



June 22, 2021

Mr. Rajat Kumar Mishra
Additional Secretary (MBC)
Department of Economic Affairs
Ministry of Finance
Government of India
North Block
New Delhi

Dear Mr. Mishra:

*National AIDS Control Support Project (P130299) (Cr. No. 5236-IN)
IEG Implementation Completion and Results Report (ICRR) Review*

I am pleased to attach the Implementation Completion and Results Report (ICRR) of the India: National AIDS Control Support Project (P130299) (Cr. No. 5236-IN). In addition, I am attaching the review of the ICRR by the Independent Evaluation Group (IEG), which is an independent unit within the World Bank Group (WBG) that reports directly to the Board of Executive Directors.

The Section 11 on Ratings on page 15 of the IEG Review provides a comparison of the ratings of the ICRR and IEG on the project's Outcome, Bank Performance, and Quality of Monitoring and Evaluation. The IEG Review has concurred with the ICRR's assessment that the project Outcome was Satisfactory.

We welcome any comments that you may have on the review report and request you to kindly send these to Dr. Suresh K Mohammed, Task Team Leader and Senior Health Specialist (email: smohammed5@worldbank.org) and Ms. Marelize Gorgens, ICRR Lead Author and Senior Monitoring & Evaluation Specialist (email: mgorgens@worldbank.org) by June 27, 2021.

Yours sincerely,

Hideki Mori
Operations Manager, India

Encl. ICRR; ICRR review by IEG

Copy to:

Mr. Rajesh Khullar, Executive Director, World Bank

Mr. Ritesh Kumar Singh, Senior Advisor to Executive Director, World Bank

Mr. Hanish Chhabra, Director, DEA, Ministry of Finance, Government of India

Mr. Navjot Singh, Under Secretary, DEA, Ministry of Finance, Government of India

Mr. Alok Saxena, Additional Secretary and DG, National AIDS Control Organization (NACO), Ministry of Health & Family Welfare, Government of India

Dr. Shobini Rajan, Deputy Director General, National AIDS Control Organization (NACO), Ministry of Health and Family Welfare, Government of India

Document of
The World Bank
FOR OFFICIAL USE ONLY

Report No: ICR00005382

IMPLEMENTATION COMPLETION AND RESULTS REPORT

CREDIT NO. 5236-IN

ON A

CREDIT

IN THE AMOUNT OF SDR 168.40 MILLION
(US\$255 MILLION EQUIVALENT)

TO THE

REPUBLIC OF INDIA

FOR THE

NATIONAL AIDS CONTROL SUPPORT PROJECT

January 21, 2021

Health, Nutrition and Population Global Practice
South Asia Region

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

CURRENCY EQUIVALENTS
(Exchange Rate Effective January 21, 2021)

Currency Unit = Indian Rupees (INR)

INR 72.96 = US\$1

US\$ 1.44 = SDR 1

FISCAL YEAR
April 1 – March 31

Regional Vice President: Hartwig Schafer

Country Director: Junaid Kamal Ahmad

Regional Director: Lynne D. Sherburne-Benz

Practice Manager: Trina S. Haque

Task Team Leader(s): Suresh Kunhi Mohammed

ICR Main Author: Marelize Gorgens

ICR Contributing Author(s): Lung Vu and Mary Ndege

ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Treatment
ARV	Antiretroviral
BCC	Behavior Change Communication
BSS	Behavioral Surveillance Survey
CAS	Country Assistance Strategy
CBO	Community-Based Organization
CDC	Center for Disease Control
CPF	Country Partnership Framework
DALYs	Disability-Adjusted Life Year
DAPCU	District AIDS Prevention and Control Unit
DoHFW	Department of Health and Family Welfare
FSW	Female Sex Worker
GF	Global Fund to Fight AIDS, TB and Malaria
Gol	Government of India
HIV	Human Immunodeficiency Virus
HIVST	HIV Self-testing
HLFPPT	Hindustan Latex Family Planning Promotion Trust
HRG	High-Risk Group
IBBS	Integrated Bio-Behavioral Surveillance
ICR	Implementation Completion and Results Report
ICTC	Integrated Counselling and Testing Center
IDU	Injecting Drug User
IEC	Information, Education, and Communication
ISR	Implementation Status and Results Report
IUFR	Interim Unaudited Financial Report
NHRP	National HIV/AIDS Research Plan
LGBTQ	Lesbian, Gay, Bisexual, Transgender and Queer
M&E	Monitoring and Evaluation
MoHFW	Ministry of Health and Family Welfare
MSM	Men having Sex with Men
MTR	Midterm Review
NACO	National AIDS Control Organization
NACP	National AIDS Control Programme
NACSP	National AIDS Control Support Project
NDAP	National Data Analysis Plan
NGO	Nongovernmental Organization
NRHM	National Rural Health Mission
NTSU	National Technical Support Unit
OST	Opioid Substitution Therapy
PDO	Project Development Objective
PEPFAR	President's Emergency Plan for AIDS Relief
PLHIV	People Living with HIV/AIDS
p-MPSE	Programmatic Mapping and Population Size Estimation

PWID	People Who Inject Drugs
PrEP	Pre-exposure Prophylaxis
SACS	State AIDS Control Society
SIMS	Strategic Information Management System
SOCH	Strengthening Overall Care for HIV Patients
STI	Sexually Transmitted Infection
TAsP	Treatment as Prevention
TG	Transgender
TI	Targeted Intervention
TSU	Technical Support Unit
TTL	Task Team Leader
UNAIDS	United Nations Joint Programme on HIV and AIDS
USAID	US Agency for International Development
WHO	World Health Organization

TABLE OF CONTENTS

DATA SHEET	1
I. PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES.....	5
A. CONTEXT AT APPRAISAL	5
B. SIGNIFICANT CHANGES DURING IMPLEMENTATION (IF APPLICABLE)	14
II. OUTCOME	21
A. RELEVANCE OF PDO.....	21
B. ACHIEVEMENT OF PDO (EFFICACY).....	23
C. EFFICIENCY.....	30
D. JUSTIFICATION OF OVERALL OUTCOME RATING	32
III. KEY FACTORS THAT AFFECTED IMPLEMENTATION AND OUTCOME.....	34
A. KEY FACTORS DURING PROJECT PREPARATION	34
B. KEY FACTORS DURING PROJECT IMPLEMENTATION.....	35
C. FACTORS CAUSING CHALLENGES.....	38
IV. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME ..	39
A. QUALITY OF MONITORING AND EVALUATION (M&E)	39
B. ENVIRONMENTAL, SOCIAL, AND FIDUCIARY COMPLIANCE.....	42
C. BANK PERFORMANCE.....	44
D. RISK TO DEVELOPMENT OUTCOME.....	45
V. LESSONS AND RECOMMENDATIONS	46
ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS.....	49
ANNEX 2. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION.....	60
ANNEX 3. PROJECT COST BY COMPONENT	62
ANNEX 4. EFFICIENCY ANALYSIS.....	63
ANNEX 5. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS ...	67
ANNEX 6. NACO ICR AND SUMMARY OF KEY INFORMANT INTERVIEWS	71



DATA SHEET

BASIC INFORMATION

Product Information

Project ID	Project Name
P130299	National AIDS Control Support Project
Country	Financing Instrument
India	Investment Project Financing
Original EA Category	Revised EA Category
Partial Assessment (B)	Partial Assessment (B)

Organizations

Borrower	Implementing Agency
Department of Economic Affairs	National AIDS Control Organisation, Department of AIDS Control, Central Medical Services Society

Project Development Objective (PDO)

Original PDO

The Project Development Objective (PDO) is to increase safe behaviors among high risk groups in order to contribute to the national goal of reversal of the HIV epidemic by 2017.

Revised PDO

The Project Development Objective (PDO) is to increase safe behaviors among high risk groups in order to contribute to the national goal of reversal of the HIV epidemic



FINANCING

	Original Amount (US\$)	Revised Amount (US\$)	Actual Disbursed (US\$)
World Bank Financing			
IDA-52360	255,000,000	255,000,000	237,122,285
Total	255,000,000	255,000,000	237,122,285
Non-World Bank Financing			
Borrower/Recipient	255,000,000	0	0
Total	255,000,000	0	0
Total Project Cost	510,000,000	255,000,000	237,122,285

KEY DATES

Approval	Effectiveness	MTR Review	Original Closing	Actual Closing
01-May-2013	22-Jul-2013	16-May-2016	31-Dec-2017	30-Jun-2020

RESTRUCTURING AND/OR ADDITIONAL FINANCING

Date(s)	Amount Disbursed (US\$M)	Key Revisions
17-Mar-2017	85.11	Change in Results Framework Change in Loan Closing Date(s)
03-May-2018	111.51	Change in Project Development Objectives
23-Jun-2019	147.34	Change in Implementing Agency Change in Results Framework Change in Institutional Arrangements Change in Procurement
25-Nov-2019	174.78	Change in Loan Closing Date(s) Change in Implementation Schedule

KEY RATINGS

Outcome	Bank Performance	M&E Quality
Satisfactory	Satisfactory	Substantial


RATINGS OF PROJECT PERFORMANCE IN ISRs

No.	Date ISR Archived	DO Rating	IP Rating	Actual Disbursements (US\$M)
01	07-Aug-2013	Satisfactory	Satisfactory	0
02	10-Feb-2014	Satisfactory	Satisfactory	10.42
03	16-Aug-2014	Satisfactory	Satisfactory	31.72
04	05-Jan-2015	Satisfactory	Satisfactory	32.16
05	29-Jun-2015	Moderately Satisfactory	Moderately Unsatisfactory	39.59
06	31-Dec-2015	Moderately Satisfactory	Moderately Unsatisfactory	54.19
07	29-Jun-2016	Satisfactory	Moderately Satisfactory	72.85
08	30-Dec-2016	Satisfactory	Moderately Satisfactory	78.85
09	24-Jul-2017	Satisfactory	Moderately Satisfactory	99.65
10	08-Jan-2018	Satisfactory	Moderately Unsatisfactory	105.21
11	16-Jul-2018	Satisfactory	Moderately Unsatisfactory	124.06
12	26-Feb-2019	Satisfactory	Moderately Satisfactory	131.23
13	28-Aug-2019	Satisfactory	Moderately Satisfactory	150.99
14	12-Feb-2020	Satisfactory	Moderately Satisfactory	180.22
15	29-Jun-2020	Satisfactory	Moderately Satisfactory	225.81

SECTORS AND THEMES
Sectors

Major Sector/Sector (%)

Health
100

Public Administration - Health

6

Health

94

Themes

Major Theme/ Theme (Level 2)/ Theme (Level 3) (%)



Human Development and Gender	100
Disease Control	90
HIV/AIDS	90
Health Systems and Policies	10
Health System Strengthening	10

ADM STAFF

Role	At Approval	At ICR
Regional Vice President:	Isabel M. Guerrero	Hartwig Schafer
Country Director:	Onno Ruhl	Junaid Kamal Ahmad
Director:	Jesko S. Hentschel	Lynne D. Sherburne-Benz
Practice Manager:	Julie McLaughlin	Trina S. Haque
Task Team Leader(s):	Sameh El-Saharty	Suresh Kunhi Mohammed
ICR Contributing Author:		Lung Duy Vu

I. PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES

A. CONTEXT AT APPRAISAL

Country Context

1. **Significant change but pernicious human development challenges.** India is a vast (ranked 6 in the world), populous (over one-sixth of the world's population), and diverse country (in terms of ethnicity, language, and religions). At the time of appraisal in 2012, it was recognized that India had gone through a period of significant change. Key socioeconomic and health outcomes had improved from a decade earlier. But the country still faced pernicious human development challenges: illiteracy levels were high (26 percent), around 24 million people lived in extreme poverty, and in terms of health outcomes, India still lagged behind many of its peers.¹ At the time of appraisal, despite good progress on the human immunodeficiency virus (HIV) and tuberculosis (TB) targets, India was not on track to achieve the 2015 Millennium Development Goal for maternal mortality and infant mortality.²

HIV Context and Government Response

2. **HIV prevalence and geographic heterogeneity.** In 2012, the Government of India (GoI) projected that between 1.72 million and 2.53 million Indians were living with HIV, of which 39 percent were women.³ Despite low HIV prevalence in the general population (0.31 percent), India still had the world's third largest HIV epidemic. Government estimates suggested that 83 percent of new infections were among adolescents and adults. India's epidemic had always been geographically heterogenous, concentrated in a few states in the industrialized south and west and in the northeast. Around the time of appraisal, four high prevalence states (Andhra Pradesh, Maharashtra, Karnataka, and Tamil Nadu) accounted for 55 percent of all HIV infections.⁴

3. **Sources of HIV acquisition.** At the time of appraisal, HIV acquisition through sexual activity accounted for 87 percent of new HIV infections: data showed that India's HIV epidemic was driven by high-risk sex between female sex workers (FSWs) and their clients, men having sex with men (MSM) and their male partners, and transgender (TG, Hijra) population and their sexual partners. People who inject drugs⁵ (PWID) who shared potentially contaminated injecting equipment also contributed to new HIV infections. Collectively, in India, these populations are referred to as high-risk groups, or HRGs. As India's HIV epidemic matured, several 'bridge populations' (populations who interact with HRGs and are 'bridges' to the general population) also emerged, most notably male migrants and long-distance truckers.⁶ HIV prevalence varied by states, remained stable among PWID, and was rising among bridge populations.⁷

¹ World Bank Country Partnership Framework (CPF). <https://www.worldbank.org/en/cpf/india>.

² https://www.unescap.org/sites/default/files/India_and_the_MDGs_0.pdf.

³ India HIV Estimates 2012 Technical Report.

⁴ <https://www.worldbank.org/en/news/feature/2012/07/10/hiv-aids-india>.

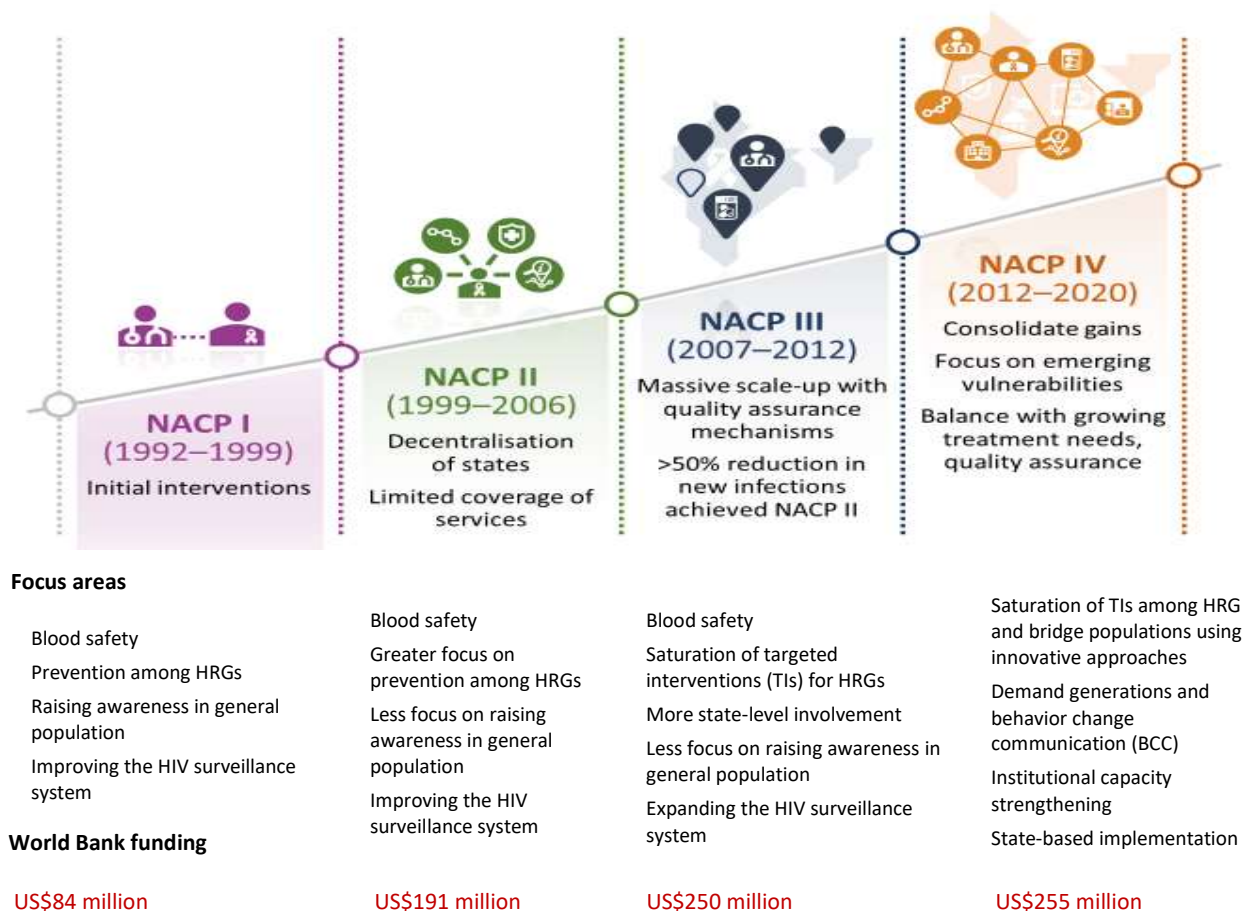
⁵ At appraisal, the term 'injecting drug user' (IDU) was still widely used. It had since been agreed, globally, that the term 'PWID' was the more appropriate term. As such, the Implementation Completion and Results Report (ICR) refers to 'PWID' throughout, except where a direct quote from a project document is made.

⁶ HIV Sentinel Surveillance National Technical Report (2012–2013).

⁷ HIV Sentinel Surveillance National Technical Report (2012–2013).

4. **Government’s response to HIV in the last three decades.** As illustrated in figure 1, India has—since 1992—cycled through four phases of its National AIDS Control Programme (NACP): each phase has been accompanied by a concomitant World Bank operation to support the government program (funding amounts in figure 1). At the time of appraisal, the third NACP implementation period had just come to an end and the fourth one was about to be implemented. The World Bank project was designed to support NACP IV.

Figure 1. Implementation of the Consecutive NACP Strategies in India



5. **Halting of HIV epidemic during NACP III implementation.** The efforts under NACP III paid off in terms of (a) rapid scaling-up of targeted HIV prevention interventions (‘targeted interventions’ or TIs) for high-risk and bridge populations and (b) the initiation of a large-scale HIV treatment program. In 2012, by the end of NACP III, TIs had reached 81 percent of FSWs, 66 percent of MSM, and 81 percent of PWID. Antiretroviral treatment (ART) coverage for adults increased to 30 percent. During NACP III implementation, India made steady progress toward its national goal to halt and reverse the HIV epidemic:

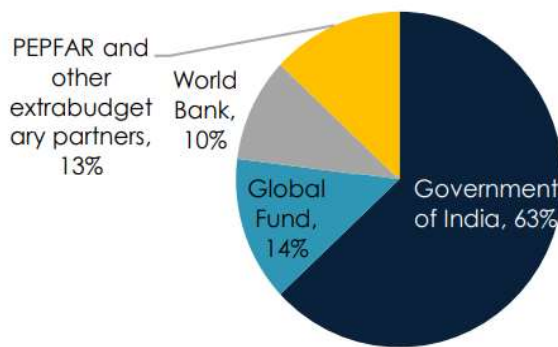
new infections reduced by 32 percent between 2007 and 2015,⁸ and the estimated annual deaths from HIV had steadily declined by 66 percent.⁹

6. **Independent assessments had shown that NACP III contributed significantly to halting the HIV epidemic and that the interventions were cost-effective.** An independent and high-quality external study estimated that 3 million HIV infections had been averted in India because of the sustained scale-up and implementation of TIs under NACP III.¹⁰ Further, a cost-effectiveness analysis suggested that the Government and development partners spent, on average, US\$104 per HIV infection averted and US\$10.7 per disability-adjusted life-year averted,¹¹ making them cost-effective.

7. **Capacity for TI scale-up through Technical Support Units (TSUs), State AIDS Control Societies (SACs), and District AIDS Prevention and Control Units (DAPCUs).** The success of TI scale-up was partly attributed to the increased capacity to design, implement, and oversee. This capacity was built through the appointment of TSUs at the national and state level to support TI design, implementation and monitoring, and capacity building of SACs and DAPCUs. To further support capacity-building efforts, a dedicated northeast regional office was established for focused attention to the northeastern states, and state training resource centers were set up to help the state-level implementation units and functionaries.

8. **Sources of financing shifted from a primarily donor-funded response to a government-funded one.** NACP III success was not only evident in terms of program scale-up and saturation but also in terms of funding sources. Between NACP I and NACP III, the HIV funding landscape had significantly changed: funding moved from primarily external donor funding to being primarily financed by the Government. In 2012, the GoI committed to finance 90 percent of the national HIV program. Between 2012 and 2017, the Government financed 73 percent of the HIV response: 63 percent domestically and another 10 percent through a World Bank loan for NACP IV implementation (that is, this project) (figure 2). This is a significant increase from 15 percent domestic financing under NACP I.

Figure 2. All Sources of HIV Financing in India, 2012–2017



Source: President’s Emergency Plan for AIDS Relief (PEPFAR) 2015.

⁸ NACO HIV Technical Estimates 2015.

⁹ Technical Report: HIV estimates - 2012 (NACO).

¹⁰ Prinja, S., Bahuguna, P., Rudra, S., Gupta, I., Manmeet, K., Mehendale SM., Chatterjee, S., Panda, S., Kumar, R. “Cost Effectiveness of Targeted HIV Prevention Interventions for Female Sex Workers in India.” *Sex Transm Infect* 87: 354–361.

¹¹ Haacker, M., and Claeson, M. 2009. *HIV and AIDS in South Asia. An Economic Development Risk*. Directions in Development, Human Development, World Bank.

9. **Despite these successes that were evident in 2012, a few pernicious challenges remained.** First, India still had a significant HIV epidemic in terms of the number of people living with HIV/AIDS (PLHIV) (third largest in the world, after South Africa and Nigeria). Second, by the end of NACP III, high-risk sexual and injection drug use behaviors were no longer declining. At the time of appraisal, the rate of condom use at last sex was not high enough to ensure continued low transmission: it was only 80 percent among FSWs and 45 percent among MSM, and the unsafe injection rate was 55 percent. The level of HIV testing in the last 12 months among HRGs was also lower than expected: in 2012, only 35 percent of MSM and FSWs and 28 percent of PWID were tested. Third, the HIV treatment program still needed to expand: as of 2012, only 30 percent of PLHIV were on ART. Fourth, some spikes of HIV incidence increases were seen in states that previously had low HIV incidence. Fifth, the wider social drivers of HIV acquisition in India—migration and mobility, the low status of women, and widespread stigma—remained longer-term challenges for which long-range programs were needed, including legislative changes. Sixth, the World Bank continued to play an important donor-convening role in terms of the HIV response in India with joint supervision missions and the like.

Rationale for Bank Involvement

10. **Why did the Government and World Bank jointly decide to remain involved in an HIV response for which the Government declared its intent to domestically finance, which was globally recognized as a success?** It is plausible to think that one could, invariably, have ‘declared success’ and moved on to tackle some of the other health sector challenges in India. Four sets of factors were salient in the Government and World Bank’s joint decision to finance NACP IV:

Epidemiological Factors

- (a) **India still had a large HIV epidemic.** Although prevalence in the general population was low, even minor increases in new HIV infection rates in a country of more than 1 billion people translate into large numbers of people becoming infected and needing HIV treatment.
- (b) **HIV prevalence had shown signs of increasing in locations and among populations that previously had sustained low HIV prevalence.** HIV prevalence was increasing in certain districts, among PWID and MSM, and among the bridge populations (migrants, truckers, and partners of sex workers).
- (c) Although some states had a mature and declining HIV epidemic, other states either saw or could potentially see increases in the future. This was not a time to rest on one’s laurels but rather to embrace the success of NACP III, sustain success and forge improvements in NACP IV, and plan for the World Bank’s exit from the HIV response by the end of NACP IV’s implementation.

Programmatic, Financial, and Technical Factors

- (a) Domestic financing for India’s HIV response increased significantly during NACP III. However, to saturate TI programs—as was the intent of NACP IV—expanding to new geographies and new emerging HRGs and vulnerable populations would require additional resources.

- (b) The World Bank financing and implementation arrangements would give the Government the ability to try out new approaches for the emerging HIV challenges in India.
- (c) World Bank financing was crucial to sustain the strong and vibrant civil society sector that focused on awareness raising and convening power on matters relating to HIV in India. This was particularly important to maintain a focus on reducing stigma and discrimination, an important driver in care-seeking behavior of HRGs.
- (d) Continued World Bank involvement would ensure that new models of implementation by the Government structures and the orderly transitioning of TSUs could be done well.
- (e) Because of the Government's intent to rapidly scale up its HIV treatment program during NACP IV (recognizing that 'HIV treatment is prevention' because it makes PLHIV much less likely to transmit the virus to someone else), the short-term cost of rapid scaling-up of ART for the 70 percent of PLHIV not yet on treatment required external resources. Although this was not a factor during appraisal, it is worthwhile to note that after the project's midterm review (MTR), the World Bank project financed HIV treatment.
- (f) A sense to 'finish what we started'. By the end of NACP III, the World Bank has invested and supported India's national program for over two decades, walking with the Government every step of the way and learning lessons with the Government. The World Bank was more than a source of financing: it was a trusted technical partner in India's HIV response. There was a mutual desire by the Government to maintain this technical partnership and the World Bank's convening power by bringing all development partners together.
- (g) During the implementation of NACP I to III, a vast amount of data on the HIV epidemic and program implementation and evidence of successes were generated in India. NACP IV, with 'a science of delivery focus', continued strengthening HIV research and monitoring and evaluation (M&E) capacity, improving data use, and subsequently generating more evidence of effectiveness and cost-effectiveness, especially of many new and innovative strategies, which could guide future interventions in India and other similar epidemiological settings across the world.

Strategic Factors

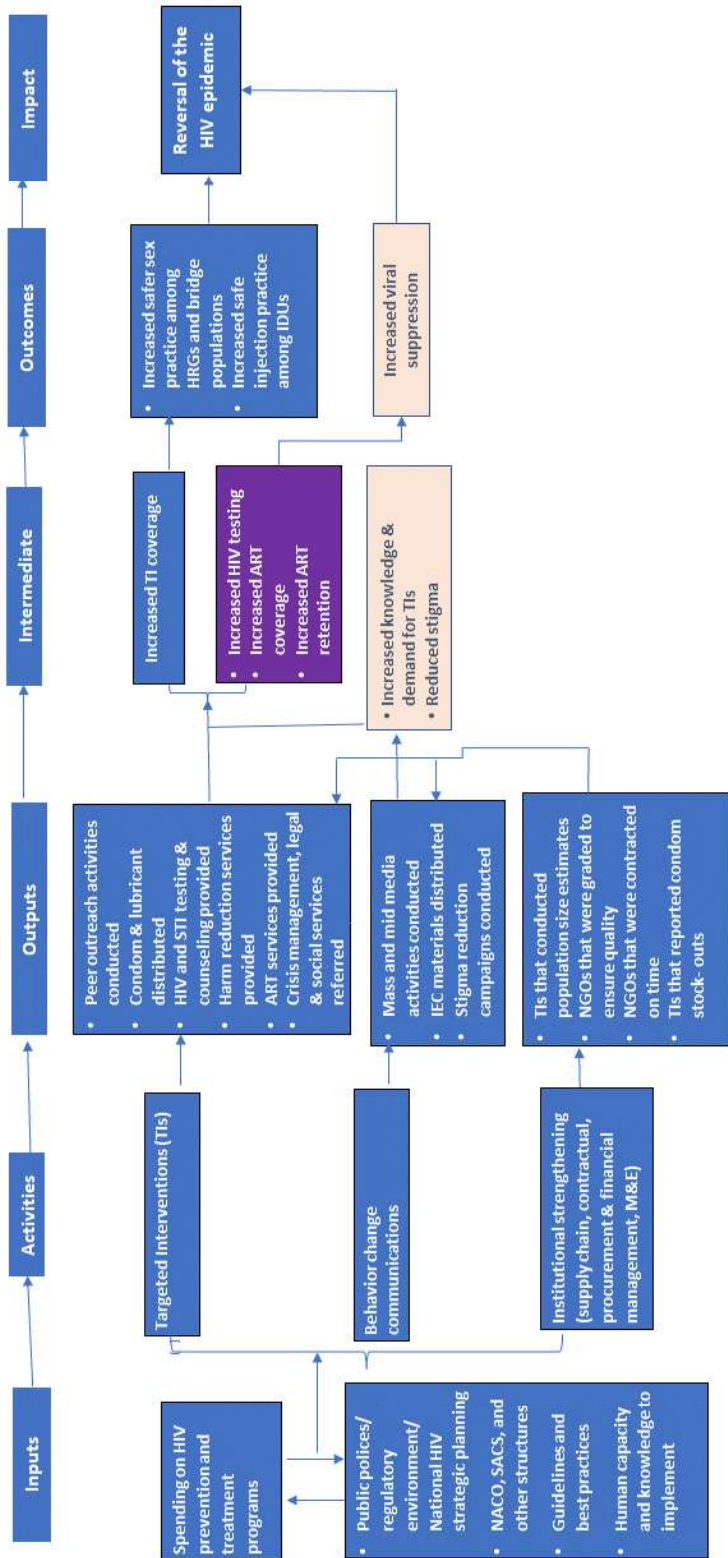
- (a) The goals of NACP IV were aligned with the goals of the Gol's inclusive growth and development for long-term sustainability. HIV posed economic welfare costs due to the disproportionate impact on vulnerable population groups and the inability of households to cope with long-life HIV treatment costs and the associated stigma and other structural amplifiers increasing the marginalization of those affected households.
- (b) In accordance with the World Bank's Country Assistance Strategy (CAS) and the World Bank Group's twin goals (ending extreme poverty and promoting shared prosperity), supporting this project was important because it aligned with some of the strategic priorities in this plan: to support the most vulnerable and marginalized population groups, increasing their access to and utilization of services.

- (c) India's HIV program was not only one of the largest in the world at the time, it was also globally heralded as a success story. Given the success, the India HIV response would change, adapting to not only the epidemiology but also a changing political paradigm and new implementation modalities. Maintaining a Government program that has been a success would be desirable.

Theory of Change

11. Figure 3 illustrates the theory of change depicting what the World Bank's involvement in NACP IV sets out to achieve.

Figure 3. Theory of Change



Note: IEC = information, education, and communication; NACO = National Aids Control Organization; NGO = nongovernmental organization; STI = sexually transmitted infection.

Several indicators (HIV knowledge and demand for TIs, HIV-related stigma, and viral load) were not included in the final Results Framework. HIV testing, ART coverage, and ART retention indicators were added to the Results Framework in March 2017 to measure the effect of the treatment as prevention (TASP) component. Indicators in orange-colored boxes are used to illustrate the pathways. For measurement-related reasons described in the M&E section, these indicators were not measured in this project.



12. The World Bank-funded components of the NACP IV aimed at increasing safe sex and safe injection practices and increased HIV testing and treatment among HRGs and the bridge populations through demand generation, TIs, and HIV testing and treatment services. The project financed NACP IV implementation at the national level, in all states and territories. However, the intensity of the TIs and resource allocations were determined by epidemiologic factors and the size of the HRGs. The implementation and quality of the above activities are ensured by strengthening implementer's capacity at all level, support supervision provided to NGOs and community-based organizations (CBOs), and the project M&E.

Original Project Development Objective (PDO)

13. Given the epidemiological drivers of the HIV epidemic in India, the original PDO was to increase safe behaviors among high risk groups in order to contribute to the national goal of reversal of the HIV epidemic by 2017.

Revised PDO

14. In March 2017, the project end date was extended by two years. Therefore, the temporal reference in the PDO was adjusted by removing the phrase 'by 2017'. The revised PDO read "The objective of the Project is to increase safe behaviors among high risk groups to contribute to the national goal of reversal of the HIV epidemic."

Key Expected Outcomes and Outcome Indicators

15. The indicators used to monitor implementation of the PDO (original and revised) were the following:

- % of FSWs who report using a condom with their last client
- % of MSM who report using a condom during sex with their last male partner
- % of PWID who do not share injecting equipment during the last injecting act.

Project Beneficiaries

16. For project **Components 1 and 2** (see section 'Original Components' for a description of project components), the beneficiaries for the TIs financed through the project are HRGs and bridge populations. Based on epidemiological evidence across the country¹² and as per the HIV Allocative Efficiency Study in 2015,¹³ HRGs in India are FSWs, MSM, TG/Hijra population, and PWID. Bridge populations are male migrants and long-distance truck drivers.

17. **Component 3** (see section 'Original Components' for a description of project components) aimed at strengthening capacity to effectively plan, manage, and provide HIV services at all levels and was

¹² NACO. *HIV Sentinel Surveillance: Technical Report: 2012–2013*.

¹³ World Bank Group. 2017. *India - Allocative Efficiency Analysis of the HIV Program in the States of Karnataka and Punjab (2015–2030) (English)*. Washington, DC: World Bank Group.

<http://documents.worldbank.org/curated/en/768941525717692522/India-Allocative-efficiency-analysis-of-the-HIV-program-in-the-states-of-Karnataka-and-Punjab-2015-2030>.



intended to benefit the staff at the CBO/NGO networks, NACO financial and procurement staff, and officials of SACs and DAPCUs.

Original Components

18. The project financed the implementation of **three of the five pillars of NACP IV**: (a) prevention (TIs and later, including ‘HIV treatment as prevention efforts’), (b) behavior change, and (c) institutional strengthening. The two other NACP IV pillars—(a) the provision of care, treatment, and support to PLHIV and (b) the strategic information management system (SIMS) and disease surveillance—were, at the time of appraisal, supported by the national budget and other donors including the United States President’s Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund to fight AIDS, TB, and Malaria (GF).

19. **Component 1: Scaling Up Targeted Interventions for HIV Prevention (budgeted US\$204.58 million; actual US\$183.01 million, 89 percent)**. This component supported the scaling-up of TIs with the aim of reaching out to the hard-to-reach HRGs who have not yet accessed and used the prevention services of the program and continue to saturate coverage among the HRGs who have already accessed the program. In addition, this component would support HIV prevention programs to bridge populations, through these two subcomponents:

- (a) **Saturating coverage among HRGs.** The project aimed to saturate the coverage of quality TIs for HIV prevention among HRGs. The plan was to scale up with 1,067 new TIs¹⁴ (455 FSWs, 256 MSM, and 356 IDU) and 250 new opioid substitution therapy (OST) centers. This was implemented through the contracting of NGOs and CBOs. The interventions under this subcomponent consisted of (i) the provision of behavior change interventions to increase safe practices, testing and counselling, adherence to treatment, and demand for other services; (ii) the promotion and provision of condoms to HRGs to promote their use in every sexual encounter; (iii) the provision or referral for STI services including counselling at service provision centers to increase compliance of patients with treatment and risk reduction counselling with focus on partner referral and management; and (iv) needle and syringe exchange for PWID as well as scaling-up of OST provision.
- (b) **Scaling-up of interventions among bridge populations.** The activities under this subcomponent were guided by the information from the mapping of peer networks to improve their access to HIV and STI prevention services.

20. **Component 2: Behavior Change Communications (budgeted US\$18.60 million; actual US\$6.11 million, 33 percent)**. The coordination and implementation of BCC activities were financed under this component. This component included (a) communication programs (media campaigns, creative development campaigns, and short films) for risk reduction and safe behavior including advocacy, social mobilization, and BCC to integrate PLHIV and HRGs into society and to encourage normative changes aimed at reducing stigma and discrimination in society at large, and in health facilities specifically, as well as to increase demand and effective utilization of testing and counselling services; (b) financing of a research and evaluation agency to assess the cost-effectiveness and program impact of BCC activities; and

¹⁴ ‘TI’ means a full TI program that provides the full package of services (as described in paragraph 19a) for a single HRG or multiple HRGs. TI programs are managed by local NGO or CBOs. The number of TIs mentioned here refers to the number of TI programs that would be set up by local NGOs and CBOs and does not refer to individuals reached.



(c) establishment and evaluation of a helpline at the national and state level to further increase access to information and services.

21. **Component 3: Institutional Strengthening (budgeted US\$13.95 million; actual US\$48 million, 344 percent).** This component supported innovations to enhance performance management including fiduciary management, such as the use of the computerized financial management system, at national and state levels. The support for institutional capacity also helped strengthen procurement and supply chain management, including training on supply chain management. This component also financed the staff and operating costs of TSUs to ensure the oversight of TIs' quality through monitoring and supportive supervision and to build capacity of states and assist them in effective use of available information in support of evidence-based planning, program roll out, and performance monitoring.

B. SIGNIFICANT CHANGES DURING IMPLEMENTATION (IF APPLICABLE)

22. A summary of project changes documented through formal World Bank operational procedures is given in table 1 and elucidated in the sections following it.

Table 1. Summary of Formal Project Changes

Date	Change	% Disbursed at the Time	Reason for Change	Last DO Rating before the Change	Last IP Rating before the Change
March 2017	Change in Results Framework Change in loan closing date(s)	33	Given new evidence, rapid rollout of HIV treatment became a priority. Therefore, HIV treatment was added to Component 1. To accommodate the implementation of the added activity, the project end date was extended from December 31, 2017 to December 30, 2019. Given this addition, intermediate results indicators focusing on HIV treatment were added. Because of the change in project closing date, the PDO indicator targets were revised.	Satisfactory	Moderately Satisfactory
May 2018	Minor amendment of PDO	44	Because of the change in the project end date, the phrase 'by 2017' was removed from the PDO.	Satisfactory	Moderately Satisfactory
June 2019	Change in implementing agency Change in institutional arrangements Change in procurement Change in indicator targets	58	Because of the low disbursement six months before project closing, NACO requested Central Medical Services Society (CMSS) to be added as another implementing agency. Therefore, the institutional arrangements and procurement agency were amended to allow CMSS to undertake procurement of goods required by DAPCU/NACO, specific HIV treatment. Changes to some intermediate results indicator targets were made to reflect the situation on the ground.	Satisfactory	Moderately Satisfactory



Date	Change	% Disbursed at the Time	Reason for Change	Last DO Rating before the Change	Last IP Rating before the Change
November 2019	Change in loan closing date(s) Change in implementation schedule	69	The project was extended for another six months from the original date of December 31, 2019, to June 30, 2020. The implementation schedule was extended to accommodate the new closing date. Extending the project by six more months allowed disbursement to significantly increase from 69% to 93% (US\$237 million out of US\$255 million). No changes to the targets or indicators were made.	Satisfactory	Moderately Satisfactory

Changes in Outcomes and Targets

23. In 2014, two randomized control trials^{15,16} revealed that HIV treatment not only reduced morbidity and mortality of PLHIV but also reduced PLHIV's viral load (amount of HIV virus) to the extent that persons on HIV treatment are 92 percent less likely to transmit HIV to others—HIV treatment as prevention (the 'TAsP' approach). Availability of a tool with the potential to stop virtually all HIV transmission heralded in the notion of the 'end of AIDS'. After the release of this definitive evidence, the Joint United Nations Programme on AIDS (UNAIDS) announced a global set of targets to rapidly expand HIV treatment: the 90-90-90 targets suggested that every country needed to aim for identifying 90 percent of all PLHIV, putting 90 percent of identified PLHIV on treatment, and ensuring viral suppression among 90 percent of PLHIV on HIV treatment.

24. A modelling study estimated that achieving the 90-90-90 targets in India would yield positive results: it would halve the epidemiological burden of HIV over 15 years through a 59 percent reduction in new infections and a 48 percent reduction in AIDS deaths.¹⁷ Given this evidence, the global 90-90-90 targets, their potential impact in India, and the GoI's drive to achieve them, it was agreed during the MTR that the project should support HIV treatment as an added activity under Component 1.

25. In 2017, as a result of this addition, (a) the project end date was extended by two years to accommodate the implementation of the additional activity, (b) the PDO was amended to drop the phrase about the time frame—'by 2017'—initially included in it, (c) the PDO indicator targets were revised to accommodate the additional two years of project implementation, (d) three intermediate targets were revised (table 2), and (e) four intermediate targets were added to reflect the additional HIV treatment services that would be financed through the project (table 3).

¹⁵ Cohen, M. S., Chen, Y. Q., McCauley, M., Gamble, T., Hosseinipour, M.C., Kumarasamy, N., Hakim, J.E., Kumwenda, J., Grinsztejn, B., Pilotto, J.H.S., Godbole, S.H., Mehendale, S. for the HPTN 052 Study Team. 2011. "Prevention of HIV-1 Infection with Early Antiretroviral Therapy." *The New England Journal of Medicine* 365 (6): 493–505. doi:10.1056/NEJMoa1105243.

¹⁶ Baeten, J. M., Donnell, D., Ndase, P., Mugo, N.R., Campbell, J.D., Wangisi, J., Tappero, J.W., Bukusi, E.A., Cohen, C.R., Katabira, E., Ronald, A., Tumwesigye, E., for the Partners PrEP Study Team. 2012. "Antiretroviral Prophylaxis for HIV Prevention in Heterosexual Men and Women." *The New England Journal of Medicine* 367 (5): 399–410.

¹⁷ Maddali, M.V., Gupta, A., Shah, M. 2016. "Epidemiological Impact of Achieving UNAIDS 90-90-90 Targets for HIV Care in India: A Modelling Study." *British Medical Journal*. 6:e011914. <https://bmjopen.bmj.com/content/6/7/e011914>.



26. In June 2019, the project end date was moved again and as a result, some changes to intermediate results indicators and targets were made, as follows (see table 3): 11 intermediate results targets remained the same (value in green in table 3); 1 intermediate result target was increased (value in blue in table 3); 1 intermediate results target was reduced but was still higher than the 2017 target (value in purple in table 3); the targets of the 3 new intermediate results introduced in 2017 were adjusted downward once data about them were available (values in orange in table 3, with 1 intermediate result target reduced by only 1 percentage point); and target values of 2 intermediate results (for TI coverage) were reduced to below the 2017 target values (values in red in table 3), reflecting the effect of the TI funding slowdown.

Table 2. Revision of Target Values for PDO-level Indicators in 2017

PDO Indicators	Baseline (2013)	2017 Original Target (set at project start in 2013)	2019 Revised Target (set in 2017)	2020 Revised Target (set in 2019)
FSWs who report using a condom with their last client	80%	85%	95%	Same target as 2019
MSM who report using a condom during sex with their last male partner	45%	65%	90%	Same target as 2019
IDUs who do not share injecting equipment during the last injecting act	45%	65%	85%	Same target as 2019

Table 3. Changes to Intermediate Results Indicator Targets in 2017 and 2019

Intermediate Results Indicators	Baseline	2017 Original Target (set at project start in 2013)	2019 Revised Target (set in 2017)	2020 Revised Target (set in 2019)
Original indicators for Components 1 and 2 and changes over time				
FSWs who have been reached by targeted interventions in the last year	80% (2013)	90%	90%	85%
High risk MSM who have been reached by targeted interventions in the last year	67% (2013)	80%	80%	72%
IDUs who have been reached by targeted interventions in the last year	81% (2013)	85%	85%	85%
Planned prevention interventions for migrants implemented as per plan	70% (2013)	90%	90%	90%
Indicators for Components 1 and 2 added in 2017 and changes over time				
FSWs who have been counseled and HIV tested in the last 12 months	n.a. (2017)	n.a. (indicator added in 2017)	80%	80%
High risk MSM who have been counseled and HIV tested in the last 12 months	n.a. (2017)	n.a. (indicator added in 2017)	80%	80%
IDUs who have been counseled and HIV tested in the last 12 months	n.a. (2017)	n.a. (indicator added in 2017)	70%	70%
High risk group (core) living with HIV who are diagnosed	n.a. (2017)	n.a. (indicator added in 2017)	90%	65%
High risk group (core) currently receiving ART	30% (2017)	n.a. (indicator added in 2017)	90%	89%



Intermediate Results Indicators	Baseline	2017 Original Target (set at project start in 2013)	2019 Revised Target (set in 2017)	2020 Revised Target (set in 2019)
High risk group (core) with known HIV status on ART for 12 months after initiating ART	n.a. (2017)	n.a. (indicator added in 2017)	90%	80%
PLHIV currently on ART who are virally suppressed	n.a. (2017)	n.a. (indicator added in 2017)	90%	Indicator dropped due to limited capacity to conduct viral load testing
Indicators for Component 3 and changes in targets over time				
NGO contracted as per SACS annual plan	60%	80%	95%	90%
States updating, reporting and responding to dashboard indicators	75%	90%	90%	95%
TIs that have validated high risk group size data in the last 12 months	60%	75%	75%	75%
TIs will be graded according to the performance indicators of SIMS	65%	75%	95%	95%
TIs that report condom stock out, in the last quarter	10%	2.0%	2.0%	7.0%
NGO contracted as per SACS annual plan	60%	80%	90%	90%

Changes in Project Components

27. **Component 1.** Component 1 was expanded to include the financing of HIV treatment services. Most of the intended funds (89 percent) were disbursed.

28. **Component 2.** Although there was no official reallocation of funds between components under the project, only 33 percent of intended funds were spent on Component 2. The reason for this deviation was that the behavior changes component of the project required the development of fewer centralized materials than anticipated, which resulted in savings. Instead, the scope of Component 3 of the project was expanded.

29. **Component 3.** There was a significant increase in funds for Component 3 (344 percent of intended funds). Actual disbursement against this component was higher than what was planned because of two reasons: (a) in 2017, it was decided that all 17 state-level TSUs would be funded by this component (instead of 9 TSUs as originally planned) and (b) the human resource costs of contracting staff for oversight at the state level were also financed from this component. There was no formal approval of reallocation of funds from Components 1 and 2 to Component 3.

Other Significant Changes

Global Scientific and Program Advances

30. New global scientific evidence about HIV prevention interventions and HIV testing modalities:



- **Global evidence on the use of pre-exposure prophylaxis (PrEP).** The efficacy of oral PrEP (giving HIV negative persons an antiretroviral [ARV] for a short period to reduce their risk of becoming HIV positive) has been proven. The World Health Organization (WHO) recommended PrEP for all populations at heightened risk of HIV infections.¹⁸ This global set of evidence urged NACO to initiate pilots for PrEP in India to assess the feasibility of their implementation as part of the TI strategy to improve HIV prevention among HRGs and bridge populations.
- **Global evidence on the use and acceptability of HIV self-testing (HIVST) and self-test kits.** Studies have found consistently high levels of HIVST acceptability among the general population and higher-risk populations who may not access other testing services.¹⁹ Lay users can perform HIVST reliably and accurately and achieve performance comparable to that of trained health care workers.²⁰ In 2016, the WHO recommended HIVST as a safe, accurate, and effective way to reach people who may not test otherwise, including members of key populations,²¹ that is, target populations for this project. These global developments in terms of evidence for new approaches to HIV prevention and testing modalities are relevant for India's HIV response during the project implementation period.

31. Global momentum on integration of the HIV program into the rest of the health sector. During this project's implementation period, there have also been several global calls—under the ambit of universal health coverage—to better integrate HIV and other health services. The focus on HIV integration started with a global meeting during the 2012 International AIDS conference and several related publications,²² suggesting that such discussions were relevant during project implementation. The new UNAIDS strategy focuses on HIV program integration as a core focus area. This global change in direction also has potential future implications for India's HIV program and its sustainability after this project has ended (2020 and beyond).

Changes Facilitated by the India Government

32. Change in institutional location of NACO halfway through the project. In 2008, the Government constituted the Department of AIDS Control as a separate department of the Ministry of Health and Family Welfare (MoHFW) to coordinate NACP implementation. In 2015, NACO was restructured and merged with the Department of Health and Family Welfare (DoHFW), meaning it was no longer a separate department under the ministry. As a result, the post of Secretary was changed to an Additional Secretary of the DoHFW. This is in line with how MoHFW operates: As NACO was converted into a division of MoHFW, the leadership to the division was being provided by an Additional Secretary and Director General, like in any other divisions under MoHFW.

¹⁸ World Health Organization. 2016. *Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection: Recommendations for a Public Health Approach*. 2nd ed. Geneva: World Health Organization.

<https://www.who.int/hiv/pub/arv/arv-2016/en/>. Accessed October 14, 2020.

¹⁹ <https://www.who.int/hiv/pub/vct/who-recommends-hiv-self-testing/en/>

Johnson, C. C., and E. L. Corbett. 2016. "HIV Self-Testing to Scale Up Couples and Partner Testing." *Lancet HIV* 3 (6): e243–4.

²⁰ Choko, A. T., N. Desmond, E. L. Webb, K. Chavula, S. Napierala-Mavedzenge, C. A. Gaydos, Makombe, S.D., Chunda, T., Squire, S.B., French, N., Mwapasa, V., Corbett, E.L. 2011. "The Uptake and Accuracy of Oral Kits for HIV Self-Testing in High HIV Prevalence Setting: A Cross-Sectional Feasibility Study in Blantyre, Malawi." *PLoS Med* 8 (10): e1001102.

²¹ <https://www.who.int/publications/i/item/who-recommends-hiv-self-testing-evidence-update>.

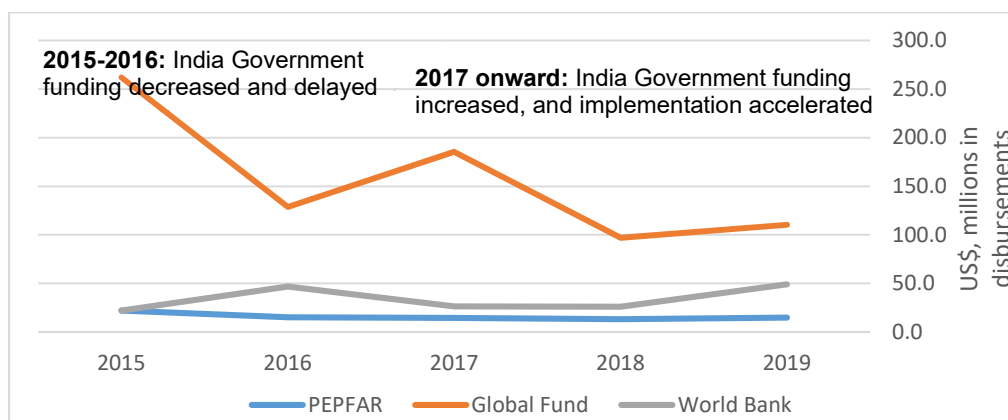
²² https://www.unfpa.org/sites/default/files/pub-pdf/SRH%20HIV%20Linkages%20Compendium_rev.pdf.



33. Change in government financing mechanism and significant reduction in government funding for HIV in 2015. Several factors contributed to financing challenges in the project:

- Change of funding mechanisms resulting in funding shortfalls.** Since 2012 NACP was a central sector scheme, which meant that 100 percent of funds were provided by the central government and flowed directly to the implementing agencies. Just after project approval, the Government announced that the NACP would be changed to a centrally sponsored scheme, which required the state governments to provide counterpart financing: The central government contributed 60 percent of the funds and states were required to provide 40 percent. Funds to states were also directed through state treasuries instead of flowing from NACO to SACSSs. States were not prepared for this sudden change or additional budget responsibility: it caused a 3- to 6-month disruption of TI activities, delays in implementers receiving funds (and some TI activities had to close down as a result of it), and shortage of HIV test kits and ARV drugs. Although this decision was reversed in FY2017–18 (after the MTR of NACP IV), the sudden change slowed down the pace of TI implementation.
- Short-term cut in government budget.** The 2015–2016 central AIDS budget from the Government was cut by 32 percent, compounding delays. In the 2017 budget, the Government increased its funding to HIV programs by 26 percent, but this was a blow to the aim of saturating TIs. From 2017 onward, the Government reversed course: it significantly increased financing and implementation of TIs, leading to the results that the project achieved by 2020. At the time that these changes in Government financing took place, there were also changes in development partner spending on HIV in India. Between 2015 and 2019, there has been change in disbursement levels by the different donors to the HIV response in India, as shown in figure 4. Over time, disbursements from the GF reduced, disbursements from PEPFAR remained steady, and disbursements from the World Bank increased. This is relevant given the reduction (and subsequent increase) in funding from the Government—in 2015, funding decreased not only from the Government but also from the GF, increasing the impact on HIV response. It took a concerted effort to get the national HIV program back on track to achieve the results set out in this project.

Figure 4. Disbursements by Main HIV Development Partners to India's HIV response (2015–2019)





Sources: Data for this graph are from US Government PEPFAR program (2020)²³ and The Global Fund (2020).²⁴

Note: Data are for all years for which disbursement data from PEPFAR, the GF, and the World Bank project were available.

34. The National Technical Support Unit (NTSU) was deactivated and the roles of regional and state-level TSUs changed. The NTSU was established under NACP III to serve as an in-house NACO capacity powerhouse to improve technical quality of activities. The NTSU provided support to 17 state-level TSUs in implementing operational guidelines. During the implementation of NACP IV, (a) the roles of state-level TSUs were revised to include technical support to all program components and (b) funding of state-level TSUs was transferred from development partners to NACO. As a result, this project resumed the financing of 17 state-level TSUs under Component 3. These TSUs served an important quality assurance role, thereby addressing the quality of health care service delivery, one of the challenges in India's health sector: "in the health [sector] the key, systemic problem is not whether people can access healthcare providers, but whether that access is of sufficient quality to be of any value to their health status."²⁵ When external financing for the NTSU ceased, NACO restructured it with a proposal of having 9 NTSU national consultants to provide holistic technical support. The restructured NTSU was to be financed through the World Bank but this did not materialize. NACO tried to fund the NTSU using domestic sources but it was not successful. Therefore, the NTSU became defunct, although the state-level TSUs continued their work. NACO compensated for the loss of the NTSU through an increase in (a) domestic financing for TSU consultants and (b) government-supported technical positions to bolster the technical prowess of the Government teams managing the HIV response in India.

Population-related Changes

35. Change in types of locations frequented by HRGs and resultant implementation and surveillance implications. When the project started and throughout the implementation of NACP III, the project designed and implemented fairly detailed mechanisms for 'micro planning' to ensure that the TIs reached all vulnerable and HRGs in a given geographic area. This approach relied heavily on knowing physical locations where HRGs would congregate and could therefore be reached. During NACP IV implementation, it became clear that the place-based TI implementation strategy needed to be expanded to accommodate the fact that many HRGs were moving to online and digital mechanisms of communicating with each other before meeting.

36. Increased prevalence of overlapping HRG behaviors. While the HRG populations are typically 'siloes' in terms of how they are defined and programs for them are implemented, more recent epidemiological evidence has shown that there is overlapping behaviors that amplify the risk of HIV transmission. The behavioral surveillance survey (BSS) Lite (2020),²⁶ for example, showed a proliferation of these overlapping, amplifying risk behaviors:

²³ <https://data.pepfar.gov/>.

²⁴ <https://data.theglobalfund.org/investments/location/IND#investments>.

²⁵ World Bank CPF.

[https://www.worldbank.org/en/cpf/india#:~:text=The%20Country%20Partnership%20Framework%20\(CPF,areas%20for%20the%20country's%20development](https://www.worldbank.org/en/cpf/india#:~:text=The%20Country%20Partnership%20Framework%20(CPF,areas%20for%20the%20country's%20development).

²⁶ <http://naco.gov.in/sites/default/files/BSS%20Lite%20Report.pdf>: see page 5 footnote 14; page 3, footnote 4; and page 9, footnote 27.



- 3.8 percent of FSWs reported injecting drugs for non-medical reasons, of whom 79 percent reported injecting drugs for non-medical reasons in the last three months.
- 2.8 percent of MSM reported injecting drugs for non-medical reasons, of whom 42 percent reported injecting drugs for non-medical reasons in the last three months.
- 55 percent of MSM used a commercial partner.
- 43 percent of MSM also had sex with a female partner in the last 12 months.
- 70 percent of FSWs had a regular, noncommercial partner in the last three months; condoms were used 53 percent of the time.
- 87 percent of PWID had a noncommercial sexual partner in the last 12 months and condoms were only used 55 percent of the time.
- 1.3 percent Hijra/TG reported ever having injecting drugs, of whom 26 percent had injected drugs in the last three months and 76 percent had sex with a commercial partner.

II. OUTCOME

A. RELEVANCE OF PDO

Rating: Substantial

37. The relevance of the PDO is measured by the extent to which it is relevant to the erstwhile CAS, now the CPF, and the country's epidemiological and program context and to which it has drawn on the World Bank's previous sectoral experience in HIV in India.

- (a) **Relevance to the CAS (at project design) and CPF (at project closure).** At the time of design, the project was relevant to the CAS (2012–2017) because it (i) focused on increasing the effectiveness of service delivery (a CAS pillar); (ii) supported centrally sponsored schemes that would support the achievement of the 2015 Millennium Development Goals; (iii) adopted a diversified strategy for different states, depending on their HIV epidemiology; and (iv) implemented, in line with CAS goals, special strategies and additional capacity building for the northeastern and hilly states, given the rising HIV prevalence. The World Bank CPF (2018–2022) aimed at supporting India's efforts to become a middle-income country by 2030. It had a dual focus on *what* the World Bank Group works on with India—supporting resource-efficient growth, enhancing competitiveness, and enabling job creation and investing in human capital—and approaches to *how* the World Bank Group engages by leveraging the private sector, engaging a federal India, strengthening public institutions, and supporting a Lighthouse India of knowledge exchange within the country and between India and the rest of the world. The project design retained its relevance to the CPF because it (i) kept a focus on improving the quality of service delivery within the context of building and protecting human capital in India; (ii) supported efforts to build knowledge for the world in how to deliver HIV services to marginalized and vulnerable populations well as part of the World Bank's focus on the 'science of delivery', involving those populations as partners and



implementers through the extensive TI peer networks; and (iii) strengthened public sector institutions through TSUs that supported TI implementation quality.

- (b) **Relevance to country context.** The HIV epidemic in India was concentrated among HRGs and bridge populations, including sex partners of the HRGs, immigrants, and truckers (see table 4). By focusing on HRGs and bridge populations, the project was relevant to the epidemiology and transmission dynamics in India with the correct programs (the national independent assessment of NACP III showed the cost-effectiveness of these interventions in averting new infections). Furthermore, the modelling study showed the potential benefits of rapid HIV treatment rollout for new HIV infections in India, and it was therefore relevant to add this during the MTR of the project.

Table 4. HIV Prevalence among HRGs and Bridge Populations in India (2012–2013)

Antenatal clinic attendees (2012–2013)	0.35%	TG/Hijras	8.82%	MSM	4.43%
Migrants	0.99%	FSWs	2.67%	PWID	7.14%
Truckers	2.59%				

Source: Paranjape et al. 2016.²⁷

- (c) **Previous sectoral experience.** Having worked with the GoI on its HIV program since its inception 25 years before project appraisal, the World Bank has ‘walked the road’ of the national HIV prevention program with the GoI and knew what it would take to choose the right indicators and be successful in achieving a good project outcome.

38. **The PDO remained relevant for the duration of the project.** Data from annual HIV sentinel surveillance data, integrated bio-behavioral survey (2015), and the NACO HIV epidemic estimates (2017 and 2019) showed that the epidemic remained concentrated among HRGs and the bridge populations, and most new infections occurred among or through interactions with these groups. In addition, new HIV infections in several states were rising and HIV prevalence among PWID continues to be stable with high HIV prevalence (over 7 percent, see table 4). So, the PDO remained relevant throughout. In 2017, when NACP IV introduced the TAsP strategy aiming to rapidly find and treat all PLHIV in India and the World Bank project was expanded to include HIV treatment in it, the Government and the World Bank considered expanding the PDO to include a longer-term HIV treatment indicator. Because the longer-term HIV treatment targets and indicators were brand new at the time (globally) and because methods for measurement had not yet been established (globally), the World Bank team decided against including an HIV treatment objective as part of the PDO (or an indicator in the PDO outcomes). Instead, an indicator with which to measure the longer-term outcome of a good HIV treatment program (viral suppression among PLHIV on HIV treatment) and links to other services to promote the life course approach advocated for in the CPF was included as an intermediate results indicator.

39. Because the project was relevant to the CAS, remained relevant to the CPF goals, was relevant to epidemiology, and drew on World Bank experience in the sector, it remained relevant throughout the project.

²⁷ Paranjape, R. S., and S. J. Challacombe. 2016. “HIV/AIDS in India: An Overview of the Indian Epidemic.” <https://doi.org/10.1111/odi.12457>.



B. ACHIEVEMENT OF PDO (EFFICACY)

Rating: Substantial

40. The achievement of the PDO is assessed by reviewing trends in outcome indicators over time. As illustrated in the theory of change, the TIs (Component 1 of the project) aimed to change behaviors (specifically condom use for FSWs and MSM and safe injection for PWID) that are known to protect against HIV infection and therefore prevent new infections. In turn, the institutional strengthening and behavior change support efforts (Components 2 and 3) were meant to ensure saturated coverage of good-quality TIs. The changes in the PDO outcomes were facilitated by TI activities focused on the HRGs and bridge populations. In addition, scaling up ARV under the TAsP strategy helps prevent new infections by reducing viral load. Therefore, we aimed to answer the following questions relating to the achievement of the PDO.

- Did the interventions increase safe sex and safe injecting behavior as illustrated in the Results Framework?
- Did the interventions achieve saturation-level TI and testing and treatment coverage as shown by the intermediate results indicators for Component 1?
- Did the institutional strengthening and behavior change components of the project strengthen the TI implementation as shown by intermediate results indicators for Components 2 and 3?
- During the time that the interventions were implemented, did the country achieve its national goal of reversing the HIV epidemic?
- Did the activities supported by the project contribute to the national goal of reversal of the HIV epidemic, or were other factors responsible?

Question 1: Did the interventions increase safe sex and safe injecting behavior as illustrated in the Results Framework? Yes, *substantially*.

41. When comparing 2017 achievements against 2017 targets, the outcome indicator targets were not only achieved but far exceeded (see table 5). Given the high level of achievement as of 2017, even more ambitious targets were set for 2020. When comparing the 2020 level of achievement against the ambitious 2020 targets, two of the three PDO outcome indicators achieved or exceeded their target. Although the target for MSM who report using a condom during last sex was not entirely met, it almost doubled from its baseline of 45 percent in 2013 and increased from 2017. There are also other encouraging signs that behaviors among MSM are changing: in 2019, of the 55 percent of MSM who reported having a commercial partner, 92 percent of them reported having used a condom during sex with such a commercial partner.²⁸ This high level of protection of the most risky behaviors would have a positive epidemiological impact as it would disproportionately reduce risk because the highest risk activities were protected, even though the PDO indicator of percentage of MSM who used a condom (any) during sex with their last male partner did not reach the 2020 target. All three indicators consistently increased from baseline to end line and the end-target achievements of 96 percent (FSWs), 85 percent (MSM), and 88 percent (PWID) were high compared to global levels. Increases were particularly pronounced among MSM and PWID, whereas the FSW increases were less pronounced, starting from a

²⁸ <http://naco.gov.in/sites/default/files/BSS%20Lite%20Report.pdf>.

high base. Additional trends (2014 to 2019) in safe behaviors are summarized in table 6. These trends show, in general, that the prevalence of ‘overlapping’ unsafe practices has increased, except for MSM, where overlapping unsafe behaviors among MSM have declined. Alongside this trend, it also shows that the prevalence of behaviors to protect these instances has increased too.

Table 5. Achievement of Outcome Indicators by 2017 and by 2020

Indicator	Baseline (2013)	Target (2017)	Achievement (2017)	Target (2020)	Achievement (2020)
FSWs who report using a condom with their last client	80%	85%	94%	95%	96%
MSM who report using a condom during sex with their last male partner	45%	65%	82%	90%	85%
IDUs who do not share injecting equipment during the last injecting act	45%	65%	85%	85%	88%

Source: Integrated Bio-Behavioral Surveillance (IBBS) Survey 2020.²³

Table 6. Trends in Other Indicators about Safe Sexual Behaviors among HRGs from 2014 to 2019

		HRG/bridge population (%)			
		PWID	FSW	MSM	Hijra/TG
Sexual intercourse with regular, noncommercial partner	2014	70	55	68 (sex with female partner)	48
	2019	87	70	43 (sex with female partner)	56
Used condom during this sex?	2014	41	29	48	85
	2019	55	54	61	68
Sex with commercial partner?	2014	32	82	73	22
	2019	Not measured	86	55	76
Used condom during sex with commercial partner?	2014	77	91	87	89
	2019	Not measured	96	92	98
Injected drugs in the last 3 months?	2014	78	2	3	4
	2019	87	79	42	26
Used clean needle while injecting?	2014	80	51	53	61
	2019	96	80	84	87

Source: IBBS Survey 2014–2015,²⁹ TG IBBS Survey 2014,³⁰ and IBBS Survey 2020.³¹

Question 2: Did the interventions achieve saturation-level TI and HIV testing treatment coverage as shown by the intermediate results indicators for Component 1? Yes, mostly.

- (a) **Achievement of intermediate results indicators for TIs.** TIs were built on the peer-led approach in partnership with NGOs and CBOs. Peer educators were engaged to deliver services and acted as catalysts linking them for services and commodities. They identified HRGs and provided the services and information through various interpersonal communication sessions. Table 7 describes the changes in TI coverage well: it shows how TI coverage was not on par with the expected 2017 targets (because of the FY2015–16 dip in

²⁹ <http://naco.gov.in/sites/default/files/IBBS%20Report%202014-15.pdf>.

³⁰ http://naco.gov.in/sites/default/files/TG-IBBS%20ReportPrint%20text_Edited.pdf.

³¹ <http://naco.gov.in/sites/default/files/BSS%20Lite%20Report.pdf>.



funding and change in funding mechanism by the Government) and how the Government team managed to dramatically increase TI coverage by 2020. After the expansion of the project in 2017, TI strategies were revamped to use social media platforms (WhatsApp, Facebook, Grindr, BlueD, Planet Romeo) to access hard-to-reach and hidden populations, which contributed to a significant increase in number of HRGs reached despite the number of TI projects declining every year (figure 5). As of 2020, intermediate results were not only achieved but exceeded the 2020 targets. This observation is confirmed in figure 5: it shows that the proportion of the population covered by TIs remained relatively flat in the first four years of the project but increased from 2017 onward. For the full duration of the project, TI coverage expanded despite funding for these TI programs remaining relatively flat (pointing to efficiency gains). Also, the number of TI programs were consistent from 2016 onward, suggesting efficiency gains and that the difficult-to-reach populations were being reached. The OST program for PWID was also scaled up significantly, contributing to increased protection for PWID. The OST program under NACP began with 79 centers serving 7,200 clients in 2013 to 224 centers serving over 36,000 clients (figure 6).

Table 7. Achievement of Intermediate Results for TIs by 2020
(cell shaded in orange if target not achieved; in green if target achieved)

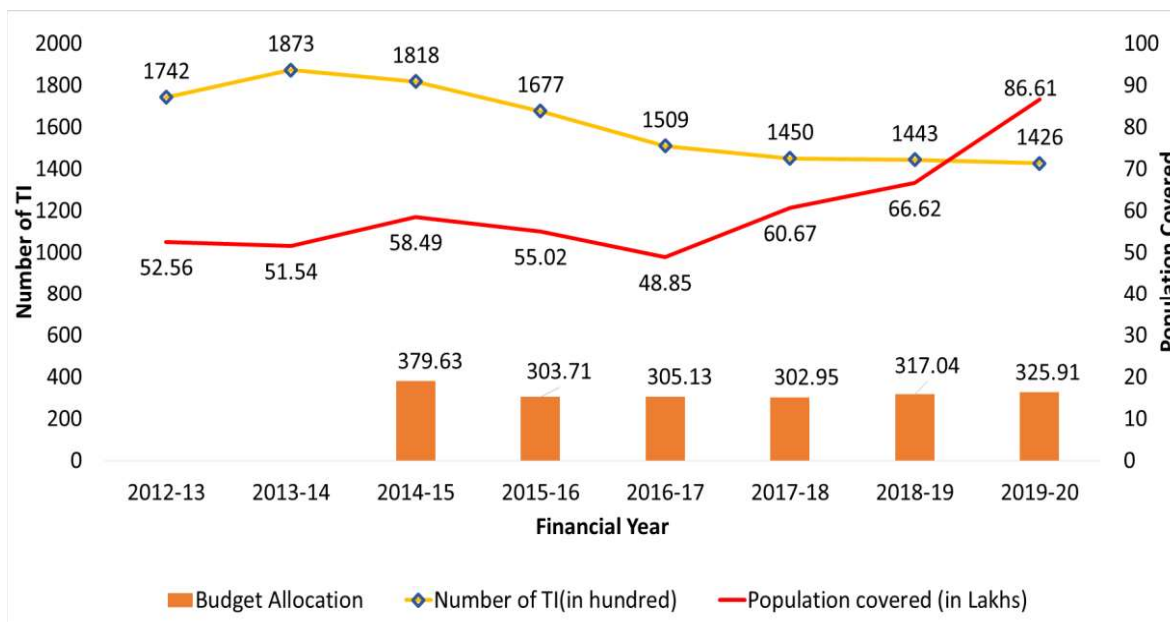
Indicator	Baseline (2013)	Target (2017)	Achievement (as of 2017)	Target (2020)	Achievement (2020)
FSWs who have been reached by targeted interventions in the last year, by 2018 ³²	80%	90%	69%	85%	90%
High risk MSM who have been reached by targeted interventions in the last year, by 2018 ²⁴	67%	80%	58%	72%	79%
IDUs who have been reached by targeted interventions in the last year, by 2018 ²⁴	81%	85%	68%	85%	94%
Planned prevention interventions for migrants implemented as per plan	70%	90%	87%	90%	98%
Planned prevention interventions for truckers implemented as per plan	70%	90%	89%	90%	95%

Source: IBBS Survey2020; routine service data.

³² Note that three of these indicators refer to 'by 2018' in the indicator wording. This should have been changed when the project was extended, but it is a minor change. When the project was extended in 2017, target values for these indicators were set for the new project end date of 2020.

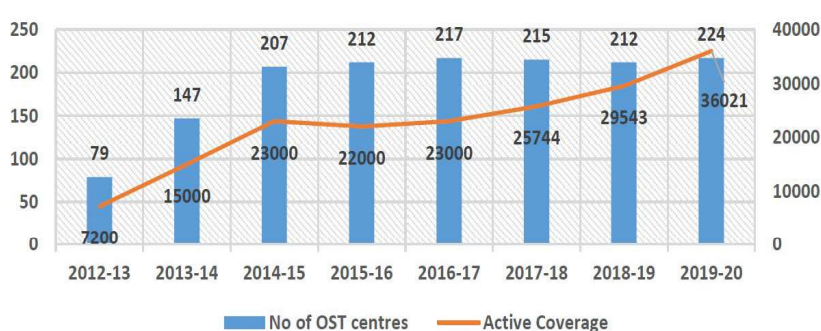


Figure 5. Scale-up and TIs and Budget Allocation (2012–2020)



Source: NACO technical brief; joint mission review - 2020; routine service data.

Figure 6. OST Centers and Population Coverage



Source: NACO 2020.

- (b) **Achievement of intermediate results indicators for HIV treatment.** For all HRGs, HIV testing targets were exceeded (table 8). Also, although this was not measured in this project, the BSS Lite (2020) showed that 87 percent of Hijras have been tested in the last 12 months. There was a rapid increase in PLHIV on HIV treatment in India and in the number of ART centers: from 1.05 million PLHIV on treatment in 2017 to 1.38 million PLHIV in 2020. Except for migrants and truckers (harder to initiate and retain in HIV treatment because of their mobility), the percentage of HRG PLHIV on HIV treatment is approximately on par or close to the level of PLHIV on treatment across the Asia and Pacific region: 60 percent of PLHIV in the region, compared to 65 percent of FSWs, 63 percent MSM, 52 percent PWID, and 50 percent TG populations in India.³³ The success can be ascribed to the following strategies,

³³ https://www.unaids.org/sites/default/files/media_asset/UNAIDS_FactSheet_en.pdf.



which served to both increase the initiation of HIV treatment and reduce loss to follow-up (persons initiated on HIV treatment who drop out of treatment).

- **Mission Sampark and the peer navigator model.** Mission Sampark aimed to fast-track tracing and reengaging PLHIV who were diagnosed and not on ART and PLHIV who were lost to follow-up. In addition to mission Sampark, the Government initiated a peer navigator program for persons who were HIV positive and in HRGs. Recognizing the challenges that HRG PLHIV faced, this program aimed to support HIV positive peer navigators throughout their HIV diagnosis, treatment, and retention in care journey. These strategies, in addition to implementation of the test and treatment strategy, helped put 70 percent of backlogged pre-ART patients on ART and ensured that 50,000 ART clients reentered HIV treatment services.
- **Decentralization of ART provision.** NACO decentralized the ART initiation at select ART centers, resulting in a rapid increase in the number of ART centers in India. The proportion of linking from HIV testing to ART centers was high (84 percent).
- **Differentiated service delivery models.** NACO started providing ART through differentiated service delivery models, aiming to meet different needs of HRGs and eliminate challenges of attending frequent ART visits at crowded ART centers. These models included fast-tracking of ART refills, decentralized ART dispensation at the community support centers, multi-month dispensation, and community ART refill groups.

Table 8. Achievement of Intermediate Results for HIV Testing and Treatment by 2020

Indicator	Baseline (2013)	Target (2020)	Achievement (2020)
FSWs who have been counseled and HIV tested in the last 12 months	35%	80%	85%
High risk MSM who have been counseled and HIV tested in the last 12 months	35%	80%	86%
IDUs who have been counseled and HIV tested in the last 12 months	28%	70%	83%
High risk group (core) living with HIV who are diagnosed	n.a.	65%	No data
High risk group (core) currently receiving ART	n.a.	89%	86%
High risk group (core) with known HIV status on ART for 12 months after initiating ART	n.a.	80%	65%

Source: BSS Lite 2020; routine service data.

Question 3: Did the institutional strengthening and behavior change components of the project strengthen the TI implementation as shown by intermediate results indicators for Components 2 and 3? Yes, there is evidence that these components strengthened TI implementation.

42. The increased TIs and HIV testing and treatment coverage were supported by BCC and demand generation activities under Component 2 of the project. These included (a) IEC materials developed to target specific HRGs, bridge populations, and the general population; (b) mass and mid media campaigns to increase knowledge and demand for HIV prevention and treatment services; (c) stigma reduction and human rights campaigns to create an enabling environment; and (d) the national helpline that had served 3 million clients to date, providing HIV education and referral as well as a grievance redress mechanism.



43. Component 3 of the project focused on ensuring sustained quality of TI service delivery. This was done through TSUs providing hands-on support and supervision to NGOs and CBOs, validating TI activities, assessing quality, and facilitating data use for program adjustment. By 2017, three of the five intermediate result indicators for Component 3, which focused on the quality of TI service delivery, were substantially exceeded (table 9). With the project expansion in 2017, the target values were revised: 3 targets were increased, 1 was retained at the same level, and 1 was decreased. By 2020, the new targets for 2020 were also either exceeded or substantially achieved, and the indicator that was decreased (from 2 percent stockouts to 7 percent stockouts) had achieved its original target by reaching 2.1 percent stockouts (table 9).

Table 9. Achievement of Intermediate Results for Component 3 by 2017 and 2020

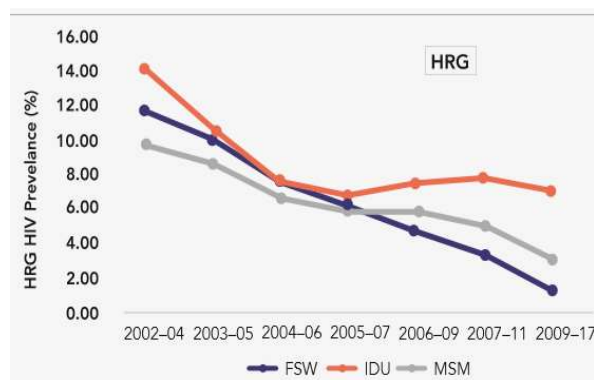
Indicator	Baseline (2013)	Original Target Values (for 2017)	Achievement (as of 2017)	Amended Target Values (revised in 2017)	Achievement (2020)
TIs that have validated high-risk group size data in the last 12 months	60%	75%	93%	75%	85%
TIs will be graded according to the performance indicators of SIMS	65%	75%	97%	95%	94%
TIs reporting condom stockout, in the last quarter	10%	2.0%	3.1%	7.0%	2.1%
NGO contracted as per SACS annual plan	60%	80%	91%	90%	96%
States updating, reporting, and responding to dashboard indicators	75%	90%	93%	95%	97%

Question 4: During the time that the interventions were implemented, did the country achieve its national goal of reversing the HIV epidemic? *Yes, mostly. AIDS deaths reduced, and HIV infections declined among some HRGs.*

- (a) **Reduction in AIDS deaths.** As the number of PLHIV on ART increased, AIDS-related deaths have declined steadily by 66 percent from 2004 to 2019.
- (b) **Reduction in new HIV infections at the national level.** HIV estimates released in July 2020 showed that in 2019 new HIV infections declined by 37 percent from 2010 levels and by 86 percent from the peak of the epidemic in 1997. These data confirm that India is maintaining its steady progress in reversing the HIV epidemic, at the national level.
- (c) **HIV prevalence declined among most HRGs.** As shown in figures 7 and 8, HIV prevalence among FSWs decreased substantially from about 3 percent in 2012 to below 1.6 percent in 2017. Declines among MSM were also steady from about 4 percent in 2013 to 2.7 percent in 2017. This follows on a steady decline among the bridge populations—which have also been the earliest focus of the TI approach, with PWID populations only added later into the HIV prevention efforts in the country. Although no incidence data were available for HRGs, the ICR team believe that HIV prevalence reduction among HRG is likely due to lowered HIV incidence because HIV-related deaths also declined in this same period.

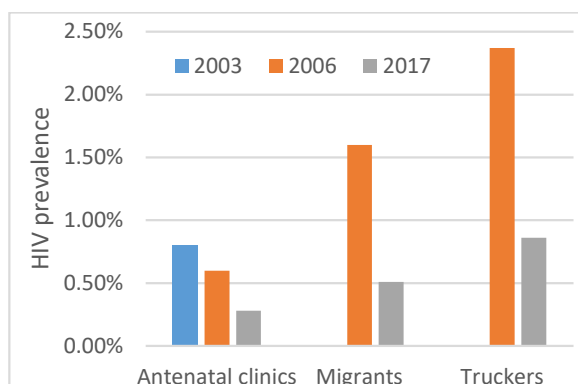


Figure 7. HIV Prevalence Trends among HRGs (2003–2017)



Source: NACO 2020.

Figure 8. HIV Prevalence Trends among Bridge Populations



Source: NACO 2020.

- (d) **But there was some reversal of HIV declines in certain geographic areas and stagnation in HIV prevalence declines among PWID.** New HIV infections did not decline in four states: Tripura, Arunachal Pradesh, Chhattisgarh, and Chandigarh. And HIV prevalence among PWID remained stable (above 6 percent) between 2013 and 2017.

44. **Question 5: Did the activities supported by the project contribute to the national goal of reversal of the HIV epidemic, or might other factors be responsible? Yes, it is very likely that the project contributed to the reported changes.** Although no counterfactual exists to definitively determine whether changes in HIV incidence and AIDS deaths were due to the program, there are six reasons why it is likely that the project contributed to the changes in outcomes and the continued reversal of the HIV epidemic in India:

- During the period of implementation, the project contributed 10 percent to the overall HIV response funding.
- The project continued to implement and scale TIs that were previously shown—through an independent evaluation—to be cost-effective.
- The project co-financed a new set of interventions (TAsP) that has globally proven to be effective in reducing not just AIDS deaths but new HIV infections.
- The relative scale-up in TI interventions in NACP III versus NACP IV looked very different: NACP III focused on scaling up TIs; NACP IV aimed to accelerate TIs to achieve saturation to reverse the epidemic. It is therefore likely that the national reduction in HIV incidence would have been the result of the implementation of the TIs and the rapid rollout of the HIV treatment program.
- TIs and HIV testing and treatment efforts were enhanced by the BCC and demand creation component, while service quality was enhanced and project implementation was supported by a well-designed institutional strengthening component, particularly the technical support and supervision provided to TI implementers through the 17 TSUs.



- (f) India has a well-defined and long-standing HIV prevention program approach that is coordinated by the Government and adhered to by the donors. The GoI, which contributed 63 percent of the NACP IV funding during the project period, follows this similar program approach (TIs and TAsP). It is therefore unlikely that other programs (or the lack of programs but natural changes in behavior) could have resulted in the observed changes among FSWs and MSM.
- (g) Contributions by other donors during the same time period: The contribution of other development partners remained either constant or reduced over the project period. These donors contributed to specific aspects of the program, with the US Government PEPFAR program focusing, from a program perspective, on the TAsP program: “Reach, test, and treat undiagnosed cases among KPs in high priority sub-national units.”

45. The efficacy rating is Substantial because there is sufficient evidence of outcomes/impact among the three HRGs that the project focused on, the outcomes were substantially achieved, many of the intermediate results were achieved, the project contributed to improved quality of TI interventions, the Government has been successful in starting to reverse the epidemic, and it is likely that the project-financed activities contributed to the signs of epidemic reversal in India (that is, reduce AIDS deaths and reduce new HIV infections). It is likely that the project contributed to the successes in the national HIV goal set out by the Government: to decline HIV incidence and reduce HIV deaths. The reason that a High rating was not given is because (a) targets were not achieved for some intermediate results and (b) some intermediate result targets were adjusted (reduced) in 2019, less than a year before the project ended.

C. EFFICIENCY

Rating: High

46. The efficiency of the project was assessed by focusing on two aspects: (a) allocative efficiency: whether NACP IV (and therefore the World Bank project) invested in the right interventions and for the right populations and (b) technical efficiency: whether the implementation modalities, strategies, and procedures that NACP IV had used to keep unit costs per key output/outcome low were successful.

Allocative Efficiency

- (a) **Right interventions?** Yes, the project financed the scale-up and saturation of interventions that were proven—in NACP III—to be cost-effective.
- (b) **Right populations?** In 2015, an allocative efficiency analysis using the Optima model was conducted by the Burnet Institute and the Public Health Foundation of India in the states of Karnataka (declining epidemic) and Punjab (increasing epidemic). The analysis aimed to determine the optimal funding allocations to minimize new HIV infections and deaths across different populations and programs. The analysis confirmed that HRGs and bridge populations targeted through NACP IV were the most appropriate populations from an epidemiological and program perspective.
- (c) **Sufficient proportionate funding allocations to the different programs?** Results from the allocative efficiency analyses suggested that both states would benefit from scaling up



funding for HIV treatment, the OST program, and the HIV testing program. This would avert around 13,000 new infections and 30,000 deaths through 2016–2030 (see annex 4 for details). This analysis showed that NACP IV was investing in the right programs. The restructuring of the project to increase funding for HIV treatment was therefore the right call in terms of increasing the allocative efficiency of the project. Therefore, the extension of the project end date by two years was a recognition of ways in which efficiency could be improved by expanding it to finance a highly effective intervention—HIV treatment.

Technical Efficiency

47. Several strategies were adopted during NACP IV to increase technical efficiency—see annex 4 for details. Table 10 compares the unit costs of major HIV commodities under NACP IV to global reference prices. For the five HIV-related commodities for which they were available, India's unit costs were lower than or within the range of the global reference prices.

Table 10. HIV Commodity Unit Cost Comparisons

HIV Commodity	Unit	NACP IV (average) (US\$)	Global Reference Price (US\$)
Condoms	Per condom	0.02	0.09 ³⁴
HIV test kits	Per test kit	0.20	0.3–0.5 ³⁵
ARV drugs	Per tablet	0.14	0.17–0.19 ³⁶
First line ART	Per year	59.00	62–68 ²⁷
Second line ART	Per year	242.00	224–268 ²⁷
OST	Per 2 mg tablet	0.05	Reference price not available

Source: NACO financial analysis 2020; Global Fund Price and Quality Reporting System (2020)

48. The unit costs to reach the project's targeted populations (HRGs and bridge populations) were mostly consistent over time, showed modest increases in newer program areas, and were much lower than global reference prices (table 11).

Table 11. Cost Per Person Reached (per year)

HRG/Bridge Population	Cost/Year/HRG or Per Bridge Population Reached With TI (US\$; 2019 equivalent price)			Global Reference Price (US\$; 2019 equivalent price)
	FY2017–18	FY2018–19	FY2019–20	
FSWs	21.8	23.3	20.0	65.0 ³⁷
MSM	18.8	23.8	21.2	74.0 ²⁸
TG/Hijra	28.0	29.7	29.4	No comparative data
PWID	40.8	48.7	52.7	80.0 ²⁸
Migrants	1.9	1.6	1.8	No comparative data
Truckers	1.5	1.5	1.6	No comparative data
Link workers scheme	2.3	2.6	2.4	No comparative data

Source: NACO financial analysis (2020).

Note: (a) For FSWs, MSM, TG, and PWID: estimated reach by TI is once per month; (b) for truckers and immigrants, estimated reach by TI is once per year; (c) prices were compared in 2019 equivalence values using gross national income deflation factors.

³⁴ The Global Health Cost Consortium.

³⁵ https://www.theglobalfund.org/media/7564/psm_hivrdreferencepricing_table_en.pdf?u=637319005428530000.

³⁶ https://www.theglobalfund.org/media/5813/ppm_arvreferencepricing_table_en.pdf?u=637384507675200000.

³⁷ Estimates (average, global) made by Avenir Health for UNAIDS projections, 2020.



49. Besides focusing on efficiency, setting defined performance criteria has also been instrumental in ensuring consistent quality (and therefore optimized efficiency). In addition, the institutional strengthening activities focusing on both technical and managerial aspects of NACO, SACs, DAPCUs, and NGOs/CBOs have contributed to the smooth implementation and improved quality of TI activities and an efficient procurement process. This is evident in that fewer contractual issues were reported, and fewer TI implementers were disqualified (2–5 percent) than in previous rounds.

50. There were also cost savings on the client's side: decentralized ART-linked centers incorporated into CBOs and NGOs to serve stable ART clients reduced the client's travel and time costs.

51. The loss to follow-up of PLHIV on HIV treatment decreased over time because of innovations that were implemented under the project. These would likely have reduced the unit cost per person retained in ART (a key cost-effectiveness outcome).

52. Although the project was implemented at the national level, target setting based on local epidemic and resource prioritization were carried out to inform resource allocations.

53. A High rating is given because the project showed that it had good allocative efficiency and good technical efficiency—the right services were delivered for low cost. In addition, when new evidence of effective interventions emerged, the project design was adjusted. Therefore, the extension of the project timeline served an important purpose of increasing the efficiency of the activities financed and ensuring high disbursement levels and was therefore justified.

D. JUSTIFICATION OF OVERALL OUTCOME RATING

54. Using all the above evidence to define the extent to which the project's major relevant objectives were achieved, or are expected to be achieved efficiently, the overall outcome rating is Satisfactory. This is because relevance was Substantial, efficacy was Substantial, and efficiency was High.

E. OTHER OUTCOMES AND IMPACTS (IF ANY)

Gender and Social Inclusion

55. Gender was a cross-cutting theme and included in all project operational guidelines, strategies, and activities under NACP IV. In addition, the project focused on the TG/Hijra group in India, which has struggled for gender identity and was grouped together with MSM under NACP III.

56. Gender aspects were a focus of the BCC component. NACO implemented multiple BCC campaigns and dialogues focusing on raising awareness among women and girls to take decisions for prevention of HIV transmission. NACO's central guiding principle in the HIV response is to do no harm and to be non-judgmental toward PLHIV or HRGs with a commitment to social inclusion. In addition, national mass media campaigns focused on promoting behavior changes among male partners to enable men and women to be safe from HIV and men to be responsible and equal partners in preventing HIV.

57. Gender equity issues among HRGs were addressed by focusing TI activities among sexual minority and other most vulnerable groups who face social exclusion, including FSWs, MSM, Hijra, PWID, and PLHIV. HRGs were brought onboard SACs and DAPCUs, strategy meetings, and the implementation review and consultation process. Many implementing NGOs and CBO were led by members of HRGs.



58. It was ensured that the voices of HRG members and PLHIV were heard. The project involved HRGs and PLHIV in program design, implementation, and evaluation. PLHIV were particularly vital to the peer navigator networks which provided critical support to link and retain PLHIV on ART.

59. Drop-in centers for HRGs played an important role in addressing stigma and discrimination and creating an enabling environment for HRG members to socialize and access stigma-free HIV, legal, and social protection services.

Human Rights

60. Several important sets of legislation were passed during NACP IV, in which NACO and the civil society played an important role. These include the following:

- (a) Most importantly, the Indian Supreme Court passed a landmark judgment in 2018 to decriminalize homosexuality—it made Section 377 of the Indian Penal Code unconstitutional insofar as it criminalizes sex between adults of the same sex. This was a major victory for lesbian, gay, bisexual, transgender and queer (LGBTQ) rights in India. TIs working for MSM successfully fought along with CBOs for gay rights, leading to this victory. NACO itself was at the forefront of the fight to repeal Section 377 through the supportive affidavits it filed in the High Court and Supreme Court. This legal victory was praised around the world, and India was showcased as a country where change is possible.
- (b) Further supporting the LGBTQ rights in India, the Transgender Persons Protection of Rights Bill was also passed: it prohibits discrimination against TG persons with regard to education, employment, the ability to rent or buy property, and so on. PWID benefited from an amendment to the Narcotics Drugs and Psychotropic Substances (Amendment) Act 2014. It allows for ‘management’ of drug dependence through OST and other harm reduction services in the country. PWID volunteering for treatment have immunity from prosecution (section 64-A).
- (c) The Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome (Prevention and Control) Act 2017 was passed. This act is considered a milestone as it criminalizes any discrimination against PLHIV. The act also empowers PLHIV to report discriminations in any context including school, employment, health care, insurance, and property rights. It also ensures the right of PLHIV to access ART treatment.

61. Human rights of key populations groups and PLHIV have been greatly improved compared to a decade ago owing to stigma and discrimination interventions, continuity of support to the PLHIV networks, sex worker networks, and provision of free legal services to HRGs, and anonymous reporting of gender-based violence and human rights violation through the phone helpline.

Institutional Strengthening

62. Institutional strengthening was evidenced in the following ways:

- (a) **NACP IV continued strengthening the networks of civil society and grassroots-level CBOs and NGOs through TSUs.** Informant interviews highlighted the important roles of TSUs in



providing necessary support supervision to CBOs and local NGOs and in ensuring the quality of the TI implementation and the M&E data. TSUs provided hands-on training to staff of CBOs and NGOs from fund management to use of data to inform program planning and course correction as well as technical know-how of TI activities, including outreach activities to HIV testing and links to care and treatment. Along with technical support to TIs, TSUs also strengthened the capacity of respective SACs to ensure the program quality and sustainability.

- (b) **Decentralization of DAPCUs and SACs was prioritized during NACP IV.** DAPCUs and SACs' capacity was further strengthened to ensure quality control and management of budget, planning, and implementation process.
- (c) **The M&E and surveillance systems, researchers, and research institutions were also strengthened and improved** through participations in carrying out the sentinel surveillance activities, IBBS, technical review, and data-use meetings as well as publications and participations in scientific conferences.

III. KEY FACTORS THAT AFFECTED IMPLEMENTATION AND OUTCOME

A. KEY FACTORS DURING PROJECT PREPARATION

Project Preparation, Design, and Quality at Entry

63. **The design and preparation of NACP IV was consultative and participatory.** The project was developed with input and participation from key government departments, public and private sector partners, development partners, NGOs, and networks of HRGs and PLHIV (5 regional multi-stakeholder consultation meetings, 14 working group meetings, and 250 representatives of civil society).

64. **The project design was informed by data.**

- (a) The project was built on three previous phases over a period of 15 years and based on evidence that TI interventions were cost-effective. Also, TI strategies were based on a well-validated package of services including BCC, condom and clean injecting equipment distribution, demand creation and referral to sexual health, HIV and STI testing and treatment services, and treatment of drug addiction.
- (b) An economic and financial analysis was carefully conducted to guide the design of the project. Key lessons learned from NACP III were documented and included in the project.
- (c) Selection of beneficiary groups was appropriate. Given the HIV epidemic in India is concentrated among HRGs, other vulnerable populations, and bridge populations, the continued focus on these beneficiary groups was well justified.
- (d) The Results Framework, including PDO and intermediate indicators, was realistic and aligned with operational objectives and allowed to monitor progress and track performance through routine as well as surveillance data. Targets were set based on triangulation of multiple data sources.



- (e) Numerous best practices documented after NACP III were adopted and carried over to NACP IV. These include the computerized financial management system, annual performance reviews of NGOs, biannual financial audits, IBBS and size estimation methods, and the continuing support of TSUs.

65. **Compared to NACP III, the design was flexible and more decentralized.** It allowed for innovations and new initiatives to be added during the life of the project depending on new and emerging data. For example, in 2015, the national testing guidelines were updated recommending community-based screening for HIV, and later in 2017, the treatment guidelines were also updated recommending treating of all PLHIV regardless of their stage of HIV disease (or the test and start guidelines). The project also allowed for SACs and DAPCUs to play a more significant role in the planning and implementation of the activities, strengthening the institutional capacity and fostering local ownership and involvement.

66. It drew on an **experienced World Bank team**, with team members who had been part of the previous two phases of the India's HIV response and included well-known experts in HIV prevention and treatment. The task team leaders (TTLs) and key staff had extensive experience working in India and good understanding of the Indian context. The task team was also well respected by the government stakeholders and key development partners and was able to maintain close coordination with them.

67. **Risk identification was appropriate.** The overall implementation risk was identified as Moderate. The ICR team agreed with this assessment because the NACP IV structure was well established at the national, state, and district levels. In addition, the DAPCU National Resource Team continued to support SACs and DAPCUs and TI projects implemented by NGOs and CBOs.

68. **Mitigation measures were put in place to address a key risk identified at the closure of NACP III: contracting of NGOs and CBOs.** These included (a) building capacity of NGOs and CBOs through close and frequent support supervision visits, (b) strengthening the fiduciary arrangements by improving the use of the computerized financial management system for managerial decision-making, (c) strengthening the performance-based management of NGO contracts (using audits), and (d) improving controls for cash advances at SACs.

69. **Environmental assessment was adequate.** In preparation for NACP IV, NACO undertook a situation and gap analysis with recommendations for improved implementation under the program. The recommendations included scaling up the implementation of infection control and waste management in TI areas and reducing the volume of infectious waste using effective segregation and waste management. These recommendations were aligned with the national Biomedical Waste Management Rules (2011) and were included in the NACO action plan.

B. KEY FACTORS DURING PROJECT IMPLEMENTATION

Factors within the Government's Control That Positively Influenced Project Implementation and Outcomes

70. **The project was well structured and coordinated within the Government.** NACO provided leadership to the project in close coordination with the National Rural Health Mission (NRHM). An NACP-NRHM Coordination Committee was created to provide policy direction and functional and structural integration of several NACP IV program elements under NRHM. TSUs oversaw the quality, mentoring, and



supporting of the TIs. TSUs also provided technical assistance and strengthened the capacity of SACS to ensure the sustainability of the program. SACSs were decentralized and implemented the state-level annual action plans that were guided and financed by NACO.

71. **Strong government commitment and leadership.** The Government was committed to fund 50 percent of the total project funds (the highest level to date) and assigned competent and experienced officials to run NACO. The strong political commitment resulted in the adoption of an explicit health financing goal, aiming to increase spending on public health domestically. Under NACP IV, domestic spending accounted for two-thirds of total HIV spending in India.

72. **Technical support from donors.** Despite reduction in funding, some development partners continued to provide technical support to the Government and funded selected areas such as innovations. Interviews with key development partners indicated that coordination among major donors, especially the joint mission reviews, was well organized by NACO through regular meetings, consultations, and joint mission and joint annual reviews. All donors and development partners worked together to support the institutional and capacity building component of the project to ensure the integration of different services and their sustainability toward achieving the program objectives.

73. **NACP IV began with solid human resource and organizational capacity.** NACP IV inherited a well-established and strong management structure, including the human resources aspects, at all levels. More importantly, on the ground level, the well-established civil society and key population communities played a critical role in the implementation of the program and contributed to their ownership and accountability of TIs. With TSUs overseeing the quality, mentoring, and supporting of the TIs in the states along with SACS, the project was well managed and supervised.

74. **An enabling environment facilitated TI activities.** Several important laws were passed during NACP IV, which positively contributed to the overall success of the program implementation. Key informants praised that these laws have made it easier to reach the unreachable HRGs and enhanced HRGs' access to confidential and quality HIV testing and treatment services.

75. **NACP IV had a robust financial management system.** Comprehensive financial rules, guidelines, and policies established in previous phases were reviewed and adapted for NACP IV. Frequent on-the-job training and timely feedback were provided to NACO financial staff. The required financial audits were praised as an important mechanism for ensuring record-keeping and financial reporting. The deviation between the reported unaudited expenditures (for claim purposes) and the audited expenditures (from the audit reports) was approximately 1 percent of the total claims, which is commendable for a national project in India.

76. **Strong compliance with environmental and social safeguard policies:**

- (a) A well-functioning waste management system was in place. Frequent field visits to monitor compliance were conducted throughout the duration of the projects. No major violations were documented (as shown in 15 Implementation Status and Results Reports [ISRs]).
- (b) A gender equity and social inclusion strategy was developed and used to guide all activities under NACP IV. The civil society platform and involvement of HRG networks were key to the success of NACP IV.



77. **An M&E system has been in place for at least two decades.** India has always had a strong HIV surveillance system, behavioral surveys are regularly done, and routine data have been collected.

- (a) The program has institutionalized a routine reporting system to monitor the performance implemented under the different components of the project. For TIs, the program collected data from NGOs and CBOs together with SACs and TSU that then reported different activities monthly. The monthly review of local data and the quarterly review with the technical support from TSU officials created a tight feedback loop that enabled rapid course correction and informed the many adaptations and refinements during implementation.
- (b) India has one of the world's largest surveillance systems for monitoring the HIV epidemic. The system has provided rich data on the level and trends of the HIV epidemic over the years that has been used not only for epidemiological projections but also for resource allocations.
- (c) India also has an established BSS system. The surveys use reliable methods to track HIV risk behaviors of HRGs.
- (d) NACP IV continued capacity building for M&E officers, statisticians, and program managers stationed at the state and TSU levels. They have been able to analyze data and disseminate findings at the site level to inform program performance monitoring and adaptive management. A dedicated data analysis and dissemination unit at NACO was created to facilitate data use and dissemination of data through multiple channels.

78. **Several innovations** were implemented during NACP IV to accelerate and sustain TI coverage.

- (a) Recognizing the delays and gaps in TI implementation because of the delay and reduction in funds in 2014–2015, NACO led the way in developing **innovative implementation strategies to accelerate TI coverage**: community mapping to guide TI activities, use of social media and community platforms for TIs, OST services for PWID, community-based HIV and STI screening and testing, indexed testing, and community-based HIV treatment through linked ART centers and differentiated service delivery models. This significantly contributed to the increasing rates of TI coverage and HIV testing for HRGs and bridge populations. These innovations culminated in the development of a TI implementation revamping strategy,³⁸ which was published in 2019 based, in part, on the experiences of this project and used during the last year of the project to accelerate progress. This **TI revamping strategy** will drive TI implementation during NACP V and beyond.
- (b) NACO also coordinated the following **innovations to scale up HIV prevention, treatment, care, and support**:
 - **Innovations to scale up prevention** included involvement of public-private partnership for treatment of STIs, establishment of integrated counselling and testing centers, introduction of indexed testing, and virtual space interventions to reach HRGs through internet and social media platforms.

³⁸ http://164.100.158.124/sites/default/files/TI%20Strategy%20Document_25th%20July%202019_Lowres.pdf.



- **Innovations to strengthen care, support, and treatment for PLHIV** included decentralization of HIV treatment through linked ART centers, introduction of an electronic patient card (smart card) for improved access to ART, introduction of health insurance for PLHIV, and the provision of legal aid services at ART centers for HRGs.
- (c) The national helpline was established in December 2014 and had served millions of Indians through a toll-free number. Apart from educating and counselling people on HIV and AIDS, callers were able to register any grievances.
- (d) Although it has not yet been scaled, some progress on HIVST was made—NACO has initiated qualitative research to assess its feasibility and acceptability, and the results were shared internally.

Factors within the World Bank Control That Positively Influenced Project Implementation and Outcomes

79. The World Bank provided an **excellent team** throughout the duration of the project. TTLs and the country team had excellent working relationships with NACO and other development partners. Key informant interviews highlighted several success stories including the following: (a) support supervision was systematic, detailed, and helpful with an intensive MTR; (b) the joint mission reviews were highlighted as one of the best practices, combining force and inputs from development partners and implementing agencies—these strategies avoided duplicate reporting, saved time for NACO and local IPs, and enabled the donor group to do more thorough reviews; (c) NACO praised that the feedback from the World Bank was always helpful and World Bank TTLs were credited as technically ‘strong’ and at the same time ‘very nice/ diplomatic’ and ‘effective’.

80. **Strong donor coordination and harmonization** was led by the World Bank team. This was praised by NACO and development partners as another strength of the project.

81. **Proactivity**. When crises happened, the World Bank team **assessed challenges proactively and put helpful mitigation strategies** in place. During the implementation delays in 2014–2015, for example, the World Bank sent their global HIV expert team to the country, invited other experts to join, and increased the number of review meetings and missions to ensure that solutions were found and that recommendations were jointly agreed on and implemented by the Government.

C. FACTORS CAUSING CHALLENGES

82. **Interruption of funding for TI implementation in 2014 and 2015**. As described earlier, funds to NGOs and CBOs to implement TIs were interrupted in 2014 and 2015 because of three linked factors: a Government decision requiring 40 percent counterpart funding from states, a change in how funds flowed to NGOs resulting in delays in terms of how long it took for NGOs to receive funds, and a one-off reduction in the Government’s national budget for HIV. These changes resulted in the saturation of TIs not reaching the intended levels and resulted in some NGOs closing, as the delay in receiving funds could not be absorbed by NGOs’ cashflow. Even though this decision was reversed in 2017 after the project’s MTR, some of the damage had been done.



83. **Delays in funds received by NGOs and CBOs.** Because of different interpretations of NACO’s financial rules under the World Bank project by the states, NGOs sometimes had to wait up to six months before project funds were reimbursed. The NACO financial rules required NGOs to document expenditures using quarterly statements of expenditures, which SACSs could compile and submit through NACO for reimbursement. Reimbursements would be adjusted, if required, after annual audit reports. However, varied practices emerged across the states: some required the NGOs to submit complete supporting documentation or audited financial statements before the expenditures were documented in SACS books of accounts and submitted to NACO and the World Bank. Delayed funding flows from NACO to NGOs inhibited their effectiveness and caused dissatisfaction.

84. **Information about the nature and overall volume of HRGs in the country was outdated.** In a concentrated epidemic such as in India, it is important to remain up to date on the populations with higher risk behaviors, how these change over time, and the sizes of these populations. In India, the last nationally representative mapping of HRGs and bridge populations was done in 2009. With such outdated information, it is possible to underestimate—for precision planning and budgeting purposes or pro rata allocations between states—the amount and type of TIs needed in a given geographic area. That said, these outdated data did not affect either measurement of project indicators or planning of implementation by TI implementers. Project indicator values were determined through surveys for which denominators are not dependent on population sizes, and TI implementers follow a microplanning process in their local area where they implement, so their planning would not be affected by the lack of national estimates (as per intermediate results in table 9, 85 percent of TI implementers adhered to this local microplanning schedule by having local size estimation information available). These outdated data therefore did not affect the measurement of the project’s efficacy.

85. **BCC campaigns and IEC materials were not adjusted for a new generation of HRGs and bridge populations.** Component 2 of the project focused on using mass media campaigns targeting the general population and for HRGs already known in India. But the nature of HRGs and where they congregate was starting to change during the later years of the project—TI interventions were already starting to provide more access to digital spaces, for example. During several key informant interviews, it was mentioned that the initial BCC activities and IEC materials that were developed were not well tailored to the ‘new generation’ of younger HRGs or to HRGs with multiple, overlapping behaviors. In the last two years of the project, NACO began to address this concern and it expanded the range of BCC and IEC materials available to encompass digital materials to reach this new generation of HRGs.

86. Key informant interviews also highlighted a few **human resource-related challenges**, including (a) changes in the government structure making it difficult to hire and retain quality staff; (b) variations in human resources allocated to the project in different states (some states lacked the necessary political support); and (c) lack of salary increases throughout the project, affecting staff morale.

IV. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME

A. QUALITY OF MONITORING AND EVALUATION (M&E)

87. India has had a long-standing M&E system for its HIV response. The three pillars of the M&E system—routine data, HIV sentinel surveillance, and research—were strong and have matured during the project:



- (a) Several systems were in place to collect, transmit, and analyze **routine data**: (i) a web-based computerized financial management system linked with program performance; (ii) TI NGO selection and evaluation procedures that assess NGOs' compliance against a standard set of performance criteria, including fiduciary issues, governance, human resource, and program performance; (iii) a dashboard that provides information for program monitoring; and (iv) the SIMS data system.
- (b) Since its inception in 1998, **HIV surveillance** in India has evolved into a credible and robust system for HIV epidemic monitoring and is acclaimed as one of the best in the world. Sentinel surveillance provides essential information to understand the trends and dynamics of HIV epidemic among different risk groups in the country. It aids in refinement of strategies and prioritization of focus for prevention, care, and treatment interventions. HIV estimates using HIV sentinel surveillance data were carried out biannually, which enabled the program to assess impacts and allocate resources.
- (c) Since implementation of the first NACP, BSSs have been the bedrock of India's HIV response: it has been integral to inform HIV epidemiology and responses. In 2014–2015, the program implemented the world's largest and most comprehensive IBBS survey. Since that survey, **new thinking about the types of epidemiological data needed to inform an HIV response emerged**. Instead of a full-fledged, large-scale, and complex IBBS, alternative epidemiological surveillance options such as HIV Surveillance Survey plus and BSS Lite have been recommended. In view of the above, NACO designed and implemented BSS Lite (2020) using robust institutional surveillance systems to estimate the prevalence of HIV-related risk and safe behaviors, knowledge, attitude, and practices and service uptake among key population groups. The data thus generated were also used to inform the PDO of the Project.
- (d) **Research and evaluation were prioritized**. To address the gaps in program implementation and generate systematic evidence, NACO created the National HIV/AIDS Research Plan (NHRP). A detailed exercise to assess evidence gaps in the program was conducted. Around 91 priority areas for evidence generation were identified. NHRP has so far commissioned 33 studies and evaluation. Two rounds of the NACO Research Fellowship Scheme were implemented by NACO, using funds from the Government's own resources. According to interviews undertaken, there was a marked increase in the publication of academic articles using data from the various surveillance efforts and other studies, funded through this scheme. Five capacity-building workshops on 'Operational Research' and five workshops on 'Ethics in HIV/AIDS Research' were organized during NACP IV.
88. Data use was prioritized at all levels through local monthly review meetings with CBOs/NGOs and biannual review meetings at the national and state levels.
- (a) **There was frequent use of routine data on the ground at the implementation level (NGOs and CBOs) with the support of DAPCU and TSU's M&E officers**. Based on these data, program implementation strategies were adjusted or new strategies were adopted. The TI revamp strategy, which included the virtual space interventions, was a classic case of how data were used to inform changes to implementation approaches.



- (b) **A dedicated data analysis and dissemination unit at NACO was created and a National Data Analysis Plan (NDAP) was launched under the project.** A total of 28 government institutions collaborated with NACO and SACs for facilitating the NDAP. This allowed NACP IV to use the largest amount of data to develop analytical documents, scientific papers, journal articles and to provide scientific evidence for program management and decision-making.
- (c) **IBBS and BSS Lite data were used extensively and collaboratively with national and international colleagues.** After each IBBS and BSS Lite, several data dissemination workshops were held at the regional and national levels, following which a dozen peer review articles were often published. Medical and public health students were also welcomed to use data and given access to the data. However, key informants also suggested that systematic capacity building should be initiated for the states (SACs and TSUs) and lower level (district and TI M&E officers) through routine training to analyze program data. Efforts to use routine data were made but use of routine data for decision-making can be improved.

89. **Challenges** with the M&E system were fivefold (with NACO's efforts to address these challenges in the later years of project implementation also noted):

- (a) The BSS that was intended to provide baseline indicators values for the PDO indicators was delayed. The baseline indicators that were set in 2013 during appraisal were not from the BSS.
- (b) While different types of data were used for their specific purposes (as described above), different datasets were not brought together and are not housed together so as to enable more advanced analyses such as clustering analyses to develop more detailed typologies of HRGs and to provide differentiated HIV prevention services based on subtypes of HRGs.
- (c) SIMS was not yet a patient-level electronic health record. It was therefore not possible to track someone over time or assess if someone is from more than one HRG. Given the increasing prevalence of overlapping high risk behaviors (and thus the sense that a person could 'belong' to more than one group), creating a person-level health record will help fine-tune precision implementation in future to focus on what is most relevant to the person in terms of his/her HIV and other health services. To address this challenge, NACO worked on 'Project SOCH' (SOCH stands for 'Strengthening Overall Care for HIV Patients'): it aimed to address this by working toward the development of a patient-centric IT-enabled integrated M&E systems with embedded supply chain functions. Project SOCH was clearly a step in the right direction but still siloed HIV data from the rest of the health system (or access to other health services that clients of HIV services might need).
- (d) In June 2019, only a year from the revised project end date, target values of several intermediate outcomes were reduced, one indicator target was increased, and one intermediate outcome (viral load) was dropped. It is not good practice to reduce the target values of indicators or remove indicators so close to the project end date.
- (e) Size estimation data were outdated (dated back to 2009). To address this challenge, NACO worked with stakeholders during the latter part of the project implementation cycle to



develop a new approach to size estimation that would take the preponderance of ‘online’ gathering of HRGs into account. NACO published in 2020 an operation manual ‘Programmatic Mapping and Population Size Estimation (p-MPSE) of High-Risk Groups: Operational Manual’.³⁹

Justification of Overall Rating of Quality of M&E

Rating: Substantial

90. The M&E system—as implemented including the Results Framework, the set of indicators, and data collection, and research and evaluations—was sufficient to assess the achievement of the PDO and intermediate results and to inform program performance and adjustments and make course corrections, as needed. Data were also used on a routine basis by local NGOs and CBOs to drive implementation. A high rating was not given because (a) there is still no unified patient-level client-level system for routine data collection system, (b) some intermediate results targets were adjusted downward too close to the project end date, and (c) there was a lack of updated population size estimation data for national planning purposes until a new operations manual was published by NACO during the last year of project implementation.

B. ENVIRONMENTAL, SOCIAL, AND FIDUCIARY COMPLIANCE

91. **Environmental safeguards.** The primary environmental risk associated with the project was the handling and disposal of infectious wastes resulting from TI activities. The project followed the health care waste management set forth in the Government’s Bio-Medical Rules (written in 1998 and amended in 2000 and 2011). The rules are based on the principles of segregation at generation, followed by adequate treatment and disposal to prevent recycling of such infectious waste and reduce adverse impacts on public health and the environment. NACP IV was classified as Category ‘B’ project as per the World Bank’s Operational Policy (OP 4.01) on environmental assessment.

- (a) Environmental risk assessment was carried out as part of the project preparation and recommendations for improvement from the World Bank were adopted. NACO made an addendum in February 2019 to the guidelines on safe disposal of used needles and syringes in the context of TIs for IDUs to ensure its compliance with a recent change in the government guidelines.
- (b) Guidance for health care waste generated from harm reduction program was integrated into the training courses for NGO/CBO staff and peer outreach workers, especially those working with PWID. At the state and district levels, monitoring and supervising of health waste management were carried out by M&E officers. Proper and approved containers as well as personal protective equipment (uniforms, gloves, shoes, raincoats, and so on) were sufficiently purchased. Interviews with key informants who supervised TI activities through field visits confirmed that TI staff were aware of/following the guidelines and no major violations were observed.

³⁹ National AIDS Control Organization. 2020. “Programmatic Mapping and Population Size Estimation (p-MPSE) of High-Risk Groups: Operational Manual.” New Delhi: NACO, Ministry of Health and Family Welfare, Government of India. http://www.naco.gov.in/sites/default/files/p-MPSE%20Report_Revised_23-10-2020_1.pdf.



- (c) Across 15 ISRs no critical issues were reported with regard to the management and monitoring of biomedical waste management.

92. **Social safeguards.** The project helped reduce the HIV burden and improve the health outcomes of several most disadvantaged groups in India (HRGs and bridge populations). A gender equity and social inclusion strategy was created and served as a cross-cutting theme for all NACP activities, from implementation of TI and mass media activities to M&E and reporting. Important policies were finalized, and legislation was passed that protects these groups including MSM, TG/Hijra, PWID and economically disadvantaged migrants, and PLHIV. The project also linked these groups to many national- and state-level social schemes (access to World Bank account and loans and establish their national ID card to have access to health insurance and economic assistance) that help reduce their economic burden. Key informant interviews highlighted this as one of the successes, besides achievements of high TI service coverage and other HIV outcomes.

93. **Indigenous people.** The project was designed to benefit all vulnerable and disadvantaged communities at higher risk of HIV infection. An HIV vulnerability assessment in Gujarat under NACP III found no significant correlation of HIV prevalence with geographical location, social system, or ethnic identity of tribal people living in the state. Therefore, NACO's approach has been to effectively address the causes of vulnerability in all areas rather than having separate HIV programs for indigenous populations. However, several emphases were added to ensure that the needs of indigenous people were covered:

- (a) The IEC strategy emphasized the use of culturally appropriate media and outreach and was customized to address the tribal people's information and education needs. These included low awareness levels, poor health-seeking behavior, and weak socioeconomic conditions among tribal populations.
- (b) Capacity building for TIS' project staff included modules to understand and address the needs of the tribal populations.

94. **Fiduciary compliance.** As described earlier, NACO had a robust financial management system. Comprehensive financial rules, guidelines, and policies established in previous phases were reviewed and adapted for NACP IV. Despite these strong guidelines, project financial management was rated 'Moderately Unsatisfactory' in 2015 and 2016 for three reasons: (a) the funding cuts and changes in financial cost arrangements already described; (b) the uneven performance across states; and (c) delayed submission of financial reports because the accounting centers for NACP IV were spread across the country, complicating the quarterly task of compiling expenditure reports. Solving these challenges required recruitment of new staff for some key positions, intensified supervision, and training and systematic dialogues with state financial and management team, all of which helped improve financial management and compliance. After these remedial steps were implemented, the ratings improved from Moderately Unsatisfactory to Moderately Satisfactory. Of the 28 interim unaudited financial report (IUFR) submissions that NACO had to make throughout the project, 45 percent were received on time. Most of the delays were during 2014–2016. The information provided in the IUFRs was reliable and accurate. The deviation between the reported unaudited expenditures (for claim purposes) and the audited expenditures (from the audit reports) was approximately 1 percent of the total claims, which was excellent.



95. **Procurement of goods and services.** Project procurement followed previously well-established procedures, especially with regard to the procurement of the services of NGOs and CBOs for TI implementation. With regard to the HIV treatment activity added to the project after the MTR, NACO appointed—after clearance was sought from the World Bank procurement team—a third-party procurement agent to ensure that ARV drugs were rapidly procured, stored, and distributed as needed for rapid rollout of the HIV treatment plan. The third-party procurement agent arrangement worked well and no significant stockouts were experienced. There was one issue with procurement that arose during a procurement post review of contracts awarded. During a procurement post review of contracts awarded in the project from July 1, 2018 to June 31, 2020, and carried out in June 2020, it was noted that three consultancy contracts were awarded to Hindustan Latex Family Planning Promotion Trust (HLFPPT) to run TSUs that provided technical assistance to SACs in Tamil Nadu, Maharashtra, and Odisha. HLFPPT is a dependent agency of HLL Lifecare Limited, which is a public sector enterprise that is 100 percent owned by MoHFW and thus not eligible for project contracts. NACO agreed with the World Bank team's assessment that these three contracts were ineligible expenditure. NACO reallocated these expenditures to their own budget codes, and a revised IUF was submitted in November 2020 in which NACO substituted the expenditures involved in the procurement non-compliance contract with other eligible expenditures.

C. BANK PERFORMANCE

Bank Performance at Design and Entry

Rating: Highly Satisfactory

96. As described in section 3, the World Bank put together an experienced team with excellent HIV credentials. Former TTLs, key staff from NACP III, and World Bank HIV experts provided input for the design of the project.

97. The World Bank team conducted a rigorous and comprehensive epidemiological, environmental, and policy analysis, documenting key gaps and lessons learned from NACP III to inform the design of the project.

98. The design of the project was participatory and consultative. Multiple stakeholder meetings were carried out; a flexible project design with sound technical approach was produced. To ensure service quality and long-term sustainability, strengthening CBOs and NGOs through TSUs' technical support and supervision was prioritized as one of the three key components.

99. The ICR team observed two weaknesses in the World Bank team's performance during design: (a) the design did not accommodate an earlier focus on a national-level population size mapping and subpopulation analysis to better define differentiated implementation strategies especially for the hard-to-reach HRGs and (b) the Project Appraisal Document did not foresee/ anticipate financial and program risk due to government funding cut.

100. As described earlier, the World Bank team managed a thorough and consultative process to ensure a suitable project design aligned well with the World Bank and the government objectives and strategically geared toward scaling up quality TIs. Lessons learned from NACP III were incorporated in the project,



especially identified gaps were prioritized to be addressed during NACP IV, and the design team had a concerted plan to test and scale innovations as well as improve service quality.

Bank Performance during Implementation

Rating: Satisfactory

101. Supervision took place as scheduled. During implementation, the World Bank team conducted—as required—one supervision mission every six months as well as five joint mission reviews in the later years. Almost US\$1 million was spent over seven years on project supervision. During the delayed period in 2015 and 2016, the World Bank team undertook three missions and multiple consultations with the Government to get implementation progress back on track.

102. Key informants interviewed for this ICR (see annex 5) praised the invaluable efforts of the World Bank in-country team in terms of how they successfully partnered with the Government and demonstrated the World Bank's commitment, strategically shared responsibility, and monitored progress. During these interviews, it was mentioned that the two current TTLs were highly respected and performed an exceptional job in connecting the World Bank with NACO and the development partners.

103. Coordination with other donors was regarded as best practice. In addition, the technical assistance provided by the World Bank was of high quality and the World Bank's investment in TSUs was strategic, ensuring both implementation quality and sustainability. During key informant interviews, no complaints or negative comments about the World Bank team's performance were made.

104. As described above and in section 3, the World Bank team managed the project well and worked early to address challenges. They provided quality and timely ISRs. Feedback from NACO and development partners was positive. Areas where the World Bank team could have focused more was in encouraging the Government in terms of (a) the scale-up of PrEP and HIVST and (b) an earlier effort to revise the operational guidance for size estimation and to update the size estimation and subpopulation analyses. Also, it did not come across that the sustainability of the project after the World Bank financing ended was an area of focus or the integration of HIV activities with other health services provided in the community was ensured. One solution, for example, could have been to recommend a pilot to the Government to consider what would be needed to integrate HIV and other health services as part of the Government's service delivery quality improvement and Aadhaar efforts.

Justification of Overall Rating of Bank Performance

105. With a rating of highly satisfactory for preparation and satisfactory for supervision, overall rating of the World Bank performance is Satisfactory.

D. RISK TO DEVELOPMENT OUTCOME

Rating: Low

106. This rating was provided because a low financial and program risk to sustainability was found.



- (a) **The Government took significant ownership of the project.** During NACP IV, the Government financed 63 percent of the total HIV and AIDS program budget and increased its financing commitment during the project extension period.
- (b) **In addition, the next NACP phase (NACP V, being developed) will be inherited from a well-established structure from the central level to state and NGO levels.** Furthermore, the strong human resource and civil society will continue to benefit future program implementation.
- (c) **The environment for HRGs and PLHIV has improved significantly throughout the years and important legislation passed during recent years.** These will improve access to health and economic support for these marginalized populations. Ultimately, it should contribute to improved HIV service delivery free of stigma or discrimination.
- (d) **India is close to reaching 90-90-90 targets.** These levels of testing and treatment coverage should significantly contribute to limiting the transmission of HIV to uninfected persons, setting the program for long-term success.
- (e) **Low risk to HIV outcomes.** Based on surveillance data and the two latest HIV epidemic modelling estimates (in 2017 and 2019), HIV incidence and deaths over the last decade in India have consistently declined. Given strong efforts from the Government, innovations, increasing use of data to guide program and policies, availability of multiple best practices and operational guidelines, and CBO and NGO implementation networks, the risk that new HIV infections could rise again in future is likely to be low, provided that the current program intensity and focus is maintained. However, India is a large country and epidemic trajectories vary among states. However, the risk is not negligible. This is because the ability of India to effectively control the epidemic is dependent on the Government's continued surveillance, rapid adaptation, and diligence. The fact that the baseline IBBS or BSS Lite was delayed several years, and the size estimation study took nearly five years to begin its pilot, points to some potential future risk that the epidemic would not be driven by as strong surveillance efforts in the future—the historical backbone of India's strong HIV response. In addition, the 2020 COVID-19 might have also affected access to HIV treatment services, causing unforeseen setbacks in terms of HIV service access and new HIV infections.

V. LESSONS AND RECOMMENDATIONS

107. **To ensure sustainability, plan for transitions early on.** When ending over two decades of engagement or a specific funding model in a sector, the Government and the World Bank should focus on transition early on. Such transitions might include increases in domestic financing for HIV (in a context of low domestic spending on health—domestic government resources allocated to health care in India as a proportion of the gross domestic product are still among the world's lowest [under 2 percent]) or even different funding models to elicit future World Bank support for the sector, even in an integrated way.

108. **Whether and how to integrate HIV services, especially ones for marginalized populations, within the larger health care delivery system—while maintaining services in a way that does not increase stigma or discrimination—still need to be determined.** When this project was designed, India's HIV



responses were globally heralded as a success to be replicated. Because of the success of the program, the Government decided to integrate the separate HIV department into the Health and Family Welfare Department and expanded domestic funding allocations for the HIV program. This was the start of an integration effort: over time, when the epidemic is under control, integration of HIV services with the larger health care system, including primary health care services, should be considered.

109. The implementation system of working with and through peer networks as agents of change that NACO implemented during NACP IV could work well for COVID-19 vaccination programs—to both micro-target appropriate high-risk individuals to be vaccinated first and to ensure that the second dose follow-ups are done well.

110. As part of integration of HIV services into the health system, embrace differentiated care in a chronic disease model. Disease-specific programs, including HIV, have often been effective in delivering precise and targeted interventions, allowing for rapid scale-up. As HIV continues to decline, HIV care is increasingly following a chronic disease model. Some of the differentiated care strategies used in HIV can also be done for chronic diseases and vice versa. These include fast-tracking of ART refills, decentralized ART dispensation at the community support centers, multi-month dispensation, and community-led ART dispensations. This has resulted in reduction in wait time and crowding and improved adherence.

111. Longer-term impacts of HIV treatment. If future World Bank projects measure HIV treatment, then the need to measure HIV viral load and proportion of HIV treatment clients who are virally suppressed as a long-term outcome (and allocate funding for improved measurement, if needed) should be included.

112. TSUs were vital to ensure quality and successful implementation of TIs; plans for their phasing out need to be established early on. While TSUs served an important purpose, long-term plans for transitioning from TSUs were not made. Future projects should consider transitioning arrangements early on, including testing hybrid arrangements during project implementation.

113. Create incentives for scaling innovations. While the project—in response to challenges, new evidence, or changes on the ground—successfully implemented and scaled several innovations, including virtual space interventions and the national helpline, the pace of adoption of HIVST and PrEP has been slow. While the TI revamp strategy was a strategic and innovative step, it was developed quite late into the project and it is not yet based on the latest BSS and size estimation data. Creating incentives for scaling up proven innovation into project implementation should be pursued in the future.

114. Joint implementation reviews worked well. Donor collaboration was facilitated through these joint implementation reviews. Regular reviews of program indicators and joint visits by donor representatives and the Government to intervention sites were essential in the monitoring of progress and adjustment/modification of intervention strategies.

115. Designing and scaling up a unified, interoperable data system that links HIV data with other routine data in the health sector will be essential to reduce fragmentation and move toward integrated, client- and consumer-centered health care in the future—for PLHIV, for people at risk of HIV, and people at risk of or living with any other disease burden in India. This was emphasized by a PEPFAR assessment in 2017 that concluded: “Major barriers include reaching and testing hidden and hard-to-reach key populations, low yield of key population HIV positives, tracking positive key populations and PLHIV across the continuum of care, and low retention in care, support, and treatment. A key challenge is the inability to



follow individuals through the entire cascade, due to the separate monitoring and reporting systems used at the community, integrated counselling and testing centers, and ART center levels.”⁴⁰ The efforts made by India during the project extension period (2017–2021) to integrate HIV routine and patient-level data through Project SOCH and revamp size estimation methods to consider the new generation of HRGs and where they congregate and meet are important lessons for other countries with concentrated epidemics.

⁴⁰ <https://www.state.gov/wp-content/uploads/2019/08/India-15.pdf>.



ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS

A. RESULTS INDICATORS

A.1 PDO Indicators

Objective/Outcome: Increase safe behaviors among high risk groups

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Female sex workers who report using a condom with their last client	Percentage	80 01-Mar-2009	85 01-Mar-2017	95 01-Mar-2017	96 31-Mar-2020
<p>Comments (achievements against targets): This indicator was exceeded target, even after the project target was revised from 85% to 95% in 2017. Baseline values were not measured at the start of the project (2012) due to delay in the BBS.</p> <p>Source: NACO, BBS 2020 & Government's ICR report 2020.</p>					
Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Men who have sex with men who report using a condom during sex with their last male partner	Percentage	45 01-Mar-2009	65 01-Mar-2017	90 01-Mar-2017	85 31-Mar-2020



Comments (achievements against targets):

This indicator was substantially achieved, even after the project target was revised from 65% to 90% in 2017.

Source: NACO, BBS 2020 & Government's ICR report 2020.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Injecting drug users who do not share injecting equipment during the last injecting act	Percentage	45 01-Mar-2009	65 01-Mar-2017	85	88 31-Mar-2020

Comments (achievements against targets):

This indicator was exceeded, even after the project target was revised from 65% to 85% in 2017.

Source: NACO, BBS 2020 & Government's ICR report 2020.

A.2 Intermediate Results Indicators

Component: Scaling Up Targeted Prevention Interventions and Treatment as Prevention (TasP) for core group

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
FSWs who have been	Percentage	80	85	0	90



reached by targeted interventions in the last year, by 2020	31-Mar-2012	01-Mar-2017	31-Mar-2020
<p>Comments (achievements against targets): This indicator was exceeded target.</p> <p>Estimates based on routine health records (Remarks)</p>			
Indicator Name	Unit of Measure	Baseline	Original Target
High Risk MSM who have been reached by targeted interventions in the last year, by 2020.	Percentage	67 31-Mar-2012	75 01-Mar-2017
		Formally Revised Target	Actual Achieved at Completion
		72	79 31-Mar-2020
<p>Comments (achievements against targets): This indicator was exceeded target.</p> <p>Estimates based on routine health records (Remarks)</p>			
Indicator Name	Unit of Measure	Baseline	Original Target
		Formally Revised	Actual Achieved at



			Target	Completion
IDUs who have been reached by targeted interventions in the last year, by 2020	Percentage	81 31-Mar-2012	83 01-Mar-2017	94 31-Mar-2020
<p>Comments (achievements against targets): This indicator was exceeded target, even after the project target was revised from 83% to 85% in 2017</p>				

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
TIs that have validated high risk group size data in the last 12 months.	Percentage	60 31-Mar-2012	70 01-Mar-2017	75	85 31-Mar-2020

Comments (achievements against targets):

This indicator was exceeded target, even after the project target was revised from 70% to 75% in 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
TIs will be graded according to the performance indicators of SIMS.	Percentage	65 31-Mar-2012	85 01-Mar-2017	95	94 31-Mar-2020
<p>Comments (achievements against targets):</p>					



This indicator was substantially achieved, even after the project target was revised from 85% to 95% in 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
TIs reporting condom stock out, in the last quarter	Percentage	10 31-Mar-2012	2 01-Mar-2017	7	2 31-Mar-2020

Comments (achievements against targets):

This indicator was exceeded target.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Planned prevention interventions for migrants implemented as per plan	Percentage	70 31-Mar-2012	85 01-Mar-2017	90 01-Mar-2017	98 31-Mar-2020

Comments (achievements against targets):

This indicator was exceeded target, even after the project target was revised from 85% to 90% in 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion



Planned prevention interventions for truckers implemented as per plan	Percentage	70 31-Mar-2012	85 01-Mar-2017	90	95 31-Mar-2020
<p>Comments (achievements against targets): This indicator was exceeded target, even after the project target was revised from 85% to 90% in 2017.</p>					
<p>Component: Behavior Change Communications</p>					
Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
NGO contracted as per SACS annual plan	Percentage	60 31-Mar-2012	85 01-Mar-2017	95	96 31-Mar-2020
<p>Comments (achievements against targets): This indicator was exceeded target, even after the project target was revised from 85% to 95% in 2017.</p>					
Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
States updating, reporting and responding to dashboard indicators	Percentage	75 31-Mar-2012	85 01-Mar-2017	90	97 31-Mar-2020



Comments (achievements against targets):

This indicator was exceeded target, even after the project target was revised from 85% to 90% in 2017.

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
FSW who have been counseled and HIV tested in the last 12 months	Percentage	35 31-Mar-2012	0 01-Mar-2017	80 01-Mar-2017	85 31-Mar-2020

Comments (achievements against targets):

This indicator was exceeded target.

Indicator Name to read as: *FSW who have been counseled and HIV tested in the last 12 months, by 2020*

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
High risk MSMs who have been counseled and HIV tested in the last 12 months	Percentage	35 31-Mar-2012	0 01-Mar-2017	80 01-Mar-2017	86 31-Mar-2020

Comments (achievements against targets):

This indicator was exceeded target



Indicator Name to read as: *High risk MSMs who have been counseled and HIV tested in the last 12 months, by 2020*

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
IDUs have been counseled and HIV tested in the last 12 months	Percentage	28 31-Mar-2012	0 01-Mar-2017	70 01-Mar-2017	83 31-Mar-2020
Comments (achievements against targets): This indicator was exceeded target.					
Indicator Name to read as : <i>IDUs who have been counseled and HIV tested in the last 12 months, by 2020</i>					

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
High risk group (core) living with HIV who are diagnosed.	Percentage	0 31-Dec-2016	0 01-Mar-2017	0 01-Mar-2017	0 31-Mar-2020
Comments (achievements against targets): Not able to evaluate due to lack of data.					



Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
High risk group (core) currently receiving ART.	Percentage	0 31-Dec-2016	0 01-Mar-2017	90 01-Mar-2017	86 31-Mar-2020
<p>Comments (achievements against targets): This indicator was exceeded target.</p>					
Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
High risk group (core) with known HIV status on ART for 12 months after initiating ART.	Percentage	0 31-Dec-2016	0 01-Mar-2017	80 01-Mar-2017	65 31-Mar-2020
<p>Comments (achievements against targets): This indicator was not achieved (65% at end line vs. 80 target).</p>					



B. KEY OUTPUTS BY COMPONENT

Component 1: Scaling Up Targeted Interventions for HIV Prevention	
1.1	Contracted and managed 1,426 TIs under the projects in the country.
1.2	Reached out to 662,000 of 868,000 estimated FSWs with prevention services through the TIs.
1.3	Reached out to 238,000 of 427,000 estimated MSM with prevention services through the TIs.
1.4	Reached out to 40,550 transgender persons with prevention services through the TIs.
1.5	Reached out to 140,000 of 177,000 estimated IDUs with prevention services through the TIs.
1.6	Targeted interventions for bridge populations have reached out to 4.8 million migrants and 1.3 million truckers with prevention services such as behavior change communication, condoms, and referral services to STI, integrated counselling and testing center (ICTC), and ART.
1.7	On average, 85% of the core group HRGs have been covered through TIs with services.
1.8	On average, 90% of planned prevention interventions for bridge populations (migrants and truckers) implemented by 2017.
1.9	The program has established 3 million condom outlets across country.
1.10	Currently, there are 226 OST centers and 51 satellite OST centers serving approximately 36,445 IDUs in the country.
1.11	SACS and TSU, as on March 2020, had partnered with 743 industries in 22 states serving 2,700,000 workers/migrants for various HIV/AIDS-related services
1.12	Condom distribution against estimated demand was 87% among FSWs
1.13	88% among MSM
1.14	94% among IDUs
1.15	90% among TGs
1.16	Needle and syringes distribution against demand was 77%
1.17	In 2017–2018, after TnS implementation, a total 1,73,395 PLHIV were registered at ART centers and 1,51,166 (87%) were initiated on ART
1.18	Established and managed 553 ART centers
Component 2: Behavior Change Communications	
2.1	About 80% of high-burden states/districts implementing IEC/BCC strategy with focus on demand generation and stigma reduction, by 2017.
2.2	IEC materials were developed for the following thematic areas: <ul style="list-style-type: none"> • Reduce stigma and discrimination • Promoting HIV/AIDS act • Pre-visit tool for people going for testing • Reduce unsafe behavior among IDUs • Risk perception



	<ul style="list-style-type: none">• Information seeking behaviors• Seek regular testing• Correct and consistent use of condom• Facilitate ART adherence
2.3	By May 2020, National AIDS Helpline recorded a total of 3,144,349 calls out of which 2,168,079 (69%) calls have been answered for providing services
2.4	Daily average, the National AIDS Helpline received 200 distress calls.



ANNEX 2. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION

A. TASK TEAM MEMBERS

Name	Role
Preparation	
Sameh El-Saharty	Task Team Leader
Heenaben Yatin Doshi	Procurement Specialist(s)
Supriti Dua	Financial Management Specialist
Sangeeta Patel	Team Member
Ruma Tavorath	Social Specialist
Satya N. Mishra	Social Specialist
Supriti Dua	Team Member
Amith Nagaraj Bathula	Team Member
Jasveen Thomas	Team Member
Supervision/ICR	
Suresh Kunhi Mohammed	Task Team Leader
Heenaben Yatin Doshi	Procurement Specialist(s)
Tanya Gupta	Financial Management Specialist
Geeta Shivdasani	Procurement Team
Martha P. Vargas	Team Member
Payal Malik Madan	Procurement Team
Sangeeta Kumari	Social Specialist
Iffat Mahmud	Team Member
Tanusree Talukdar	Team Member
Ronald Upenyu Mutasa	Team Member
Sharlene Jehanbux Chichgar	Environmental Specialist
Marelize Gorgens Prestidge	ICR Main Author
Lung Vu	ICR Contributing Author (Senior Health Specialist/ETC)
Mary Ndege	ICR team member (Program Assistant/ETT)



B. STAFF TIME AND COST

Stage of Project Cycle	Staff Time and Cost	
	No. of staff weeks	US\$ (including travel and consultant costs)
Preparation		
FY12	22.150	64,151.97
FY13	33.563	131,031.14
FY14	.075	3,332.32
Total	55.79	198,515.43
Supervision/ICR		
FY14	29.262	83,112.49
FY15	42.353	191,153.00
FY16	19.760	146,917.67
FY17	40.748	192,076.86
FY18	22.911	125,870.67
FY19	23.994	126,020.01
FY20	27.169	139,204.36
Total	206.20	1,004,355.06



ANNEX 3. PROJECT COST BY COMPONENT

Components	Amount at Approval (US\$, millions)	Actual at Project Closing (US\$, millions)	Percentage of Approval by World Bank
Scaling Up Targeted Interventions for HIV Prevention	220	183.01	89
Behavior Change Communications	20	6.11	33
Institutional Strengthening	15	48.00	344
Total	255	237.12	100

The project closed with disbursement of US\$ 237.12 mn, which was the US\$ equivalent historical value of the approved loan (XDR 168.4 mn). The project achieved 100% disbursement.



ANNEX 4. EFFICIENCY ANALYSIS

1. The efficiency of the project's contribution was assessed by focusing on two aspects: (a) allocative efficacy, whether NACP IV (and therefore the World Bank project) invested in the right interventions and for the right populations and (b) technical efficiency, whether the implementation modalities, strategies, and procedures that NACP IV had used helped keep unit costs per key output/outcome low.

A. Allocative Efficiency of NACP IV

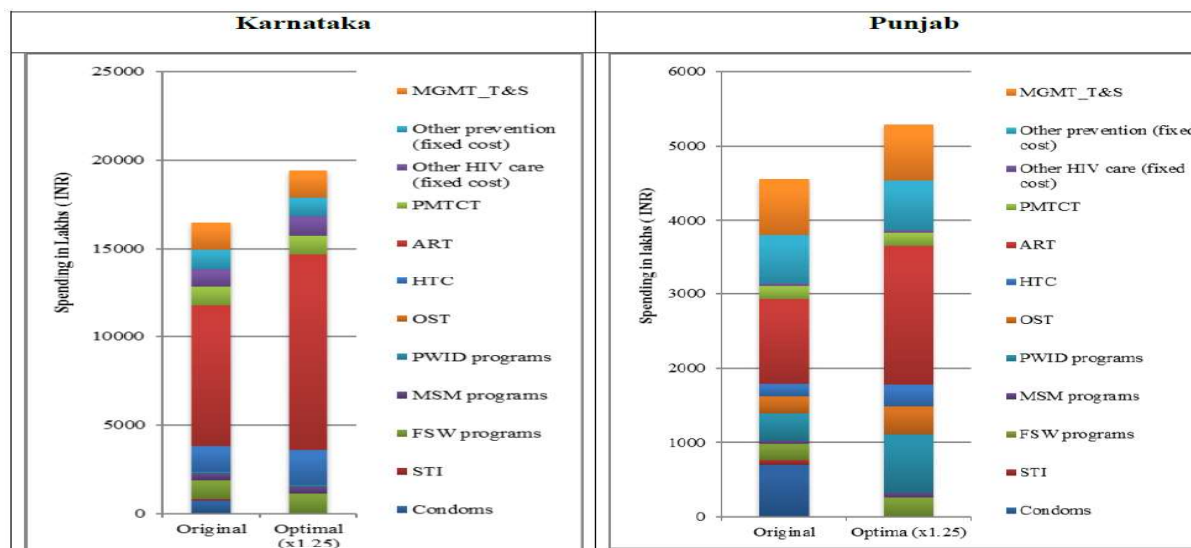
2. **Right interventions?** By the end of NACP III, a cost-effectiveness analysis was conducted estimating that the cost per infection averted was US\$104 (INR 4,680) and the cost per disability-adjusted life-year (DALYs) averted was US\$10.7. This number suggests TIs are a cost-effective strategy for HIV prevention in India. The continued focus of NACP IV, guided by this analysis, was therefore likely to be cost-effective.

3. **Right populations?** In 2015, an allocative efficiency analysis using the Optima model was conducted by the World Bank, Burnet Institute, and the Public Health Foundation of India in the states of Karnataka (declining epidemic) and Punjab (increasing epidemic). The analysis aimed to determine the optimal funding allocations to minimize new HIV infections and deaths across different populations and programs. The analysis confirmed that the HRGs and bridge populations targeted through NACP IV were the most appropriate populations from an epidemiological and program perspective.

4. **Sufficient proportionate funding allocations to the different programs?** Results from the allocative efficiency analyses suggested that both states would benefit from scaling up funding for the ART and OST program and HIV testing program. The TI program for HRG was recommended to remain at a similar level. The analysis also suggested that the condom program, STI management program, and BCC component among the general population were deemed not cost-effective and should be scaled back further, making space to increase financing to the TAsP program. Figure 4.1 shows that the greatest impact for Punjab (an increasing epidemic) could be achieved by (a) increasing funding to ART by 1.6 times of current levels, (b) increasing HIV counselling and testing programs by 50 percent, and (c) increasing OST coverage by 1.2 times. This would avert around 13,000 new infections and 7,400 deaths between 2016 and 2030. Figure 4.1 also shows that the greatest impact for Karnataka (declining epidemic) could be achieved by (a) increasing funding to ART by 1.3 times; (b) increasing HTC programs by 50 percent; and (c) maintaining same level of funding for sex worker programs, OST, and condom distribution. This would avert around 13,000 new infections and 30,000 deaths through 2016–2030 (figure 4.1). This analysis suggests that the adoption of TAsP aiming to increase HIV testing and treatment coverage, prioritizing OST program for IDU while maintaining coverage of TI activities under the NACP, was highly strategic and would yield greatest impacts. Overall, this analysis showed that NACP IV was investing in the right programs and made recommendations on how future allocations could be increased. The restructuring of the project to increase TAsP funding would have therefore increased the allocative efficiency of the project.



Figure 4. 1. Impacts in Punjab and Karnataka



Source: Allocative Efficiency Analysis, 2015.

B. Efficiency of NACP III

5. NACP III performed well on both allocative efficiency (spending on the 'right things' most likely to achieve the desired outcomes) and technical efficiency to keep the cost per unit of the outcome as low as possible.

- (a) By the end of NACP III, a cost-effectiveness analysis was conducted estimating that the cost per infection averted was US\$104 (INR 4,680), the cost per DALYs averted was US\$10.7. This number suggests TIs are a cost-effective strategy for HIV prevention in India. However, the evaluations of TIs indicated that the same numbers of beneficiaries would have been reached with 20 percent fewer TIs.⁴¹
- (b) Costs were cut by integrating HIV services into existing service delivery channels. Stand-alone counselling and testing centers were transitioned to fully integrated centers at NRHM-supported facilities, increasing the proportion of these centers from 20 percent in 2009 to 57 percent in 2012. Partnership agreements with 'preferred private providers' took advantage of India's large private sector. Having private and public sector providers initiating HIV testing enabled scale-up of STI and HIV testing and treatment coverage.
- (c) It was suggested that improvements in procurement and supply management of condoms, drugs, and other supplies reduced costs. Stockouts of test kits, ART, and condoms fell over the course of implementation, and the speed of resupply when stockouts were reported improved. There was a 30 percent reduction in the cost of ARV drugs, CD4 tests, and bulk purchases of HIV testing kits, and NACO had achieved savings of INR 500 million by

⁴¹ ICR report, NACP III.



streamlining free condom distribution and setting up systems to estimate condom demand in each TI and track supply and usage.

C. Technical Efficiency of NACP IV

6. Table 4.1 compares the unit costs of major HIV commodities under NACP IV with global reference prices publicly available. India's unit costs were, for the five commodities for which they were available, lower than the global reference prices.

Table 4.1. HIV Commodity Unit Cost Comparisons

HIV Commodity	Unit	NACP IV (average) (US\$)	Global Reference Price (US\$)
Condom	Per condom	0.02	0.09 ⁴²
HIV test kit	Per test kit	0.2	0.3–0.5 ⁴³
ARV drugs	Per tablet	0.14	0.17–0.19 ⁴⁴
First line ART	Per year	59.00	62–68 ⁴⁰
Second line ART	Per year	242.00	224–268 ⁴⁰
OST	Per 2 mg tablet	0.05	Reference price not available

Source: NACO financial analysis 2020; Global Fund Price and Quality Reporting System 2020.

7. The latest (2020) unit cost per person reached per year was under US\$20 for FSWs, which was lower than the 2016 estimate of US\$35 for India and global estimate of US\$65 for 2020. This figure for MSM was US\$21.2, which was also lower than the 2016 estimate of US\$29 for India and 2020 global estimate of US\$74. The unit cost per IDU reached by TI was US\$53 compared to the global estimate of US\$80. The unit cost per person per visit for truckers and immigrants was under US\$2, and cost per visit for people reached through the Link Workers Scheme was US\$2.4. In addition, these unit costs have been stable from 2017 to 2020, indicating some cost savings made by the program (table 4.2).

Table 4.2: Cost Per Person Reached (per year) and Cost Per Visit (Direct Cost for Prevention Services Only)

Actual Expenditure	Cost/Year Per HRG or Per Bridge Population Reached with TI (US\$)			Global Reference Price (US\$)
	FY2017–18	FY2018–19	FY2019–20	2020
FSWs	21.8	23.3	20.0	65.0 ⁴⁵
MSM	18.8	23.8	21.2	74.0 ⁴¹
TG/Hijra	28.0	29.7	29.4	No comparative data
PWID	40.8	48.7	52.7	80.0 ⁴¹
Migrants	1.9	1.6	1.8	No comparative data
Truckers	1.5	1.5	1.6	No comparative data

⁴² The Global Health Cost Consortium

⁴³ https://www.theglobalfund.org/media/7564/psm_hivrdtreferencepricing_table_en.pdf?u=637319005428530000.

⁴⁴ https://www.theglobalfund.org/media/5813/ppm_arvreferencepricing_table_en.pdf?u=637384507675200000.

⁴⁵ Estimates (average, global) made by Avenir Health for UNAIDS projections, 2020.



Actual Expenditure	Cost/Year Per HRG or Per Bridge Population Reached with TI (US\$)			Global Reference Price (US\$)
	FY2017–18	FY2018–19	FY2019–20	2020
Link Workers Scheme	2.3	2.6	2.4	No comparative data

Source: Estimates (average, global) made by Avenir Health for UNAIDS projections, 2020.

Note: For FSWs, MSM, TG, and PWID: estimated reach by TI is once per month. For truckers and immigrants, estimated reach by TI is one per year.

8. A number of strategies adopted during NACP IV across all three components likely contributed to cost savings, including (a) strengthening the procurement and supply management of condoms, drugs, and other supplies; (b) reducing stockouts of test kits, ART, and condoms; (c) improving the bidding competitiveness for major commodities as well as contracting of the BCC component (campaigns, production of IEC materials, and so on); (d) ensuring the TI revamped strategies reached HRGs through social media platforms, which significantly increased yields and reduced operation cost as well as unit cost; and (e) using India-made ARV drugs that were considered cheapest and most affordable in the world (an annual course of first line ARV drugs [mostly used] was approximately US\$59 per year, which is lower than the global reference price of US\$62–US\$68 per PLHIV per year).

9. As shown in section II, regardless of static annual funding and inflation during the course of the project implementation, NACP IV managed to increase annual coverage of TIs using innovative strategies (as part of the TI-revamped strategies) and achieved coverage saturation by reaching the unreachable populations, indicating efficiency gains.

10. Based on numerous informant interviews, the project's guidelines, best practices, financial regulations, financial audits, and standard sets to ensure performance of NGOs and CBOs have likely contributed to cost savings. In addition, the institutional strengthening activities focusing on both technical and managerial aspects of NACO, SACS, DAPCUs, and NGOs/CBOS have contributed to the smooth implementation and quality of TI activities and efficient procurement process. Fewer contractual issues were reported, and fewer TI implementers were disqualified (2–5 percent).

11. Decentralized ART-linked centers incorporated into CBOs and NGOs to serve stable ART clients would also save costs (client's travel and time costs, lowered salary paid to health care workers, and lowered operation costs). ART clients' loss to follow-up decreased over time because of innovations that were implemented under the project (these are described in section III). These would likely reduce the unit cost per person retained in ART (a key cost-effectiveness outcome).

12. Multiple BSSs implemented in the past two decades have shown around 90 percent consistent condom use among HRGs. As sexual transmission is estimated to account for 80 percent of all new HIV infections in India, and cost per condom per person per year was just about INR 600 combined with ART coverage through TAsP, NACP IV seemed to maximize its synergy for the greatest impact.


ANNEX 5. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS

Page No (of draft ICR sent to GoI)	From ICR Report	NACO Remarks
5, 7, 14, 16, 43	But the country still faced pernicious human development challenges: illiteracy levels were high (26%), around 24 million people lived in extreme poverty and, in terms of health outcomes, India also still lagged behind many of its peers. India was not on track to achieve the 2015 Millennium Development Goal targets (including those for maternal mortality and infant mortality)	Appropriate referencing may be provided
5	“and the long-term sexual partners of FSW and PWID” is used in reference to the bridge population	NACO does not use these terms for bridge population. The referenced document may kindly be checked.
5	HIV prevalence was rising amongst some of these HRGs and bridge populations	Needs to be more specific and rechecked.
6, 40	Figure on Implementation of the consecutive NACP strategies in India	Takes into account only till 2017, though the project ended in June 2020. This is the case at multiple places in the report.
8	Domestic financing was insufficient to sustain the progress made in NACP III and to significantly scale up TIs to the new geographies and new emerging HRGs and vulnerable populations	Needs paraphrasing.
8	Because of the Government’s intent to rapidly scale up its HIV treatment program during NACP IV (recognizing that ‘HIV treatment is prevention’ because HIV treatment makes a PLHIV much less likely to transmit the virus to someone else), the short term cost of rapid scaling up antiretroviral (ARV) treatment for the 70% of PLHIV not yet on treatment, required external resources	The World Bank was involved in ARV only toward the fag end of the project. This is a remark in hindsight. At that point of time, the concept was to put PLHIV on ART based on CD4 eligibility. Also, this project focused exclusively on HRG and hence this perhaps may be reconsidered.
10	Gender Based Violence	This term is not used in TI. Alternate terms that should be used is crisis management. May consider rephrasing this term.
12	The activities under this subcomponent were guided by the information from the mapping of peer networks in order improve their access to HIV and STI prevention services. It included a planned 2183 and 627 interventions for migrants and truckers respectively	These many TIs were not planned for bridge population.
12	Actual budget under different components	The actual on page 2 of the report is cited as US\$225 million while here the calculation of all three components comes out to be US\$211 + US\$7.6 + US\$63.6 million =



Page No (of draft ICR sent to GoI)	From ICR Report	NACO Remarks
		US\$282.2 million.
15	Paragraph 30 on PrEP and Self-Testing	Irrelevant here and with respect to the NACSP? May please be removed.
16	Paragraph 32: As a result, several leadership positions were eliminated, and the post of Secretary was changed to an Additional Secretary of the Department of Health and Family Welfare	Needs paraphrasing. As NACO was converted into a division of the DoHFW, the leadership to the division was provided by the Additional Secretary and Director General, like in any other divisions under the DoHFW.
16	Paragraph 33: Change in government financing mechanism and significant reduction in government funding for HIV in 2015	This paragraph has captured the challenges during 2014–2016 well; it has not done justice to 2017–2020 period when the program not only got its lost ground back but also made significant additional gains in terms of budget.
16	Paragraph 34: NTSU was deactivated and the roles of Regional and State-level TSUs changed	Contextualization in the overall ecosystem is missing from the paragraph. How NACO sourced the technical consultants through the domestic funding, with more government-supported techno-managerial positions to enhance technical rigor with more definite gains through internal domestically funded arrangements needs to be captured.
17	Figure 4: Disbursements by Main HIV Development Partners to India's HIV response	Relevance and inference is missing.
17	Paragraph 37: Increased prevalence of overlapping HRG behaviors uses figures from BSS Lite 2020	As the section refers to the changes during implementation, perhaps it will be better to have a reference to IBBS 2014–2015 to contextualize overlapping behavior.
18	Table 4: <i>Source:</i> Paranjape et al, 2003	Reference is from 2016. Needs to be corrected.
21	Paragraph 42: The OST program for PWID was also scaled up significantly, contributing to increased safe infection practices. The OST program under NACP began with 79 centers serving 7200 clients in 2013 to 224 centers serving over 3600 clients	OST is about harm reduction, may need to be stated appropriately. Data issue here, increase in number but decrease in the number of clients in OST.
23	Achievement of Intermediate Results Indicators for HIV treatment	Peer navigator model specific to HRG PLHIV—needs to be mentioned.
26	Rating on achievement of PDO (Efficacy) is Substantial; The	This does not seem like a valid



Page No (of draft ICR sent to GoI)	From ICR Report	NACO Remarks
	reason that a High rating was not given is because (a) there were no PDO indicators for hijra and bridge populations (migrant and trucker populations), despite data being available for these populations and the project providing services to them; and (b) an outcome for HIV treatment was not added to the project when it was restructured.	argument. Having or not having an indicator is not so much of reflections of the impact of the project. It is more of the reflections of the project management team of the donor. In the same way, the outcome of the treatment was a part of the request for proposals and as the project focus was largely on HRG, it should have served the purpose.
27	Comparison of costing	Mentioning of conversion rate may be considered.
27	Paragraph 52: There were also cost savings on the client's side. Decentralized ART-linked centers incorporated to CBOs and NGOs to serve stable ART clients reduced the client's travel and time costs, lowered salary paid to health care workers, and lowered operation costs	May elaborate a bit on how health care workers were paid lower salary?
29	Paragraph 60: HIV/AIDS Act	Need to include full form of the act
33	Paragraph 78: Innovations to strengthen care, support and treatment for PLHIV	Decentralization of HIV treatment through linked ART centers may be included while the rest of the paragraph may be deleted.
33	Paragraph 78: Although it has not yet been scaled, some progress on HIVST was made – qualitative research to assess its feasibility and acceptability was completed and the results shared	This may be deleted as NACO has not shared the findings of this research for dissemination. It is for internal use only.
35	Paragraph 85: During several key informant interviews, it was mentioned that BCC activities and IEC materials were not innovative enough and not sufficiently responsive to the 'new generation' of younger HRGs or to HRGs with multiple, overlapping behaviors.	It is too direct and critical. IEC has done a lot in this phase embracing digital technology to reach out, with resource crunch in sight. May need paraphrasing to considering efforts toward including virtual population.
35	BSS	Paraphrasing needed
36	Paragraph 89: Challenges with the M&E system	While highlighting the areas such as lack of unified M&E system and slightly old size estimation data, the paragraph fails to mention the efforts such as SOCH and p-MPSE undertaken by the NACP to respond to these gaps.
39	Rating on Bank performance is Satisfactory	The paragraph does not mention the white paper on size estimation and the pilot project for p-MPSE, which



Page No (of draft ICR sent to GoI)	From ICR Report	NACO Remarks
		were crucial.
42	Paragraph 110: Referencing to PEPFAR Assessment in 2017	The author is providing a reference to a 2017 report but is not acknowledging efforts to take care of the observations in the later years, such as revamped TI and SOCH, within the project period.
56	Implementation structure under NACO and SACS	This implementation structure was provided with respect to TI. It needs to be changed.



ANNEX 6. NACO ICR and SUMMARY OF KEY INFORMANT INTERVIEWS

A. ICR report from NACO

Rationale and Objectives of the World Bank Control Support Project (NACSP)

1. The World Bank support came at a time when renewed efforts were made to achieve the goal of NACP IV: reversal of the HIV epidemic. Initially, the World Bank's support was from June 1, 2013, to December 31, 2017. It was then extended up to June 30, 2020, to account for the delays from 2013 to 2015.

2. The NACSP aimed to increase safe behaviors among HRGs and the bridge populations of migrants and truckers to contribute to the national goal of reversal of the HIV epidemic by 2020. The World Bank financed three key components:

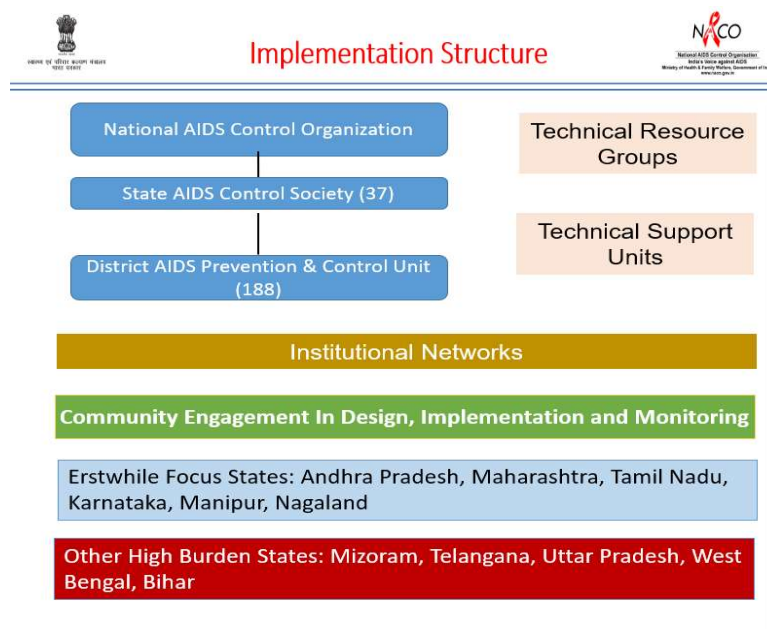
- Component 1: Scaling Up Targeted Interventions for HIV Prevention
- Component 2: Behavior Change Communications (BCC)
- Component 3: Institutional Strengthening.

Implementation Structure under NACO and SACS

3. Figure 6.1 describes the implementation arrangement at various levels of the program. NACO at the central level was headed by an officer of the rank of Additional Secretary and Director General while state-level offices (SACSs) were led by project directors. TSUs supported national and state-level bodies with techno-managerial support, while implementing structures and service facilities worked under the direct control of SACS.



Figure 6.1. Implementation Structure



Source: NACO ICR Report

Implementation and Achievements

3.1 Scaling up of Targeted Interventions

4. By the end of FY2019–20, there were 1,426 TIs. The number of new TIs was increased for the TG and MSM population in FY2019–20. More than 85 percent of the core HRGs have been reached with TIs with primary prevention services such as treatment for STI, condoms, needles/syringes, and BCC with community engagement and links with care and support services during this reporting period.

Key Population Groups: Service Packages and Methods of Service Delivery

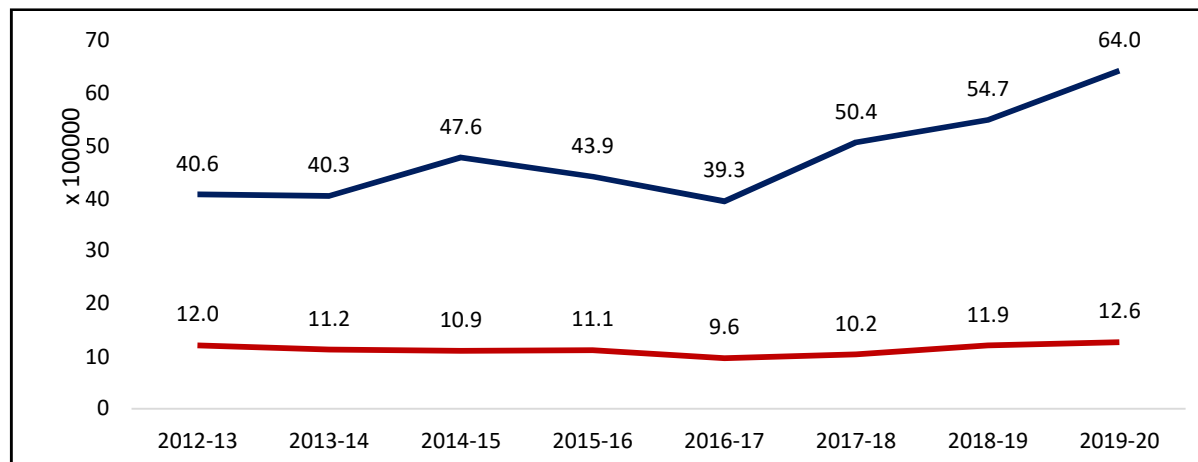
5. TIs provided a package of prevention, support, and link services to HRGs through the drop-in-center and outreach-based service delivery model which includes the following:

- (a) Behavior Change Communication (BCC)
- (b) Screening and treatment of STI and syphilis
- (c) Free condom and lubricant distribution
- (d) Links to integrated counselling and testing centers



- (e) Links with care and support services for HIV positive HRGs
- (f) Creating an enabling environment with community involvement and participation
- (g) Community mobilization, ownership building
- (h) Free distribution of clean needles and syringes for IDUs.

Figure 6.2. Trend in Coverage of HRGs (in Lakh)



Source: NACO ICR Report

Rollout of Revamped Strategy for TIs Based on 'Differentiated Approach'

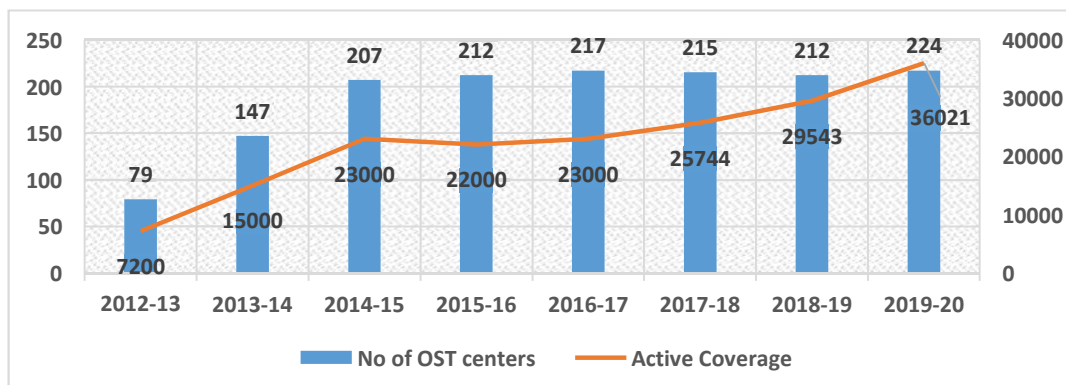
6. In recent years, with advancement in technology and introduction of IT-enabled services including mobile phones and social networks (WhatsApp/Facebook/Messenger and apps such as Grindr, BlueD, and Planet Romeo), reaching unreachable HRGs through these social platforms has been included. The TI program was revamped by introducing new and innovative outreach, prevention, and link approaches, including enhanced peer outreach activities, virtual outreach, differentiated service delivery, index testing, peer navigation, secondary distribution of needles and syringes, community-based ART dispensing, satellite OST center, mentorship, and community score card.

Scale-up of OST Centers from 2013–2014 to 2019–2020

7. The OST program under the NACP began with 79 centers catering to 7,200 registered IDU clients in 2012–2013, to 36,021 clients through 224 centers in 2019–2020. Out of 224 OST centers, 183 are in public health facilities while 41 centers are in NGO settings. To increase access, 57 satellite OST centers have also been introduced as part of the TI revamped strategy since 2019.



Figure 6.3. Trend in OST Centers and Coverage



Source: NACO ICR Report

3.2 IEC and Behavior Change Communication

IEC Material Development and Achievements

8. One of the key components under NACP IV was to expand IEC services for the general population and HRGs with a focus on behavior change and demand generation. With the expansion of services for HIV counselling and testing, ART, STI treatment, and condom promotion, the demand generation campaigns continued to be the focus. IEC remains an essential component of all prevention efforts as detailed in the following paragraphs.

Call Center and Achievements (the National AIDS Helpline)

9. National Toll-free AIDS Helpline has been operated since December 1, 2014. The helpline offers call support in 15 languages to cater to various regions in the country. Caller anonymity and confidentiality was maintained throughout the call process.

Achievements

- (a) More than 3 million calls have been recorded on the helpline server.
- (b) Actual service provided calls percentage was 15 percent in 2015, which has increased to 41 percent by 2019.
- (c) An online portal was launched in January 2019 for registration and redressal of grievances received on the helpline within stipulated time lines.
- (d) Outbound calling was initiated in June 2019 on the helpline.
- (e) The helpline has become more valuable during the COVID-19 pandemic, providing HIV and psychological counselling, and referrals to HIV testing, treatment, and ARV distributions.



3.3 Institutional Strengthening

TI Strategic Information Management

10. Data were routinely recorded using a prescribed format. Reporting by the TIs to SIMS was completed as per schedule every month. By the end of the project, 97 percent of TIs reported the project data to SIMS.

Data Management Systems

11. To ensure timely reporting, monthly indicators of TI reporting were developed by the TI division in FY2017—18, with the inclusion of 31 indicators. Data were collected and entered into SIMS. Data were also analyzed and shared with TI implementers for program adjustment.

TI Validation and Quality Assurance

12. TSUs carried out intensive visits to TIs once in a quarter to ensure quality delivery of prevention services. During the visit, TSUs conducted periodic validation of at least 10 percent of the HRGs registered at the TIs accessing the prevention services available in the intervention area.

Achievements of PDO Indicators

13. The findings of the BSS Lite (2020) confirm that India achieved substantially in all three PDO indicators (table 6.1).

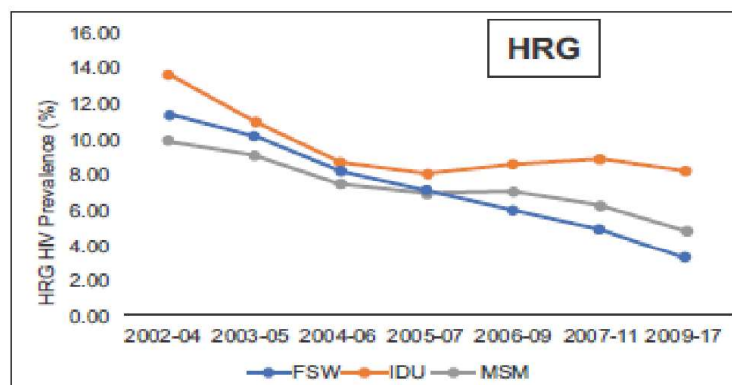
Table 6.1. Implementation Structure

Indicators	Baseline (2012)	Target (2020)	End line (2020)
FSWs who report using a condom with their most recent client	80%	95%	96%
MSM who report using a condom with their most recent sex partner	45%	90%	85%
IDUs who report not sharing needle and syringes in the past month	45%	85%	88%

14. Among HRGs of FSWs and MSM, the prevalence trends continued to be declining nationally. For IDU, the trend appeared to be stable at a high level.



Figure 6.4. HIV Prevalence Trends among HRGs



Source: NACO ICR Report

The Role of the World Bank Task Team in Implementation Support

- The World Bank's support was critical. In the initial phase, the World Bank provided financial support, through retroactive financing, which helped fill the gaps in the program. The first restructuring was done to accommodate the MTR findings and the second restructuring was done to address the need to implement TAsP. The World Bank also provided technical support in the form of allocative efficiency analysis to inform program activities and strategies.
- The constant engagement of World Bank staff in improving the financial and procurement management helped improve both components and the implementation effectiveness considerably. All the financial- and procurement-related challenges were resolved in the second half of the project.
- The joint mission reviews provided a unique platform to bring all key development partners together, review data, discuss challenges, and obtain their feedback on project implementation. This provided constant oversight and critical inputs to assess project performance and progress.



B. Feedback from Stakeholders in India, obtained through Key Informant Interviews by ICR team

15. In preparing for the ICR, 21 individual in-depth interviews and 5 focus group discussions were held virtually with (a) key World Bank staff; (b) key development partners involved in NACP IV (WHO, UNAIDS, US Agency for International Development [USAID], and Center for Disease Control [CDC]); (c) NACO officials and TSU representatives; and (d) representatives from CBO/NGOs. The purpose was to gather feedback on the implementation of the project, the achievements and challenges, and lessons learned and recommendations from project implementation.

Table 6.2. List of Key Informants

Name	Designation	Organization
Individual Interviews		
Alok Saxena	Joint Secretary	NACO
Shobini Rajan	Deputy Director General, TI, Strategic Information, and IT	NACO
Bhawani Singh	Deputy Director, TI	NACO
Sudeep Shrivastava	Director, Finance	NACO
Alka Ahuja	Deputy Secretary, Procurement	NACO
Rajesh Rana	National Consultant (IEC and Communications)	NACO
Govind Bansal	National Consultant	NACO
Pradeep Kumar	Project Officer, Surveillance	NACO
Praveen Kumar	Project Director	SACS, Delhi
Shrikala Acharya	Project Director	DAPCU, Mumbai
Ms. Geethanjali	CBO President	Namakkal (CBO)
Vivek Anand	Project Director	Humsafar Trust Mumbai, NGOs
Mr. Manish Kumar	Project Director	Punjab and Haryana, TSU
Rajatashuvra Adhikary	Strategic Information Officer	WHO, India
Sangeeta Kaul	Strategic Information Officer	USAID, India
David Wilson	Project Director	World Bank, Washington, DC
Iffat Mahmud	Senior Operations Officer	World Bank, India Office
Tanya Gupta	Financial Management Specialist	World Bank, India Office
Heenaben Doshi	Procurement Specialist	World Bank, India Office
Bathula Amith Nagaraj	Former TTL	World Bank, India Office
Sameh El-Saharty	Former TTL	World Bank, Washington, DC
Group Interviews		
Bilali Camara, Marjolein Jacobs, Nandini Kapoor, Nalini Chandra	Country Director, Senior Information Adviser, Community Mobilization Adviser, and Strategic Information Adviser	UNAIDS, India
Melissa Nyandek, Deepika Joshi (2)	Associate Director, Epidemiology and Surveillance, Director, Global HIV and TB	CDC, India
James Blanchard, Marissa Becker, Mohan HL, and Shajy Isaac	Former staff involved in NACP III and currently active with the HIV program in India	University of Manitoba, Canada and India



Name	Designation	Organization
Suresh Kunhi Mohammed and Ronald Mutasa	Current TTL and team member	World Bank, India office
Sharlene Chichgar, Ranjan Verma	Environmental Specialist/Social Consultant	World Bank, India office

Key findings from the interviews and group discussions are summarized in the following paragraphs.

Overall Successes of NACP IV

- Although NACP IV was implemented with a slower speed and fewer successes compared to NACP III, it is still one of the best HIV program responses and generally, NACP IV implementation was successful. But because the epidemic was getting smaller (fewer new infections) and TI coverage was already high under NACP III, the response strategy during NACP IV had to change and a smaller margin of program impact is expected.
- NACP III received abundant human and financial support from multiple donors while NACP IV was operated during a phase in which many donors transitioned out of the country. In addition, under NACP IV, the Government accelerated a decentralization process providing more control to SACS and less control to NACO.
- Tremendous progress was made under NACP IV including the TI-revamped strategies and multiple innovations such as the national phone HIV/AIDS helpline, community-based HIV screening and testing, community-based ART treatment, the link worker schemes, and rapid improvement in ART coverage owing to the TAsP strategy implemented in 2017.
- NACO had done an exceptional job bringing multiple development partners and donors as well as the communities at risk together and get the epidemic down through TIs. Overall, the project achieved what it set out to do.
- The human rights and environment for HRGs was much more improved compared to what it was during NACP III. Several important laws were passed that protect HRGs and enable their access to HIV prevention and treatment services. NACO, through NACP IV, played an important role in creating such an environment for HRGs.
- The voice of HRGs and communities at risk carries more weight today than it was during NACP III.
- There are more best practices, tools, and operational guidelines to support the national AIDS response today compared to a decade ago.
- Institutional capacity, including the capacity of CBOs/NGOs, was strengthened and improved compared to the previous phase.



Targeted Interventions

- This was the heart of the program with a fairly standard approach. It was a great success during the first 10–15 years of its implementation, then it started to slow down due to coverage saturation and lack of innovations.
- During NACP IV, internet and social media platforms played an important role. States and NGOs started virtual space interventions, which led to the NACO TI-revamped strategy.
- The TI-revamped strategy was important in reaching the last milestones although it would have started sooner.
- Mobility of HRG members will continue to be a challenge for TIs and TI needs to be adaptive.
- The use of peer navigators and incentivizing of peer navigators were important in getting PLHIV in ART and helping them stay on ART.
- Viral load testing scale-up remains a challenge. More needs to be done to ensure viral load testing machines are functioning and there are adequate viral load testing assays.
- Size estimation is important to plan and assess TI coverage. Some estimated that the number of HRGs, especially PWID, would be much higher.
- Placing HRGs and communities at the center of the program planning and implementation was prioritized and was critical to the success of the program.
- Targeting other emerging HRGs such as prisoners is important. NACO has already focused on this group.
- HIV among prisoners is high (approximately 2 percent). This group must be added to the list of HRGs.
- Small-scale mapping was carried out by NGOs/CBOs with support from TSU to inform TI intervention activities.
- OST was not available in all states, including the high drug use areas of Delhi. This should be improved.
- CBO capacity varied and could affect TI activities and TI quality. Stagnant salary and delayed payments affected their motivation.
- The HIV epidemic is getting smaller and varies by states. There is a need for strategic resource allocation and to focus on high-burden, HIV-increasing states.



- TI evaluations were done every two years. The quality of TIs was good overall. Only 3–5 percent of TIs were discontinued because of quality issues.

BCC Component

- Most key informants thought this is a weakness of NACP IV and an afterthought. Focusing on mass and mid media was not innovative and it reached mainly the general population and not the HRGs. There are doubts if this component had truly contributed to increasing demand.
- IEC materials were thought to be unimpressive and not relevant to HRGs in a digital era.
- IEC materials were distributed throughout states, but some NGOs/CBOs stated they were not aware of them.
- However, it is important to note that this component received little overall budget and was not a focus of NACP IV.
- USAID, through their LINKAGES Project, had come in to help NACO and this component has seen improvement.
- Most stigma reduction efforts were carried out using mass and mid media. Key informants indicated that these approaches are likely not enough and only look good on the surface. More and diverse stigma reduction efforts are needed, targeting internalized as well as intersecting stigma. Stigma, non-disclosure, and non-adherence to ART among a small portion of the HRGs and PLHIV require comprehensive approaches.

Technical Support Units

- Key informant interviews generated overwhelming positive feedback about the role of the 17 TSUs in ensuring TI quality and in building capacity for CBOs.
- CBO valued TSU staff because of their regular field visits and hand-holding support with regard to data collection and data use for program improvement.
- Monthly data reviews by TSU officers were useful. Data use at the implementation level was largely through TSU officers.
- The TSU model was considered a best practice and should continue in future NACP projects.
- TSU officers checked and validated data.
- TSU officers went with CBO/NGO staff to hotspots to evaluate TI activities and provided feedback.



- A total of 17 TSUs currently support over 1,400 TI agencies.

Test and Treat Strategy

- The ICR team received overwhelming positive feedback about the TAsP strategy implemented in 2017. This was a necessary step to reach the UNAIDS' 90-90-90 targets.
- Many applauded the TAsP adoption as it showed the strong commitment of the GoI to achieve the ambitious targets of 90-90-90 and to save people's lives.
- TAsP implementation generated several important innovations, including (a) using peer navigators to trace and re-engage PLHIV in ART; (b) establishing link ART centers for stable clients, which significantly reduced referral loss; and (c) delivering ART using differentiated service models such as fast-track ART refills, decentralized ART dispensation at the community support centers, multi-month dispensation, and community-led ART dispensations.
- Retention was at 75 percent by spring 2020, suggesting more work needs to be done and there is a need to better understand data and where and why people moved or opted out of ART centers.
- Viral load testing level was still not sufficient.

M&E System, Data Quality, and Data Use

- The ICR team received mixed feedback from key informants regarding the M&E system. On the one hand, many thought India has established a strong, matured M&E system, from data collection to data use to M&E capacity. Compared to NACP III, the M&E system has improved a lot, especially the electronic system was used more widely.
- However, many also thought that the M&E system was not responsive to technology changes and there was an emerging need of being able to follow up HIV patients throughout the cascade. Particularly, the lack of a unified M&E system was considered a weakness, which hindered fast data use and data quality.
- Multiple, fragmented data collection systems exist.
- Data quality was affected by the way it was reported: (a) human errors and (b) TIs funded only if they met a certain target. If a TI did not meet the target, data could be falsified.
- Project SOCH, which was under a pilot phase, was appreciated by many and they thought that this would be a game changer for the future of the national M&E system.
- Many said data quality can be improved.



- There was a dedicated team focusing on data use. However, the capacity to use data needs further strengthening.
- Data access sometimes can be a barrier for data use (not easy to obtain).
- Data use, especially the use of surveillance data, was good at the national level.
- Data use at the implementing level to inform decision-making can be improved. There was a lack of awareness and use of routine data at the national level.
- Many appreciated the HIV care cascade review as a good practice.
- Cost data is a sensitive topic, not being shared, and difficult to obtain. This needs to be improved.

National Phone Helpline (12 languages, 24/7)

- Key informants, especially NACO officials, applauded the success of the helpline. As on May 31, 2020, the National AIDS Helpline recorded a total of 31,44,349 calls, out of which 21,68,079 (69 percent) calls have been answered for providing services such as information on HIV/AIDS, myths and misconceptions, counselling on PLHIV, ICTC, and ART centers, and for capturing grievances from the callers.
- The helpline is even more useful during the time of the COVID-19 pandemic.

PrEP

- **Slow translation from the pilot phase to implementation.** The Government has been working on a PrEP guideline. NACO officials were concerned that PrEP would lead to increase in unsafe sex and STIs. Key development partners indicated that NACO is generally conservative and always wanted to make sure a new intervention does 'no harm'.
- It is a matter of time. The Government is open to PrEP and full adoption of PrEP will happen.

HIVST

- Slow translation from pilot to implementation. Two pilots have been carried out and led by the NGO sector.
- The Government was concerned about potential harm after a positive test and linking a newly HIV positive person to ART services.
- NACO stated the need to have India evidence before adopting the policy.



- NACO believes it had already tried to reach the unreachable HRGs using other approaches and therefore, HIVST may not have an impact.
- There is a concern that not all key populations are literate or empowered enough to do self-testing.
- India is large; some states are moving more aggressively than others and HIVST may happen in certain states in the near future.
- Development partners agreed that these two areas (PrEP and HIVST) should move faster into the implementation phase.
- Overall, the opinion is shifting toward fully adopting the HIVST guidelines.

Funding Cut and NACO Structure Change in 2015

- Many agreed that funding cut was the main reason for slow implementation during FY2015–16 and had negatively affected progress.
- CBOs were negatively affected because they relied on NACO funding to carry out TIs. They were not able to hire or maintain staff and, in some areas, implementation was disrupted up to six months during that period.
- Many agreed that because health is a state matter and the rapid decentralization under Phase 4, the delay was out of the World Bank's control.
- NACO merging with the DoHFW clearly affected the early phase of NACP IV. However, over time, this seems to be a good strategy, promoting a multisectoral response to HIV.
- SACS key informants applauded the decentralization and valued the fact that states and districts were able to manage the HIV program.

Sustainability

- Very few concerns were raised by key informants regarding future sustainability of the HIV response in India. Most believe the GoI will be able to finance its HIV program.
- NACO's annual domestic budget is already at US\$400 million (enough to cover the main program areas).
- Further integration of the HIV program may be needed for long-term suitability. For example, ART centers and HIV testing centers can be integrated into regular clinics or primary health care clinics. Some indicated that stand-alone ART centers can cause stigma toward PLHIV.



- NGOs/CBOs need to diversify their expertise/landscape and go beyond just providing HIV services.
- Some NGO/CBOs may not be able to sustain or may need to be restructured.
- The future program inherits a strong structure and human and technical capacity from NACP I through IV.



1. Project Data

Project ID

P130299

Project Name

National AIDS Control Support Project

Country

India

Practice Area(Lead)

Health, Nutrition & Population

L/C/TF Number(s)

IDA-52360

Closing Date (Original)

31-Dec-2017

Total Project Cost (USD)

237,122,284.72

Bank Approval Date

01-May-2013

Closing Date (Actual)

30-Jun-2020

IBRD/IDA (USD)
Grants (USD)

Original Commitment

255,000,000.00

0.00

Revised Commitment

255,000,000.00

0.00

Actual

237,122,284.72

0.00

Prepared by

Judyth L. Twigg

Reviewed by

Salim J. Habayeb

ICR Review Coordinator

Joy Maria Behrens

Group

IEGHC (Unit 2)

2. Project Objectives and Components

a. Objectives

According to the Financing Agreement (p. 4), the project's objective was "to increase safe behaviors among high risk groups in order to contribute to the Recipient's national goal of reversal of the HIV epidemic by 2017."

At a May 2018 restructuring, the objective was revised to reflect the fact that the project's closing date had been extended by two years at a 2017 restructuring. The revision removed the date reference, to read "to



increase safe behaviors among high risk groups to contribute to the national goal of reversal of the HIV epidemic."

When the closing date was extended in 2017, outcome targets were revised upward to reflect the additional implementation time.

As outcome targets were all adjusted upward in 2017, and the project's scope was not affected by the change in wording of the objective in 2018, a split rating is not warranted.

b. Were the project objectives/key associated outcome targets revised during implementation?

Yes

Did the Board approve the revised objectives/key associated outcome targets?

Yes

Date of Board Approval

03-May-2018

c. Will a split evaluation be undertaken?

No

d. Components

The project had three components, all of which included implementation at the national, state, and district levels. The ICR did not provide information on actual project costs, total or by component, to reflect the government's contribution. Only actual Bank costs are reported here:

Component 1: Scaling Up Targeted Prevention Interventions (appraisal: US\$440 million, of which US\$220 million from the Bank; actual Bank costs US\$183.01 million). This component was to support the scaling up of targeted interventions (TIs) with the aim of reaching out to the hard-to-reach population groups who did not yet access and use the prevention services of the National AIDS Control Program (NACP), and saturate coverage of high-risk groups (HRGs). The Project Appraisal Document (PAD) defined the HRGs to be targeted as female sex workers (FSWs), men having sex with men (MSM), the transgender (TG)/Hijra population, and people who inject drugs (PWIDs). In addition, the component was to support partners of PWIDs and bridge populations, especially migrants and truckers. Prior to implementation, the Department of AIDS Control (DAC)/National AIDS Control Organization (NACO) had identified a standard methodology to validate HRG estimates and site assessment, identifying and confirming locations within states and districts where TIs were required to teach populations most at risk. To understand mobility patterns among HRGs, community-led social network analysis was ongoing to identify hard-to-reach HRGs, such as new or young sex workers. The component included two sub-components:

- *Scaling up coverage of TIs among HRGs*: Implementation of proven TIs with a focus on FSWS, MSM, the TG/Hijra population, and IDUs, through the contracting of non-governmental organizations (NGOs) and community-based organizations (CBOs). Support was to cover ongoing TIs as well as the launching of new interventions, encompassing: the provision of behavior change interventions to increase safe practices, testing and counseling, and adherence to treatment, and demand for other services; the promotion and provision of condoms; provision or referral for services for sexually



transmitted infections; and needle and syringe exchange for PWIDs as well as scaling up opioid substitution therapy. This sub-component also was to finance operating costs for State Training Resource Centers and participant training costs for five years.

- *Scaling up interventions among other vulnerable populations*: Mapping of peer networks to improve access to prevention services among partners of sex workers, partners of PWIDs, and bridge populations including migrants and long-distance truckers moving between high- and low-prevalence areas and engaging in unsafe practices. Support was to include: risk assessment and size estimation of migrant population groups and truckers at transit points and workplaces; behavior change communication (BCC) for creating awareness about risk and vulnerability, prevention methods, and availability and location of services; promotion and provision of condoms through various channels including social marketing; development of linkages with local institutions, both public and NGO-owned, for testing, counseling, and sexually transmitted infection treatment services; creation of peer support groups and safe spaces for migrants at their destinations; establishment of need-based and gender-sensitive services for partners of PWIDs; and strengthening of networks of vulnerable populations with enhanced linkages to services centers and risk reduction interventions, especially condom use.

In 2017, after several years of evidence had accumulated proving that anti-retroviral therapy (ART) reduced viral load to the point that persons on treatment were highly unlikely to transmit HIV to others, the project added a "treatment as prevention" approach and added provision of ART under this component.

Component 2: Behavior Change Communications (appraisal: US\$40 million, of which US\$20 million from the Bank; actual Bank costs US\$6.11 million). This component was to coordinate and implement BCC activities, including: (i) communication programs (media campaigns, creative development campaigns, and short films) for risk reduction and safe behavior, including advocacy, social mobilization, and BCC to integrate people living with HIV/AIDS and HRG into society and to encourage normative changes aimed at reducing stigma and discrimination in both society at large and in health facilities; (ii) financing of a research and evaluation agency to assess the cost-effectiveness and program impact of BCC activities; and (iii) establishing and evaluating a helpline at the national and state level to further increase access to information and services.

Component 3: Institutional Strengthening (appraisal: US\$30 million, of which US\$15 million from the Bank; actual Bank costs US\$48 million). This component was to support DAC/NACO's steering coordination, and managerial roles in managing the prevention component of the NACP. It was to support innovations to enhance performance management, including fiduciary management, at the national and state levels. Support for institutional capacity was also to help strengthen procurement and supply chain management. Staff and operating costs of Technical Support Units (TSUs) were to be covered for a period of 3-4 years to ensure oversight of the quality of TIs through monitoring and supportive supervision, building capacity of states and assisting them in effective use of available information for evidence-based planning, program roll-out, and performance monitoring. This component was also to support the services of a procurement agent for buying medications for opioid substitution therapy. Finally, this component was to support an annual knowledge dissemination forum and audits.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Financing, costs, and Borrower contribution: The project was to be financed by a US\$255 million specific investment loan and a US\$255 million contribution from the Borrower, for total project financing of



US\$510 million. The Bank loan fully disbursed at US\$237.21 million, with the difference between planned and actual financing explained by US\$/XDR exchange rate fluctuations.

Most planned funds under Component 1 (89%) were disbursed. Only one-third of planned funds were spent under the second component, as the behavior change activities required the development of fewer centralized materials than anticipated, producing savings that were informally reallocated to the third component. Component 3 spent over three times what was originally planned for two reasons: in 2017, it was decided to support all 17 state-level TSUs rather than only 9 as initially envisioned; and the human resource costs of contracting staff for oversight at the state level were financed by the component, which was not initially planned.

Dates: The project was approved on May 1, 2013 and became effective on July 22, 2013. It underwent a mid-term review in May 2016. Its original closing date was December 31, 2017. The project underwent four restructurings:

- March 17, 2017: Given new evidence on the effectiveness of treatment-as-prevention, rapid rollout of HIV treatment became a priority. HIV treatment was therefore added to Component 1. To accommodate the implementation of the added activity, the project end date was extended from December 31, 2017 to December 30, 2019. Intermediate indicators focusing on HIV treatment were added, and targets for most other indicators were revised upward to reflect two additional years of project implementation.
- May 3, 2018: The phrase "by 2017" was removed from the objective.
- June 23, 2019: The Central Medical Services Society was added as an implementing agency to facilitate procurement of goods, specifically those related to HIV treatment.
- November 25, 2019: The closing date was extended for six months, to June 30, 2020, to allow for remaining disbursements and implementation of activities.

3. Relevance of Objectives

Rationale

At the time of appraisal, India's national burden of HIV and AIDS ranked third globally in terms of number of infections, after South Africa and Nigeria. Although it was on track to meet the Millennium Development Goal to halt and reverse the epidemic, it was still experiencing a highly diverse and heterogeneous epidemic scenario concentrated among HRG, driven by sex work, unprotected sex among men having sex with men, and injection drug use. Infection rates were also a concern among "bridge populations," people who interact with HRG and are "bridges" to the general population, primarily male migrants and long-distance truck drivers. National HIV prevalence had started to level off in the late 1990s, with decline accelerating over the following decade due to high coverage of prevention interventions, but progress among states was highly variable. Some states still faced emerging epidemics among HRG, and at the national level, migration, the low status of women, and widespread stigma remained challenging. The project's objectives were highly responsive to this country context.

At the end of 2012, India was wrapping up its third National AIDS Control Program (NACP III, 2007-2012), which had scaled up targeted HIV prevention interventions for most at-risk population groups and expanded



the surveillance system. During NACP III, targeted prevention interventions had reached 81% of FSW, 66% of MSM, and 81% of PWIDs. Anti-retroviral treatment for adults had increased by 30% between 2009/2010 and 2010/2011, and estimated annual deaths from HIV had declined from almost 200,000 in 2006 to about 172,000 in 2009. Although this progress was impressive, some states lagged behind, and some population groups -- young sex workers, PWIDs and their partners, MSM, and transgender persons -- remained disproportionately at risk.

In the fourth phase of the NACP (2012-2017), India aimed to accelerate the reversal of the epidemic by reaching out to HRG with targeted prevention interventions through innovative approaches; increasing access to comprehensive care, support, and treatment; expanding information, education, and communication with a focus on behavior change, demand generation, and stigma reduction; further strengthening institutional capacity and processes of integration and convergence of program components with those common to other diseases, conditions, or programs; and continuing to innovate to generate knowledge and lessons. Programmatically, the fourth phase aimed to shift more responsibility for financing, managing, and implementing critical components and activities (such as facility-based testing and treatment, blood safety, and other health services) from the DAC/NACO and State AIDS Control Society (SACS) to the National Rural Health Mission and government health services. HIV prevention programs that rely on effectively reaching HRG and vulnerable populations through peer outreach were to continue to be separately managed through the contracting of NGOs and CBOs under DAC/NACO. The project was highly relevant to this government strategy in its support for outreach to the most vulnerable and marginalized population groups, increasing their access to and utilization of services, and reducing stigma and discrimination against them through TIs and BCC.

Although domestic financing for India's HIV response had increased significantly, the saturation of HRG with TI programs, including the expansion of those programs to new geographies and new emerging HRG and vulnerable populations, required new, external resources. The project responded to this need. It specifically supported three of NACP IV's five elements: prevention, behavior change, and institutional strengthening. The other two elements of the strategy, care and treatment for people living with HIV and AIDS and strategic information systems, were being supported by the national budget and other donors at appraisal.

The project was relevant to the Bank's Country Assistance Strategy for India at appraisal (CAS, 2012-2017) through its support for increasing the effectiveness of service delivery (a CAS pillar), and its focus on achieving the 2015 Millennium Development Goals. It remained relevant to the Country Partnership Framework at closing (2018-2022), which included "Investing in Human Capital" as a Focus Area, with specific reference to supporting NACP IV; a specific objective on improving the quality of health service delivery and financing; and an outcome indicator for percentage of HRG receiving ART.

Rating

High

4. Achievement of Objectives (Efficacy)



OBJECTIVE 1

Objective

Increase safe behaviors among high risk groups to contribute to the national goal of reversal of the HIV epidemic

Rationale

The project's intervention logic held that funding for civil society and communities to implement targeted interventions, complemented by behavior change communication and supported by institutional strengthening, would enable implementation of an array of TIs focused on key populations: peer outreach activities, condom and lubricant distribution, HIV and STI counseling and testing, harm reduction services, and crisis management/legal/social services. Underpinning these activities were behavior change efforts through mass media, development of information, education, and communication (IEC) materials, and stigma reduction campaigns. Strengthened institutions were assumed to be better able to support the capacity, targeting, and quality of the TIs through improved HRG population size estimates, grading of NGOs to ensure quality of services, on-time contracting of NGOs, and reduction in stock-outs of condoms and other supplies. It was assumed that increased availability of TIs, coupled with increased knowledge among HRG and reduced stigma, would lead to increased demand among HRG and bridge populations for the TIs being offered under the project. As the project was revised in 2017 to include treatment as prevention, the project's logic expanded to acknowledge the impact of increased HIV testing, ART coverage, and ART retention on preventing the spread of infection. Ultimately, increased TI coverage and uptake would lead to safer sex practices among HRG and bridge populations and safer injection practices among PWIDs, and expanded coverage of ART would lead to increased viral suppression, all contributing to reversal of the HIV epidemic.

Outputs

The project supported NGOs and CBOs to conduct 1,426 peer-led TIs that provided prevention services to, on average, 85% of members of core group HRGs:

- 662,000 of the estimated total 868,000 FSWs
- 238,000 of the estimated total 427,000 MSMs
- 40,550 transgender persons
- 140,000 of the estimated 177,000 PWIDs

NACO led the development of innovative implementation strategies to accelerate TI coverage: community mapping to guide TI activities, use of social media and community platforms for TIs, opioid substitution therapy services for PWIDs, community-based HIV and STI screening and testing, indexed testing, and community-based HIV treatment through linked ART centers and differentiated service delivery models. These innovations culminated in the development of a TI implementation revamping strategy, published in 2019 and based in part on the experiences of this project.

The project implemented 90% of its planned prevention interventions for bridge populations, reaching 4.8 million migrants and 1.3 million truckers with BCC, provision of condoms, and referral services for sexually transmitted infections, integrated counseling and testing, and ART. As of March 2020, SACS and TSU had



partnered with 743 private-sector partners in 22 states serving 2.7 million workers/migrants for various HIV/AIDS-related services.

The program established three million condom outlets across the country. Condom distribution met estimated need at a level of 87% among FSWs, 88% among MSM, 94% among PWIDs, and 90% among transgender persons. Needle and syringe distribution met 77% of estimated demand.

About 80% of high-burden states and districts implemented an IEC/BCC strategy with a focus on demand generation and stigma reduction. IEC materials were developed for reduction of stigma and discrimination, reduction of unsafe behaviors among PWIDs, information-seeking behaviors, regular testing, correct and consistent condom use, and facilitation of ART adherence.

As of May 2020, the National AIDS Helpline had recorded over 3.1 million calls, of which almost 70% were inquiries about service provision. At project closing, the Helpline was addressing about 200 distress calls per day.

Intermediate Outcomes

The percentage of FSWs reached by TIs over the previous year increased from 80% in 2012 to 90% in 2020, exceeding the target of 85%. The percentage of FSWs who had been counseled and tested over the previous year increased from 35% in 2012 to 85% in 2020, exceeding the target of 80%.

The percentage of high-risk MSM reached by TIs over the previous year increased from 67% in 2012 to 79% in 2020, exceeding the original target of 75% and the revised target of 72%. The percentage of high-risk MSM who had been counseled and tested over the previous year increased from 35% in 2012 to 86% in 2020, exceeding the target of 80%.

The percentage of PWIDs reached by TIs over the previous year increased from 81% in 2012 to 94% in 2020, exceeding the original target of 83% and the revised target of 85%. The percentage of PWIDs who had been counseled and tested over the previous year increased from 28% in 2012 to 83% in 2020, exceeding the target of 70%.

The percentage of TIs that validated high-risk group data size in the previous year increased from 60% in 2012 to 85% in 2020, exceeding the original target of 70% and the revised target of 75%.

The percentage of TIs graded according to the performance indicators of the program's Strategic Information Management System (SIMS) increased from 65% in 2012 to 94% in 2020, exceeding the original target of 85% and essentially meeting the revised target of 95%.

The percentage of TIs reporting condom stock-outs in the previous quarter decreased from 10% in 2012 to 2% in 2020, meeting the original target of 2% and exceeding the revised target of 7%.

The percentage of prevention interventions for migrants that were implemented as planned increased from 70% in 2012 to 98% in 2020, exceeding the original target of 85% and the revised target of 90%. The



percentage of prevention interventions for truckers that were implemented as planned increased from 70% in 2012 to 95% in 2020, exceeding the original target of 85% and the revised target of 90%.

The percentage of NGOs contracted as per the SACS annual plan increased from 60% in 2012 to 96% in 2020, exceeding the original target of 85% and the revised target of 95%.

The percentage of states updating, reporting, and responding to dashboard indicators increased from 75% in 2012 to 97% in 2020, exceeding the original target of 85% and the revised target of 90%.

Outcomes

Baseline values were taken from 2009, prior to the start of the project, because of a delay in the planned Integrated Bio-Behavioral Surveillance (IBBS) survey that was initially scheduled for 2012 and was to provide project baseline data.

- The percentage of FSWs who reported using a condom with their last client increased from 80% in 2009 to 96% in 2020, exceeding both the original target of 85% and the revised target of 95%.
- The percentage of MSM who reported using a condom during sex with their last male partner increased from 45% in 2009 to 85% in 2020, exceeding both the original target of 65% and the revised target of 90%.
- The percentage of PWIDs who did not share injecting equipment during their last injecting act increased from 45% in 2009 to 88% in 2020, exceeding both the original target of 65% and the revised target of 85%.

While the outcome indicators did not measure progress toward the national goal of reversing the HIV epidemic, the ICR (pp. 28-29) provided relevant data indicating that TIs leading to safer behaviors among HRG may have contributed to this goal. HIV prevalence among FSWs decreased from about 3% in 2012 to below 1.6% in 2017. Declines among MSM were steady, from about 4% in 2013 to 2.7% in 2017. Figure 7 of the ICR (p. 29) indicated that prevalence also declined, though less sharply, among PWID; the project team later provided source data for that figure indicating that prevalence among PWID declined from 13.19% in 2003 to 6.26% in 2017. There was also a steady reduction in prevalence among bridge populations, from about 1.6% in 2006 to 0.5% in 2017 among migrants, and from about 2.4% in 2006 to 0.8% in 2016 among truckers. The ICR stated that no incidence data were available for HRG, and therefore it is not possible to determine definitively whether declines in prevalence were due to decreased incidence or increased mortality. The ICR stated that "the ICR team believes that HIV prevalence reduction among HRG is likely due to lowered HIV incidence because HIV-related deaths also declined in this same period," but no specific mortality data were provided for HRG.

Rating
Substantial



OVERALL EFFICACY

Rationale

Attribution: There was no impact evaluation or systematic counterfactual analysis reported in the ICR. The contribution of domestic financing for the national response had increased significantly since NACP I (1992-1999), when it was 15%. According to the ICR (p. 7), the government provided 63% of HIV financing in India from 2012-2017; the Global Fund provided 14%; the United States and other partners provided 13%; and the Bank provided 10% through this project. Other donors focused primarily on treatment, while the Bank's focus was primarily on targeted prevention interventions. The ICR does not state whether there were any other interventions during the project's lifetime that focused specifically on targeted prevention interventions among HRG; the project team later confirmed that the Bank was the only donor that specifically focused on targeted interventions among HRGs during NACP IV, although other donors did finance innovations and focused prevention, care, and support interventions in select high-HIV burden districts during this time period. Although observed outcomes cannot therefore be attributed exclusively to the project, the integrity of the project's internal logic indicates that its interventions contributed significantly to the adoption of safer behaviors by FSWs, MSM, PWIDs, and bridge populations.

Efficacy is rated Substantial, due to convincing evidence that project-financed interventions contributed significantly to safer behaviors among high risk groups and their partners, evidence that the project adapted its interventions appropriately as new evidence about HIV prevention became available, and indications that the observed behavior changes contributed to the national goal of reversing the HIV epidemic.

Overall Efficacy Rating

Substantial

5. Efficiency

The PAD's economic analysis (pp. 71-74) focused on the cost-effectiveness of saturation coverage of HRGs with targeted interventions. It presented analysis demonstrating that government and development partner spending had amounted to US\$104 per HIV infection averted, and US\$10.7 per disability-adjusted life year (DALY) averted. Discounting at 3%, TIs specifically for FSWs were found to cost US\$105.5 per HIV case averted and US\$10.9 per DALY averted. Given India's per-capita gross domestic product, the PAD noted that TIs were therefore a cost-effective strategy for HIV prevention. The ICR did not conduct a formal economic analysis because the project did not measure HIV infections averted.

Allocative efficiency of the original project design was high, as the targeted interventions supported by the project had been previously demonstrated to be cost-effective. A 2015 analysis using the Optima model was conducted by the Burnet Institute and the Public Health Foundation of India in the states of Karnataka (declining epidemic) and Punjab (increasing epidemic). The analysis confirmed that NACP IV's approach of targeting HRG and bridge populations was the most appropriate and efficient for minimizing new HIV infections and deaths. This study also found that incorporating ART, increasing HIV counseling and testing programs, and



increasing opioid substitution therapy coverage would be the most cost-effective ways to reduce new infections and deaths. The restructuring of the project to add treatment-as-prevention therefore increased its allocative efficiency.

Technical efficiency was reported to be strong, with unit costs of five key HIV/AIDS commodities (condoms, HIV test kits, anti-retroviral (ARV) drugs, first-line ART, and second-line ART) all markedly lower under NACP IV than global reference prices (drawn from data from the Global Health Cost Consortium, the Global Fund, and UNAIDS). Similarly, unit costs to reach the project's targeted populations were lower than global reference prices, although no comparative data were provided for transgender persons/Hijra, migrants, or truckers.

Administrative efficiency was enhanced through the use of implementation structures and institutional arrangements that were consistent with the overall NACP. The project was managed by DAC/NACO at the central level and SACS at the state level. Few contractual issues were reported, and procurement processes were efficient (ICR, p. 32). Joint mission reviews that combined inputs from development partners "saved time for NACO and local implementing partners" (ICR, p. 38). The project responded flexibly to changes of implementation arrangements and some implementation challenges:

- Under NACP III, a National Technical Support Unit (NTSU) was created to improve the technical quality of activities and provide guidance to 17 state-level TSUs. During the implementation of NACP IV, the government abolished the NTSU, and responsibility was shifted to the 17 state TSUs. The project responded by reallocating funds to support them.
- The project's initial approach relied on reaching members of HRG in physical locations where they congregated. At the 2017 restructuring, intervention strategies were revamped to acknowledge widespread use of various social media platforms in addition to in-person gatherings, identifying and reaching hidden and hard-to-reach populations through social media channels.
- ART provision was decentralized and employed differentiated service delivery models, adapting to meet the varied needs of HRG and eliminating the challenges of attending frequent ART visits at crowded ART centers (ICR, p. 27). These models included fast-tracking of ART refills, decentralized ART dispensation at community support centers, multi-month dispensation, and community ART refill groups.

However, implementation efficiency was negatively impacted by inconsistent provision of government financing for the HIV and AIDS response over the project's lifetime. Just after project approval, the central government enacted a policy change that required state governments to provide counterpart financing for the NACP in a 60:40 central:state arrangement. States were not prepared for this added budget responsibility, producing a three- to six-month "disruption of TI activities, delays in implementers receiving funds (and some TI activities had to close down as a result of it), and shortage of HIV test kits and ARV drugs" (ICR, p. 19). The counterpart financing policy was reversed in FY2017-18, but TI implementation was nonetheless slowed. These delays were compounded by a 32% cut in the central AIDS budget in 2015-2016, which partially recovered through a reversal of course from 2017 onward. Financing from other development partners was also inconsistent over the project's lifetime. According to the ICR (p. 19), from 2018 forward, "it took a concerted effort to get the national HIV program back on track to achieve the results set out in this project."

Efficiency Rating

Substantial



a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal		0	0 <input type="checkbox"/> Not Applicable
ICR Estimate		0	0 <input type="checkbox"/> Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

The project's relevance is rated High, as its objective was fully derived from the country's national HIV response strategy and was consistent with the Bank's Country Partnership Framework at project closing. Efficacy is rated Substantial due to evidence that project-financed interventions contributed significantly to safer behaviors among high risk groups and their partners. Efficiency is also rated Substantial, even in the absence of a formal economic analysis, as allocative, technical, and administrative efficiency were strong, and implementation inefficiencies were only moderate. These ratings indicate that the project experienced essentially minor shortcomings in preparation and implementation, leading to an Outcome rating of Satisfactory.

a. Outcome Rating

Satisfactory

7. Risk to Development Outcome

The Indian government took significant ownership of the HIV response and now finances over 60% of the HIV program budget. It has adopted important legislative changes during NACP IV that will contribute to sustainability of achieved outcomes: the Indian Supreme Court passed a landmark judgment in 2018 to decriminalize homosexuality; a Transgender Persons Protection of Rights bill was passed in December 2019; an amendment to the Narcotics Drugs and Psychotropic Substances Act was passed allowing for management of drug dependence through opioid substitution therapy and other harm reduction services; and the Human Immunodeficiency Virus and Acquired Immunodeficiency Syndrome Act was passed in 2017 criminalizing any discrimination against persons living with HIV and ensuring the right of persons living with HIV to ART treatment.

The project contributed to significant institutional strengthening that is likely to be sustained. The ICR (pp. 33-34) reported that TSUs enhanced networks of civil society and grassroot-level CBOs and NGOs to ensure improved quality of interventions and data collection. M&E and surveillance systems, researchers, and research institutions were strengthened through participation in sentinel surveillance activities, technical reviews and meetings, and participation in publications and scientific conferences.



The ICR (p. 45) noted that adequate steps have not been taken to ensure the continued integration of HIV activities with other health services provided at the community level.

8. Assessment of Bank Performance

a. Quality-at-Entry

Project design drew lessons from implementation of previous NACPs, including the impact and cost-effectiveness of TIs targeted at the right beneficiary groups, the need to allocate resources to highest-priority drivers of the epidemic, the importance of structural amplifiers like stigma and discrimination, the role that functional technical support for SACS/NACO can play in ensuring the quality of TIs, and the importance of generating and disseminating information on successful innovations and good practices. Numerous best practices were carried over from NACP III, including the computerized financial management system, annual performance reviews of participating NGOs, biannual financial audits, IBBS and size estimation methods, and continuing support for TSUs. Overall implementation risk was assessed as moderate, with substantial risk specifically related to state-level governance. Mitigation measures included institutional capacity building and strengthening of fiduciary arrangements for SACS, enhanced monitoring control observed by DAC/NACO over SACS, and capacity development for NGOs and CBOs. Project preparation and design were highly consultative. During project preparation, DAC/NACO and SACS worked closely with various CSOs, associations, and advocacy groups representing various stakeholders and affected populations. The results framework and M&E arrangements were realistic, reflecting the project's tight intervention logic and allowing for tracking of progress through routine as well as surveillance data. Safeguards were well prepared (see Section 10a).

The ICR (p. 44) noted two minor shortcomings at entry: insufficient differentiation of implementation strategies for hard-to-reach HRG, and failure to anticipate the possibility of government funding cuts.

Quality-at-Entry Rating

Satisfactory

b. Quality of supervision

The supervision team had been part of the previous two phases of India's HIV response and included well-known experts in HIV prevention and treatment (ICR, p. 35). The task team leaders and key staff had experience working in the country and good understanding of its context. Monitoring of safeguards and fiduciary compliance was adequate (see Section 10), and the project team was proactive with project restructuring to raise outcome targets and add treatment-as-prevention activities in response to emerging evidence of its effectiveness. The Bank's relationships with government counterparts and key development partners were strong, and coordination was smooth. The ICR (p. 45) described coordination with other donors as "best practice." The ICR noted that the Bank team could have more effectively encouraged the government to scale up pre-exposure prophylaxis and HIV self-testing and revised and updated methodologies for estimating the size and characteristics of HRG.



Quality of Supervision Rating

Satisfactory

Overall Bank Performance Rating

Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

DAC/NACO was responsible for project monitoring and evaluation. Its computerized management information system had been incorporated into a web-based SIMS that, as the project was being prepared, was in the process of roll-out across the country. These systems were to generate data on key indicators to track performance. This core performance data was also to be included in a national dashboard, to be updated for the project and to serve as a management tool for SACS, DAC/NACO, and development partners.

The project's results framework was aligned with the broader DAC/NACO framework for 2012-2017 and included a subset of those indicators and targets. Indicators, baselines, targets, data sources, and data collection arrangements were well specified. Targets were set based on triangulation of multiple data sources. For the evaluation of key behavior indicators, DAC/NACO was to implement a second-generation surveillance system and conduct the first round of national IBBS in 2012-2013, building on the experience of an integrated bio-behavioral assessment carried out in selected high-prevalence states in 2006 and 2009. The first-round national IBBS was to provide project baseline data to complement the existing annual HIV sentinel surveillance (HSS) system that generated data on HIV prevalence among HRG and the general population; that survey was delayed, however, and project baseline levels were based only on earlier HSS data and other sources

At restructuring in 2017, outcome targets were revised to accommodate two additional years of project implementation, and four intermediate targets were added to reflect the addition of treatment services to the first component. In 2019, some intermediate indicator targets were revised downward to accommodate the slowdown and closure of some TI activities (described in Section 5).

b. M&E Implementation

India has had a long-standing M&E system for its HIV response, and the three pillars of that system -- routine data, HIV sentinel surveillance, and research -- continued and were strengthened under the project. The project institutionalized a routine reporting system to monitor performance. In 2014-2015 (two years after originally planned), the world's largest and most comprehensive IBBS survey was conducted. In 2020, based on subsequent new thinking about the types of epidemiological data needed to inform an effective HIV response, a "BSS Lite" was implemented. The BSS Lite was used to estimate the prevalence of HIV-related risk and safe behaviors, knowledge, attitudes, practices, and service update among key population groups. A National HIV/AIDS Research Plan was created to address gaps



in the national response and generate systematic evidence; 33 studies and evaluations, chosen from 91 identified priority areas for evidence generation, were commissioned during the project's lifetime.

c. M&E Utilization

According to the ICR (p. 37), monthly review of local data collected from TIs and quarterly reviews with technical support from the TSU "created a tight feedback loop that enabled rapid course correction and informed the many adaptations and refinements during implementation." Project-supported capacity building for M&E officers, statisticians, and program managers stationed at the state and TSU levels helped them to analyze data and disseminate findings at the site level to inform program adjustments and adaptive management. The national surveillance system was used to provide data on levels and trends in the HIV epidemic, make epidemiological projections, and guide resource allocation. IBBS and BSS Lite data were disseminated through workshops at regional and national levels, and over a dozen peer-reviewed articles were published based on the data and analysis.

M&E Quality Rating

High

10. Other Issues

a. Safeguards

The project was Environmental Assessment category "B" and triggered OP/BP 4.01, Environmental Assessment, and OP/BP 4.12, Involuntary Resettlement. Environmental and social safeguard risks were considered low, as the project was to finance prevention rather than treatment or basic services like blood banks or ART. The primary environmental risks associated with the project related to the handling and disposal of infectious waste resulting from HIV preventive activities. The safeguards approach for the project mirrored that for NACP III, which had been rated satisfactory for safeguards performance. A well-functioning infection control and waste management system had been institutionalized at the national and state levels. In preparation for NACP IV, DAC/NACO undertook a situation and gap analysis with recommendations for improved implementation. These recommendations were detailed into an Action Plan that was posted on the DAC/NACO website. The ICR (p. 36) reported that no major environmental safeguard violations were documented during implementation. The project team later confirmed that the environment health and safety risks associated with the provision of ART (added at restructuring) were manageable within the existing safeguards management framework, and no critical issues were reported.

DAC/NACO and SACS had been strengthening focus on gender, social inclusion, greater involvement of persons living with HIV, and reaching out to vulnerable and tribal populations. A Social Assessment was conducted, contributing to a Gender Equity and Social Inclusion Strategy prepared specifically for the project. The ICR (pp. 32-33) noted that gender was a cross-cutting theme of the project and was included in all operational guidelines, strategies, and activities under NACP IV, and that gender equity issues among HRG were addressed by focusing TI activities among sexual minority and other most vulnerable groups who faced social exclusion. HRG were involved at all levels of project strategy development, coordination,



and implementation, and many implementing NGOs and CBOs were led by members of HRG. No physical structures or facilities were constructed, and therefore there were no involuntary resettlement risks.

b. Fiduciary Compliance

Financial management: NACO had a robust financial management system. Despite strong pre-existing guidelines, however, project financial management was rated Moderately Unsatisfactory in 2015 and 2016 due to the new state government counterpart financing provisions described in Section 5, uneven performance across states, and delayed submission of some financial reports. New staff were recruited and supervision was intensified, after which the rating improved to Moderately Satisfactory. Of the 28 interim unaudited financial management reports submitted during the project's lifetime, 45% were received on time. Most delays were between 2014 and 2016. There were minimal deviations between reported unaudited expenditures and audited expenditures.

Procurement: Project procurement followed established procedures. When HIV treatment activities was added after the mid-term review, a third-party procurement agent was engaged to ensure that drugs were rapidly procured and distributed as needed. This arrangement worked well, and no significant stockouts were experienced. During a post review in June 2020, it was discovered that three consultancy contracts had been awarded to a firm that is a dependent agency of a public sector enterprise owned by the Ministry of Health and Family Welfare (and therefore not eligible for project contracts). NACO reallocated these expenditures to its own budget codes.

c. Unintended impacts (Positive or Negative)

None reported.

d. Other

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Satisfactory	
Bank Performance	Satisfactory	Satisfactory	
Quality of M&E	Substantial	High	Highly effective M&E arrangements and institutionally embedded systems, as well as high performance, triangulation, and adaptation.



Quality of ICR

Substantial

12. Lessons

The ICR (pp. 46-48) provided lessons and recommendations that were grounded in the project's experience but, in many cases, extended that experience to other disease areas and contexts. They included:

Peer networks can be effective agents of communication and change, as this project's experience illustrates. This lesson led the ICR to pertinently recommend the use of peer networks to advance COVID-19 vaccination programs.

Differentiated care models that provided client-specific services can facilitate the delivery of precise and targeted interventions. During this project, the fast-tracking of ART refills, decentralized ART dispensation at community support centers, multi-month dispensation, and community-led dispensation produced reduction in wait times and improved treatment adherence. Similar differentiated care strategies might be effectively extended to treatment and management of chronic diseases.

Successful interventions are underpinned by good data. This project's success was predicated on the findings of well-crafted and implemented epidemiological and behavioral surveys and surveillance. The ICR observed that continued progress will depend on continuing the project's efforts to integrate HIV data with other routine data in the health sector, so that individuals can be followed through the entire continuum of care.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR was well-written and thorough. It remained focused throughout on factors that contributed to achievement of outcomes, with particular attention to challenges related to reaching the high-risk groups that were targeted in the development objective. It explained thoroughly the sources of data used in the analysis and the evolution of data collection methods across the project's lifetime. It was candid about implementation shortcomings, specifically about delays in key behavioral surveys and the funding interruption that impacted project activities in 2014-2015. Its lessons were particularly well crafted with an eye toward applicability as the fight against HIV evolves and in other health contexts. The ICR did not update the economic analysis conducted at appraisal, and no explanation was offered for this decision.

a. Quality of ICR Rating



Substantial