder prevention interventions among risk groups, and the government has been reluctant to change legislation that has provided justification for such harassment (including anti-sodomy laws). Financial management was a weakness through much of project implementation—particularly at the state level, contributing to delays.²⁸

Lessons

63. The first National HIV/AIDS Control Project was a critical start-up investment to put in place the mechanisms for the response. Project experiences suggest many lessons relevant to the HIV/AIDS response in India and elsewhere, of which OED highlights a few of the most prominent.

- ***Building robust institutions requires substantial innovation and flexibility.*** The original design of the project called for establishing a National AIDS Control Authority that would have functioned as an autonomous parastatal. However, as it became evident that Parliament would not approve such an arrangement, a compromise was struck that led to creation of NACO, a high-level semi-autonomous body under the MOHFW headed by a Director with the status of an Additional Secretary. Likewise, the eventual adoption of the “society” model for State AIDS

28. Reimbursements were suspended in Tamil Nadu briefly.

control activities greatly reduced the administrative impediments to timely project implementation.

- ***Epidemiological and behavioral surveillance provide key information to build support for the response in countries where denial is high and the epidemic is otherwise “invisible.”*** Epidemiological evidence to establish the potential scope of the epidemic in India was thin during most of the life of the project. The states with the strongest commitment and response were those where the number of AIDS cases was mounting (Maharashtra, Manipur, Tamil Nadu). The additional information provided by the first national round of HIV surveillance in the last year of the project was a catalyst and turning point for political commitment in some states where HIV had spread, but the number of AIDS deaths was small. Had these activities occurred earlier, political commitment might have developed earlier in several key states. They also would have provided a baseline for measuring the accomplishments of the project, demonstrated more clearly the feasibility of effective responses, and have enabled fine-tuning of project activities.
- ***Projects that seek to enlist NGOs to implement HIV/AIDS interventions need to carefully assess NGO capacity in light of what is expected, and to ensure continuous training and technical support.*** The Bank, the government, and others in the international community overestimated local implementation capacity. While NGOs may in principle have a comparative advantage in spreading AIDS awareness or in reaching high-risk groups, their capacity for doing so may be weak. The mere existence of well-established development NGOs in the social welfare sector did not ensure the skills or capacity to quickly shift to HIV/AIDS interventions sometimes targeted to non-traditional groups. The lack of training and technical support to NGOs during project start-up delayed the implementation and expansion of project activities. While the project made major headway in terms of the selection and vetting of NGOs, capacity for monitoring and evaluation of NGO activities remains extremely weak.
- ***When political commitment is heterogeneous in a decentralized system, channeling resources to effective programs in areas with the highest commitment can serve as a powerful demonstration of the local feasibility of otherwise controversial programs.*** The project management’s decision to channel funds to the states most able and willing to use them facilitated the development of indigenous “models” or “pilots” of key interventions, with lessons for states that lagged, as well as institutional models (like the Tamil Nadu “society” model) better suited to rapid implementation of the project.
- ***Targeted awareness and interventions for high-risk groups can be successful only to the extent that complementary efforts are launched to improve the environment for HIV prevention among these groups.*** The project focused on implementing specific IEC and technical interventions for high-risk groups. But in a number of cases NGOs reported that harassment by police made it difficult to work effectively and drove members of the beneficiary groups underground. Gradually, the states are coming to realize that law enforcement must be sensitized and informed of the public health benefits of the interventions for groups that are engaging in otherwise illegal

activities, so that they cease counter-productive enforcement actions, the NGOs can do their jobs, and those at highest risk are enabled to engage in safer behavior.

- ***Campaigns to increase awareness of HIV/AIDS and promote behavior change must be informed by local research on behavior and attitudes in their design and implementation and in such a way as to reduce stigma of people living with HIV/AIDS.***
- ***Where a majority of clients seek STD treatment in the private sector (as is often the case with sexually transmitted diseases), engaging private and even traditional non-allopathic practitioners is likely to be necessary to ensure coverage and impact.***

Future Directions

64. While HIV/AIDS has likely spread less than it would have in the absence of the project, it nevertheless has continued to spread, albeit unevenly, throughout India. The results of the 2001 round of sentinel surveillance found six states in which HIV infection had reached high levels among STD patients and surpassed one percent of women attending antenatal clinics—Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland, and Tamil Nadu. In these states, where the epidemic started somewhat sooner, infection is mounting and so is the number of people living with HIV/AIDS in need of health care. In other states and union territories HIV has spread among high-risk groups, but not into the general population, while in a large number the epidemic has not yet taken off even among CSWs and IDUs, where it is likely to appear first. In 2001, roughly 75 percent of sex workers and their clients reported using condoms during their most recent sexual contact. But “consistent” condom use among CSWs and paying clients in the last month is lower – about 50 percent – and with non-paying partners lower still (21 percent) (NACO 2001c).

65. Certain priorities remain relevant for all states, irrespective of the stage of the epidemic:

- Expanding correct knowledge in the population concerning specific ways that HIV is spread and how to prevent it;
- Building and sustaining government and NGO capacity to implement, monitor, and evaluate programs;
- Refining the procedures for vetting and funding projects and improving the transparency of the process;
- Improving the reliability of funding flows, reducing uncertainty of funding levels, and improving the timeliness of release of resources to SACS and NGOs;
- Expanding the coverage of behavior change interventions to high-risk groups, while improving the quality of services;

- Investing in baseline surveys and analytic work that will help to design, evaluate, and improve the effectiveness and efficiency of programs, and disseminating results.

66. In the states with the most advanced epidemics and mounting numbers of AIDS patients, programs need to urgently improve the access of people living with HIV/AIDS (PWAs) to cost-effective medical care. Interviews with PWAs and visits to AIDS wards, together with data and reports from a variety of sources, indicated that many PWAs lack access to even the most basic health care and continue to be subject to discrimination and stigma by health care providers as well as family, co-workers, and neighbors (Dube 2000; Hawkes and Santhya 2002; Jain 2002). These states will want to conduct surveys of public and private provider knowledge, attitudes, and practices toward treatment of AIDS patients, and of the type and quality of treatment that AIDS patients are receiving, as the basis for assessing what improvements are necessary. Thus, both care and reducing discrimination against people with AIDS are urgently needed.

67. The states that have not yet felt the brunt of the epidemic, where infection rates are still low, cannot be complacent. Experience globally and in India shows that HIV can and will spread wherever it can. These areas have an opportunity to act early, spread awareness, and enable those at high risk to adopt safer behavior, preventing a widespread epidemic. In these areas, expanding coverage of behavior change interventions is critical, as is continuous sensitization of policymakers to the urgency and priority of the task.

68. The Second National HIV/AIDS Control Project (\$229.8 million) was approved in 1999, financed by an IDA credit of \$191 million and a government contribution of \$38.8 million, covering the period 1999–2004. The Second Project addresses many of these issues, by seeking to: expand the coverage of targeted interventions to high-risk populations; increase access to voluntary counseling and testing (VCT) centers and quality of IEC for the general population; improve access to low-cost care for people living with HIV/AIDS; enhance technical and managerial capacity; and promote multi-sectoral responses. The project design also calls for strengthening monitoring and evaluation. The Mid-term Review is scheduled for June 2003.

Recommendations

69. In addition to the general priorities noted above, the OED evaluation recommends that the second project address a number of specific issues highlighted by this review of the first project:

- Improve the environment for behavior change among high-risk populations by sensitizing law enforcement to the need for HIV prevention;
- Establish mechanisms to ensure that national and state-sponsored behavior change campaigns are based on rigorous research and are subject to regular monitoring and evaluation;
- Reduce the discrimination faced by HIV-positive persons, starting with the medical profession, and ensure the involvement of PWAs in the policy dialogue;

- Provide incentives to extend the tenure of Project Directors to at least 3 years, to reduce their turnover and improve effectiveness;
- Improve the dissemination of the results of analytic work and ensure access of researchers to raw epidemiological and behavioral datasets (like the BSS) for additional analysis, to improve the effectiveness or targeting of programs; and
- Put in place a results-based monitoring framework that will shift the focus from achieving output targets to monitoring progress toward agreed outcomes and to the quality of interventions.

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Annex A. Basic Data

INDIA NATIONAL AIDS CONTROL PROJECT (CREDIT 2350)

Key Project Data (amounts in US\$ million)

	<i>Appraisal estimate</i>	<i>Actual or current estimate</i>	<i>Actual as % of appraisal estimate</i>
Total project costs	99.6	113.3	114
Loan amount		84.0	
Cancellation		0%	

Cumulative Estimated and Actual Disbursements

	<i>FY93</i>	<i>FY94</i>	<i>FY95</i>	<i>FY96</i>	<i>FY97</i>	<i>FY98</i>	<i>FY99</i>
Appraisal estimate (US\$M)	12.2	20.1	20.3	16.3	14.6	0.5	0.0
Formally Revised	9.14	5.69	7.13	9.39	20.39	16.88	15.51
Actual (US\$M)	8.99	5.70	7.67	9.86	20.36	16.03	15.56
Actual as % of appraisal	74	28	38	60	139	—	—

Date of final disbursement: September 7, 1999

Data obtained from the Integrated Controller's System

Due to rounding and the use of different exchange rates, figures may not fully match the disbursements record in GOI's report.

Project Dates

	<i>Original</i>	<i>Actual</i>
Identification (Executive Project Summary)		08/30/91 (IEPS review)
Appraisal	10/17/91	10/16/91
Negotiations		02/19/92
Signing		04/24/92
Effectiveness	09/91*	09/21/92
Mid-term Review	03/31/95	11/03/95
Project completion	03/31/97	09/30/98
Closing date	09/30/97	03/31/99

* Dates obtained from MOP

Staff Inputs (staff weeks)

<i>Stage of Project Cycle</i>	<i>Planned</i>		<i>Actual</i>	
	<i>Staff Weeks</i>	<i>US\$ ('000)</i>	<i>Staff Weeks</i>	<i>US\$ ('000)</i>
Preappraisal to appraisal	—	—	18.6	59.1
Appraisal	—	—	44.7	132.2
Negotiations through Board approval	—	—	12.3	36.2
Supervision*			134.8	422.8
Completion*	18.0	68.0	4.0	18.2
Total	18.0	68.0	214.4	668.5

* Information available from FACT only for FY96–FY98.

Mission Data

	Date (month/year)	No. of persons	Staff days in field	Specializations represented ^a	Performance rating ^b		Types of problems
					Implementation status	Development Objectives	
Preparation through appraisal					TM, SPHS, P	SINGYUAN	n/a
Appraisal through Board approval	10/91		40			n/a	n/a
Board approval through effectiveness	03/92 09/92					n/a	n/a
Supervision 1	08/92	3	12	TM, SPHS, P, PHS	2	1	
Supervision 2	08/93	9	14	TM, SPHS, P, SS, PHS, AC	1	1	
Supervision 3	08/94	7	14	TM, SPHS, P, SS, PHS, AC	S	S	
Supervision 4	06/95	1	0	TM			
Supervision 5	12/95	7	35	TM, SPHS, P, SS, PHS, HE, LEG, AC	S	S	
Supervision 6	05/96	1	0	TM	S	S	
Supervision 7	11/96	1	24	TM/PHS	S	S	
Supervision 8	06/97	1	0	TM	S	S	<u>c/</u>
Supervision 9	01/98	4	11	TM, PPHS, P, SS, PHS	S	S	
Supervision 10	05/98	1	0	TM	HS	S	
Supervision 11	08/98	1	17	TM, PPHS, P, SS, PHS	HS	S	
Supervision 12 and Implementation Completion Report	02/99	5	12	TM, PPHS, P, FMS, OA, AA	HS	S	

a. TM = Task Manager; SS = Social Scientist; SPHS = Sr. Public Health Specialist; PPHS = Principal Public Health Specialist; PHS = Public Health Specialist; P = Procurement Specialist; AC = AIDS Coordinator; HE = Health Economist; FMS = Financial Management Specialist; OA = Operations Analyst; AA = Administrative Assistant.

b. The earlier performance ratings were based on a numbered system.

c. Due to audit delays largely involving Tamil Nadu, Disbursements against SOEs were suspended on June 5, 1997.

Annex B. Persons Consulted

WASHINGTON, D.C.

WORLD BANK

Dr. Salim Habayeb, Lead Health Specialist (former Task Manager, India AIDS I)
 Mr. Prabhat Jha (former Task Manager, India HIV/AIDS II)
 Mr. Mead Over, Lead Economist, Health, DECRG
 Mr. Richard Skolnik (former Sector Manager)
 Mr. Heinz Vergin (former India Country Director)

OTHER INTERNATIONAL ORGANIZATIONS (OUTSIDE INDIA)

Ms. Joanne Csete, Human Rights Watch, New York
 Mr. Siddarth Dube, UNICEF, New York
 Dr. Michael Merson, Dean, Yale School of Public Health (former Director, WHO/Global Programme on AIDS)
 Dr. John Narkunas, Blood Safety Specialist, US Centers for Disease Control and Prevention
 Dr. Sam Perry, Chief STD/HIV, US Centers for Disease Control and Prevention
 Dr. Lyle Petersen, Chief, Surveillance, US Centers for Disease Control and Prevention
 Dr. Swarup Sarkar, UNAIDS Intercountry Technical Adviser for South Asia, Bangkok
 Ms. Liz Williams, Doctoral Candidate

NEW DELHI

WORLD BANK

Dr. Peter Heywood, Lead Health Specialist
 Mr. Chris Hoban, Senior Operations Advisor
 Dr. K. Sudhakar, Senior Health Specialist, Task Manager, HIV/AIDS II, and former manager of the USAID-funded AIDS Prevention and Control Project in Tamil Nadu
 Ms. Suneeta Singh, Senior Public Health Specialist
 G.N.V. Ramana, Senior Public Health Specialist

NATIONAL AIDS CONTROL ORGANISATION (NACO)

Ms. Meenakshi Datta Ghosh, Additional Secretary and Project Director
 Dr. P.L. Joshi, Additional Project Director
 Mr. Navreet Singh Kang, Director, Finance
 Mr. Pratik Kumar, Deputy Director (IEC) and NGO Coordinator
 Dr. A. S. Rathore, Joint Director (Training)
 Dr. P. Salil, Joint Director (Blood Safety)
 Dr. V.N. Sardana
 Dr. Mohammed Shaukat, Deputy Director (Technical)

OTHER GOVERNMENT OFFICIALS

Mr. P.R. Dasgupta, Member, Telecom Disputes Settlement & Appellate Tribunal
(Former Director of NACO, 1991-95)
Mr. Prasada Rao, Secretary, Family Welfare, Ministry of Health and Family Welfare
(Former NACO director)
Mr. S. Ramasundaram, Joint Secretary, Department of Commerce (Former Director of
Tamil Nadu AIDS Control Society)

DELHI STATE AIDS CONTROL SOCIETY

Mr. N.C. Ray, Project Director
Dr. Bhatia, Deputy Director and Medical Officer
Mr. R. Pande, Finance Officer
Mr. Kaushik, Finance Manager

RESEARCHERS/ INSTITUTES

Mr. Lester F. Coutinho, Researcher
Dr. Heiner Grosskurth, Head, HIV/STI Prevention and Care Research Programme,
Population Council
Dr. Indrani Gupta, Institute for Economic Research.
Ms. Vaishali Sharma Mahendra, Population Council
Dr. Saroj Pachauri, Regional Director. Population Council – South & East Asia Regional
Office
Prof. Mohan Rao, Department of Community Medicine, Jawaharlal Nehru University
Mr. Ravi Verma, Population Council

NGOs

Dr. Priyam Vada Chaturvedi, Secretary, Drishtikon
Dr. Bitra George, Program Manager (Technical), Family Health International
Ms. Kalpana Jain, Special Correspondent, *The Times of India*
Dr. Rajesh Kumar, Executive Director, Society for Promotion of Youth and Masses
Dr. A. Rajatashuvra, Senior Research Officer. Family Health International
Dr. Asha Rao, Country Programme Director, India HIV/AIDS Alliance
Mr. Luke Sampson, Director, SHARON
Dr. Saraswathi Sankaran, Executive Director. Deepam Educational Society for Health
(DESH)
Ms. Geeta Savant, The Naz Foundation (India) Trust
Ms. Carol Squire, Country Director, Population Services International
Rtn. (Dr.) Rajiv Tandon, Consultant Pediatrician

DONORS

Mr. François M. Farah, UNFPA Representative
Dr. Prakash Gurnani, Programme Officer-Health & Nutrition, UNICEF

Dr. Sanjay Kapur, Project Management Specialist, Office of Population, Health & Nutrition, USAID
 Mr. M.K. Padma Kumar, Programme Officer, DFID
 Dr. David Miller, Country Programme Adviser, UNAIDS
 Bethanne Moskov, Team Leader, Infectious Disease, Office of Population, Health & Nutrition, USAID
 Mr. K. Pradeep, Strategic Planning Officer, UNAIDS
 Dr. Dora Warren, Director, Global AIDS Program, US Centers for Disease Control and Prevention
 Mr. Desmond Whyms, Health Adviser, DFID

ANDHRA PRADESH

ANDHRA PRADESH STATE AIDS CONTROL SOCIETY

Ms. K. Damayanthi, Project Director
 Dr. C. Surya Kumari, Deputy Director
 Mr. S.D. Madhukar, NGO Advisor
 Dr. M.V. Ramana Rao, Joint Director
 Mr. T. Gopal Singh, Deputy Director, IEC
 Mr. R. Tyagaraju, Deputy Director, Public Relations
 Ms. M.L. Nagamani Ammal, Retired Project Director, AP AIDS Cell
 Dr. B. Nandraj Singh, Director of Health and Family Welfare, Retired Project Director, APAIDS Cell

NGOs

Mr. G. Manoj, SMA, Andhra Pradesh. Hindustan Latex Ltd.
 Dr. Dinesh Raj Mathur, Prof. & Head, Dept. of Microbiology, Osmania Medical College
 Mr. P. Srinivas, Coordinator, Counselor, Nrityanjali Academy (Sociocultural Organisation)
 Mr. P. Venkateshwar Reddy, Coordinator, Rahul's Medical & Health Services Society

MAHARASHTRA

MAHARASHTRA STATE AIDS CONTROL SOCIETY

Dr. Subhash Salunke, Project Director and Director General of Health Services
 Dr. Deshpande, Chief Officer for Sentinel Surveillance, STDs, and Training
 Ratnakar Khaire, NGO Advisor

MUMBAI DISTRICT AIDS CONTROL SOCIETY

Dr. Alka Gogate, Project Director

DONORS

Mr. K. Vaidyanathan, Program Director, AVERT Project (USAID)

NGOS

Mr. Shaskant Bansode, Project Director, John Paul Slum Development Project

Dr. S. D. M. Bhadkamkar, Director, Sevadham Trust

Dr. Nitin Bora, Kayakalp

Dr. Ranjan Darwekhar, AIDS Theatre Group

Mr. Vivek Divan, Legal Consultant/Coordinator, Lawyers Collective HIV/AIDS Unit

Dr. R. R. Gangakhedkar, Assistant Director, National AIDS Research Institute, Indian Council of Medical Research

Mr. Anand Grover, Advocate, Director HIV/AIDS Unit, LC Associates

Dr. S. K. Hira, Director, ARCON

Mr. Manoj, Network of Maharashtra People Living with HIV/AIDS (NMP+)

Mr. Shivade Mitu Mohan, Manas Vyasnmukh Kendra Mashik

Mr. George Swamy, President, John Paul Slum Development Project

Ms. Aparna Tamharkar, We Need You Society

Ms. Seema Waghmode, Kayakalp

TAMIL NADU**TAMIL NADU STATE AIDS CONTROL SOCIETY**

Mr. R. Christodas Gandhi, Project Director

Mr. K. Allaudin (Former Project Director Dec 1, 1997-Jan 1, 2000)

Dr. R. Murali, Professor, Institute of Community Medicine (former Deputy Director for Sentinel Surveillance)

Dr. K. Palanichamy, Deputy Director for STDs

Mr. A. Sebastian Jayaraj, NGO Coordinator

DONORS

Dr. Bimal Charles, Project Director, AIDS Prevention and Control Project (APAC)/Voluntary Health Services (funded by USAID)

NGOs

Mr. A.J. Hariharan, Secretary, Indian Community Welfare Organisation (ICWO)

Ms. Sayamala Nataraj, Secretary, South India AIDS Action Programme (SIAAP)

Mr. A. Purushothaman, Secretary, Kalaiselvi Karunalaya Social Welfare Society (KKSS)

Ms. Smeda, Programme Coordinator, Madras Christian Council of Social Service (MCCSS)

UTTAR PRADESH

UTTAR PRADESH STATE AIDS CONTROL SOCIETY

Sh. Bachittar Singh, Project Director
Prof. Manoj Ajarwan, Advisor
Mr. Ashutosh, Director, Training, and NGO Advisor
Dr. S.K. Chakravarty, Joint Director, Blood Safety/DDO
Dr. R.P. Mathur, Assistant Director, Sentinel Surveillance and Procurement
Dr. R.P. Pathak, Deputy. Director, Voluntary Counseling and Testing
Mr. Anant Vijay Singh, Monitoring and Evaluation Officer

NGOs

Ajit Banerjee, Project Coordinator, Healthy Highways Project, Sarvajan,
Vinod Kumar Singh, UP Voluntary Health Association
T.N. Srivasthana , Senior Project Coordinator, Sarvajan

WEST BENGAL

WEST BENGAL STATE AIDS CONTROL SOCIETY

Mr. S. Suresh Kumar, Project Director.
Ms. Aparjita Dhar, Deputy NGO Officer
Dr. Surjit Kumar Ojha, Deputy Director
Mr. Trilochan Singh, Finance and Accounts, West Bengal State Electricity Board

DONORS

Mr. Shumon Sengupta, Representative to West Bengal, British Deputy High Commission

NGOs

Dr. Rakesh Agarwal, Bhoruka Public Welfare Trust
Mr. Sujit Datta, Association of Voluntary Blood Donors (AVBDWB)
Mr. K. Kanar, SAVE
Mr. Tarun Maiti, Manager, West Bengal Voluntary Health Association
Mr. S.K. Mitra. SAVE
Mr. Biswajit Panda, Bhoruka Public Welfare Trust
Mr. Satyaban Ranjit, Chittaranjan Welfare and Research Centre
Mr. Debabrata Ray, Association of Voluntary Blood Donors (AVBDWB)
Mr. Partha Roy, CINI-ASHA

Annex C. Project Financing by Component

<i>Components</i>	<i>Appraisal estimate (US\$ 000)</i>				<i>Actual/latest estimate (US\$ 000)</i>			
	<i>IDA</i>	<i>WHO</i>	<i>GOI</i>	<i>Total</i>	<i>IDA</i>	<i>WHO</i>	<i>GOI</i>	<i>Total</i>
Strengthening Program Management Capacity	5,990	565	1,166	7,721	4,415	844	5,246	10,505
Promoting Public Awareness and Community Support	26,105	282	4,749	31,136	16,955	420	6,411	23,786
Improving Blood Safety and Rational Use	30,297	113	4,242	34,652	39,141	169	5,707	45,017
Controlling Sexually Transmitted Diseases	10,040	283	1,232	11,555	14,338	422	3,882	18,642
Building Surveillance and Clinical Management Capacity	11,748	226	2,545	14,519	8,801	337	6,241	15,379
TOTAL	84,180	1,469	13,934	99,583	83,650	2,192	27,487	113,329

Annex D. Trends in Knowledge, Awareness, and Behavior, by State

Table E1. Change in Awareness of HIV/AIDS Among Women of Reproductive Age

	"Heard of AIDS" (percent) ^a			Aware that condoms prevent HIV transmission (percent) ^b		
	1992-93 (NFHS-1)	1998-99 (NFHS-2)	2001 (BSS)	1992-93 (NFHS-1)	1998-99 (NFHS-2)	2001 (BSS)
NATIONAL	16.8	40.3	70.0	4.7	8.0	33.7
Andhra Pradesh		55.3	97.4		8.9	55.6
Arunachal Pradesh	16.2	60.4			12.5	
Assam	8.4	33.7	60.8		8.9	23.9
Bihar		11.7	26.9		2.8	4.5
Goa	41.7	76.3	90.2 ^c	13.3	11.4	60.4 ^c
Gujarat	10.6	29.8	37.5 ^d	3.5	8.1	8.0
Haryana		44.3	69.8		16.2	38.0
Himachal Pradesh		60.9	89.6		24.2	68.7
Jammu & Kashmir		31.9	75.4 ^e		5.1	38.6 ^d
Karnataka		58.1	78.9		5.0	32.6
Kerala		86.9	98.7 ^f		10.4	71.8
Madhya Pradesh		22.7	42.9		6.0	15.4
Maharashtra	18.6	61.1	77.3	6.0	12.3	34.9
Manipur	72.5	92.9	92.0		14.3	60.1
Meghalaya	26.7	44.2			8.4	
Mizoram	84.8	93.2			37.1	
Nagaland	40.9	72.4			2.3	
Orissa		39.0	58.6		5.7	13.7
Punjab		54.6	88.0 ^g		19.0	65.6
Rajasthan		20.8	52.5		7.0	21.3
Sikkim		53.6	70.8		12.6	40.3
Tamil Nadu	23.4	87.3	87.4 ^h	3.3	9.6	40.4
Tripura	13.2					
Uttar Pradesh		20.2	34.9		5.0	10.3
West Bengal	9.8	26.4	50.1 ⁱ	3.5	5.6	10.4
Union Territories^j						
Delhi	35.8	79.2	85.9	14.4	41.2	63.1

NFHS: National Family Health Survey; BSS: Behavioral Surveillance Survey.

^a The percentage of women who responded in the affirmative to the question, "Have you heard of AIDS?" The samples of women for each survey are slightly different. NFHS-1: Ever married women age 13-49; NFHS-2: Ever married women age 15-49; BSS 2001: Women age 15-49 (irrespective of marital status).

^b As a percent of all women (not just those who were aware of AIDS). The results for the NFHS and BSS are not strictly comparable because of differences in the way that the questions were asked. The NFHS asked respondents if a person can do anything to avoid becoming infected with HIV; those who responded in the affirmative were asked what a person could do to avoid AIDS, in an open-ended question. The BSS asked all respondents who had ever heard of or seen a condom, "For what purposes could a condom be used?", for which one possible answer was "HIV/AIDS Control" (NACO 2001c).

^c The union territories Daman and Diu are included in results for Goa.

^dThe union territories Dadra and Nagar Haveli are included in results for Gujarat .

^eJammu region only.

^fThe union territory Lakshadweep is included in results for Kerala.

^gThe union territory Chandigarh is included in results for Punjab.

^hThe union territory Pondicherry is included in results for Tamil Nadu.

ⁱThe union territories Andaman and Nicobar Islands are included in results for West Bengal.

^jThe National Family Health Surveys did not survey union territories, with the exception of Delhi. The BSS pooled results for union territories with an adjacent state. See footnotes c-i.