



NACP IV

Mid-Term Appraisal of National AIDS Control Programme Phase IV



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

AUGUST 2016



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**MID-TERM APPRAISAL OF
NATIONAL AIDS CONTROL PROGRAMME
PHASE IV**

TECHNICAL REPORT
August 2016

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FOREWORD

The National AIDS Control Programme (NACP) – Phase IV was approved in 2013 and launched in early 2014, and aims to accelerate the process of reversal of the HIV epidemic. The key strategies under NACP-IV included intensifying and consolidating the prevention services with a focus on the High Risk Groups (HRGs) and vulnerable populations; increasing access and promoting comprehensive care, support and treatment; expanding IEC services for general population and HRGs with a focus on behavior change; and building capacities at National, State and district levels and strengthening the Strategic Information Management System.

Having reached the mid-point of NACP-IV, it is very important that we holistically review the progress made by the NACP IV and document the achievements of the programme; and also identify the opportunities, gaps and challenges of the programme with a view to sustain response to AIDS in India, in the context of the international goals stated for 2030.

The Mid-Term Appraisal (MTA) of NACP-IV undertaken by NACO has been a unique and large exercise which witnessed participation of all the Development Partners, representatives from community and civil society organizations, technical & subject-matter experts, and representatives of the States. It involved numerous consultations by the MTA Steering Committee, Technical Sub-Committees, desk reviews, field visits and report compilation. The MTA recommendations cover the observations made from the field visits, technical consultations of the thematic teams, and desk review.

I am grateful to all members of the Steering Committee and the Technical Sub-Committee for their active engagement and guidance in carrying out the MTA of NACP-IV; and express my gratitude to the representatives of the communities and civil society organizations, technical experts, and deeply acknowledge their active involvement and suggestions. We also thank and congratulate the SACS, MTA Secretariat, and field level implementers for their support in carrying out the appraisal smoothly.

I hope that recommendation provided in this report would guide and further strengthen the programme to achieve the desired goals, and to make necessary mid-course corrections. I am positive that these recommendations of MTA will contribute significantly towards planning to strengthen the response to HIV/AIDS in times to come.

I am optimistic that through such deliberations, we together as a team will not only achieve the objectives of NACP IV, but meet the future global targets towards ensuring an AIDS free era.

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The Mid Term Appraisal of NACP IV encompassed many planning meetings, technical discussions, desk reviews and field visits. This exercise witnessed the involvement and remarkable support of the development partners of NACO, representatives of the Community and Civil Society Organizations, Technical Experts and other stakeholders along with NACO and SACS officials.

We express our special thanks to Sh. N.S. Kang, Secretary & Director General, NACO, Government of India for his guidance and encouragement in carrying out the MTA of NACP IV.

NACO expresses its gratitude and acknowledge the support extended by the CDC, USAID, WHO, UNAIDs and UNDP for their support in organizing various activities under the MTA.

NACO offers sincere appreciation to all the members of Steering Committee for their active engagement, invaluable feedback and guidance throughout the MTA process. The draft MTA report benefited greatly from the review and comments received from the Steering Committee members to finalize it.

NACO's special thanks go to the Technical Sub-Committees, thematic sub-groups, field visit teams and NACO officials for all the discussions and deliberation of MTA, field visits and providing necessary technical inputs. The members of these committees also have provided their suggestions personally, through emails and in the thematic group meetings. Their recommendations and inputs were instrumental and key to prepare the MTA report. NACO is beholden to them all.

NACO acknowledges the support, inputs extended by the members of the Communities and Civil Society Organizations, who had worked closely in every step of MTA. NACO extends sincere thanks to them for showing the spirit of co-operation.

NACO conveys heartfelt gratitude to the State administration, SACS, District administration, DAPCU and field level implementers including facilities and intervention sites of the States of Manipur, Maharashtra, Punjab, Tamil Nadu and Uttar Pradesh for extending their cooperation in successfully concluding the field visits.

NACO would like to acknowledge the support of CDC, USAID, WHO, UNDP, the World Bank, UNAIDS, Global Fund, BMGF, Voluntary Health Services (VHS), FHI 360 and the officials of these partner organizations for their active involvement, participation and valuable inputs in the MTA.

Lastly, I congratulate the team members of MTA Secretariat who had taken great efforts for carrying overall coordination, report writing, follow-ups and successfully concluding the MTA.

We hope that the MTA report will help the National AIDS Control Programme, NACO, AIDS control Societies, partners (NGOs, CBOs, and networks) in achieving the objectives set for NACP IV and in making necessary on-course corrections.

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ACRONYMS

AAP:	Annual Action Plan
AIC:	Air-borne Infection Control
AIDS:	Acquired Immuno-Deficiency Syndrome
AEP:	Adolescent Education Programme
AIIMS:	All India Institute of Medical Sciences
AMC:	Annual Maintenance Contract
ANC:	Antenatal Care
ANM	Auxiliary Nurse Midwives
ARSH:	Adolescent Reproductive and Sexual Health
ART:	Anti-Retroviral Therapy
ARTC:	Anti-Retroviral Therapy Centres
BCSU:	Blood Component Separation Units
BMGF:	Bill & Melinda Gates Foundation
BTS:	Blood Transfusion Services
BTV:	Blood Transportation Vans
CAPI:	Computer Assisted Personal Interview
CBO:	Community Based Organization
CDSCO:	Central Drugs Standard Control Organization
CoE:	Centre of Excellence
CSIR:	Council of Scientific & Industrial Research
CSO:	Civil Society Organizations
CSR:	Corporate Social Responsibility
CSS:	Central Sector Scheme
CHC:	Community Health Centre
CLHA:	Children Living with HIV/AIDS
CMIS:	Computerized Management Information System
CPFMS:	Computerized Project Financial Management System
CSC:	Community Support Centres
CST:	Care & Support and Treatment

DADU:	Data Analysis and Dissemination Unit
DAPCU:	District AIDS Prevention and Control Unit
DBS:	Dried Blood Spot
DGHS:	Directorate General of Health Services
DIC:	Drop In Centre
DLBB:	District Level Blood Bank
DSRC:	Designated STI/RTI Clinics
DTO:	District Tuberculosis Officer
DTHO:	District Tuberculosis & HIV Officer
ECS:	Electronic Clearance Service
ELISA:	Enzyme Linked Immunosorbant Assay
EQAS:	External Quality Assurance System
FEFO:	First Expiry First Out
FIDU:	Female Injecting Drug Users
FMI:	Financial Management Indicators
FSW:	Female Sex Worker
GIPA:	Greater Involvement of People with HIV/AIDS
HBV:	Hepatitis B Virus
HCT:	HIV Counseling and Testing
HIV:	Human Immuno-deficiency Virus
HMIS:	Health Management Information System
HRG:	High Risk Group
HSS:	HIV Sentinel Surveillance
HTS:	HIV Testing Services
IBBS:	Integrated Biological and Behavioural Surveillance
ICMR:	Indian Council of Medical Research
ICTC:	Integrated Counselling & Testing Centre
IDU:	Injecting Drug Users
IEC:	Information Education Communication
IH:	Immuno-Haematology
IMS:	Inventory Management System

KP:	Key Population
KPI:	Key Performance Indicators
LAC:	Link ART Centers
LFA:	Legislative Forum on AIDS
LFU:	Loss to Follow Up
LWS:	Link Worker Scheme
MDG:	Millennium Development Goals
MCTS:	Mother Child Tracking System
MDACS:	Mumbai District AIDS Control Society
MoHFW:	Ministry of Health & Family Welfare
MoRD:	Ministry of Rural Development
MoSJE:	Ministry of Social Justice & Empowerment
MoU:	Memorandum of Understanding
MSDS:	Migrant Service Delivery System
MSM:	Men Who Have Sex with Men
MTA:	Mid-Term Appraisal
NABL:	National Accreditation Board for Testing and Calibration Laboratories
NAC:	National AIDS Committee
NACB:	National AIDS Control Board
NACO:	National AIDS Control Organisation
NACP:	National AIDS Control Programme
NACSP:	National AIDS Control Support Project
NARI:	National AIDS Research Institute
NBC:	National Blood Cell
NBTC:	National Blood Transfusion Council
NCA:	National Council on AIDS
NDAP:	National Data Analysis Plan
NERO:	North East Regional Office
NGO:	Non-Governmental Organization
NHM:	National Health Mission
NHRP:	National HIV/AIDS Research Plan

NIB:	National Institute of Biologicals
NIIHAR:	Network of Indian Institutions for HIV/AIDS Research
NRFS:	NACO Research Fellowship Scheme
NRL:	National Reference Laboratory
NSEP:	Needle Syringe Exchange Programme
NTSU:	National Technical Support Unit
NYK:	Nehru Yuva Kendra
OI:	Opportunistic Infections
OST:	Opioid Substitution Therapy
PALS:	PPTCT and ART Linkage System
PCR:	Polymerase Chain Reaction
PHC:	Primary Health Centre
3PL:	Third Party Logistics
PLHIV:	Persons Living with HIV/AIDS
POC:	Point of Care
PPTCT:	Prevention of Parent to Child Transmission of HIV
PSCM:	Procurement & Supply Chain Management
PSU:	Primary Sampling Units
PT:	Panel Testing
PWID:	Persons/People Who Inject Drugs
QMS:	Quality Management System
QSE:	Quality System Essentials
RBTC:	Regional Blood Transfusion Center
RC:	Regional coordinators (RC)
RNTCP:	Revised National TB Control Program
RPR:	Rapid Plasma Reagin
RRC:	Red Ribbon Clubs
RSRRRL:	Regional STI Training Referral, Research Laboratories
SACS:	State AIDS Control Societies
SACEP:	State AIDS Control Evaluation Protocol
SBTC:	State Blood Transfusion Council

SC:	Steering Committee
SCs:	Sub-Centers
SCA:	State Council on AIDS
SDG:	Sustainable Development Goals
SIMS:	Strategic Information Management Systems
SIMU:	Strategic Information Management Unit
SOE:	Statement of Expenditures
SME:	Small and Medium Enterprises
SRL:	State Reference Laboratory
STD:	Sexually Transmitted Diseases
STI:	Sexually Transmitted Infections
STRC:	State Training Resource Centres
TG:	Transgender
TAT:	Turn Around Time
TI:	Targeted Intervention
TRG:	Technical Resource Group
TSC:	Technical Sub Committees
TSG:	Technical Support Group
TSU:	Technical Support Unit
TTI:	Transfusion Transmissible Infections
VL:	Viral Load
VBD:	Voluntary Blood Donation
VHS:	Voluntary Health Services
WCD:	Women and Child Development

EXECUTIVE SUMMARY

The year 2016 marks the 30 year milestone in the India's response to HIV/AIDS since the detection of its first case in 1986. India's AIDS response has shown remarkable success in reducing new infections & deaths, improving access to prevention services for key population and treatment services for people living with HIV (PLHIV). The adult HIV prevalence at national level has continued its steady decline from an estimated peak of 0.38% in 2001-03 through 0.34% in 2007 and 0.28% in 2012 to 0.26% in 2015. Declining trends in adult HIV prevalence are sustained in all of the high prevalence States (Andhra Pradesh & Telangana, Karnataka, Maharashtra, Manipur, Nagaland and Tamil Nadu), though stable and rising trends have been noted in some other States.

The National AIDS Control Programme has evolved through three phases of implementation and is currently in its fourth phase, and is globally acclaimed as one of the most successful programmes. The unique strengths that contributed to success of NACP in India include prevention focused policies, evidence-driven strategies, community-centric approaches, designs for scale, dynamic multi-stakeholder response, openness for innovation and country stewardship. NACP IV aims to consolidate the gains made till now while making further strides with a goal of accelerating reversal and integrating response.

NACP IV had two objectives - Reduce new infections by 50% (2007 Baseline of NACP III) and Provide comprehensive care and support to all persons living with HIV/AIDS and treatment services for all those who require it. It adopted five key strategies – prevention, treatment, IEC, SIMS & Institutional Strengthening. Communities were continued to be kept at the centre of response and equity, gender and respect for the rights of communities were continuously adopted as guiding principles. Key priorities identified include preventing new infections by sustaining the reach of current interventions and effectively addressing emerging epidemics; Achieving universal coverage of Prevention of Parent to child transmission; Providing comprehensive care, support and treatment to eligible PLHA; Reducing stigma and discrimination; Ensuring effective use of strategic information at all levels of programme; Building capacities of NGO and civil society partners especially in States with rising epidemic; Integrating HIV services with health systems in a phased manner; and Mainstreaming of HIV/AIDS activities.

In order to monitor and review the progress against the set goals and targets, NACP has set up a robust programme monitoring system for monthly reporting, periodic supervisory visits by programme officers and regular reviews of the programme performance. Besides, Mid-Term Appraisals (MTA) were also held during the previous phases of the programme that have led to continuous improvements in the programme response. The current Mid-Term Appraisal of NACO is being held at a very opportune stage with the objectives of reviewing the progress made by the NACP IV and documenting the achievements of the programme, identifying the opportunities and challenges of the programme with a view to sustain AIDS response in India and offering recommendations for the planning of next phase in the context of the international goals stated for the 2030 and the India's Commitments to SDG. The context in which MTA is being conducted is characterized by requirements for addressing the unfinished

agenda, new global targets & recent international recommendations, longstanding systemic issues, mixed epidemic scenario with divergent prevention & treatment needs and financial constraints & fund flow issues affecting the scale and quality of operations.

The Mid-Term Appraisal of NACP IV was conducted under the overall technical guidance and oversight of Steering Committee, chaired by Secretary & DG, NACO. Four Technical Sub-Committees were constituted with representation from a wide range of stakeholders. MTA has adopted an elaborate multi-stakeholder consultation approach that involved review of evidence and observation of field situation. It has brought all the stakeholders and community voices to one platform and ensured that all the perspectives are given due consideration while arriving at a way forward. It has set another wonderful example of effective multi-stakeholder response in the implementation of HIV/AIDS control efforts in the country. Every finding, observation and recommendation was carefully reviewed, put in context and analysed for its implications and adoption. The Steering Committee along with the conveners of Technical Sub-committees have endorsed the final observations and recommendations on various technical and operational issues.

Based on the review of the progress made till date in programme implementation and scale up, MTA concludes that the targets set under NACP IV for various programme components will largely be achieved, while some have already been achieved. The targets for scale up of HIV testing, both in terms of facilities as well as number tested, have been already achieved. So are the targets to put PLHIV on to ART that are already surpassed, forcing the programme to reset the targets for 2017. NACP IV targets have also been achieved in terms of number of STI episodes managed with syndromic management. In some other areas such as testing of pregnant women, collection of blood units in NACO supported blood banks, setting up of ART centres and mainstreaming efforts, while the targets of NACP IV are not yet reached, the programmes are well on track to achieve them by 2017.

On the other hand, declining coverage of key & bridge population through targeted interventions is a cause of concern, though there have been improvements in the areas of HIV testing & treatment coverage among key and bridge population, reaching out to informal labour through employer led model and scale up of OST. Similar slowdown has also been noted in the implementation of IEC activities, though certain key achievements such as launch of national helpline and effective social media outreach have been made. Delivery of laboratory services have also witnessed a slow down. The major reason identified for this slowdown across programme components is the issue with budget allocations and fund flow to SACS.

An assessment of Indian context with respect to the latest global fast track targets shows that reaching the targets is challenging, but achievable, with focused and reinvigorated efforts to address the critical bottlenecks and ensure rapid implementation of last mile strategies in the coming years.

With respect to the targeted intervention strategy, the key challenges identified include the design that is not effectively addressing the changing dynamics of communities, lack of budgeting and contracting flexibilities, budget cuts and fund flow uncertainties, decreased focus on community mobilization and enabling environment, issues with key population size estimates and decline in the coverage of key population in the recent years. Key recommendations include Encourage adaptation of interventions to local context through systematically monitoring and reflecting on

their data; address financial uncertainties and fund flow issues; Commission an options paper on the design and future of TIs; upgrade the guidelines for population size estimation and validation; strengthen the interventions to improve the coverage of KP; strengthen community and civil society partnerships.

Coverage gaps in testing of target population groups including key population, TB patients, STD patients, pregnant women and spouses/ partners of PLHIV, gaps in detection, linkage loss of HIV positive cases between ICTC & ART and Increasing sero-discordance among spouses were identified as key challenges pertaining to HIV counseling and testing services. Key recommendations included strategies to improve yield of detection through strong linkages with other components, roll out newer strategies such as community based testing, population and geo-prioritisation strategies. Effective integration with NHM to achieve elimination of parent to child transmission of HIV is also adequately emphasized.

Critical gaps in reaching the goal of elimination of parent to child transmission of Syphilis, that include saturation of Syphilis testing of pregnant women and significantly (>75%) missed opportunity of treating Syphilis among pregnant women were highlighted as the key challenge facing the STI/RTI programme. Mechanisms to strengthen STI programme management through involvement of apex centres, rational use of counselors, ensuring timely and adequate supply of essential commodities, etc. and target efforts towards elimination of parent to child transmission of Syphilis were recommended. Implementation of quality control for Syphilis testing was also recommended.

With respect to the blood transfusion services, multiplicity of controls at central level for policy, regulation and programme, sub-optimal functioning of SBTCs in some States, unequitable distribution of blood and demand-supply gaps, issues in strengthening blood component separation and use were identified as the key challenges. Clear policy decision needs to be taken to avoid duplication of efforts and multiplication of controls at the central level, related to blood transfusion services. Strengthen the functioning of NBTC & SBTC in all States through provision of adequate resources. Commission an immediate exercise for estimation of demand for blood at the national, State, district and facility level to facilitate effective planning and utilization of available resources. Focussed strategies to promote component separation and rational use of blood across health settings were also recommended.

In relation to the care, support and treatment programme, gaps in treatment cascade, improving effectiveness of strategy of setting up Link ART Centres, challenges in adoption of international guidelines of CD4 eligibility of 500, test and treat and scale up of viral load testing, system issues related to lack of manpower and ARV supply chain issues were highlighted as the key challenges. Further, delayed diagnosis of failure & sub-optimal scale up of Second line ART, sub-optimal HIV-TB coordination, non-uniform quality of care across ART centres & overcrowding of ART centres and inadequate availability of drugs to treat OIs were also identified as important areas that need attention. Considering revising the eligibility criterion for treatment initiation to CD4 500 and considering adoption of WHO guidelines to introduce 'Test and Treat' for key population and sero-discordant couples, with due consideration to system strengthening and preparedness issues, emerged as the most important recommendation. To improve quality of services, decrease mortality and prevent HIV DR, Viral Load scale up is a top priority for monitoring treatment. Pharmacovigilance activities need to be scaled up further.

Revamp SACEP mechanisms to strengthen second line ART uptake. A model of task shifting and increase drug dispensing duration was recommended to improve quality of care at the ART centres.

Integration of all IT applications operating under NACP with SIMS to facilitate strong linkages and individual patient tracking across various components of NACP is identified as a critical challenge. Limited use of system generated data for decision making, lack of ownership of programme divisions on the programme data, lack of dedicated staff to address the area of data use, lack of assured funding to support research activities from NACO and development partners were other key issues highlighted during MTA. It was recommended to organise an expert consultation to review and evolve a roadmap for development of Surveillance & Research activities. Capacitate SIMS as One integrated system for data management & data analysis to avoid multiple data reporting & parallel data management systems and to ensure linkages and individual patient tracking across programme components. Geo-prioritization should be updated based on new evidence and applied for customised programming. Commission already approved studies on the identified priorities by securing funds from domestic or donor support. Review and finalise research mandate at NACO through an expert consultation. Move towards real time monitoring, feedback and action at sub-national level.

Streamline release of funds and reinstate the activities outlined for Laboratories, accreditation of HIV reference labs (NRLs/SRLs), AMC and calibration of equipment, scheduled trainings coinciding with PT/EQAS distribution, etc. Expand and strengthen EQAS to include HIV screening at F-ICTCs and newer testing initiatives. Leverage and strengthen institutional capacities of medical colleges, tertiary center hospitals and other medical facilities for scale-up of Viral load testing. Validate newer POCT to increase accessibility. On long term, Build Capacity of more reference labs for HIV Drug Resistance testing.

Revitalise IEC strategies by shifting to interactive formats that encourage dialogue and participation. Adopt a more strategic approach in harnessing channels for specific audience segments such as migrants and MSM who require communication channels beyond the traditional ones. Focus on development of materials on topics that have emerged as high priority: Positive Living including Positive Prevention, HIV-TB Linkage, new PPTCT regime, OST, overdose management, and materials specific to IDU and FIDU. Sustain and strengthen the key youth initiatives of Adolescent Education Programme and Red Ribbon Clubs in colleges. Strengthen national helpline. On a long run, strengthen Strategic communication for enabling environment.

One of the foremost recommendations emerging from MTA is to immediately address the institutional strengthening aspect of the programme that has led to a slowdown in the recent years and improve the pace of programme implementation. Initiate recruitment drive to fill the vacant positions in the programme at national, State, district and facility levels on an urgent basis. Conduct induction and refresher trainings under all components to update the personnel with new guidelines as well as to instill motivation and enthusiasm among the field staff, thereby galvanizing the programme implementation. Immediately focus on the areas where programme performance has been affected over the last few years through heightened priority, improved supervision and handholding, including enhanced supervisory field visits and on-field reviews by NACO and SACS officers. Provide role clarity for NTSU/ TSU structures and

ensure their sustainability beyond 2017. Identifying opportunities for integration with larger health system at national, State & district levels and strengthening the integration process is very critical for success of the programme.

Set up strong coordinating mechanisms & structures between NACO & other ministries/ departments with which MoUs are signed, to operationalise the agreements and mainstream HIV. Setting up reporting and monitoring protocols is a requirement and NACO would need to support the ministries on this front. Plan and undertake comprehensive capacity building on issues of mainstreaming and social protection for staff at all levels (District, State and central level), avoiding standalone training of different ministries staff. Single window model for easy access of social protection schemes to PLHIV & vulnerable groups, supported by a social protection schemes portal should be put in place in all districts.

Streamline financial management at SACS and peripheral units for effective transfer and utilization of financial resources, through regular capacity building, handholding and regularization of audit. Ensure full implementation of system of payments by ECS, including in TIs.

Undertake a comprehensive uplift of procurement and supply chain functions under NACP through institutional mechanisms, regular capacity building, update the Guidelines and Standard Operating Procedures for supply chain functions, strengthen inventory management through IT tools, and employing quality assurance mechanism.

Thus, Mid-Term Appraisal of NACP IV has given a unique opportunity for the programme to review its current position, its direction and challenges, and has enabled the programme to identify the refinements and on-course corrections needed, through a multi-stakeholder approach. The key recommendations of the MTA will have to followed up to translate them into action, leading to effective implementation of National AIDS Control Programme.

Chapter 1

Introduction, Achievements & Context

1.1. AIDS Response in India – A Journey of Three Decades

As this report is being written, India's AIDS response is crossing the milestone of 30 years since the detection of the first case of HIV in the country and the first steps taken to address the epidemic in 1986. A journey that started with apprehensions, skepticism and doomed predictions has marched its way to emerge as a global success story, setting a model for the rest of the world, within a span of three decades. Into this bright day of success and achievement are woven, the vibrant strands of prevention focused policies, evidence-driven strategies, community-centric approaches, designs for scale, dynamic multi-stakeholder response, openness for innovation and country stewardship. And this journey is enriched with the great vision, dynamism and energy of communities, experiments & experiences of civil society, expertise of institutions & academia, untiring efforts of lakhs of grass root level workers, administrative mettle & political will of the State, collaborative support of the development partners as well as the sacrifices of all those who lost their lives due to HIV/AIDS.

India's AIDS response has shown remarkable success in reducing new infections & deaths, improving access to prevention services for key population and treatment services for people living with HIV (PLHIV), ensuring social protection for the infected, affected and vulnerable groups, and creating an enabling environment free from stigma & discrimination. It has done much more by showing to the world, a model where multiple stakeholders can come together and work cohesively towards a common goal and make the difference. It has shown how evidence should be put to use to make the response to any public health issue more effective and impactful. It has also shown how key affected communities should be engaged and empowered so that they play a critical role in determining the right approaches, thereby giving a high pedestal to human and health rights and justice. India's AIDS response has also been a fountainhead of innovative service delivery models with rich civil society involvement, that are today celebrated as learning sites for programmes across the world to come and learn.

This long journey to reach the current State has passed through three phases of the National AIDS Control Programme. Much before a structured response has been launched against HIV/AIDS in the early nineties, government of India started articulating the response. In 1986, an AIDS Task Force was constituted at the Indian Council of Medical Research (ICMR) for screening of risk groups. Subsequently, a National AIDS Committee (NAC) was set up, headed by the Secretary, Ministry of Health in the same year. In 1990, a two year Medium Term Plan (1990-1992) was launched in the four States of Tamil Nadu, Maharashtra, West Bengal and Manipur as well as in four metropolitan cities of Chennai, Kolkata, Mumbai and Delhi. All these initial efforts focussed on promoting awareness in general population on the modes of HIV transmission and reducing HIV transmission through contaminated blood and blood products.

India launched the first National AIDS Control Program (NACP I) in 1992, focusing on blood safety, prevention among high risk groups, raising awareness among the general population, and improving surveillance. In the second phase (NACP II, 1999-2006), India continued to expand the program at the State level decentralising the planning and implementation by setting up State AIDS Control Societies (SACS), with greater emphasis on targeted interventions involving NGOs and civil society partners, roll out of HIV counseling and testing services and launch of National Anti-Retroviral Treatment (ART) programme. The third phase (NACP III, 2007-2012) was launched with the goal to 'halt and reverse the epidemic' and the programme made plans for rapid scale up of services with a redesigning and expansion of the programme architecture up to district level. All the prevention and care, support and treatment services were scaled up to every corner of the country, besides focusing on the quality assurance aspects and strengthening the evidence base for the programme through expansion of surveillance network.

Throughout this entire journey, communities were kept at the centre of the response and were empowered to take up leadership roles at national and international levels. Communities of high risk groups and networks of PLHIV were involved in planning, monitoring and implementation of various services. Such a community driven model of AIDS response had shown the first evidence of success during the NACP III. It was in 2010 that the updated estimations and projections of HIV burden demonstrated 50% reduction of new infections in India, making it one among the only three success stories in the world to have achieved that coveted distinction.

1.2. Unique Strengths of India's NACP

National AIDS Control Programme of India is one of the comprehensive public health approaches to address a serious epidemic facing the modern world. While the programmes and responses world over share similar strategies and approaches to some extent, there are certain unique strengths in the Indian programme that remain the key pillars below the edifice of success achieved over time. These are such aspects of the programme that evolved with time and remained an integral part of the core approach India took to address the HIV epidemic. These form the bedrock on which a dynamic multi-stakeholder response has been crafted in India to tackle the epidemic that was once predicted to explode beyond control. The unique strengths of the programme are described below.

- 1. Communities at the centre of AIDS response:** Right from the very beginning of AIDS response in India in early nineties, community-centric approaches have been woven into the programme. Both from the fact that high risk groups are epidemiologically, the most important groups for HIV transmission in a concentrated epidemic and that they are the most affected groups due to HIV/AIDS, it was but imperative and logical to focus upon them. Involvement of community at various stages of the programme, starting from identifying the key population to delivery of services, the rich experiences of these community-led experiments and the lessons learnt from them have fed back into the programme and helped in evolving a more systematic, robust and effective model of Targeted Interventions. The improved capacities of the community members enabled greater participation and leadership roles in planning and implementing the programmes at the grass root level. Several targeted interventions are now run by Community-based Organisations. Further, several community leaders were nurtured and capacitated to even advise, support and

monitor the national programme at national & State levels through various committees and technical resource groups.

- 2. Evidence-driven Strategies:** Evidence forms the foundation upon which the entire architecture of India's AIDS control programme has been built over time. Systems have been established to generate epidemiological data on annual basis by setting up annual HIV Sentinel Surveillance system across the country in every district. Besides surveillance, monitoring of programme data reported from a wide network of facilities offering HIV services provides insights to fine tune and shape AIDS response in the country, as it evolved.

The most effective use of evidence in India's programme has been to prioritise the States and districts for spending resources and scaling up response. This prioritization resulted in significant reduction of new infections and deaths. Evidence is also used effectively to initiate newer strategies in specific geographies such as Opioid Substitution Therapy for IDU in North East and Punjab, roll out of Link ART Centres for expansion of treatment and revised migrant strategy. Finally, the use of evidence has evolved to a level of Knowledge Management in the programme where even tacit, experiential knowledge is also documented and shared for a sustainable knowledge-driven response.

- 3. Focus on Prevention:** India's response has always been prevention-focussed. With a low level concentrated epidemic where over 99.5% population is uninfected and the vulnerable groups are large in numbers, it was imperative that the programmatic resources and efforts are directed towards prevention of HIV transmission with over two-thirds of programme budgets allocated for prevention strategies. This was taken as an essential core principle in drafting strategies in all the phases of NACP. Accordingly, a bouquet of prevention interventions has been developed covering the risks and vulnerabilities among high risk groups as well as general population, including women and children. The wide range of interventions included targeted interventions, link worker scheme, condom promotion, blood safety, counseling and testing services, IEC & BCC, mainstreaming, youth interventions, PPTCT and management of STI/RTI.
- 4. Designing for Scale:** Rapid and effective scale up of the service delivery across the diverse geographies in India also played a critical role in controlling the epidemic. Such a large expansion could be made possible through certain carefully chosen strategies such as standard operational guidelines for every aspect of the programme, unit costing to enable easy replication of service delivery units, standardized training curricula, systematic monitoring systems and standardization of commodities such as colour coded kits for STI management. Further, a very robust implementation structure starting from national to district level (NACO at the national level, SACS at State level & DAPCU at district level) has been put in place to support the scale and implementation of the large size programme (20,000 service delivery units). Further, institutional structures outside the programme in the form of Technical Resource Groups, Regional Institutes, Reference Laboratories, Technical Support Groups & Units, research institutes, training institutes and Centres of Excellence have been set up to provide continuing mentoring support to the programme. These institutional structures within and outside the programme have ensured that the service delivery reaches the set targets with the desired quality.

5. **Leveraging Partnerships & Strategic In-sourcing of Expertise for a Multi-stakeholder response:** India's AIDS control programme is one of the best examples of a vibrant multi-stakeholder response. Programme has fostered strong partnerships with civil society, academia, community groups and networks, development partners, other government departments and private sector. The strengths of each constituency have been effectively put to the best use to support relevant operational areas under the programme. While making policies, financing and monitoring are strong areas of the government system, technical expertise was in-sourced through partnerships for development of guidelines, technical support for implementation, generation of evidence and documentation of response. The unique principle of 'Three Ones' have harmonized the efforts among development partners, avoided duplication of efforts and ensured efficient use of resources.
6. **Integrate & Mainstream response:** India has also been in the forefront in taking the HIV response beyond the vertical disease control programme. NACP made deep inroads in successfully integrating the response with the larger health system in all the possible avenues. All the service delivery units except the targeted interventions have been set up within the government health system. Be it development of joint operational guidelines for management of STI/RTI, condom promotion for triple benefits, HIV-TB coordination, ensuring access to safe blood or setting up of facility integrated counseling and testing centres, the programme has ensured that the strengths of the larger health system are leveraged through strong integration mechanisms. Programme has also reached out to 31 other non-health ministries and private sector to put HIV on their development agenda through strong mainstreaming initiatives. These initiatives have increased the access to social protection and risk reduction measures and schemes for the infected, affected and vulnerable groups.
7. **Encourage Innovation:** India's AIDS response has been fountainhead for innovative models spanning various functional and operational areas. Several national and State level innovations led by NACO/SACS as well as development partners have been implemented across all program components and during different stages of the program, varying in scope and results. These innovations include 'delivery innovations' to improve access to HIV/AIDS established prevention and care services; innovations focusing on strategic planning (including evidence generation and data use), program management and quality improvement; and innovations related to 'creation of new products, technologies and health care financing options'. The type and scope of these innovations vary significantly as some are new distinct products, while others are new approaches to solve problems or innovative strategies to improve implementation.
8. **Country Stewardship:** Finally, the entire AIDS response has been effectively led and guided by the government, through a harmonious blend of resources, efforts and support from a wide range of stakeholders. It created an environment where diverse interests of various stakeholders are effectively channelized to evolve 'One Programme' targeted towards achievement of the goals. It has shown stewardship not only in galvanizing and mobilizing political will, but also in ensuring financial support when global commitments and international donor support dwindled during the recent years. It is evident from the fact that two-thirds of budget for the fourth phase of NACP is through domestic budget

supported by the government of India. India's experience has shown to the world the need for a country-owned country-driven response to achieve the challenging goal of controlling HIV/AIDS.

Thus, the above unique strengths of India's AIDS control programme have led to the development of a robust and effective response to HIV/AIDS over the last three decades. The fact that all these have been thoroughly institutionalized ensures that they go a long way in contributing to the sustainability of the response and its impacts.

1.3. NACP Phase IV: Priorities, Initiatives & Achievements

Consolidating the gains made in the first three phases on National AIDS Control Programme, the fourth phase set out with the goal to 'Integrate response and accelerate reversal' by 2017. The programme strategies have been evolved and refined through an extensive consultative exercise involving over 1,000 members from all stakeholder groups including communities, academia, development partners, State governments, civil society, other ministries, industry and private sector. Although the overall progress towards reversal of the epidemic has been impressive, progress has been uneven within and between States, and there are districts and vulnerable population groups with varying HIV trends. NACP IV took cognizance of these challenges and endeavoured to address them.

Key challenges identified at the beginning of NACP IV are as below.

- There was a greater need to **consolidate successes gained till date by sustaining prevention focus** besides effectively addressing the challenges.
- Advance towards **focusing on ensuring higher quality of services** under interventions while sustaining the coverage.
- **Rising Epidemics in certain low prevalence States** and districts showing rising trends, larger share of new HIV infections & higher vulnerabilities due to
 - Migration to high prevalence areas from several north Indian districts
 - Rising epidemics related to IDU, MSM, Transgenders & young sex workers
- Further, the States with rising epidemics were those with **relatively poor health infrastructure & weak implementation** capacities.
- With increasing coverage of treatment & decreasing AIDS-related mortality, a significant number of people were likely to require first and second line ART treatment during the 12th Plan period. Major challenge for the programme was to **ensure that the treatment requirements are fully met without sacrificing the needs of prevention.**
- Regions with different maturity levels of the epidemic required different resources and services. Rolling out **flexible models of programming and enabling customized response** was a challenge in front of the programme.
- **International finances** for HIV/AIDS programme were shrinking and with greater reliance on domestic funding. The donor landscape has changed in NACP IV with reduction in donor participation and resources. This could potentially affect the availability of funds to support innovations under the program.

- **Integration** with larger health system was needed to ensure sustainability. However, there was a great need to address the challenge of varying capacities of health systems in different States to provide access to quality services without stigma and discrimination.
- **Widening the net of and ensuring access to social protection schemes** for people infected and affected with HIV/AIDS through mainstreaming of HIV/AIDS with other ministries and State governments continued to be a challenge. Operationalising the formal agreements into mechanisms with results was a challenge in front of the programme.
- Finally, NACP IV had to address the **need for innovation** within all key programme strategies for integration of services, quality assurance at all service delivery points, coverage saturation, treatment adherence, data quality and use etc.

Deliberating on these challenges, a detailed programme implementation plan was developed for NACP IV. A snapshot of the key aspects of NACP IV is presented below.

Goal: Accelerate Reversal and Integrate Response

Objectives:

Objective 1: Reduce new infections by 50% (2007 Baseline of NACP III)

Objective 2: Provide comprehensive care and support to all persons living with HIV/AIDS and treatment services for all those who require it.

Key Strategies:

Strategy 1: Intensifying and consolidating prevention services, with a focus on HRGs and vulnerable population.

Strategy 2: Increasing access and promoting comprehensive care, support and treatment

Strategy 3: Expanding IEC services for (a) general population and (b) high risk groups with a focus on behavior change and demand generation.

Strategy 4: Building capacities at national, State, district and facility levels

Strategy 5: Strengthening Strategic Information Management Systems

The **Guiding principles** for NACP IV continued to be:

- Continued emphasis on three ones - one Agreed Action Framework, one National HIV/AIDS Coordinating Authority and one Agreed National M&E System.
- Equity
- Gender
- Respect for the rights of the PLHA
- Civil society representation and participation
- Improved public private partnerships.
- Evidence based and result oriented programme implementation.

Focus Areas (Cross-cutting themes)

- Quality
- Innovation
- Integration
- Leveraging Partnerships
- Stigma and Discrimination

Key priorities identified under NACP IV were:

- Preventing new infections by sustaining the reach of current interventions and effectively addressing emerging epidemics
- Achieving universal coverage of Prevention of Parent to Child Transmission
- Focusing on IEC strategies for behavior change in HRG, awareness among general population and demand generation for HIV services
- Providing comprehensive care, support and treatment to eligible PLHA
- Reducing stigma and discrimination through Greater involvement of PLHA (GIPA)
- De-centralizing rollout of services including technical support
- Ensuring effective use of strategic information at all levels of programme
- Building capacities of NGO and civil society partners especially in States with rising epidemics
- Integrating HIV services with health systems in a phased manner
- Mainstreaming of HIV/AIDS activities with all key central/State level Ministries/departments and leveraging resources of the respective departments to strengthen social protection and insurance mechanisms for PLHIV

Targets and achievements under NACP IV, year-wise, at national level on some of the key quantitative indicators are summarized in the table below.

Sn	Indicator	2012-13		2013-14		2014-15		2015-16		2016-17
		Tgt.	Ach.	Tgt.	Ach.	Tgt.	Ach.	Tgt.	Ach.	Tgt.
A Targeted Interventions among High Risk Groups and Bride Populations										
1	No. of FSW covered	7,74,000	7,48,190	8,34,300	7,18,998	8,82,000	6,94,576	9,00,000	6,78,423	9,00,000
2	No. of MSM covered	2,76,000	2,88,701	3,60,800	258,660	4,11,400	2,46,703	4,18,000	2,46,839	4,40,000
3	No. of IDU covered	1,50,000	1,48,334	1,55,000	1,31,752	1,58,000	1,33,088	1,60,000	1,30,800	1,62,000
4	No. of Truckers covered	9,40,000	11,94,000	11,20,000	11,08,065	11,20,000	11,65,412	16,00,000	10,95,400	16,00,000
5	No. of High Risk Migrants covered	28,80,000	28,63,216	44,80,000	29,23,854	51,52,000	35,90,126	56,00,000	32,97,748	56,00,000
6	No. of Targeted Interventions	1,867	1,806	2,256	1,873	2,456	1,818	2,605	1,677	2,703
B Link Worker Schemes										
1	No. of HRGs covered	1,40,000	1,48,745	1,60,000	1,79,393	1,80,000	1,21,405	2,00,000	1,13,593	2,20,000
C Integrated Counseling and Testing										
1	No. of vulnerable population accessing ICTC services/annum (in lakh)	168	187.49	224	227.82	236.6	248.78	264.6	289	280
2	No. of pregnant mothers tested under PPTCT/annum (in lakh)	84	82.94	112	97.52	118.3	106.10	132.3	125	140
3	No. of PPTCT/ICTC centres	11,369	12,897	12,019	15,606	12,889	18,346	14,029	19,800	14,769
4	No. of HIV +ve mother and child pairs receiving ARV prophylaxis	18,060	11,611	24,080	10,085	25,435	9765	28,445	9,340 **	30,100
D Sexually Transmitted Infections										
1	No. of adults with STI symptoms accessing syndromic management/annum (in lakh)	56	60.33	67.5	67.7	76.5	75.46	85.5	88.39	90
2	No. of designated STI/RTI clinics	1,150	1,115	1200	1,115	1,250	1,164	1,250	1,160	1,250
E Blood Transfusion Services										
1	No. of Blood Banks supported under NACP	1,170	1,118	1,170	1,137	1,235	1,161	1,235	1,161	1,300
2	No. of units of blood collected in DAC/NACO supported Blood Banks/annum (in lakh)	56	-	67.5	57.48	76.5	63.2	85.5	61.60	90
3	Percentage of voluntary blood donation in DAC/NACO supported Blood Banks	80%	84.3%	80%	84%	85%	84%	90%	78%	95%
F Condom Promotion										
1	No. of condoms distributed (in crore pieces) \$	109.2	85.19	116.1	83.77	123.3	88	129.7	20.90*	136.4
G Comprehensive Care, Support and Treatment										
1	No. of ART Centres	400	400	450	425	500	475	550	525	600
2	No. of PLHIV provided free ART(includes 1st line, 2nd line & Children)	6,42,400	6,32,000	7,51,400	7,68,000	8,40,200	8,51,000	9,40,000	9,40,000	10,05,000

Note: \$ No. of condoms distributed include free and social marketing Programme. *Social marketing programme closed in NACO during 2015-16; ** Data Includes Mother & babies received Option B

1.4. Context for Mid-Term Appraisal of NACP IV

NACP IV has taken off from where NACP III reached and tried to address the key priority areas identified at its beginning. While 2012 is considered as the starting year of NACP IV, formal approval for the project plan was obtained from government of India only in Oct 2013. Revised funding patterns and implementation mechanisms were implemented thereafter, practically from 2014 onwards. In addition, there have been certain other contextual factors that have affected the way the programme has been implemented over the last two to three years. These set the context for the current mid-term appraisal of the programme.

- 1. New global targets & recent international recommendations:** As 2015 has passed by, the Millennium Development Goals are now replaced by Sustainable Development Goals (SDGs) and the world is now talking about ending AIDS by 2030. A paradigm shift has been recommended in the approaches that countries have to adopt to reach this goal. It is envisaged that in order to end AIDS by 2030, AIDS response has to be fast tracked in the next five years. Fast Track targets are set for 2020 where in countries have to reduce new infections by 75% from 2010 levels, achieve 90-90-90 targets with respect to detection of HIV positives, retention on ART and viral suppression. Parent to Child Transmission of HIV is targeted for elimination. Further, saturating the coverage of key population with prevention services, testing and treatment is also recommended. In order to achieve these goals, WHO & UNAIDS have given various key recommendations such as introduction of test & treat strategies, scale up of viral load testing, introduction of various models of testing such as community-based testing, lay provider testing, etc., introduction of pre-exposure prophylaxis for high risk groups and sero-discordant couples, etc. Many of these recommendations have been reviewed and deliberated by NACO in various TRG meetings and consultations. In this context, midterm appraisal of NACP IV is expected to assess where India stands vis-à-vis 2020 & 2030 targets, assess the current challenges and system preparedness to adopt and implement these international recommendations.
- 2. Addressing the unfinished agenda:** India's success over the last decade is owing to its strategies for rapid scale up and the pace with which services were taken to every corner of the country. Against most of the coverage targets, the country has reached near saturation levels while on some, there have been moderate achievements. In this context, the programme has to make the last mile efforts to exceed saturation levels of coverage for key interventions. While it is known that going from low to high coverage is challenging, going the last mile is even more challenging and demands focus, targeting and precision of very high standards. Further, having scaled up the programme to achieve saturation in numbers, ensuring quality of coverage becomes the high priority now. Quality Assurance in a scaled up programme is the need of the day to ensure that the scaled up resources are made truly effective in reaching the stated goals. Thus, mid-term appraisal of NACP IV is expected to look at the on-course corrections, refinements, newer strategies that are required to bring in effective last mile efforts and quality assurance mechanisms into the programme.
- 3. Longstanding systemic issues:** With greater thrust being given for widening the treatment programmes and slowing down of prevention programmes, there is a need to take fresh perspective on some of the systemic challenges that programme has been facing for a

long time, without much progress. These include effective integration with larger health system, low to moderate ANC utilization in public sector, ownership of States, procedural issues with supply chain management of commodities, turnover and vacancies at all levels, private sector accountability and reporting, IT challenges in integrating data systems and evolving individual level case tracking mechanisms, etc. These form an important context in which programme has to review its progress and consider refinements and on-course corrections.

4. **Mixed epidemic scenario with divergent prevention & treatment needs:** The programme faces a mixed epidemic staging where on one hand, the matured epidemic States have reached a stage of saturating the testing and treatment coverage with increasing need for second and third line ART, and on the other hand, there are States that are showing rising HIV prevalence and more new infections occurring in key population, bridge population as well as low risk general population. Please refer to page 13 & 14 for a note on current HIV epidemic scenario. The prevention and treatment needs of these divergent epidemic contexts are different, and in some cases, demand innovative remodeling of existing interventions and strategies. Balancing the prevention and treatment needs through effective channeling and use of limited resources is a task that has become more important now, than ever before. There is a greater need for customisation of programme response to States, districts or even sub-district level to adequately and effectively address these divergent needs. Evolving mechanisms to achieve this customization and capacitating the implementation units (SACS/ DAPCUs/ Service delivery units) to wisely employ customization, remaining within the broad contours of the programme guidelines is a challenging task for the programme.
5. **Budget allocation and channel of Budgetary support to SACS:** Government of India in order to strengthen the finances at State level with larger devolution of resources, channelized the funds from Centre to States through treasury route. However, the clearances at State level could not be made in time and a large sum of money was withheld in pipeline with the consequent effect that budget as envisaged neither could be utilized nor further funding could be appropriated. Government of India was apprised of the situation and with due efforts from NACO, has made exception to NACO programme by allowing direct funding of State AIDS Control Societies (SACS) and has also converted the scheme into a Central Sector Scheme, thereby signaling its intent to support the programme and provide the best course of action to the beneficiaries. To make allowance of the gaps in funding for last two financial years, the Government of India has significantly increased the Budget estimate of 2016-17 to INR 1,719 cr as compared to INR 1,397 cr of 2015-16. The following table summarizes the allotment and the actual funds allocated and spent over the last four years.

Summary of Budget Estimate (BE), Revised Estimate (RE) & Actual Expenditure Over last four financial years for National AIDS Control Programme (Figures: INR in Crores)				
S.No.	Item Description	2012-2016		
		BE	RE	Actual
1	Grants in Aid to States	3,269.97	3,292.31	3,146.58
2	IEC General	261.54	211.00	190.84
3	Supply and material other than condoms (ARV & Kits)	1,980.25	1,864.17	1,594.95
4	Professional Services	151.19	116.93	109.95
5	Condoms			
	Supply of condoms	431.60	346.16	381.97
	IEC of condoms	75.00	50.79	43.17
	Condoms other charges (Social Marketing)	250.00	185.84	153.80
	Sub Total - Condoms	756.60	582.79	578.94
6	Capital (Planned for Metro Blood Bank)	156.00	21.14	1.54
7	National AIDS Control Organization Establishment	91.45	86.21	56.26
	Total	6,667.00	6,174.55	5,679.06

Source: Detailed Demand for Grants of MOHFW

The analysis of above table shows that an amount of INR 6174.55 Cr (2012-2016) has been allotted out of INR 11,394 Cr (2012-17) Plan approval. INR 5,679.06 Cr was spent during this period which is nearly 91% of allotted amount in last 4 years. In the year 2016-17, an allotment of INR 1,719 Cr has been made to NACO. Thus, a total of INR 7,893.55 Cr was made available in these five years (NACP IV Period). This translates to 69.27% of allotment out of the approval of INR 11,394 Cr planned envelope for NACP IV.

Component-wise budget provision under NACP IV (INR 11,394 Cr) VS Actual Expenditure during 2012-16 (Rs. In crores)				
	Programme Component	Plan Approval 2012-17	Expenditure 2012-16	%
I	Prevention			
1	Targeted Interventions (TIs) including Condoms	3,213.00	1,556.89	48.5
2	Link Worker Scheme	131.84	118.53	89.9
3	ICTC/PPTCT	1,236.61	911.65	73.7
4	STI	278.15	85.79	30.8
5	IEC and Mainstreaming	1,036.84	510.19	49.2
6	Blood Transfusion Services	1,325.29 ¹	270.17	20.4
7	Lab Services	92.21	19.81	21.5
II	Care, Support and Treatment	3,090.24	1,820.95	58.9
III	Institutional Strengthening (Programme Management)	686.39	500.50	72.9
IV	SIMS	303.00	71.64	23.6
	Total Budget	11,394.00²	5,866.12³	51.5

¹ Blood Transfusion Services – includes establishment of Metro Blood Banks.

² Plan Document – Twelfth Five Year Plan – Table 20.6 Budget Support for Departments of MoHFW in Twelfth Plan (2012-17)

³ The expenditure includes the cash balance of 2011-12, and therefore the overall expenditure is Rs. 187 cr. more pertaining to SACS from Detailed Demand for Grants (DDG).

While around 69% of the planned budget for NACP IV has been allocated to the programme in the five years 2012-17 as seen above, there are component-wise variations in the funds accessed and utilized during this period. The table on page 11 shows that except Link Worker Scheme, Counseling & Testing services including PPTCT and Institutional Strengthening that have accessed over 70% of the planned requirement, all other components have accessed less budgets. The allotment has been particularly low for the components of STI management, blood transfusion services, laboratory services and strategic information. Targeted interventions & condoms, Care, support & treatment and IEC & mainstreaming components could access moderate proportion (50-60%) of the planned budget. Given that the original plan was till 2017, there will be limited scope to access and spend the remaining available budget within the current financial year. However, if the fourth phase gets extended by one or more years, and if the programme strategies are adequately galvanized, then the remaining funds could be accessed and the unfinished agenda can be addressed.

It is in the background of the above-mentioned contextual factors and opportunities that the mid-term appraisal of NACP IV is being undertaken, to identify the progress made and to offer recommendations for further improvements in the programme.

Current HIV Epidemic Scenario in India

HIV in India is heterogeneous with trends and levels of infection varying by population group and geographic location. The risks and vulnerabilities that drive the epidemic in various parts of the country differ. Overall, HIV epidemic has stabilized at the national level over the past few years with some inter-state variation in trends and levels of infection. Prevention and treatment strategies have broadly yielded positive impacts as reflected in the reduction in new infections and AIDS-related deaths in the country. The evidence points to certain geographic areas and population groups where further focus is required, and highlights other areas where action needs to be sustained.

The **adult HIV prevalence** (15-49 years) at national level has declined from 0.38% in 2001-03—which is when the epidemic is estimated to have peaked—to 0.34% in 2007 and reaching 0.26% in 2015. Adult HIV prevalence has declined in all the erstwhile six high prevalence States— Andhra Pradesh and Telangana, Karnataka, Maharashtra, Manipur, Nagaland and Tamil Nadu – as well as in the States of Goa, Odisha and West Bengal. Adult HIV prevalence is estimated to have more or less stabilized in Bihar, Chhattisgarh, Gujarat, Mizoram, Rajasthan and Uttar Pradesh, albeit it is rising in some States in the northern/central region(Delhi, Jharkhand, Chandigarh, Punjab, and Uttarakhand) and north-east region (Assam and Tripura).

The estimated **number of people living with HIV** (PLHIV) in the country has remained stable over the last three years at 2.1 million. Children below 15 years of age account for 6.54% of all HIV infections and 40.5% (856,000) are females. The States with the high volume of infections are Andhra Pradesh and Telangana, Maharashtra and Karnataka in the south, followed by Gujarat in west and Bihar and Uttar Pradesh in the north, that together account for two-thirds (64.4%) of all infections in the country.

India is estimated to have around 86,000 **new HIV infections** (including 10,400 among children) in 2015, demonstrating a 66% decline in new infections from 2000 and 32% decline from 2007. The contribution of erstwhile high prevalence States to new infections decreased from around two-thirds in 2000 to around one-third in 2007 and only a quarter, currently. On the other hand, in 2015, Gujarat, Uttar Pradesh and Bihar are the States with highest number of new infections, followed by Andhra Pradesh & Telangana. These States, together, account for 47% of all new infections in 2015. A clear decline in new infections, as noticed at national level, has been also observed in most of the States/UTs. New infections among adults have declined by 50% or more in the States of Andhra Pradesh & Telangana, Karnataka, Maharashtra, Manipur and Odisha during 2007-15. Bihar, Jharkhand, Kerala, Mizoram, Nagaland, Rajasthan and Uttarakhand are the other States where annual adult new infections declined by 32-47% during the same period. However, a rising trend in new infections among adults during 2007-15 has been observed in Assam, Chandigarh, Chhattisgarh, Gujarat, Tripura and Uttar Pradesh.

Current HIV Epidemic Scenario in India (Contd...)

The number of annual AIDS-related deaths is estimated to have declined consistently by 54% from 2007 to reach 67,600 in 2015, as the national treatment program has scaled up. Deaths have decreased in most of the States, most notably in the four southern erstwhile high prevalence States where 60-80% reduction has been witnessed. It is estimated that the scale-up of free ART since 2004 has saved cumulatively around 4.5 lakhs lives in India until 2014.

India's HIV epidemic is concentrated among key population groups where consistent declines of HIV prevalence have been noted over the past several years. At the same time, many newer geographical areas have been identified with high or rising HIV prevalence among key population. Based on the 2014-15 IBBS, HIV prevalence is reportedly highest among IDU at national level (9.9%), followed by MSM (4.3%) and FSW (2.2%). HIV prevalence among IDU in Bihar, Uttar Pradesh & Uttarakhand is highest at 27.2%; followed by Delhi & Rajasthan (21.8%), and Chhattisgarh & Madhya Pradesh (13.6%), Manipur (12.1%) and Mizoram (10%). HIV prevalence among the MSM is highest in Andhra Pradesh (10.1%), followed by Gujarat & Goa (6.8%), West Bengal, Odisha & Jharkhand (6.7%) and Maharashtra (4.9%). HIV prevalence among FSW is highest in Maharashtra at 7.4% followed by Andhra Pradesh (6.3%), Manipur, Mizoram and Nagaland (5.9%) and Karnataka (5.8%).

IBBS has been conducted among TG and single male migrants also. As results are being finalized for these populations, the last available HIV prevalence data is from HSS 2010-11. According to HSS 2010-11 data, prevalence among TG is 8.82% and while among long distance truckers and single male migrants it is 0.99% and 2.59% respectively. There is limited information on trends of HIV in these groups.

Analysis of data from ANC HIV Sentinel Surveillance gives insights into the district level variations in HIV epidemic. While the number of high prevalence ANC sites with HIV prevalence of 1% or more has nearly halved from 2003 to 2014-15, there are still 70 high prevalence sites in 2015, and around half (32) of them are in the low to moderate prevalence States. ANC Surveillance data also shows that pregnant women whose spouse is a migrant have higher HIV prevalence than those whose spouse is a non-migrant. This is particularly seen in several north & central Indian States that are known as source/ out-migration States.

In some of the northern / central States, injecting drug use is identified to be a major vulnerability fueling the epidemic, while in some States, evidence points towards the role of migration. FSW & MSM continue to be the important drivers in southern States where HIV prevalence among these groups continues to be high. Further, many of them are married with low condom use with regular partners. Thus, programme needs to ensure the customized focus of interventions based on the epidemic scenario.

Mid-Term Appraisal of NACP IV

2.1. Introduction & Objectives

The NACP IV has now reached the mid-point and witnessed remarkable successes as well as challenges. It was felt it is important to review the progress and experience of NACP IV and it was decided to conduct a Mid-Term Appraisal (MTA) of the programme to make midcourse corrections to the program and also to deliberate upon the long terms recommendations that can feed into NACP V program design. The HIV program in India have set precedence of conducting such reviews in past that reflects its openness for self-evaluation and the recommendations drawn from such reviews are appropriately considered under the program. This MTA is a unique exercise wherein all partners of NACO had come together to review the progress made by the NACP IV and to identify the opportunities and challenges of the programme and to offer recommendations for the planning of the next phase of NACP. MTA ensured the active engagement and involvement of the development partners of NACO as well as select SACS, technical experts, community members, civil society organizations, representatives from MoHFW and other stakeholders.

The **objectives** of the MTA are:

1. to review the progress made by the NACP IV and to document the achievements of the programme,
2. to identify the opportunities and challenges of the programme with a view to sustain AIDS response in India, and
3. to advise and offer recommendations for the planning of NACP V in the context of the international goals stated for the 2030 and the India's Commitments to SDG.

The MTA included the following **areas of appraisal** for all the sub-themes and components:

1. Programme Achievements and gaps as per NACP IV Plan (Qualitative & Quantitative)
2. Challenges & Issues
3. Recommendations for future

The MTA was conducted through a series of the following activities:

- Planning meetings with the development partners to chalk out the various activities of MTA.
- Meetings of the MTA Steering Committee to guide and approve the activities planned.

- Formation of Technical Sub-Committees and thematic sub-groups.
- Technical discussions of the Thematic Sub-Committees and thematic sub-groups.
- Development of thematic documents/status notes/issue papers which involved desk review of existing programme data, research publications related to NACO, policy guidelines etc.

SEQUENCE OF MTA ACTIVITIES

1. Planning Meeting	: 3 March & 2 May 2016
2. Steering Committee Meeting	: 12 April & 5 th July 2016
3. Technical Sub-Committee Meetings	: April & May 2016
4. Common Briefing Meeting	: 27-28 May 2016
5. Field Visits	: 30 May –11 June 2016
6. Debriefing Meeting	: 13-14 June 2016
7. Consolidation of Field Visit Reports	: 15-22 June 2016
8. Draft Report Presentation to Steering Committee	: 5 July 2016
9. Dissemination	: 4 August 2016

- Field visits to the SACS, and different health facilities offering HIV related services, in selected districts to study and document current service delivery practices and obtains field level feedback.
- Discussions with the SACS, community, civil society organisations as well as with stakeholders.

The instruments used in the MTA were the thematic status notes, questionnaires, tools and templates developed by the thematic groups, meetings.

2.2. Methodology

The overall methodology of MTA along with various teams and committees involved are depicted in the picture in page no. 18.

2.2.1. PLANNING MEETINGS & DESIGNING OF THE MTA METHODOLOGY

A series of planning meetings were held by NACO with development partners that helped articulating objectives of MTA, Key Activities, Timeline, Formation of Steering Committee (SC) and Technical Sub Committees (TSC) appraisal methodology etc. These meetings helped to identify Key Focal Point and Conveners of TSC, background documents, briefing meeting and meetings of TSC, preparation of tools, formation of sub groups, selection of districts and States for field visits, finalization of time duration for such visits, consultation with stakeholders.

2.2.2 FORMATION OF STEERING COMMITTEE & TECHNICAL SUB-COMMITTEES

A Steering Committee was constituted under the chairpersonship of Secretary & DG, NACO. It comprised of members representing development partners, technical experts and senior officials from NACO and MoHFW. The primary purpose of the SC was to

1. To provide strategic direction and oversight to the MTA activities,
2. To review the recommendations presented by the Technical Sub Committees (TSCs),
3. To provide direction regarding the financial support to MTA.

Four Technical Sub-Committees (TSCs) viz., (1) Prevention, (2) Care, Support & Treatment, (3) Institutional Strengthening & Cross Cutting, and (4) Finance & Procurement were formed to coordinate and organize in depth technical discussions, develop the appraisal tools, finalization of review areas, field visit plan, report finalization in the respective areas.

The TSCs was formulated keeping in mind that they should have an array of participation with members from the development partners, subject experts, community, civil society organizations and government departments. A senior official of NACO was placed as Conveners of the TSCs, who was the key focal point and responsible for taking the MTA forward. The TSCs, based on the need and sub-themes formed thematic sub-groups, selected Team Leader and a rapporteur for each sub-groups.

2.2.3. TECHNICAL REVIEWS & DISCUSSIONS

The Technical Sub-Committees and Thematic Sub-groups undertook the detailed steps for their respective programme areas. The key methodological approaches adopted by the members are as follows.

- 1. Technical Discussions:** The technical discussions led by the Conveners of TSCs to discuss the progress made under each thematic components, identify the opportunities, gaps and barriers. The TSCs also identified the team leads, rapporteurs and members for field visits.
- 2. Desk Review & Preparation of Issue papers/Status Note:** The divisions at NACO, with the support of the partners, undertook desk review of the programme documents and prepared the status notes giving the achievements, gaps and challenges of the programme.
- 3. Development of tools for field visit:** The technical sub-groups also developed checklists and tools to be used for data collection during the field visits.
- 4. Development of reporting format:** A uniform reporting format was developed for all the field visit teams along with checklists.

METHODOLOGY FRAMEWORK

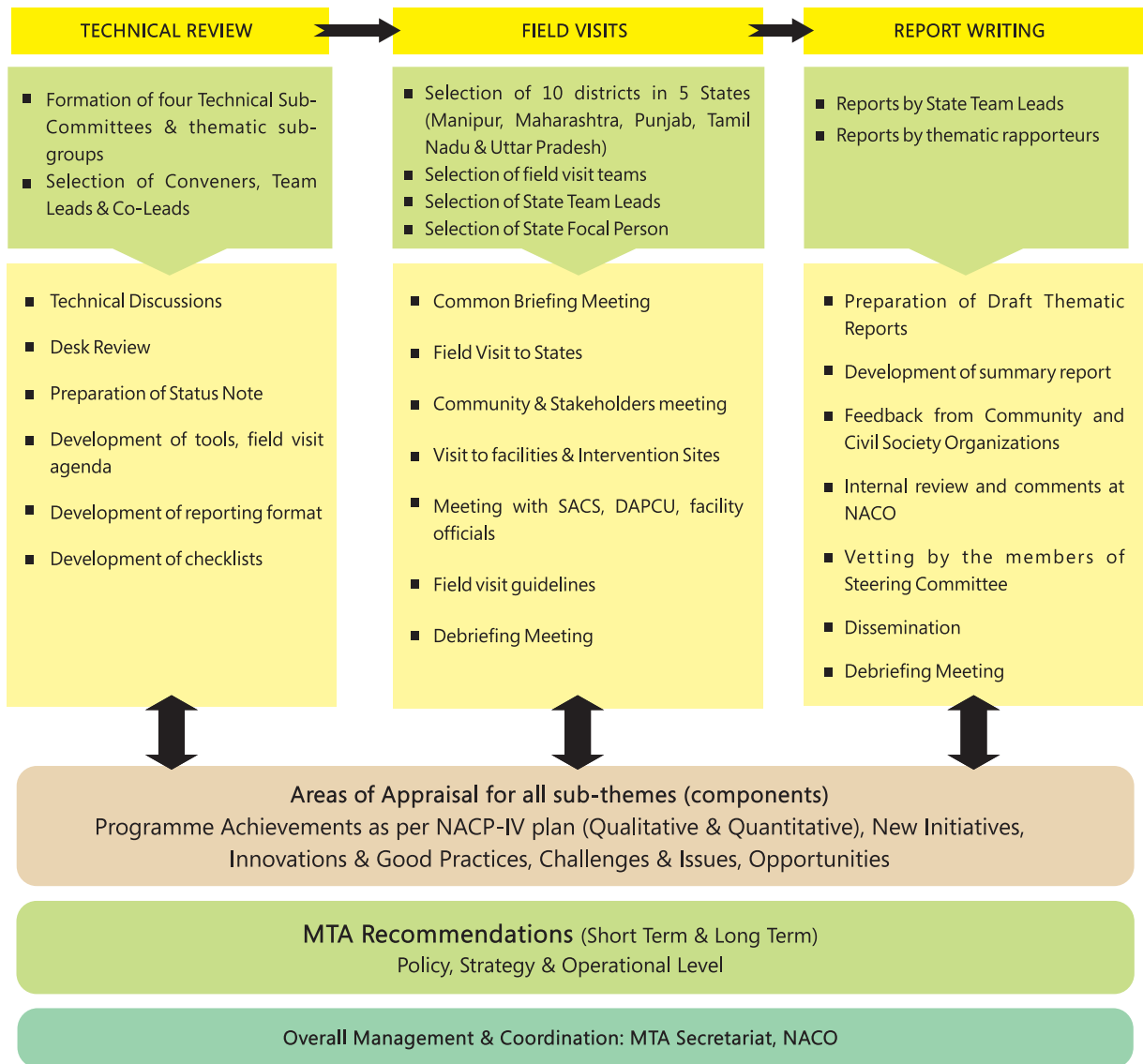
PLANNING PHASE

OBJECTIVES OF THE MTA

- (i) To review the progress made by the NACP IV and to document the achievements of the programme,
- (ii) To identify the opportunities and challenges of the programme with a view to sustain AIDS response in India, and
- (iii) To advise and offer recommendations for the planning of NACP V in the context of the international goals stated for the 2030 and the India's Commitments to SDG.

Development partners, Technical Experts, Community Members, Civil Society Organizations, representatives from MOHFW etc.)

MTA STEERING COMMITTEE



2.2.4. FIELD VISITS

Common Briefing meeting:

Two day 'Common Briefing Meeting' was organized prior to field visits. All members of the TSC attended the meeting. They were given an overview of MTA, presented with component wise programmatic achievements and challenges as well as a field visit plan and orientations to tools and templates.

Visit to districts & States:

For the MTA field visits, five States were selected viz., Maharashtra, Manipur, Punjab, Tamil Nadu and Uttar Pradesh. In all the five States, two districts were selected for visit to facilities and implementation sites. Multi-skilled teams were composed to visit each State. The SACS were informed and briefed about the field visits for making the field visits productive.

Phase	States visited	Districts
I	Manipur	Imphal & Churachandpur
	Uttar Pradesh	Kanpur & Varanasi
II	Maharashtra	Sangli & Nagpur
	Punjab	Amritsar & Patiala
	Tamil Nadu	Coimbatore & Madurai

The field visit comprised the following:

1. Meeting with the Project Director and other officials of SACS and DAPCU,
2. Meeting with the Community and Community Based Organizations,
3. Meeting with key stakeholders (health administration, district administration, police, Nehru Yuva Kendra, religious leaders etc.),
4. Visit to districts and facilities (Centre of Excellence-CoEs; ART centres; Community Support centres- CSCs; ICTC; PPTCT; Drop-in-centres; STI clinics; blood banks; medical colleges and hospitals; youth and adult education on HIV/AIDS centres; DAPCU and other implementation sites),
5. Preparation of district wise report;
6. Debriefing meeting with SACS.

It was decided that adequate time should be provided to the field visit teams to meet the objectives of the field visit. The District Team Leads were selected, who were responsible for consolidating the field visit report on all thematic areas with the help of the State as well as district rapporteurs. The State team lead along with the NACO State focal point had coordinated the overall field visits. The visits lasted for 5 days. The field teams used the various tools to review the various programmatic aspects at the field and document the findings. The teams also collected feedback from the field/SACS level officials.

De-Briefing meeting and national consolidation:

Following to the field visit, a two day 'Debriefing Meeting' was organized to present the key observations during the field visits. Apart from State Reports, the teams presented thematic reports through presentations and written documents.

2.2.5. REPORT WRITING:

To prepare the MTA report, various activities such as review, analysis and summarization the findings emerging from the component-wise status notes, observations from MTA briefing and debriefing meetings, field visit reports and thematic reports. Besides, NACP IV strategic plan document has also been thoroughly read to identify the recommendations and agreed strategies.

Initially, a summary report was prepared that contained the compilation of all the findings from all the thematic reports at one place, eliminating all duplication and repetition, followed by segregation of the pointers into 'Observations' and 'Recommendations'. They were further segregated into Policy-related/ Strategy or Implementation Approach-related/ System-related/ Operational or Routine.

The draft summary report was reviewed by the Steering Committee and shared for feedback from all members. Through rounds of review and recommendations by the thematic groups, NACO, community and vetting by the Steering Committee, the final report was prepared, finalized and printed. This report will be widely disseminated among various constituencies on 4th August 2016.

2.3. Management Structure for MTA

The Mid Term Appraisal was conducted under the leadership of Secretary & DG, NACO. The process was guided and final endorsements on technical and operational issues were granted by the Steering Committee as well as the conveners of the TSCs. The State Team leads were made responsible for ensuring smooth conduct of the field visits. Thematic/ subject experts ensured that feedback and recommendations from all districts are included while preparing their subject specific sections of the State report. The thematic rapporteurs submitted their draft thematic reports which were consolidated and compiled into the final report.

The role of SACS was important in coordinating the State-level activities along with their DAPCU counterparts. The SACS and DAPCU had coordinated meetings with the community, with the facilities in the districts, field visits, and notified the relevant officials and functionaries at the facilities, for ensuring smooth coordination.

An MTA Secretariat was formed under the Joint Secretary, NACO and Director-Finance to coordinate the MTA. The Secretariat team comprised of Team Leader & Donor Coordinator, Specialist-Knowledge Transfer, NACO and a Consultant. The Secretariat carried out necessary processes for approvals, communications and follow-up with the MTA team. The Secretariat is currently also preparing a process document covering the process involved, lesson learnt, challenges in conducting the MTA.

Observations & Recommendations from MTA of NACP IV

This chapter presents the key findings from the various discussions, deliberations, field visits and reviews done under MTA by teams involving a wide range of stakeholders. The discussion is presented programme component-wise as the same approach has been adopted in conducting the appraisal. Any larger issue that is not addressed within specific component is taken up in the next chapter. Before presenting the component-wise discussion, certain larger overarching issues discussed and highlighted during the MTA deliberations are presented to set the tone for detailed component-wise discussions.

To make an effective reading, this chapter presents the findings under the following headings, for each programme component.

1. Progress and gaps against targets, recommendations and priorities identified in NACP IV
2. Key issues and challenges currently being faced, including reasons/ factors for non-achievement of stated targets where applicable
3. Recommendations for short term on-course corrections and long term measures, segregated into policy, strategy, systems and operational level recommendations.
4. Key areas for further deliberation and review, beyond MTA

3.1. Overarching Issues and Questions for MTA

Preliminary deliberations by the Steering Committee, Technical Sub-committees and members of field visits teams for MTA during briefing meetings had highlighted several issues and questions that needed to be considered during MTA. Component-specific ones are discussed at respective areas. Overarching issues are presented here to set the tone for the remaining sections to follow.

1. MTA is expected to review the progress made against NACP IV targets. While there are many quantitative indicators to assess the programme performance, there is a need to evolve certain quality indicators such as drug adherence, spouse testing, effective coverage of HRG, etc that reflect the quality of the programme and enable programme to start focusing on them.
2. What are the HIV related risk behaviours of PLHIV, in light of the fact that more than half of them are married? How is the programme ensuring that HIV is not transmitted from PLHIV to their spouses and partners? What are the strategies at least for those who are on ART?

3. With only less than 10% of PLHIV estimated to be coming from high risk groups, does the programme has an understanding of which are the sub-groups in general population from where rest of the 90% of infections are occurring? What are the prevention strategies that the programme should strengthen to address the transmission in general population, bridge population, their spouses and partners, etc.? Are we doing adequately with respect to general population prevention?
4. Data from the programme is showing rising trends of sero-discordance among spouses. What are the strategies India should adopt to prevent HIV transmission among sero-discordant couples and ensure that the negative partner remains negative?
5. Many States are showing rising trends and higher levels of HIV prevalence among general population while the HIV prevalence among high risk groups, especially FSW, is very low. It is implied that bridge populations with distal networks explain such as situation. But, does the programme has concrete evidence on contribution of distal networks to the epidemic in these places? Are there any other local general population networks and behavioural patterns that are responsible for such epidemic patterns? What prevention strategies should be adopted to address such epidemic scenarios? Is targeting the key population enough in such places? What additional strategies should be put in place?
6. If presence of STIs is considered as proxy for high risk activity, there are States that show lower STI levels among FSW than bridge population? How to explain the situation? Are there any data errors? Who are at greater risk in these situations? Are prevention strategies adequately addressing the correct risk group who for the key driver population for epidemic in a given State or district or region?
7. With over two decades of interventions, while HIV prevalence among FSW in high prevalence States has come down significantly, they are still sustained at high levels. What are the possible reasons for the same? Are current prevention strategies not able to make further dent in the epidemic among FSW in these States? Is it due to continued new infections or due to saturation of FSW on treatment? Is the programme missing something? What additional strategies should be brought in to address this issue of sustained high prevalence among FSW in high prevalence States?
8. Similar as above is the case with a few districts in high prevalence States where ANC prevalence is not coming down below 1% for past several years in spite of scaled up prevention and treatment programmes and high focus given through DAPCUs in those districts. What are the possible reasons for the same? What additional strategies should be put in place to address this situation?
9. With the estimate of around 14 lakh PLHIV who know their HIV status, how to reach out to the remaining 7 lakh estimated PLHIV? What are the population sub-groups that may account for this segment? What strategies should be put in place to improve the yield of detection of HIV positives and bring them into the fold of care & treatment? How to ensure that they are adopting prevention tools and preventing further transmission?
10. Lastly, NACP IV has the prevention goal of reducing new infections by 50% of 2007 baseline. Recent estimates show that we have reached 30% by 2015. How to accelerate the progress in this direction and achieve the goal? While it is known that the last mile efforts are more challenging and difficult, what should NACP IV do differently from before that will make the programme more focused, effectively targeted, efficient in its use of resources and will ensure that the NACP IV targets as well as the global targets are met?

3.2. Targeted Interventions for Key & Bridge Populations

3.2.1. PROGRESS AND GAPS AGAINST TARGETS, RECOMMENDATIONS & PRIORITIES IDENTIFIED IN NACP IV

Targeted Interventions (TI) for key and bridge populations has been the core prevention strategy under National AIDS Control Programme in India. Key population includes Female Sex Workers, Men who have Sex with Men, Transgenders & Injecting Drug Users, while bridge population include migrants & truckers. TIs are implemented as NGO/CBO-led peer outreach model to provide a package of prevention services including behavioural change communication, condom promotion, prevention and management of STI, community mobilization and enabling environment, and linkages to HIV testing, care, support & treatment. Needle syringe exchange programme and Opioid Substitution Therapy are provided for prevention of HIV among IDU.

The Targeted Intervention (TI) programme under NACP-IV proposed intensification of strategies by building synergies and strengthening service delivery systems based on local evidence. Overall, the goal of NACP IV was to reach out to 90% of key population through 2703 TIs. Setting up TIs in the Northern States was identified as a challenge, as the current model required an NGO or CBO to be available in the district who was interested in and capable of taking on the TI. Where this had not been possible, saturation remained a challenge.

The overall coverage of TI programme is summarized in the table below.

Thematic Group	Mapping Estimates (2009)	Program Targets (NACP IV)	Covered under TIs (2015-16)	Percentage Coverage
FSW	8,68,000	9,00,000	6,78,423	75.38
MSM +TG/Hijras	4,27,000	4,40,000	2,72,322	61.89
IDUs	1,77,000	1,62,000	1,30,800	80.74
Migrants	72,00,000	56,00,000	32,97,748	58.88
Truckers	20,00,000	16,00,000	10,95,400	68.46
TG+Hijra (separate since 2013)	75000		25486	33

Year wise number of Targeted Intervention programs (2012-2016) implemented are as below.

Years	2012-13	2013-14	2014-15	2015-16
FSW	515	547	498	472
MSM	184	189	158	141
IDU	277	295	271	247
TG /Hijra	21	21	33	37
CC	407	440	455	424
Migrants (Transit)	64			
Migrants Destination	251	289	307	272
Truckers	87	92	96	84
Total	1806	1873	1818	1677

The coverage of total number of HRG population has declined from 1,199,305 in 2012-13 to 1,081,585 as of March 2016. The number of TIs was reduced from 1873 in 2014 to 1677 in March 2016. This reduction in TI coverage is due to a reduction in the number of TIs and in reduction of the coverage of the remaining TIs in few States. A number of TIs that were terminated because of unsatisfactory performance were not replaced in 2014-15 due to decreased funds available to NACO and SACS. The coverage of TIs, calculated out of set annual targets, varies by the type of HRG. In the year 2015-16, it was highest for IDU (81%), followed by FSWs (75%) and then high risk MSM and transgender (TG) (62%). There was an increase in distribution of condoms for FSW, MSM and IDUs. Against the footfalls, the number of episodes of STI treated has declined over the period of last five years. Progress has been made in increasing HIV testing among HRGs with testing rates of over 70% by March 2016. Positivity rates among those tested have decreased over time. In the last seven years, the program has identified around 50,000 PLHIV (cumulative) from among key populations out of which more than 90% were linked to ART.

Some TIs carry out interventions for spouses and partners of HRGs although there is no clear policy or guidelines on how to reach this group and what services should be provided. Strategies, activities & targets need to be formalised by issuing clear policies and guidelines to the TIs. Also, indicators and targets needed to be developed for monitoring these interventions. A special focus is needed on prevention among sero-discordant couples.

Female Sex Workers

NACP IV identified saturation of coverage of 9 lakh FSWs through 897 TIs and increase of condom usage with regular clients as the key programme targets with respect to FSW. The key outcome indicator that was slated to be monitored was the percentage of FSW who report using a condom with their last client that was aimed to be increased by 5 percent over the baseline of IBBS. Rs.824.08 crores was estimated to be the budget requirement for FSW interventions during NACP IV. Evaluating long standing programs where HIV prevalence among FSW continues to be high, exploring new models using technology to reach out to hard-to-reach FSW, defining and sharpening norms for quality assurance at TIs, and reasserting community responsibility by ensuring that grass root level FSWs take active role in implementation, monitoring and governing the program were also identified as key areas that needed to be addressed during NACP IV.

The programme adopted a strategic approach where the most vulnerable FSW such as young, new and hard to reach sex workers, FSWs operating in High volume sites, street based settings, FSW using drugs and alcohol, HIV Positive sex workers, and FSW with repeat STIs episodes will be focused. Key programme priorities identified included

- Increased coverage in the north and north east States.
- Improving quality of intervention across all TI's.
 - Behaviour change interventions
 - Condoms and lubes (male and female)-free and social marketing
 - STI Treatment-Provision and linkages

- Referral linkages of regular sexual partners through linkages to ICTC, ART, PPTCT and STI Clinics
- Strengthening care and support and linkage
- Address vulnerabilities due to increased mobility and migration
- Active participation and sharing of responsibility by community; Strengthening Community institution building; Development of State and district level community resources for capacity building of TI staff
- Strategy to reach out to new, hard to reach and young sex workers
- Addressing trafficking and violence issues through advocacy with WCD and other Government of India Departments; Enabling environment and advocacy; Violence and crisis response strategies

According to the IBBS 2014-15, HIV prevalence among sex workers is 2.2% with three southern States and three northeast States having prevalence of over 5%. Newer pockets with increase in prevalence are seen in the peninsular States. The 2009 mapping estimates for FSWs was 868,000, of which the project currently covers 678,432 (75%) through 472 TIs (as of March 2016). There is a reduction in coverage of FSW population by 69,767 or 43 TIs since March 2013 figures. During this period, there was also a reduction of 43 TIs. Condom distribution against demand has increased from 60% in 2012-13 to 74% in the year 2015-16. The number of FSWs tested has remained stable at 70%. Eighty percent of FSWs have received STI clinic services and 62% were tested for syphilis, which is an increase from the previous year. New data from IBBS 2014-15 however shows that the percentage of FSW who ever tested for HIV is low in a number of States (Meghalaya 42%, 53% Arunachal Pradesh and 58% Jharkhand). Similarly, consistent condom use is unsatisfactory in several States and especially with regular partners. Consistent condom use with occasional client was 38% in Mizoram and less than 50% in Jharkhand and Arunachal Pradesh.

Men who have Sex with Men

Prevention among MSM who are at higher risk continued to be an important priority in NACP IV. NACP IV identified that the number of traditional hotspots or cruising sites were changing and more MSM have started using mobile phones and internet to seek sexual partners. Thus, outreach strategies would include both physical/traditional outreach strategies at hotspot and cruising sites and virtual or technology-based outreach strategies such as phone helplines, internet-based interventions etc. It also identified that appropriate intervention models needed to be developed in rural areas/districts where there were no significant number of hotspots and where MSM were not concentrated. Crisis/Violence prevention and mitigation (Crisis Response Team) measures were identified as a part of the essential package for MSM. Further, community mechanisms were aimed to be strengthened further through community mobilization at the TI level and establishment of CBOs and support for formation, and strengthening of formal and informal community groups. Overall, it was estimated that 4.4 lakh MSM's will be reached during the NACP IV period which includes 1lakh TG's and hijras, through 371 TIs. The outcome indicator that was identified for monitoring was percentage of high risk MSM who report using a condom during sex with their last male partner and this was aimed to be increased

by 20 percent over the baseline of IBBS. Rs. 325.23 crores was estimated to be the budget requirement for MSM interventions during NACP IV.

The 2009 mapping estimates for MSM was 357,000, of which the program currently covers 246,839 (69%) through 141 exclusive and 366 core composite TIs. This is decline in coverage from 288,701 MSM through 189 exclusive and 306 core composite TIs from 2012-2013. Condom distribution against demand has increased from 43% in 2012-13 to 76% in the year 2015-16. Findings from IBBS 2015 point out to 4.3% prevalence among MSM. The prevalence is high in Maharashtra (4.9%) and Andhra Pradesh and Telangana (10%) and in newer emerging pockets in Gujarat and Goa (6.8%), West Bengal, Jharkhand and Orissa (6.7%). Condom use remains moderate as shown by the new IBBS 2014-15 data, especially with regular male and female partners. Condom use by MSM at last sex with casual/male/hijra partner was 85.7%, but consistent condom use was 54.3%. Nearly 50% of MSM indicated they currently have a female partner and less than half of them used condom with female partner at last sex. Meanwhile, 78.1% of MSM have ever tested for HIV.

Transgenders/ Hijra

NACP IV identified Transgender/ Hijras as a group that requires special focus and separate prevention strategies. The following key priorities were identified for TG/Hijra interventions.

- Separating intervention strategies for TG/Hijras and initiating exclusive TIs for TG/Hijra community
- Scaling up of comprehensive prevention package (including sexual health, risk management, mental health & positive living, advocacy and crisis response & life skills programme) to achieve significantly increased coverage, particularly where TG – Hijras are concentrated
- Building the technical skills and organizational capacity of NGOs/CBOs to manage TG/Hijra interventions; To build TG/ Hijra resource pool
- Strengthening the involvement of TG - Hijras in HIV/AIDS response through community development and mobilization
- Strengthening the partnership between government, NGOs, CBOs, TG- Hijras and technical assistance providers for an improved programme management capacity at all levels for TG/Hijra interventions
- Reducing stigma and discrimination against TG – Hijras

It was estimated that 1 lakh TGs will be covered during the NACP IV period. Mapping of TGs in 17 States has resulted in a population estimate of approximately 70,000. Current coverage through 37 exclusive and 70 core composite TIs is estimated at 25,483(36%), which represents an increase from 14,080 and 21 TIs in 2012-13. Condom distribution against demand has declined from 79% in 2012-13 to 62% in the year 2015-16.

Injecting Drug Users

NACP IV identified IDUs as the risk group with the highest levels of HIV prevalence, not only in the North Eastern States, but also in several other areas. It had redefined the geographic priority for IDU interventions. Apart from the 3 States of the north-eastern region (Manipur,

Mizoram and Nagaland) where IDU and HIV among IDUs was an established problem, the other States where it had emerged as a major concern included Punjab, Orissa, Delhi, Maharashtra (Mumbai), Kerala, West Bengal and parts of Bihar. Additionally, the States of Haryana, Madhya Pradesh, Uttar Pradesh, Andhra Pradesh, Jammu & Kashmir and Chhattisgarh had IDUs are in large / increasing numbers.

The key programme priorities spelt out for IDU interventions included

- A combination package of Needle Syringe Exchange Programme (NSP), Opioid Substitution Therapy (OST), HIV testing and ART provision, Condom and STI treatment.
- Scale up of OST based on presence of IDU and need
- Establishing formal linkages and mechanisms for leveraging and optimising resources from other schemes/programmes (such as Ministry of Social Justice & Empowerment, Ministry of Women & Child Development, Ministry of Urban Development & Poverty Alleviation etc.).
- Female IDUs and female sex partners (including spouses) of IDUs will be covered with HIV prevention services through separate Interventions for Female IDUs and provision of female staff for reaching out to the Female IDUs and female partners of IDUs.

Beyond the basic package of services outlined above, services being offered in IDU TIs would include

- Hepatitis B and C prevention materials, awareness and BCC on Hepatitis B and C, and referrals for Hepatitis C testing and HBV vaccination on a voluntary basis
- Increased emphasis on proper waste disposal
- Prevention and management of overdose through existing health infrastructure and strengthened linkages of TIs with the district hospital/PHC/CHC.
- Detoxification through multiple options
- Services for Crisis Management and Positive Prevention

It was envisaged that OST would be provided through different models for example - NGOs based TI settings, as well as through public health care settings, such as Government medical college hospitals, district hospitals, and CHCs. The national programme would explore alternative strategies to enhance client recruitment and retention into OST and better OST uptake by female IDUs.

NACP IV targeted to cover 1.8 lakh IDU through 529 TIs. The key outcome indicator was percentage of injecting drug users who do not share injecting equipment during the last injecting act, that was aimed to increase by 20 percent over the baseline of IBBS. Rs 452.75 crores was estimated to be the budget requirement for IDU interventions during NACP IV, including OST programme.

According to the IBBS 2015, HIV prevalence among IDU is 9.9% at national level, and remains high in Manipur, Nagaland, Mizoram and Punjab in addition to emerging pockets in northern, eastern and central India with a total of 17 States showing more than 5% prevalence. The mapping estimates of 2009 for IDUs were 177,000, of which the project is covering 130,800(74%)

through 247 TIs as of March 2016, which is a reduction from the coverage of 148,000 (84%) through 286 TIs in December 2013. The program also has exclusive 8 Female IDU TIs. Condom distribution against demand has increased from 41% in 2012-13 to 80% in the year 2015-16. During the same period needle syringe distribution against demand has declined from 100.5% to 80%. There has been an increase in OST centers from 193 in March 2015 to 212 as of March 2016. Sixty four percent of IDUs (23,077 of a target of 35,000) have access to OST services, with retention rate on OST being 62%. Overall, 85.5% of PWID reported having used new needle at last injecting episode, with 9 States falling below national average.

Single Male Migrants

NACP IV identified single male migrants as an important group of bridge population and may be an important factor contributing to the rising epidemics in some of the Northern States. The definition of migrant also included female migrants and female spouses of migrants. Linking of source & destination districts, focusing on high risk migrants and establishing linkages of migrant interventions with care, support & treatment interventions were identified as key issues. Key programme priorities to address vulnerabilities of migrants to HIV included

- Setting up TIs at source, destination and transit points with linkages; including those at work places and for female migrants
- Enhance the access of migrants and their spouses to the HIV related counselling, testing, care support and treatment services
- Establish partnerships with and engage line ministries, departments as well as private sector to reach out to larger migrant population with preventive services

It was estimated that 56 lakh migrants will be covered during the NACP IV period through 720 TIs at an estimated budget requirement of Rs. 291.08 crores. Key outcome indicator was to ensure 90% of planned prevention interventions for bridge populations (migrants and truckers) implemented by 2017.

The IBBS 2014-15 data on the HIV prevalence in migrants and of migrant spouses in sending areas is being analyzed by NACO and the final results are yet to be shared. Based on the HSS 2010-11 data, the HIV prevalence among migrants is 0.99%. The mapping estimates of 2009 for single male migrants are 7.2 million, of which the project has covered 3,297,748 through 272 TIs which has increased from 2,863,216 covered through 251 TIs in 2012-13. In 2012-13, 6.87% of migrants were tested and around 40% of those positive linked to ART, which was increased this year to 15%, who have been tested and 87% linked to ART. NACO is piloting the Migrant Service Delivery System (MSDS) to enhance service tracking among migrants in two corridors i.e. Thane (Maharashtra) and Uttar Pradesh (five districts) and Ganjam (Odisha) and Gujarat (Surat).

Under the Employer Led Model (ELM) approach, NACO has signed Memoranda of Understanding (MOU) with over 292 industries until 2016 out of which 186 are providing services, this is an increase from 108 MoU signed and 40 sites providing services in 2014-15. These services are intended to reach out to the informal workers especially migrants, to integrate comprehensive HIV/AIDS prevention to care program within the industries' existing health systems and structures.

Truckers

NACP IV identified absence of structural support structures such as stakeholders association, drivers association etc., mobility of the target population and related accessibility issues, limited involvement of transport companies etc. as key challenges to effective implementation of trucker interventions. It clearly defines truckers with relaxation provided for difficult areas such North East and also extended the scope to the allied groups associated with trucking industry. Key programme priorities spelt out included strengthening capacity of NGOs to better manage trucker interventions at trans-shipment locations, strengthening IEC & condom programme outreach to truck points, strengthen work place interventions at large trucking companies and loading/unloading points, strengthen interventions on highways, etc. It was estimated that 16 lakh truckers will be covered during the NACP IV through 148 TIs with a budget outlay of Rs. 82.69 crores.

IBBS 2014-15 did not include the truckers' population. Based on the HIV sentinel surveillance 2010-2011 data, HIV prevalence is 2.59% among truckers. The mapping estimates of 2009 for truckers were 2 million, of which the project has covered 1,095,400 (54%) through 84 TIs, which is a decline from 1,194,000 truckers who were provided services through 87 TIs in 2012-13.

Rural Vulnerabilities

It was envisaged that the Link Worker Scheme (LWS) that was introduced as a vertical programme in select A&B category and source migration districts would be mainstreamed within NACO from 2014 onwards. The programme would gradually phase out the present vertical scheme and integrate with the health system for delivery of rural services at the end of NACP IV. Concrete steps for mainstreaming and phasing out of LWS were identified under NACP IV. Overall budget outlay estimated for LWS was Rs. 213.98 Crores during NACP IV.

This scheme was supported by the Global Fund till August 2014, and transitioned to the NACSP as of April 1st, 2015. This scheme is currently being implemented in 129 districts across 18 States. The States of Maharashtra, Tamil Nadu, Andhra Pradesh and West Bengal account for 45% of the total number of districts of implementation. NACO has revised the Operational Guidelines and training modules, and costing guidelines of the LWS, however the monitoring system of the LWS at the national level is not very clear. The target population covered under the scheme is very broad and includes key populations, migrants, spouses of risk groups, spouses of truckers, pregnant women, TB patients, truckers, youth with STI symptoms, and people living with HIV (PLHIV).

The implementation of the LWS with revised guidelines has resulted in enlisting of 113,593 HRGs, 1,614,092 vulnerable and bridge populations, and 32,102 PLHIV in 129 districts in 2015-16. However, there is less clarity about the coordination or duplication of activities at the district level, with the ongoing NACO interventions of HIV prevention, care, support and treatment and the interventions under the National Health Mission. The background document submitted by NACO on TIs includes analysis of 31 indicators for 2015-16. The HIV positivity rate among FSW and MSM in the LWS is twice that of the TI program, while the positivity is almost the same among IDU and Migrants in both programs.

HIV positivity comparison based on 31 indicators (TI and LWS)

HIV positivity comparison based on 31 indicators (TI and LWS)

Typology	TI	LWS
FSW	0.11%	0.20%
IDU	0.66%	0.56%
MSM	0.22%	0.47%
Migrant	0.21%	0.23%
Trucker	0.30%	0.18%

While the scheme has an important role to play, the MTA found that the yield in terms of testing uptake remains too low. Only a small proportion of people were referred to HIV testing, actually reach the ICTC, test and get test results.

3.2.2. KEY ISSUES AND CHALLENGES

Strategy-related

1. **Adaptation of design of TIs to the changing context:** Review of recent evidence and observations during MTA suggests that the design of Targeted Intervention programme and projects needs to evolve and adapt to the changing socio-cultural contexts, risk behaviour patterns and transmission dynamics, so that it can be made more relevant and effective. Due to evolving socio-economic, cultural and technological contexts, including the Information Technology (IT) revolution, especially in urban and peri-urban areas, efforts are needed to redefine key populations and the sub-groups encompassed that need to be reached or covered by differential prevention approaches for maximum impact. As information technology rapidly evolves, the channels of interaction between people change, including how sexual partners meet. Mobile phones have become one of the primary mechanisms for soliciting commercial sex. The intervention designs have not evolved to address this change in any significant way.

The original design of TIs offers the communities, a 'safe space' to meet peers, join support groups, access prevention services, etc. This has not changed in line with the evolving needs of the community that include more focus on the enabling and socio-economic aspects, focus on quality aspects of prevention, facilitate stronger HIV-health linkages and take steps to measure and address stigma and discrimination. There is evidence to show that financial and social vulnerabilities seriously affect the ability of key populations to use condoms or access services, and hence, vulnerability reduction also needs to be taken into account in the programme.

Reaching out to the KP outside the existing catchment areas of TIs has been observed in many places. Information on key populations outside the TI areas is not always recorded at the site level as the primary focus of service-providers, outreach workers and peer educators has been to facilitate service access to populations who are covered under the targets. In practise – and even more so in the recent years - target setting is largely guided by financial availability rather than reaching out to the entire universe of a mapped population.

While the TIs are focussed on the key populations, they do not necessarily address all sub-groups or appropriately prioritise those sub-groups that are at higher risk. The perceived notion of loss of anonymity and breach in confidentiality by some sub-groups may deter them from choosing to enrol in HIV-related services. It is also not clear to what extent most of the programmes gather & use pertinent information on diverse sub-groups of KPs and assess and validate their risks. There is absence of local-level analysis of programme and epidemiological data to understand transmission dynamics, risks and vulnerabilities. TIs generally have little incentive to find and reach new key population members. Despite free services, younger and new members of key populations may be reluctant to enrol in TIs based on feedback from community-civil society representatives met during the field visit. The need to focus on high risk sub-groups also becomes important in the context of reaching out to migrants, as bridge population.

A sizeable number of the key populations are married and/or have sexual partners. Condom use with partners remains low. Observations of the MTA field visits confirm the need to expand and operationalize programmes for partners. Overlapping risks among KP are becoming more prevalent, while they are not adequately addressed in the current strategy. While the outreach coverage is relatively higher, effectiveness of intervention coverage as reflected by the proportion of KP receiving various prevention services remains low and needs to be improved. Reaching out to younger KP also is an issue highlighted during interactions with service providers and stakeholders.

While the overall design of targeted interventions is still broadly relevant, it needs to be adapted to evolving needs of key populations and adapted to sub-groups and local contexts, based on evidence of what is working and what is not. During the MTA field visits, it is found that there still is largely a 'one-size-fits-all' approach. Without careful analysis and adaptation, the role of the TIs may become less relevant thereby losing the strategic role they play in the control of HIV.

2. **Budgeting and contracting flexibilities:** Currently the budgeting and contracting system for TIs is largely fixed, with a guideline used as a reference. While this reduces variance and leakages, in practise, the budgets are largely applied without relevance to local context or building-in locally relevant components. Also, whether a TI partner has been with the Programme for anywhere between one to ten years and whether they are rated 'A' or 'C', budgeting and contracting remain the same. The Programme does not sufficiently leverage such differentials to its advantage. In addition, most States tend to implement the budgets in an inflexible manner. This, at one level, increases work for the SACS in terms of contract and finance management and reduces their effectiveness

Operational Issues

3. **Budget cuts, fund flow and financial uncertainties:** The last few years have witnessed an overall decrease in domestic resources for the social sector, in general, and in health, in particular. There has been a 45% decline in the budget allocation for TIs from INR 312 crores in FY 2014-15 to INR173 crores in the FY 2015-16. Despite the increase in the supplemental budget, the share allocated to TIs is lower than the planned budget under NACPIV, which affects the rate of TI scale-up and coverage of key and vulnerable populations. While States responded differently to the overall budget uncertainties, most

cut TI budgets by 20%. This financial uncertainty is considered a central reason the number of TIs has not been increased to the targeted number of 2,500 and is currently reaching 1,725. The number of key populations reached over the last two-three years by TIs is also slightly reduced and yearly target setting is increasingly linked with financial availability.

Further, the decision of the Government in 2014 to route funds through the State treasuries instead of directly to SACS, affected the continuity of service delivery. There were major delays in funds flow from NACO to SACS to civil society partners implementing TIs. The average time taken for SACS to receive funds from NACO in the State treasury ranged between 4-5 months. The average time for civil society partners to, thereafter, receive funds was after a further 6-9 months which affected program implementation. There is a cyclical effect caused by delay in disbursement of funds, in the submission of Statement of Expenditures (SOE) by CSOs to SACS which, in turn, contributes to delay in release of further funds by SACS to TI.

As a result of change in financial flows and timeliness of fund disbursement, retrospective payments to TIs for at least one quarter are getting delayed. Due to the efforts of NACO, while the decision has been reversed to ensure direct funding to SACS, budget cuts & funds flow issues over the last two years has created a domino effect with the quality and continuity of services disrupted. This has impact on TI performance.

4. **Community Mobilisation and Enabling Environment:** A core component of key population specific prevention efforts is creating an enabling environment with community participation and mobilisation. This received decreased resources due to the cuts in the community mobilisation budget included in the package of services over the last two years. The relationship between communities and TIs needs to be reinforced to expand community participation in key processes at the State and local level. NACP IV does not include a specific strategy and commensurate resources for building community collectives or expanding CBO-led TI. Enabling environment, free from stigma is also a critical precondition for HIV service uptake and service adherence. These aspects require further attention.
5. **Key population size estimates:** The system of yearly site validation of size estimates by SACS with TSUs may not be geared towards accounting for various typologies or sub-groups of key populations in areas that are not covered by TIs.
6. **Recent decline in coverage of populations** is a matter of concern as it directly affects the achievement of goals of NACP IV. The main reasons for this are the budget cuts and changes in fund flow mechanisms over the last two years. Besides, there are intervention level gaps and lapses in reaching out to the target population. The cost-effectiveness of different TIs addressing different groups in diverse contexts has not been analysed as a basis for transitioning decisions. Many critical linkages and referrals, including for STI, ICTC, ART, TB and violence prevention are complex and fragmented. Of particular concern is the leaky testing, treatment and care cascade.
7. **Focus, mechanisms and investments for Capacity-building:** Most of the STRCs under the programme are closed based on an assessment leading lack of training to TIs over the last one year. Further, due to delay in funding and long delay in payment to staff at TIs starting in 2014-15, there has been turnover of staff at TIs. The training for SACS staff

is essential to get updated on the current challenges in TIs, contexts of key populations and possible solutions which have been tried and tested in the field.

8. **Context-specific BCC and IEC materials:** Context-specific IEC materials addressing emerging areas of priority, such as positive living, OST, overdose management, and women who inject drugs are required. It will be equally important to support efforts to reach younger, new and more hidden members of key populations.
9. **TSU & NTSU:** As the TSU are supported from extra-budgetary resources, there is no clarity yet pertaining to existing and future of TSUs in some States (e.g. Maharashtra, Tamil Nadu, Punjab), as well as the National Technical Support Units (NTSU) for which donor funding ends in March 2017. With limited staff at the SACS to manage the TIs, the TSUs end up focussing on the more day-to-day operational aspects of TIs in addition to their role of technical support.
10. **Partnerships with Communities & Civil Society:** While communities have been at the centre of India's HIV/AIDS response, their engagement in planning and other key processes has been limited over the past few years, which has also been a period of general reduction in number of TIs and financial uncertainties. The fora for engagement and mechanisms for wider partnerships with civil society need to be expanded and regularised at both, national and State levels to support program planning and implementation.

3.2.3. RECOMMENDATIONS

SHORT-TERM/ ON-COURSE CORRECTIONS

Strategy-related

1. **Adaptation of design of TI programme/ projects:** Encourage adaptation of interventions to local context through systematically monitoring and reflecting on their data, learning from what is working and what is not, and modifying programmes on a regular basis. The program coverage should in principle be calculated not only on the basis of set targets, but also on the basis of revised population sizes estimates of each key population in a geographical area, even beyond the TI catchment area. Differentiate strategies for those who are reached regularly (and have demonstrated behaviour change) vis-a-vis those who still need to change/access services more often. Adopt differential intensity of services keeping the risk and vulnerability in view with higher focus on reaching most vulnerable and at-risk KP. Commission an options paper on the design and future of TIs, based on systematic analysis and review of data from different sources, extensive consultation and strategic thinking. Some more recommendations are considered under the long-term recommendations.
2. **Budget cuts, fund flow and financial uncertainties:** Provide TIs with half year budget upfront at the beginning of the financial year, and the expenditure reported through SOEs replenished every quarter. During the last quarter of the FY, the accounts can be reconciled to ensure submission of all the expenditures. Ensure backlog of funds are paid to the NGOs completely before end of the current calendar year. Improve training and supervision in Financial Management for TI staff.

Operational Recommendations

- 3. Key population size estimates:** TIs and district level stakeholders should be encouraged to put in place more systematic and well-coordinated efforts to re-map hotspots and estimate the size of key populations annually, using multiple data sources, GIS tools, etc. encourage conduction of annual district level situation analysis and strategic planning meetings with programme and SI/M&E staff from SACS, TSU, DAPCU, TI and community representatives.
- 4. Improve coverage of KP:** Ensure coverage increases at macro levels through re-examining the NACP IV scale up plans and the budget availability. Guide optimal coverage at the TI level. Address resource constraints through broader allocative efficiency exercise. Simplify referrals and create a single referral window to reduce erratic and cumbersome referral procedures that may inhibit uptake of key services. Strengthen access of KP to HIV testing and treatment services. Explore & assess other options to improve OST service delivery to IDU such as take home doses, use of ART centres, etc. Strengthen rural outreach of KP through innovative approaches.
- 5. Strengthening of referrals:** There are many critical linkages and referrals amongst different services (i.e., STI, ICTC, ART and TB) and violence prevention referrals, which remain fragmented and needs strengthening. As a priority referrals across the testing, treatment and care cascade needs to be improved, associated with 'case based' follow-ups.
- 6. Capacity building:** Introduce innovative ways of capacity-building. A number of low-cost and high impact means for trainings tried by various States and programmes from other sectors may be considered (eg. e-learning, regular cadre wise learning melas, competitions for solutions to tough problems, create, update & disseminate handbook on field approaches, utilise the experience of the senior CSO/CBOs to move from training to mentoring, facilitate systematic cross learning visits).
- 7. Reinforce community partnerships** through a policy & practice document, participation in key processes such as planning, programme monitoring, size estimation, etc., community representation in TRGs, Steering Committees & other decision making bodies, Community monitoring and feedback system, capacity building of community leaders, promoting CBO-led response and fora etc.

Revitalise and revive TRGs and consider setting up National Level Partnership Fora as platforms for interaction with stakeholders, academicians, civil society, etc. Consider setting up State level Resource Groups to support evidence informed planning and to contextualise and recommend local solutions to local problems. Strengthen mechanisms and platforms for redressal of grievances of TI implementing NGOs/ CBOs at State and national levels. SACS should play a pivotal role by reviving a Steering Committee - comprising of representatives of key government departments, civil society, trade and industry, private health sector, key population and PLHIV networks - and conduct biannual or quarterly meetings to discuss issues of strategic importance and coordinate action in support of implementation at State, district and sub-district levels.

8. Other Recommendations:

- a. Introduce and monitor quality indicators. The programme needs to focus on critical quality indicators which needs to be monitored on a regular basis, for example, consistent condom use, clinical examination of all STI cases, OST adherence, number of KP availing social protection services, beneficiary/community satisfaction on service delivery, number of days essential prevention commodity (condom, lube, needle-syringe) was not available, duration for which linked services were not available (HIV testing, ARV, CD4 testing) etc.
- b. Institutionalise qualitative knowledge capture and sharing of local level innovations, implementation experiences in a more scientific manner within the programme as well as with communities and civil society.
- c. Expand the focus from static one-way messaging to interactive internet-based formats, as well as by incentivizing partners (TIs or others) to develop innovative IEC materials/approaches. A more strategic approach in harnessing channels for audience segments (e.g. social media) is recommended.
- d. Better define the role of the TSUs vis-a-vis SACS to be of technical support to improve quality, outreach, reporting, and community mobilisation. Review the scope and sustainability of NTSU/ TSUs beyond March 2017 with potential donors.
- e. Develop a comprehensive citywide plan for priority cities like Mumbai, Bangalore, Hyderabad and Delhi that will take a strategic view of the concentration of KP, locations of public and private facilities and take an overall call in terms of location of service delivery points.

LONG-TERM MEASURES

Strategy-related

1. **Adaptation of design of TI programme/ projects:** Improve community engagement mechanisms moving beyond one-to-one, one-to-group, and service delivery point interactions, to telephonic, SMS, WhatsApp and other new methods as locally relevant. Develop new modalities of reaching out and engaging KPs, including through social media for whom traditional TI outreach models are not relevant. The Link Worker Scheme that was designed around a decade ago needs to be systematically evaluated for its effectiveness and impact, and if required modified in terms of design. Focus on pull factors (specific to different populations) that are likely to mobilize people to take-up TI services (e.g. basic health care if possible, hepatitis treatment, psychosocial support, vocational training, lubricant in addition to availability of condoms, etc.). Strengthen the linkages of TIs with general health system and provide prevention package to KPs and their partners at existing service delivery points while addressing stigma & discrimination against KPs in all those settings. Consider provision of additional services including sexuality and mental health counselling, anal cancer screening for HIV-positive MSM, PAP smear and cervical cancer screening for FSW, social protection/ entitlements, alcohol and drug dependency treatment, etc. in collaboration with the general health system and other relevant ministries.

2. **Budgeting and contracting flexibilities:** Introduce multiple/more flexible contracting and budget options that differentially cater to the experienced CSOs/CBOs with good track record vis-a-vis the less experienced or those with poor performance. Introduce a small, regional (sub-State) level flexi fund which CSOs and CBOs can bid for, for taking up any innovative activities. These should be managed with TSU advice and supported by audit systems. Experiment with various models/ options of Results-based Financing. Encourage TIs to innovate by ensuring that auditing processes and programme intent are aligned (through training of auditors) and TSUs and TIs are adequately incentivised and celebrated for innovation.
3. **Community-based HIV screening** will be useful for the difficult to reach areas or difficult to reach populations like migrants, truckers or rural HRG population. For community-based screening in TI sites, the decision may be taken keeping in mind the current level of stigma and discrimination and gains made so far in increasing utilization of public health system, the gains towards sustainability of such mechanisms and normalizing HIV testing.
4. **Consider 'Test and Treat' strategy for Key Population:** Increasing evidence is available globally on treatment contributing significantly to viral suppression and prevention of HIV transmission. Treatment is considered essential not only to prevent illness and AIDS-related deaths, but also to avert new HIV infections. Thus, as a prevention tool, HIV treatment can be considered as a critical component of HIV prevention package provided to key populations and sero-discordant couples. Such an approach will also help bridging the treatment cascade gap among the key populations. Costs will be limited because of the limited number of new infections that are detected in these specific groups.
5. **Greater focus on harm reduction services and formulation of a specific policy in public health:** IDU are among the key populations most at risk to acquire or transmit HIV. It is necessary to scale up their access to harm reduction and evidence-based drug treatment, as well as HIV prevention, care and treatment. For this, harm reduction interventions should be integrated at all tiers of the drug prevention/treatment system across the Ministry of Health and Family Welfare (MoHFW) and the Ministry of Social Justice and Empowerment (MSJE). All significant barriers that impact on IDU's access to health services will accordingly also need to be removed. Other recommendations are securing integration of OST with ART services and focusing on quality of counselling, retention and adherence of both OST and ART.

Operational

6. **Budget cuts, fund flow and financial uncertainties:** Implement the Public Financial Management System (PFMS) to enable better tracking and transparency of fund flow. In addition, consider making public through a web site, fund flow information from NACO to SACS and from SACS to TIs and other peripheral units. Improve monitoring of pending advances at SACS level and the settlement of the old advances on TI books in a time-bound manner. Implement payments by an electronic clearance system. Strengthen the audit system in States. There should be strict adherence to audit timetables and compliance by TIs should be monitored. SACS staff must review the quality of audit reports and address any areas that are highlighted as weaknesses by the audit reports. An audit committee should be set up in all SACS as a governance mechanism to monitor timeliness of audits,

key issues and observations, and compliance of policies and procedures. Explore tapping local resources of States, districts or municipalities to support & strengthen interventions.

7. **Community Mobilisation and Enabling Environment:** An enabling environment, backed by quality services, can propel un-reached populations to reach out to services. To reinforce the enabling environment and further address HIV-related stigma and discrimination, what is needed is more strategic and continued engagement with local leaders, sensitisation of police on issues such as co-infection and rights of key and vulnerable populations as well as monitoring of key Government directives to see if they affect services. This would help in addressing stigma and discriminatory practices further. Provide refresher training to SACS and TSUs on Community Mobilisation and Enabling Environment components and develop a follow-up action plan to strengthen implementation of these two components. Promote more CBO-led responses, so that the responses can be more entrenched with communities, be sustainable and community-owned. The TI budget could include flexible funding for community mobilisation and outreach which would help TIs to extend beyond their target group and increase HIV testing. Ensure the ratification of HIV/AIDS Bill in the Parliament to reduce stigma & discrimination against PLHIV and KP.

3.2.4. AREAS FOR FURTHER DELIBERATION AND REVIEW, BEYOND MTA

The following areas are highlighted for further discussion and review beyond MTA.

1. Quality Assurance mechanisms for TI
2. Strengthening migrant & trucker interventions
3. Condom programming and prevention strategies for general population
4. Alternate/ future models of service delivery of prevention services to KP

3.3. HIV Counseling & Testing Services

3.3.1. PROGRESS AND GAPS AGAINST TARGETS, RECOMMENDATIONS & PRIORITIES IDENTIFIED IN NACP IV

The second key prevention strategy under NACP is to enable access to HIV testing among various population groups—i.e. key and bridge populations, STI and HIV-TB clients, pregnant women and general population—for early detection and linkage to care, support and treatment across the country. The following services are offered free of cost at various counseling and testing centres across the country. (i) HIV counseling and testing since 1997 through ICTC , (ii) Prevention of Parent to Child Transmission (PPTCT) since 2002 and (iii) intensified HIV-TB cross referral services since 2004.

What initially started as Voluntary Counseling & Testing Centres (VCTC) for general clients and PPTCT centres for pregnant women were merged to create Integrated Counseling & Testing Centres (ICTC). Integrated counseling services provide a common window for all vulnerable population and high-risk groups to know their HIV status and access services provided by the programme. Although voluntary counseling and testing is its key function, the ICTCs form a pivotal link between all other services provided under NACP.

Counseling & testing services are provided through a large network of Stand-alone ICTCs that follow three test protocol for confirmatory diagnosis. Facility-integrated counseling & testing centres (FICTC) and Public Private Partnership-ICTC (PPP-ICTC) were set up in CHCs/PHCs and private hospitals that provide single test screening for HIV. Besides these, mobile ICTCs operate in hard to reach areas.

Under NACP III, the testing facilities were rapidly scaled up with the target of 22 million tests to be achieved annually by end of 2012. NACP-IV aimed at expanding access to testing, counseling services so as to reduce HIV transmission and mitigate the impact of HIV infection on PLHIV. It also aimed at strengthening inter-programme linkages to all CST and preventive service centers, (STI clinics, RNTCP centers, CSC, DIC, ART, LAC etc.) for PLHIV. Overall the programme would progressively make efforts to integrate HIV testing services with general health system.

The following five key strategies were outlined for counseling & testing services in NACP IV.

1. Continuing, expanding and accelerating the coverage of counselling and testing services to at-risk population.
2. Increasing uptake of HIV testing among identified key populations (Female sex workers, men who have sex with men, injecting drug users and other vulnerable groups like STI & TB patients)
3. Strengthening linkages with CST, TI, STI and other HIV service facilities.
4. Expanding access to PPTCT services to 70% of the estimated HIV positive pregnant women.
5. Improving quality of counseling and testing services

Expansion of counseling & testing services

To enhance the access to HIV Counseling & Testing (HCT), ICTCs have been decentralized to the district, sub-district and community levels through Stand-alone ICTCs, Public Private Partnership (PPP) ICTCs, Facility-integrated ICTCs (public and private for HIV screening) and mobile ICTCs. ICTCs are now established at all levels starting from medical colleges, districts/civil hospitals and sub district hospitals. They are also set up in Community Health Centers (CHCs) /RHs, Primary Health Centers (PHCs), UHP and maternity homes (municipal corporations). In a number of States, HCT is also made available in prisons/Jails, in private nursing homes/ corporate hospitals, and public and private industries. Several end-line targets have been achieved, as summarized below.

Indicator	NACP IV Target	Achievement (Mar 2016)
Number of People accessing ICTC services including PPTCT	28 Million	29 Million (12.5 – pregnant women; 16.5 – general clients)
Stand-Alone ICTC up to CHC level	5219	5385
Mobile ICTCs	150	118
Facility Integrated Counseling and Testing Centres	8000	11780
Facility Integrated PPP model Counseling and Testing Centres	1400	2635
Total No of ICTCs	14769	19800

There is an 88% increase in number of HIV testing centers from 2011-12 (10,515 centers) to 2015-16 (19,800 centers). Scale-up of F-ICTCs and PPP models in last few years demonstrates integration with National Health Mission (NHM). There is a 58% increase in HIV testing from 2012-13 (104 lakh tested conducted) to 2015-16 (164 lakh tests). During 2015-16, 99% of the ICTC attendees were tested for HIV and 98% have received the test reports after post-test counseling.

Testing of Key & Bridge Population

There has been an increasing thrust under the program to facilitate early HIV detection particularly among key population and newer strategies for expansion of HCTS through, for e.g., community testing or lay provider testing is being considered. The following table summarises the testing coverage of KP & bridge population.

High Risk Groups registered and tested for HIV in the year 2015-16 in India					
Typology	Estimated Numbers of HRG (Lakhs)	HRG registered in TI (Lakhs)	% HRG Registered	Tested for HIV (Lakhs)	% Tested for HIV
FSW	8.6	7.2	83.4	5.8	67.3
MSM/TG	4.3	2.8	64.4	2.8	64.4
IDU	1.8	1.4	76.1	1.0	57.2
Migrant		33.8		3.8	11.3
Truckers		11.4		0.9	7.5
Total				14.3	

Linkages with other Components

Referrals for HCT at ICTC increased from 2011-12 to 2015-16, particularly from government health facilities. In 2015-16, 52.2% HIV tests were referred from Government health facilities, 13.8% from Targeted Interventions (TI), 8.3% from Revised National TB Control Program (RNTCP), 8% from STI clinics, 2.6% from private health facilities, 2.2% from Obstetrics and Gynecology departments, 1.3% from non TI NGOs and 0.2% from the ART centers. While there is an increasing focus to increase provider initiated HCT, currently 73% of the ICTC attendees were Provider Initiated clients. Out of this, the proportion of General Client Tested at SA-ICTCs was 86% and remaining 14% were tested at F-ICTC level.

Provider Initiated Testing and Counselling (PITC) is now recommended across all NACO programs. At STI clinics, the provider initiated referrals are based on history of high risk behaviour irrespective of the individual manifesting an STI. In the year 2014-15, out of 7.4 lakh tests performed in DSRCs, 40% were referred to ICTCs for HIV testing and 1% detected positive. Similar policy of PITC among presumptive TB cases has been initiated in a phased manner, with its implementation starting in high prevalence States followed by A & B category districts in the rest of the country. In 2015, 79% of all registered TB cases knew their HIV status. Eleven States achieved more than 90% HIV testing for all TB registered clients. As part of intensified TB case finding and treatment at high burden, Anti-Retroviral Therapy (ART) centers, single window service delivery for TB and HIV has been introduced. Intensified TB case finding through scale-up of CBNAAT machines along with daily regimen and airborne infection control (AIC) are also given vital importance.

Prevention of Parent to Child Transmission (PPTCT)

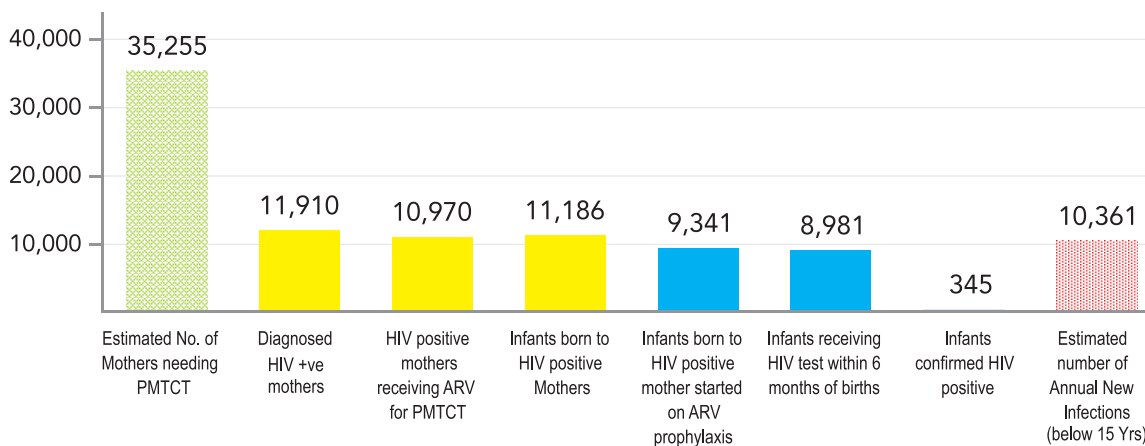
The following key strategies were envisaged in NACP IV under PPTCT component.

1. Expanding access to PPTCT services to all pregnant women accessing the health system.
2. Promoting private-sector participation in PPTCT programme / services
3. Working towards reducing mother to child transmission to less than 5% among registered ANC
4. Linking 100% of HIV positive pregnant mothers who are identified by the programme to care, support and treatment services at the earliest and provide ART treatment or prophylaxis to all mothers as per the PPTCT technical guidelines.
5. Reducing new HIV infections of women in the child bearing age.
6. Ensuring access to family planning services to all HIV positive pregnant women.
7. Linking HIV-negative women to sexual and reproductive health services offered by NRHM

Concrete steps have been taken towards the goal of eliminating new HIV infections among children and keeping their mothers alive particularly post-2012. Following roll-out of Option B/B+ strategy on pilot basis in Andhra Pradesh, Karnataka and Tamil Nadu during 2012-13, in 2014 India took a key policy decision to transition from the strategy of administering single dose Nevirapine to multidrug regimen for HIV infected pregnant and breast feeding women,

irrespective of CD4 count across the country. By December 2014, multi-drug regimen for PPTCT was made available in all States. To strengthen the existing program and inform its further scale-up, an assessment of three afore mentioned States where Option B/B+ was piloted was conducted by NACO and partners, and lessons learnt documented.

The program has reached 42% of the total estimated pregnant women in the country, in the year 2015-16 (n=280 lakhs), with 31% of tests performed at F-ICTCs. Twenty nine percent of the estimated HIV positive pregnant women were identified in 2015-16 (n=35,255) and among those 94.7% of them were put on ART. See figure below for PPTCT cascade for 2015-16. Early infant diagnosis (EID) was launched in 2010. Currently there are 1,157 EID centres which are DBS collection centers out of 5,333 standalone ICTCs (SA-ICTCs) in the country. In the year 2014-15, of the 11,186 infants born to HIV positive mothers, 83% of the children were initiated on ARV, and 80% (n=8,981) of them were tested for EID within 6 months. HIV positivity was 3.8%.



As part of NHM convergence, universal HIV and Syphilis screening was made an essential part of routine antenatal care for HIV at all 24x7 PHCs and other PHCs for all ANC clients in 2015. In the same year, the Ministry also issued instructions to health authorities in States to include budgeting for Syphilis and HIV testing in their implementation plans in order to scale up HIV testing of pregnant mothers, identify HIV positive pregnant mothers and link them to care of PMTCT. This would mean that HIV tests can be performed at all Primary Health Centers and sub-centers by Auxiliary Nurse Midwives (ANM). Incentive is given to service providers (ANMs/ASHAs) to ensure linkage of HIV positive pregnant women to PPTCT and EID services.

In order to reinforce the HIV care cascade in the PPTCT and increase PPTCT and EID coverage, a web based software for tracking HIV positive pregnant women—from detection of HIV to delivery and further up to 18 month follow up of her child — PALS (PPTCT and ART Linkage System) was developed.

Enhancing quality of HCT

A Comprehensive induction training module has been developed by NACO for all Counselors working at ICTCs, PPTCTCs, ARTCs and STI Clinics. NACO has taken up several initiatives for strengthening quality of HIV testing at all levels of health care delivery, established HIV laboratory network, developed Laboratory Consortium for Kit Quality, External Quality Assurance Scheme (EQAS) and Quality Management System (QMS) for HIV testing.

3.3.2. KEY ISSUES AND CHALLENGES

While there has been significant scale up and developments in HCT under NACP and NACP IV targets are largely achieved, the following critical challenges remain in moving towards the latest global targets set up by WHO & UNAIDS.

1. **Coverage gaps in testing of target population** – KP & Bridge Population, STI patients, TB patients & suspects, Pregnant women and spouses/ partners of PLHIV: In spite of extensive scale up, there is 33-43% gap in testing of KP, around 90% gap in testing of bridge population, around 65% gap in testing of STI clients, 23% in TB patients, 58% in pregnant women and 64% in partners of PLHIV. With respect to testing facilities, only 40% government health facilities have HCT services. The gap at the PHC level is 60%, at the CHC/RHC level it is 39%, at UHP/Maternity homes, it is 95% and in Prisons/Jails, it is 89%. Private sector response is very limited.

These gaps in testing of key target population segments are critical in view of reaching the first 90 of the global target – 90% of PLHIV are aware of their status. These indicate the need to strengthen the coordinating mechanisms among the programme components. Lack of IT systems to ensure linkages of ICTC with all other programme components is also a factor that hinders individual level tracking. Low ANC utilization rates in public hospitals in some States poses a challenge in improving the coverage of pregnant women. Stigma and discrimination among health care providers remains one of the key barriers for accessing services by pregnant women, exposed children and key population. Despite the progress in number of PPP sites, the involvement of and coordination with private sector remains a challenge to be addressed if universal testing of pregnant women has to be achieved. Large number of vacancies at ICTCs and supply chain management issues related to HIV test kits further augment the coverage gaps.

2. **Gaps in detection and linkage loss of HIV positive cases between ICTC & ART:** This indicator is critical in achieving the second 90 of the global target – 90% of those who know their status are on ART. Out of the estimated 21.2 lakh PLHIV, till 2015-16, 14.2 lakhs have been identified and registered for pre-ART care. In other words, there is a gap of 33% in detection of PLHIV. Out of these, 11.5 lakhs are in registered and active in pre-ART care. Thus, the linkage loss is 19%. This loss may include loss to follow-up, deaths or PLHIV seeking care in the private sector.
3. **Increasing sero-discordance among spouses:** Program data analysis has indicated high proportion of concordant couples vis-à-vis sero-discordant couples, though over the last three years a greater percentage of sero-discordancy is being detected as testing is scaled up. However, the larger proportion of concordance indicates the opportunity for preventing intimate partner transmission.

3.3.3. RECOMMENDATIONS

SHORT-TERM/ ON-COURSE CORRECTIONS

Strategy-related

1. Develop population prioritization, focusing on the high yield population groups adopting a family-centric/ family tree approach. Reach out to hidden and new key population, their

partners and children to be tested. Spouse testing of HIV positive clients and their children (ART and Pre ART). Ensuring testing for all STI attendees beyond DSRCs and their partners and children.

2. Geo-prioritisation of districts & sub-districts for HIV testing services (scale up & quality) in States with low prevalence & low case detection.
3. Strengthen NACP and NHM integration through
 - a. HR- task sharing/task shifting
 - b. Universal screening of pregnant women for HIV/Syphilis/TB
 - c. Single window testing for routine pregnancy tests/ HIV/Syphilis among pregnant women
 - d. Single window testing for STI/HIV among general population
 - e. Leveraging finances, training, drugs, supply chain, kits, consumables, M & E etc.

Operational

1. **Scale up of testing services:** Saturation of all public health institutions; Specific guidelines for the public and private sectors must be adopted for expanding testing through Provider Initiated Testing and Counselling (PITC); Co-location of TB and HIV testing centres; HTS at sub-center level; Mobile testing using finger prick tests through government, NGO or private sector initiatives; Expansion of PPP initiatives; Scale up of DBS Collection centers and PCR Labs for EID.
2. **Facility-level Measures:**
 - a. Introduce routine HIV testing for all persons with presumptive TB and Sexually Transmitted Infections (STI), Kala Azar and patients with signs and symptoms suggestive of HIV/AIDS.
 - b. Reach out to the PLHIV on ART or active in care and their family members/ partners for HIV testing and follow up of the discordant partner to ensure the HIV negative partner remains HIV negative.
 - c. Reach out to all the partners of PLHIV both general clients and pregnant women.
 - d. Institutionalize HIV testing algorithms for Paediatric age group including paediatric TB and testing for children under 18 months of age (and emphasize on HIV testing of parents if their status is not known).
 - e. As part of task shifting, train counsellors of Adolescent Reproductive and Sexual Health (ARSH) program to provide Point-of-Care (PoC) testing.
 - f. Provider initiated HIV testing should be encouraged in all the medical colleges. All the medical officers and relevant health care providers to be trained on PITC.
 - g. Review existing counselling practices and current needs of the program e.g., emphasis on quality of counselling, Positive Prevention counselling, counselling by lay provider etc.

3. **Community-level Measures:**

- a. Community-based HIV Testing: To reach a large number of key population groups, introduce WHO recommended 'Test for Triage' by trained lay workers. Focus on specific sub-populations like spouses of migrants and truckers; young and new sex workers; sex workers operating through mobiles and internet; Dera-based hijras/TG communities; male and female sexual partners of MSM/TG; female injecting drug users and their spouses and partners, etc. A variety of community-led and gender/age-specific strategies need to be devised to reach these sub-populations for HIV testing. Collaboration with existing community level institutions, organizations, non-governmental organizations (NGOs) working on health/non health issues can help bridge these gaps – eg. self help groups, co-operatives, NGOs working among juveniles /street children/ juvenile detention centres.
 - b. Address stigma & discrimination at health care settings: Sensitization and Capacity building of health care providers; provision of psychosocial support services through community initiatives; redressal mechanisms to reduce discrimination; improving the quality of counselling; counselling to address internalised stigma.
4. **Strengthen linkages across programme components:** Implement PALS throughout the country to ensure continuum of care for pregnant women & children; experience will be effectively contribute to development of a larger case tracking system covering more population groups & programme components, harmonizing the existing independent IT systems. Integrate PALS and EID software so that the turn-around time for receipt of PCR reports at the facility can be reduced.
 5. Put in place strong quality control & quality assurance mechanisms for HIV/ Syphilis screening at peripheral centres and community to address the greater chance for poor quality, appropriate documentation & linkage between screening & diagnosis
 6. Accord greater focus on analysis of ICTC/PPTCT data to understand the client profiles, for prioritization, and to inform future strategies for bridging the gaps in testing & detection

LONG-TERM MEASURES

Plan & undertake systematic evaluation/ validation of the status of elimination of mother to child transmission of HIV/ Syphilis as well as reaching the first 90 of global fast track targets in select high prevalence States/ districts with sustained saturation levels, where they are likely to have been achieved.

3.3.4. AREAS FOR FURTHER DELIBERATION AND REVIEW, BEYOND MTA

The following areas are highlighted for further discussion and review beyond MTA.

1. Strategies and mechanisms and to roll out community based testing, lay provider testing etc.
2. Integration/ Development of IT systems to ensure linkages and individual level tracking of clients across various programme components – TI, STI, TB, ICTC, ART, PCR Labs.

3.4. Management of STI/RTI

3.4.1. PROGRESS AND GAPS AGAINST TARGETS, RECOMMENDATIONS & PRIORITIES IDENTIFIED IN NACP IV

Control of STI/RTI is an important component of the NACP. Those who are infected with STI/RTI have a much higher chance of acquiring and transmitting HIV as compared to the normal population, due to their risk behaviour. Identification of this vulnerable group provides a window of opportunity for interventions to change behaviour and prevent HIV transmission in the community. During NACP IV, the programme aimed to provide universal, comprehensive and standardized quality STI/RTI services to all population groups with special emphasis on HRG population and vulnerable groups, including women and adolescents.

During the NACP III, STI/RTI service delivery was strengthened through the public health care delivery system through close to 1100 designated STI/RTI clinics. Convergence with NRHM and integration with private sector was initiated. Close working coordination developed with the maternal health division for joint procurement of colour coded STI/RTI drug kits and roll out of STI/RTI services through sub-district level health facilities. Programme also partnered with the private sector, which was initially a client based approach covering only 95 priority districts in the country; the model later changed as HRG focused model and was implemented across the country. Close to 4500 providers in private practice were linked with the programme through TI NGOs to provide STI service delivery to the HRGs. The programme has also strengthened and supported laboratory support for STI/RTI in 7 Regional STI centres.

The vision of STI/RTI control and prevention program during NACP IV is to provide quality standardized STI/RTI services at all levels of health system through convergence with NHM and private sector, especially focusing on women, adolescent and marginalized population. The specific strategies are as follows:

1. Provision of standardized STI/RTI management to general and vulnerable population at all government health facilities in convergence with NRHM.
2. Scaling up of partnering with organized public and private sector to enhance reach and coverage of the program.
3. Provision of quality STI/RTI services to high risk group population through flexible approach of service delivery
4. Provision of laboratory support for etiologic diagnosis and surveillance of STI/RTI
5. Strengthening capacity building and mentoring needs to achieve quality STI/RTI service delivery through all facilities.

The four Implementation Structures of the STI/RTI Programme are as follows:

- 1) Designated STI/RTI Clinics (DSRCs: 1160)
- 2) Targeted Interventions (1677)
- 3) NHM facilities (26,415)

4) Regional STI Training Referral, Research Laboratories (RSTRRL 10) & State Reference Centres (SRC - 45)

There are 1160 Designation STI/RTI Clinics in the country which are located at Medical Colleges, District Hospitals and in some Area Hospitals (sub-divisional and /Rural Hospitals). Program supports one Counsellor at every DSRC. The remaining staffs are from general health system such as Doctor, Staff nurse and Laboratory technicians. The program offers free treatment using standardized STI colour coded treatment kits to treat common STIs/RTIs syndromes. Program has branded the DSRCs as **“Suraksha Clinics”** which improved the footfalls.

Indicator	2013-14	2014-15	2015-16
Total number of cases managed	71.6 lakh	79.6 lakh	89.2 lakh
% STI attendees Tested for Syphilis	34%	22%	40%
% Sero Positive for Syphilis	M=0.83% , F=0.5%	M=0.97%, F=0.37%	M=0.64%, F=0.23%
% STI attendees Tested for HIV	37%	19%	36%
% Sero Positive for HIV	M=0.95%, F=0.6%	M=1%, F=0.41%	M=0.57%, F=0.35%

There are 1677 Targeted Intervention Projects where STI services are being provided to the High Risk Group (HRGs: FSWs, MSMs, IDUs, TS/TGs) for free. Services are subsidized for truckers and migrants. Partnerships with the Private sector have seen more than 3400 private providers (project provides maximum consultation fee of @Rs75/- per consultation, free drugs and free HIV and Syphilis testing). The Package of services for HRG includes (a) Symptomatic Treatment (b) Presumptive treatment (c) Regular Medical Check-up and (d) Bi-annual Syphilis screening. Modalities of STI service include static clinic, preferred providers, hybrid model, referral to Government services and health camps.

Preferred Private providers Approach for STI service delivery to HRGs have worked well. This mechanism saw tremendous increase in the access to services of HRGs from 0.23 million in 2007-08 to 4.67 million in 2015-16 (>20 fold increase). In addition program is striving for an active engagement of the Private Sector Providers through the Professional bodies like IMA, FOGSI, and IASSTD etc.

Functional integration with the RMNCH+A Programme of the National Health Mission drawing synergies has helped both programmes mutually. Joint STI/RTI Operational guidelines have been developed which is standard for implementing STI/RTI control and prevention program across different health care Institutions right from PHCs (26,415) up to the Medical Colleges. A Joint Training Plan has been designed with a standardized Training Curriculum for Doctors, Nurses Counselors and Laboratory Technicians. Dedicated budgets allocated for STI/RTI Programme activities in the PIPs of NHM have greatly benefitted the RCH Programme for decentralized procurement of Test Kits and Equipment. The latest directives issued provide for universal screening for Syphilis and HIV; task shifting of testing to ANMs using Point of Care (POC) test kits for both infections and their management once detected positive at PHC and above health facilities including promoting institutional delivery and tracking the Mother Baby pair till the child attains 24 months of age.

MoHFW has included indicators for capturing data on screening tests done by ANMs for HIV and Syphilis using POC tests as well as indicators for confirmatory tests done at PHC/CHCs of RPR and HIV Rapid Antibody Tests, in the HMIS formats. It is planned to synchronise data of HMIS with SIMS as well as MCTS data with Positive –Line Lists data of ANCs for HIV and Syphilis.

There are 10 Regional STI, Training Reference & Research Laboratories that provide validation of Syndromic case management by doing etiologic testing, antibiotic susceptibility testing for Gonococci, EQAS for syphilis and operations research. The Network of STI Laboratories comprise of one Apex Laboratory, nine Regional STI Training, Research and Reference Laboratories, forty five State Reference Centres (SRC), ICTC / Hospital laboratories linked to Designated STI/RTI (DSRC) clinics. During NACP IV, Three new Regional STI Training and Reference & Research Laboratories at Chandigarh, Mumbai and Guwahati have been added in 2014.

In collaboration with NHM, Operational Guidelines for Elimination of Parent-to-Child Transmission of Syphilis was developed and a joint launch of the National Strategy for the Elimination of Parent-to-Child Transmission of Syphilis was held in early 2015. In December 2015, strategies were strengthened for achieving the goal of E-PTCT of HIV and Syphilis by 2020. A booklet "Shaping our Lives: (Version -2)" a training/ knowledge booklet for ANMs/ ASHAs/ AWWs and members of SHGs with recent updates on the PPTCT Programmes of HIV and Syphilis was developed. The booklet serves as a ready reckoner for grass root level health functionaries. SOPs for POC tests for HIV and Syphilis have been included along with the reporting formats which enables them to fill-up data after screening and testing of all ANCs for HIV and Syphilis. This is a major step towards achieving the goal of Elimination of Parent – to-child Transmission of HIV & Syphilis by 2020. Procurement of injection Benzathine Penicillin 2.4 million units was initiated for NACO and NHM facilities.

3.4.2. KEY ISSUES AND CHALLENGES

Following are the key issues and challenges facing STI/RTI programme.

1. Critical gaps in reaching the goal of elimination of parent to child transmission of Syphilis including
 - a. Saturation of Syphilis testing of pregnant women and
 - b. Significantly (>75%) missed opportunity of treating Syphilis among pregnant women diagnosed positive for Syphilis; Non-availability of Benzathine Penicillin in hospitals and decreased preference among health providers to recommend Penicillin are the key bottlenecks. There is no supply of Inj. Benzathine Penicillin in the field as there was no vendor to supply the same; however now the procurement of the inj Benzathine Penicillin 2.4 million units is being processed.
2. Lack of recent data on burden of STI infection amongst general and HRG population; High prevalence of Syphilis amongst STI attendees in the State of Punjab, Nagaland, Arunachal Pradesh and Bihar; Disparity in STI prevalence being low among sex workers and high in bridge populations in some places

3. Emergence of less sensitive strains of gonococci against the first line drug; Implementation Quality Management System (QMS) at Regional STI Training and Research and Reference Laboratories.
4. Operational issues
 - a. Poor patient flow mechanisms resulting in gaps in HIV testing of STI clients
 - b. Inadequate spouse/ partner testing
 - c. Lack of training and skill building in the field due to constrained resources
 - d. Limited participation of Private sector and organised sector in STI programme; Private sector adherence to standard STI treatment guidelines & reporting requirements
 - e. Quality assurance mechanisms of Syphilis testing

3.4.3. RECOMMENDATIONS

SHORT-TERM RECOMMENDATIONS

Strategy related

1. Enhance involvement of apex, regional & State STI laboratories for overall programmatic improvement and achieving goal of E-PTCT of Syphilis and HIV
2. Functionalise State reference centre and set up STI Surveillance system for better understanding of the STI burden, levels and trends among different risk groups.

Operational

3. Rational use of counselors & LTs across programme components; Syphilis and HIV testing to be conducted through standalone ICTC for STI attendees, HRG and ANC; continue with 'Single Prick Single Window' system.
4. Roll out EQAS for Syphilis testing across the country in the same lines as HIV testing
5. Strengthen referral linkages between TI, STI, ICTC & ARTC
6. Introduce preparation of linelist of Syphilis positive pregnant women at all testing sites and monthly submission to higher levels for effective tracking and treatment
7. Include EPTCT of Syphilis as a regular agenda item in all NACP-NHM coordination meetings at national, State & district levels; Incorporate indicators in HMIS to monitor the implementation of ECS programme
8. Ensure supply of commodity for syphilis treatment (inj Benzathine Penicillin) at all public hospitals; Take measures to promote prescription by doctors and healthcare providers.
9. Develop a new or integrate into existing software such as PALS for individual level tracking of Syphilis cases
10. Streamline supply chain management of drugs for syndromic management and supply & maintenance of equipment for Syphilis testing at public hospitals

LONG-TERM MEASURES

1. Explore inclusion of point of care diagnostics for diagnosis of Syphilis in field settings, especially to reach universal coverage of pregnant women with Syphilis screening
2. Explore options for introducing new and recent technology in diagnostics to enhance specificity of syndromic diagnosis. This will enhance accuracy in testing and treatment. New test kits like dual PoC tests for HIV and Syphilis will help the programme to screen more people for HIV and Syphilis.
3. Institutionalize internal and external quality assurance systems covering all testing sites for STI Programmes.
4. Undertake community based study to understand prevalence of STIs in different population groups and also to undertake Operations Research on the emerging issues of STI.
5. Prepare and plan for Sub-National Validation of States ready for E-PTCT of Syphilis and HIV and progress to Country wide Validation and declaration of E-PTCT of Syphilis and HIV by 2020

3.5. Blood Transfusion Services

3.5.1. PROGRESS AND GAPS AGAINST TARGETS, RECOMMENDATIONS & PRIORITIES IDENTIFIED IN NACP IV

Blood is an essential requirement for health care and proper functioning of the health system. Blood safety has been one of the foremost prevention strategies against HIV launched in India in late eighties. Due to the high levels of HIV transmission through contaminated blood and blood products in the early stages of epidemic, responsibility of ensuring access to safe blood fell under the gambit of National AIDS Control Programme. NACO has been the coordinating agency to ensure provision of safe blood in the country.

The National AIDS Control Program Phase IV (2012-17) aims at enhancing access to blood and blood products through a well networked, centrally coordinated, efficient and self-sufficient blood transfusion services. It targets to support 1,300 blood banks, achieve an annual collection of 9 million blood units from NACO supported Blood Banks, more than 80% component separation and 90% voluntary blood donation by 2016-17.

The key strategies envisaged in NACP IV include

1. Strengthening management structure of BTS
2. Increasing regular voluntary non-remunerated blood donation
3. Promotion of component preparation, rational use of blood & capacity building of health care providers
4. Establishing quality management system including the roll out of EQAS
5. Streamlining implementation and referral linkages.

Enhancing blood access through a well networked centrally coordinated BTS in the country: A strong network of 1,161 blood banks, including 304 BCSU and 34 Model BBs, 210 Major BBs and 613 DLBB is currently being supported by NACO; 142 Regional Blood Transfusion Center (RBTC), were set up to strengthen the access to blood and blood components; 250 refrigerated Blood Transportation Vans were provided to RBTCs; SBTCs are active and functioning in majority of States; Improvement in infrastructure, manpower has been achieved during the last three years. However, around 45 districts still do not have blood banks. There is a reported shortage of required manpower and infrastructure in several BBs in the country and blood banks do not have dedicated manpower for Voluntary Blood Donation (VBD).

Collection and Access: Annual collection of blood in the States increased during the last three years, as seen in table below. However, there is still an unmet need of 1.7 million units of blood in the country against the demand of 12.5 million units. Further, there are distribution challenges leading to unequal distribution in the availability of blood.

Financial Year	Total Blood Collection in million	Blood Collection in NACO Supported Blood Bank (in mn)	Voluntary collection in NACO supported Blood Bank (in mn)	Number of Blood Donation Camps	Total Blood Collection in Camps	Per Camp Collection
2012-13	9.8	5.5	4.3	73692	-	-
2013-14	9.95	5.8	4.5	68453	2914972	43
2014-15	10.8	6.6	5.2	61547	3161419	51
2015-16	10.8	6.8	5.3	65795	3569510	54

Increasing regular voluntary non-remunerated blood donation to meet the safe blood requirements of the country: There has been a substantial improvement in Voluntary blood donation at the national level from 54.4% to 78%. Regular camps are organised by the BBs in coordination with BTS division of the State and State blood transfusion councils to increase voluntary blood donation and to ensure availability of blood. E-initiatives for donor registry and camp schedules have facilitated VBD. However, States differ in this respect and many States do not meet the targets. There is a lower rate of repeat VBD as compared to national average in some States. Inadequate release of funds to blood banks, inadequate focus of IEC for promoting VBD, sub-optimal camp collections are some of the reasons.

Promoting component preparation and availability along with rational use of blood in healthcare facilities: Number of Blood Component Separation Units (BCSU) increased from 175 (2012) to 304 (2015) and 80% of the blood units collected are componentized. There are huge disparities between States, districts and units in component separation. Further, there is low demand for components from healthcare providers. Wastage of components due to expiry was found to be high in some places.

Capacity building of health care providers: Three Apex and 23 regional training centers impart training on all aspects of BTS involving Blood Bank MOs, Technicians, Counselors, Nurses, Clinicians, Donor Motivators and Programme Officers of SACS. Around 7000 health care providers & 7000 donor motivators are trained on an annual basis. Capacity building modules have been developed to facilitate the same. However, knowledge and skills gap still exist at the blood bank level. Lack of knowledge and skills in QMS, component separation and rational use of blood are more common.

Establishing Quality Management Systems to ensure Safe Blood: There has been an improvement in the implementation of Quality Management System in a few States. Efficient Cold chain maintenance is in practice in a few States. Internal Quality Control in labs is being generally practiced. QC for blood bags is being done. However, there is a low level of EQAS participation for Immuno-hematology and other TTI in the country. Several BBs have enrolled in EQAS for HIV only. Percentage of accredited NACO supported BB is less than 30.

Equipment & Supplies: There has been an improvement in the availability of equipment across the blood banks. Procurement & Maintenance of equipment is being done at State level. But, only limited proportion of equipments are under AMC. Supply of blood bags and consumables has been streamlined and paediatric blood bags are still not being supplied.

Linkages, recall and donor Referrals to ICTC/ Health systems has not been adequate, though there has been some improvement. No follow up is being done and very few who are screened HIV positive go for retesting and confirmation at ICTC.

Monitoring and Evaluation System/Reporting: Significant improvement in the SIMS reporting; more than 90% in NACO supported blood banks are reporting in SIMS regularly. However, monitoring and supervision in the field has decreased.

3.5.2. KEY ISSUES AND CHALLENGES

Policy

1. Multiplicity of Controls at Central level for policy, regulation and programme with lack of coordination is resulting in inefficient handling of blood transfusion services in the country. The work related to Transfusion Services is being done, overseen and monitored by multiple controlling agencies/departments within the Ministry of Health & Family Welfare which include.

- a. National Blood Transfusion Council (NBTC)
- b. National AIDS Control Organization(NACO)
- c. National Blood Cell (NBC)
- d. National Institute of Biologicals (NIB)
- e. Central Drugs Standard Control Organization (CDSCO)
- f. Non Communicable Diseases Division under Directorate General of Health Services (NCD Division under DGHS)

2. Ministry must also take steps towards legislation of the NBTC policy guidelines to give it the necessary authority to streamline and improve the functioning of Blood Banks.

Strategy

3. Inequitable distribution of blood and demand-supply gaps: Lack of evidence to understand the demand of blood at the State, and district level hinders the setting up of BBs in appropriate places. This further leads to inequitable distribution of blood and persistence of demand – supply gaps.

4. Issues in strengthening component separation and use: Presence of BCSUs do not match the demand. There is poor demand for blood components from doctors and service providers due to lack of awareness and there is frequent wastage of components.

Operational

5. There are very low levels of EQAS participation in Immunohematology and TTI in the country.
6. There is lack of State ownership to operationalize SBTCs in some States.

7. Ineffective SBTCs, lack of manpower for VBD initiatives in BBs, lack of regions specific IEC materials, and lack of public awareness are the key reasons for the non-achievement of targets related to blood collection and voluntary blood donation.
8. Mandatory testing of TTI is practised across the country. However, advanced fourth generation HIV ELISA test is not being used in the programme, and rapid test kits for Malaria are not available.
9. Lack of coordination between BB, ICTC and DAPCU units leads to improper follow up of referrals.

3.5.3. RECOMMENDATIONS

SHORT TERM RECOMMENDATIONS

Policy

Clear policy decision needs to be taken to avoid duplication of efforts and multiplication of controls at the central level, related to blood transfusion services.

Strategy

1. Strengthen the functioning of NBTC & SBTC in all States through provision of adequate resources. SBTCs need to regularly conduct the governing body meetings and other functions so as to keep in line with the national priorities and efficient functioning in States. Improved engagement with NGO and NGO-run Blood banks are recommended.
2. Commission an immediate exercise for estimation of demand for blood at the national, State, district and facility level to facilitate effective planning.
3. Establishment of blood storage centres to be considered based on the need; Consider the option to convert blood banks to blood storage centres, where the annual collection is less than 1000 units/yr.
4. Focussed strategies needed to promote component separation and rational use of blood across health settings. Establish functional hospital transfusion committee to monitor rational use of blood components and outcomes. Promotion of plasma fractionation to be carried out for increased self-reliance in plasma derived medicines.

Operational

5. Improve donor selection and screening methods, as well as pre and post donation counselling.
6. Targeted IEC material in regional languages is to be ensured to promote voluntary repeat regular blood donation and rational use of blood.
7. Clear definitions and guidelines on VBD and replacement donation are to be made available.
8. Efforts are required to sustain the donor motivators through capacity building initiatives.

9. Strategies are required to improve the coordination between Blood banks and ICTC to improve referrals of reactive donors.
10. Prioritise implementation of EQAS for IH & TTI testing in all blood banks and development of Quality Management System for blood banks
11. Strengthen overall monitoring and supervision of blood safety programme and blood banks.

3.5.4. AREAS FOR FURTHER DELIBERATION AND REVIEW, BEYOND MTA

1. Ensuring compliance of private blood banks to national policy guidelines
2. Ensuring availability of blood in districts without blood banks

3.6. Laboratory Services

3.6.1. PROGRESS AND GAPS AGAINST TARGETS, RECOMMENDATIONS & PRIORITIES IDENTIFIED IN NACP IV

NACP IV recognized that emphasis on quality assured laboratory service delivery is important to the success of the programme. NACP IV would ensure universal availability and routine access to quality assured HIV related laboratory services in all service delivery points as required. The third phase of NACP set the foundation for institutionalizing a culture of quality in laboratory services, specifically HIV and related testing with establishment of the laboratory services division for standardization of tests, technologies and logistics, formal recognition for the laboratory network for implementation of EQA program. The division started by addressing concerns on technical and procurement issues related to HIV testing. Steps were initiated to strengthen capacity of HIV testing through a unique structured and standardized training initiative. Technical support was provided to testing laboratories through the existing three-tiered network of HIV reference laboratories at the apex (1), national (12), and State level (117) through a cascade of mentoring and monitoring system and EQA program. The External Quality Assurance Scheme (EQAS) was set up which ensured high reliability and validity to the HIV and CD4 tests under the programme and higher levels of proficiency in the participating laboratories.

Novel initiatives included HIV viral load testing for those failing first line ART, DNA PCR for early infant diagnosis of HIV, formation of a consortium of laboratories for evaluation of HIV, HCV and HBV test kits, and capacity building and setting up testing facilities for HIV drug resistance testing. Besides, the programme for NABL accreditation of laboratories was taken up to ensure more and more laboratories get accredited for quality standards. These were sustained during NACP IV through the following strategies. The package of laboratory services articulated under the NACP IV includes quality assurance in HIV testing, CD4 testing, Early Infant Diagnosis (EID), Viral load, STI labs and Blood Banks as critical components.

1. Positioning laboratory services as a distinct component of the programme at the national and State levels
2. Enhancing diagnostic services with focus on quality in laboratories at all levels
3. Enhancing laboratory services in tandem with roll out of CST.
4. Improving laboratory safety and bio-security by ensure safety of laboratory personnel, service users, community and the environment.

Positioning laboratory services as a distinct component of the programme

Under NACP IV, for the first time, funds have been earmarked for laboratory systems strengthening in the national programme. At the State level, a separate lab division was constituted with sanction of new positions, a Deputy Director (LS) in category 1, 2 and 3 States and a Quality Manager (LS) in all SACS. At present 24 Quality Manager and 4 Deputy Director are in place. TORs of Technical Officers were revised and budget provisions made for mentoring visits to the HTC sites. Additionally, regional specialists were recruited in collaboration with the U.S. Centres of Disease Control (CDC) for onsite mentoring of testing sites at national, State and district level on quality systems and fulfilment of ISO requirements towards accreditation. The

laboratory Technical Resource Group and the national experts from the HIV lab network formed committees with an objective to guide on technical matters and support lab policy decisions for program planning. Funds were budgeted for travel of Technical Officer for providing in-service training of the lab technicians at ICTCs.

Review and develop lab policy and guidelines

Through several rounds of national consultations, National HIV Laboratory Testing and Quality Management Guidelines were released and implemented on HIV testing, along with Quality Management System in HIV Testing Laboratories, National Guidelines for Enumeration of CD4, and Guidelines on Early Infant Diagnosis of HIV. National testing algorithm for HIV-2 diagnosis was rolled out since Feb 2013.

Enhancing HIV diagnostic services

Considering the rapid expansion of testing services, voluntary laboratory accreditation as per ISO 15189 standard was introduced for 13 National and 117 State Reference Laboratories. These laboratories are responsible for quality assurance in HIV testing for nearly 22 million clients tested annually at ~ 5000 SA-ICTCs and ~13,000 F-ICTC . NACO has laid Quality standards and implemented a checklist for assessing the Quality of ICTCs. A training module has been developed in consultation with basic services division to train the ICTC staff on QMS.

A “National Consortium for Kit Quality” was formed by NACO with National AIDS Research Institute (NARI), Pune in the lead and other select NRLs as members, as an independent body to ensure kit quality. This consortium developed SOPs and a uniform panel of 500 sera samples (400 negative and 100 positive each for HIV, HBs Ag and Hepatitis C Virus). The status of the kits that are approved by the consortium are updated and displayed on the NACO website. This system is useful for the procurement of standard and quality assured test kits at the State level.

Lab services division in collaboration STI division is working towards assuring quality in syphilis testing. Lab Services division has conducted an assesemnt to review the QMS standards in the ten RSTRRLs.

Accreditation of Labs

Since 2009, a step-wise, customized approach has been developed to improve qulaity in HIV testing reference laboratories and move them towards ISO accreditation. This is based on assessments and reassessments, capacity building of techical staff through workshops and on-site monitoring on key qulaity elements. To date, 65 of these 130 laboratories are accredited and 3 have applied for accreditation. This is an acheivement of 85% for NRLs and 49% for SRLs against the NACP IV target of 100% NRLs and 40% of SRLs accredited by NABL by 2017.

Capacity Building

Through the HIV laboratory network, NACO has mandated NRLs to be the technical and quality supervisors for SRLs and SRLs in turn are envisioned to provide similar support to the ICTCs assigned to them in respective geographic regions. Induction trainings are organized for all newly recruited TOs and LTs at ICTCs and SRLs. Refresher trainings for LTs are organized every year. NACO aims at continual capacity enhancement of staff through regular assessments using a structured tool based on Quality System Essentials (QSEs) - the building blocks for a functional QMS to identify capacity building needs.

Enhancing Quality CD4 Laboratory Services

NARI, Pune is responsible for running an EQA program for CD4 labs. The EQA program is accredited by NABL as per ISO 17043. Lab Services division in collaboration with CST has developed tools for implementing QMS through TOT model at CD4 sites. Recognising the need for quality CD4 testing for scale-up of ART services across the country and for monitoring of PLHIV on ART, facilities for CD4 cell enumeration were increased in number to 254 by 2015.

Point of Care (POC) CD4 test was successfully validated and deployed at 20 ART centers mainly in North-Eastern region and other remote areas. Additional POC CD4 equipment will be purchased.

Enhance capacity and strengthen referrals and linkages for molecular tests: EID and Viral load

Monitoring HIV viral load is critical in determining failure of first-line ART and initiation of second-line ART. The ten reference laboratories with viral load testing facility performed over 8,000 tests in the 2012-2013. NACO conducted a feasibility exercise in 2014, the expand VL capacity. An expert committee constituted by NACO devised a scoring algorithm based on the in-person assessment checklist to assess which labs were ready to support HIV VL testing for the national program. Of the 37 labs, that had the capacity of molecular testing in public health facility, 17 labs responded and expressed interest in being a part of the national program for scale up on HIV Viral Load testing. These labs were assessed on-site. Of the 17 assessed, 3 labs are in a State of readiness to start testing as soon as NACO takes the decision to roll out VL testing for first line monitoring. The remaining 14 labs need varying levels of assistance to build capacity and offer VL testing services.

EID test among 14,372 HIV exposed infants and children less than 18 months of age was achieved through a network of 6 EID labs by employing a clinical algorithm of Dried Blood Spot (DBS); and whole blood specimen testing strategy using PCR technique. National Testing Algorithm was reviewed by Technical Resource Group in light of WHO 2013 and HTS 2015 recommendations and to incorporate change in testing technology.

A snapshot of Key Quantitative Indicators is as below.

Activity	Targets	2012-13	2013-14	2014-15	2015-16
		Achievements			
No. of CD4 tests performed/annum	2400000 pa*	1430044	1615750	1677309	1801978
No. of viral load tests performed (cumulative in NACP IV)	150000 *	7316	10168	10979	25856
No of EID tests for HIV diagnosis in children below 18 m/annum	30,100 *	26214	23739	14387	14320
Percentage of National Reference laboratories achieving accreditation (cumulative)	90%	54%	77%	85%	85%
Percentage of State Reference laboratories achieving quality systems leading to entry into accreditation cycle(cumulative)	30%	9%	21%	34%	44%

* Subject to referral (first line ART failure/ induction of HIV exposed baby in EID programme)

3.6.2. KEY ISSUES & CHALLENGES

Operational

- 1. Funding cuts & delays** has severely affected the overall implementation of laboratory services and QA/QC activities across the country – slowing of accreditation process, lack of onsite mentoring and troubleshooting at ICTC by SRL TOs, decreased participation in EQAS, non-conduction of training, non-filling of vacant positions, etc. The division received only about 35% of the budget in the previous two financial years. Of the approved Annual Plan funds released in 2014-15 was 34.07% (4.1Cr) and in 2015-16 was 32.73% (3.96 Cr).
- 2. Separate budget head:** Though a separate component of lab services is established, there is no separate budget head created under CPFMS. Funds for lab services are released under blood safety component, leading to confusion at the State level for allocation and disbursement of funds to the labs.
- 3. Lab Accreditation:** Accreditation activities have slowed down due to delay in release of funds. Maintenance of accreditation is also posing a challenge as every two years the accreditation is renewed which entails an accreditation fee and site visit of NABL assessors. A few labs received notices from the NABL for non-payment of assessment/accreditation fee. A spin off effect of implementing QMS in HIV serology is that lab have increased the scope of accreditation and included CD4, other serological tests, VL, EID etc. which amounts to increased accreditation fee.
- 4. National EQA programme:** due to budget constraints, Proficiency testing panels were not sent from SRLs to ICTCs in most of the States. Hence this resulted in decreased participation in EQAS compared to previous cycles. The PT data management at the provider level is not standardized. Education support to the participating labs and periodic communication at national, State and facility level is limited.
- 5. QMS in STI Labs:** The assessment of RSTRRLs highlighted key areas of improvement to strengthen quality in etiological diagnosis of STIs and improvement in sample referrals and linkages. The Syphilis EQAS program requires strengthening in areas of data management at the provider level, education support to the participating labs and communication at national, State and facility level.
- 6. QMS in CD4 labs:** Participation of CD4 labs in EQAS must be improved; POC machines are not part of EQAS/ PT programme.
- 7. Viral load testing:** Shortage of kits for viral load testing has been noted. There is a need for step wise implementation of QMS in the existing Government VL facilities. EQAS is not in place across all the Viral Load testing labs. There is a need to expedite DBS validation as a sample type especially to increase accessibility of VL test in remote areas.
- 8. EID testing:** Currently there are six labs offering HIV DNA PCR for early infant diagnosis. The sample transportation and the turnaround time (TAT) for different States varied from 1- 5 months. The delayed TAT was due to unavailability of kits and transition of testing platform around this time.

9. An observation was made in an apex lab meeting that there is increase in **HIV -2 positive reporting** from the southern region (Institute of Preventive Medicine, Hyderabad). This requires further review and epi-profiling in collaboration with the CST division.

10. HIV screening is not covered under EQAS; so is the need to develop guidelines to include the newer initiatives of community-based testing & lay provider testing.

11. State level issues:

- a. Equipment maintenance practices are not uniform across the States.
- b. Vacancies in State level positions
- c. The concept of forming a State level TRG to guide SACS on implementation of the technical guidelines as envisioned by the NACP-IV working group has not materialised.
- d. NACO has trained many national experts to conduct internal audits, which is an accreditation requirement. However, the laboratories depend on external auditors for undertaking the internal audits in all States.

3.6.3. RECOMMENDATIONS

SHORT-TERM RECOMMENDATIONS

Operational

- 1. Streamline release of funds** and reinstate the activities outlined for Laboratories, accreditation of HIV reference labs (NRLs/SRLs), AMC and calibration of equipment, scheduled trainings coinciding with PT/EQAS distribution, etc.
- 2. Equipment Management:** SACS to ensure functioning of all key lab equipment. This includes mapping of equipment in the State, allocating funds for equipment maintenance and calibration and timely release of funds. Leverage institution funds for equipment maintenance of ancillary equipment and key equipment required for testing beyond HIV.
- 3. Human Resources:** Vacancies of DD-LS and QM-LS should be filled at SACS and recruitment of TO and LTs should be fast tracked wherever there is a vacancy. To maximize available resources, the LTs should be trained on other testing areas so that one could become a backup of the other. STI and TB areas could be the first to begin with.
- 4. EQAS:** Timely release of funds to the PT provider for conducting EQAS. Ensure adherence to the annual calendar for HIV serology and CD4 parameter. Define and implement procedures for providing education support to ICTCs and RLs for quality improvement.
- 5. Assessments/Internal Audits:** In the last few years, through various trainings and capacity building initiatives, NACO has created a pool of internal auditors within the HIV Lab network. This extraordinary resource could be used for conducting annual audits of labs, which is an accreditation criterion. The SACS are encouraged to map the available resource and plan internal audits of HIV referral labs in the State.

- 6. Accreditations:** The journey of accreditation for HIV testing should yield benefits in other testing areas. The labs should be encouraged to replicate the learnings of QMS implementation in all the scope of lab testing. They should be encouraged to leverage institution funds for applying and maintenance of accreditation for testing beyond HIV.
- 7. Capacity Building:** TOs in HIV referral labs play an important role in implementing QMS in HIV referral labs and linked ICTCs through mentoring and monitoring visits. His role could be expanded to improve quality in other HIV related testing areas like CD4 labs, STI labs and molecular labs. This requires building capacity of TO in the desired technical areas and make provisions for his mentoring visits in coordination with SACS.
8. Expand and strengthen EQAS to include **HIV screening** at F-ICTCs
- 9. Viral Load:** Leverage and strengthen institutional capacities of medical colleges, tertiary center hospitals and other medical facilities for scale-up of Viral load testing. Validate newer POCT to increase accessibility
- 10. QMS in STI Labs:** In the pursuit of improving etiological diagnosis of STIs, quality of screening at DSRCs and sample referral mechanisms should be strengthened. Expand and strengthen EQAS for Syphilis and gradually for Gonococcus and other STIs.

LONGTERM MEASURES

Build Capacity for HIV Drug Resistance testing: Currently, there are two WHO accredited HIVDR national reference laboratories. As HIVDR surveillance activities expand and with scale up of ART services, a key laboratory priority is identifying and building capacity of additional national reference laboratories in HIV DR testing.

3.7. Information Education & Communication (IEC) & Youth

3.7.1. PROGRESS AND GAPS AGAINST TARGETS, RECOMMENDATIONS & PRIORITIES IDENTIFIED IN NACP IV

Under the National AIDS Control Programme, Information, Education and Communication (IEC) has received increasing focus with every phase, with a more strategic approach and stepped up level of engagement of stakeholders especially during NACP III. In NACP IV, the role of communications was to continue to provide not only cross-cutting support to all programmatic components from prevention to treatment, but importantly to act as a key driver of the change process, spanning behaviour change, advocacy and social mobilization.

NACP IV identifies the significant progress made in the IEC activities and the gaps that existed. While the emphasis has been shifting from awareness generation to behaviour change, data showed that there were still wide variations in awareness levels among the States on different indicators. For example, awareness of either heard of HIV or AIDS in Tamil Nadu is 99.5% while in UP it is 79%. Similarly awareness of ICTC in Tamil Nadu is 62% while in UP it is only 42% (BSS, 2009). A large population of youth and adolescents in 15 years + age group gets added every year. A sustained programmatic approach was required to reach them with information on HIV/ AIDS. The declining epidemic posed advocacy challenges in convincing opinion leaders and other stakeholders on the need for supporting NACP interventions. There were recurring episodes of stigma and discrimination against PLHIV particularly in health care settings, educational institutions and workplaces.

NACP IV envisaged that Information, Education and Communication (IEC) would be strategically positioned and integrated with all programme components to achieve the NACP IV goal. It would facilitate a coordinated response in all its programmes for addressing HIV/AIDS issues, ensuring uniform, evidence based, community-oriented, gender sensitive interventions in its socio-cultural context. The programme would make organized efforts targeting defined audience and geographical segments. To further enhance this effort, it would be imperative that greater professional inputs are provided in the area of IEC on a sustained basis. This would be done by significantly increasing the caliber of professionals who would be part of the program thereby ensuring optimal utilization of resources and bringing on board greater efficiencies.

The key strategies for IEC during NACP IV included

1. Enhancing awareness and knowledge levels among General Population to promote safe behavior, focusing specially on Youth and Women.
2. Motivating and sustaining behaviour Change in a cross-section of identified populations at risk, including High Risk Groups and Bridge Populations.
3. Generating demand for quality services; and
4. Strengthening the enabling environment by facilitating appropriate changes in societal norms that reinforce positive attitudes, beliefs and practices to address stigma and discrimination.

To further strengthen IEC initiatives in NACP IV, it was proposed to set up a NHCRC. This will help develop evidence based; innovative pre-tested proto-type IEC materials on selected areas to strengthen communication and address the IEC related requirements. Against the strategic priorities identified in NACP IV, several key achievements were made.

Strategic communications campaigns using a 360 degree approach in multiple languages

At the national level, large scale campaigns have been rolled out on PPTCT, stigma in health care settings, condom promotion, sexually transmitted infections, and voluntary blood donation. In addition, multi-media communication interventions in the North East have focused on addressing young people through music and sports events.

The design of mass media campaigns at National level have been undertaken with a level of technical proficiency. In many cases multiple language versions have been developed, for example the condom promotion campaign has materials in 12 languages.

A unique strength of IEC campaigns under NACP is the element of evaluation of their impact. To a large extent, evaluation of these mass media campaigns in terms of reach, recall and intent to act, is undertaken, again led by the National, rather than the State level. Campaigns that have been evaluated so far under NACP IV show good levels of recall and 'intent to act.' The Voluntary Blood Donation campaign reach and recall study showed a greater proportion of those who had seen the ads donated blood as compared to those who had not seen the ads. Also 'intent to donate in the future' was significantly higher among those exposed to the campaign. Similarly, the PPTCT campaign evaluation undertaken in 2014 showed high 'likeability' and also recall of the main message among the target audience. Knowledge levels about transmission as well as importance of testing and 'intent to act' were higher among those exposed to the campaign. A recently-completed study on media efficiencies achieved in the condom promotion campaign is evidence of increasing attention paid at National level to media planning and evaluation.

Use of non-conventional as well as ICT- based channels of communication

Further to the recommendations made in the NACP IV document, the emphasis on folk media has been significantly stepped up in the last few years. A strategic approach to planning, design, execution and monitoring is followed. The development of Operational Guidelines for management of folk media appears to have been an important step in streamlining the process and ensuring adherence to standards. The achievement across 32 States and union territories in the last 4 years is significant (an estimated 3.6 crore people reached). Key messages disseminated through the performances included safe sex, migration, stigma and discrimination, counselling and testing, PPTCT, women's issues, blood safety and vulnerability of youth.

While on the positive side, the roll out of such a large campaign at scale has indicated a high level of planning, co-ordination, as well as engagement of several stakeholder organizations, some challenges have already been identified such as further attention to be paid to quality monitoring, timely disbursement of payments to troupes, etc.

Representing the other end of the spectrum, the IEC efforts at National level have engaged with new media including platforms such as Twitter, Facebook and Youtube to reach younger people. A dedicated Facebook Page "NACOIndia" was started in 2014 and information is being disseminated through this page regarding various events, activities and other important updates on the resource centre and website. The page has more than 13,000 likes and is updated regularly with 2-3 posts a week. An online campaign was implemented around World AIDS Day 2015. The MOHFW Twitter Handle and hash tag "#KnowAIDSnoAIDS" was trending at top position on that day. A total of 17 million have been reached and 87 million impressions garnered through Twitter. NACO is also active on Youtube and uses Flickr to share photo galleries of events organized at the national level.

Setting up of India HIV/AIDS Resource Centre (Physical & Virtual)

NACP IV envisaged the NHCRC as a hub that would include the following.

1. A Library / Resource Centre and Display
2. Research repository on communication
3. Documentation of Best Practices and Dissemination
4. Innovations
5. Capacity Building of SACS, Field mentoring and Monitoring of IEC

In addition to a physical library that is up and running, a significant achievement has been the setting up of the India HIV/AIDS Resource Centre (IHRC), a one-stop point where resource materials on HIV/AIDS are made available in digital format for easy access by anyone in any part of the world. The resources posted on the site have been sourced from NACO, SACS, multilateral and bilateral agencies, NGOs, research and academic institutions. They include Policies and Guidelines, Newsletters/Annual Reports, Training Modules, Communication Materials, Baseline Surveys/Research Studies, Evaluation Reports, Fact sheets/Monographs, a Multimedia Gallery, Films/Documentaries, TVCs/Radio spots and other communication materials. At present more than 1100 resources have been uploaded and over 57,000 unique visits made by users in the period December 2014 - April 2016. Additional functional features include ease of getting updates, making comments, rating the resources, etc that can be done by registered users.

Launch of National AIDS Helpline (1097) in eight languages

While a helpline in some form existed earlier, this was strengthened and revamped with the launch of the National AIDS Help line (1097) supported by Population Service International (PSI) and implemented by Piramal Swasthya Management and Research Institute (PSMRI) from 1st December 2014. The Helpline caters to the information and tele-counselling requirements of MARPs, PLHIV, bridge populations and people from various walks of life. At present, the services are provided in eight languages (Hindi, English, Assamese, Bengali, Kannada, Marathi, Tamil and Telugu). The helpline receives about 60,000 calls in a month. Data showed that till 31st Dec, 2015 more than 8 Lakh calls had been received.

High visibility communication interventions and events – Red Ribbon Express & others

Encouraged by the nation-wide response received by the second phase of Red Ribbon Express (RRE) project in 2009-10, the third phase of the RRE project was launched on 12 January 2012 on the National Youth Day with the objective of disseminating HIV/AIDS related messages particularly among the youth. This special train covered 23 States, halted at 162 railway stations and reached out to 1.14 crore people during its year long journey that culminated on 12th January 2013. Besides the four exhibition coaches, the training coach imparted training to 1,04,091 district level resource persons and the service coach provided STI treatment to 11,514 people, counselled 90,730 people for HIV and tested 76,411 people for HIV on board. The general health check-up facility was availed by 79,938 visitors. Outreach activities were an integral part of the project. These were conducted through mobile IEC vans equipped with audio-visual system, collapsible exhibition and folk troupes in areas within the radius of 15-20 km around the RRE halt stations.

Other high-visibility events at National and State level took place, such as the annual World AIDS Day celebrations, an AIDS walk at Janpath that coincided with the visit of Miss Universe 2013 (Olivia Culpo), a visit by the SAARC Goodwill Ambassador for HIV/AIDS Runa Laila, and a visit by UNAIDS International Goodwill Ambassador, Ms. Aishwarya Rai Bachchan on International Women's Day to two centres of K.B. Bhabha Hospital, Mumbai that works towards preventing HIV infection among new born children and runs a crisis intervention centre for women. At State level too, a series of special events were organized, although much lower in scale, given the budgetary constraints faced, for example in Tamil Nadu special effort to focus on Transgenders was made by the introduction of events to celebrate festivals such as *Koovagam*.

Support to State AIDS Control Societies

NACO continued to provide IEC materials support to the State AIDS Control Societies. IEC materials for programme components were developed and soft copies sent to State AIDS Control Societies for replication. SACS were also encouraged to replicate materials after adaptation if required, from the Digital Resource Centre.

Periodic IEC Review Meetings with SACS were held and monthly reporting done using formats provided by NACO. A variety of data entry issues were detected and addressed in the last few years in terms of improving the quality of information provided on IEC by SACS. This has resulted in the improvement in the quality of such data.

3.7.2. KEY ISSUES & CHALLENGES

Operational

1. Resource constraint has affected IEC activities quite significantly, with the impact being felt quite strongly at State level – printing of IEC material, folk performances, mass media or long format programmes, trainings, etc. While some States have been able to build on the momentum and strong foundation laid during the previous phase of the programme and have continued to roll out communication activities although at an overall lower level,

the immediate and visible impact has been a lower experience of both 'surround sound' communication as well as materials for on ground inter personal communication.

2. There is a great need for communication planning & management at national and State levels. The need for building and strengthening capacity for local communication planning and management at SACS level was identified in previous phases and time and resources were expended under NACP IV to develop a comprehensive training module. In addition, Master trainers at the National level were oriented to this new module on Communication Planning & Management, but budgetary constraints have limited taking this to the next stage of roll out.
3. There is an urgent need for upgradation & updation of IEC material and development of new content to cover the newer areas, emerging concerns and new programme initiatives. Communication strategies are not adequately positioned to match the pace of changing programme guidelines, changing behavioural patterns and target audience. Further, focus needs to be given on ensuring availability of IEC material at all the service facilities. Especially, availability of relevant IEC material at TIs has been identified as an issue.

3.7.3. RECOMMENDATIONS

SHORT-TERM RECOMMENDATIONS

Strategy-related

1. **Ensure funding commitments for IEC:** It is important to keep the accelerator pressed so as not to lose the momentum generated by NACP III. This requires a minimum level of commitment on budgets for IEC so that planning and implementation at National and State level can be undertaken with a level of certainty and confidence. For eg the impact of a 360 degree campaign gets notably diluted if synchronization of mass media that is broadcast at the National level, along with mid-media and ground level IPC that is the State's responsibility, does not happen. Synchronization calls for budgetary commitment.
2. Create separate fund for State level local innovative pilots in communication, leveraging IEC funds from NHM and other sources. Eg. Institution of a system of 'reverse communication' i.e. the use of mobiles for accountability and grievance redressal, the use of local communication resources such as community radio, participatory development of communication materials, or the implementation of high visibility events such as cycle rallies. Dedicated resources for impact evaluation of communication initiatives should be set aside.
3. Shift focus from static one-way messaging to interactive formats that encourage dialogue and participation (eg. development of newer flip books as requested by counsellors at service delivery sites, use of mobiles for quizzes/games to reach youth, phone-in programmes, talk shows, strengthening helpline response at State level, stepped up use of social media)
4. Adopt a more strategic approach in harnessing channels for specific audience segments such as migrants and MSM who require communication channels beyond the traditional ones. TIs may be supported in reaching out with mobile communication options for

audiences such as migrants. CSR leveraging from mobile operators or other companies may be explored. Similarly MSM community may be reached through messages inserted on popular sites accessed by them such as Planet Romeo.

5. Focus on development of materials on topics that have emerged as high priority: Positive Living including Positive Prevention, HIV-TB Linkage, new PPTCT regime, OST, overdose management, and materials specific to IDU and FIDU.
6. Sustain and strengthen the key youth initiatives of Adolescent Education Programme and Red Ribbon Clubs in colleges. It is very important to ensure that the foundation that has been laid for sexuality education is not weakened – a level of continued support is required if this activity is not to lose momentum. It is also important to keep the morale high and to not lose the benefits of the gains till now.

Operational

7. **Development of IEC material in local languages:** Investment in developing the digital repository of materials at National level has been commendable; it would be important to optimize this investment by ensuring that at State level there are adequate funds for adaptation, translation and replication. Uploading of prototypes and development of broadcast materials at National level will be far more effective if States are not handed over 'translated'/ dubbed versions but are actually involved in the process for eg by sending over appropriate voice over artists so that regional accents are true to the original and don't sound stilted.
8. The availability of AV display facilities in service centres should be maximized by saturating such sites with available or even new (if budgets permit) communication materials. New audio visual materials would also be welcomed by RRCs as well as by Mobile vans.
9. Optimise the pool of Master Trainers who have been trained on the Communication Planning & Management. As Master Trainers are already oriented, a brief refresher may be needed before rolling out the training in a cascade manner across States and to district level as well. Training should include components of how to use materials, and also cover IPC for service delivery front-line staff.
10. Encourage districts, TIs and others to develop local material, train Master Trainers at district/ TI level to help develop local KP specific communication materials, develop framework at SACS level to screen and validate communication materials developed by districts and TI for larger circulation
11. **Strengthen national helpline:** While the National helpline has been strengthened, an evaluation of the activity indicated areas for improvement. A fairly high percentage- about 40%- of the total calls are unattended due to various reasons such as call drop, unavailability of agents to take the call, long call waiting time etc. Corrective measures have been recommended and should be put into place at the earliest. Also, inadequate promotion of the National helpline has been noted in the evaluation report, along with a limited feedback mechanism. It has been suggested that staff need to be updated especially on information concerning services and referrals.

Where State level helplines have functioned well, these require to be further supported by augmenting the human resources to handle the response required to the increasing volume of calls generated. For e.g. the TN specific helpline is very active and receives an average of 35-40 calls per day. Callers who are not comfortable with Tamil or English are provided the National helpline as reference. The promotion of the helpline is going to be expanded through the use of several outdoor media channels as well as by linking it to the mobile app. This would necessitate putting in place immediate plans for strengthening the response mechanism.

12. For youth, a more strategic harnessing of ICT may be considered- a comprehensive plan on how to arrive at an appropriate ICT based communication package for youth needs to be developed. This may include but not be limited to mobile reminder messaging, games, insertion of information on popular websites, etc
13. Out-of –college, out-of school component requires strengthening. Linkages with RKSK, RBSK need to be explored and the NYKs component is to be strengthened.

LONG-TERM RECOMMENDATIONS

1. **Strategic communication for enabling environment:** Recognizing that the prevalence of stigma and discrimination acts as a barrier to services and drives the epidemic underground, the NACP IV document visualized a key role for strategic communications in reinforcing positive attitudes, beliefs and practices and challenging negative social norms. In addition, the facilitation of the protection and promotion of the rights of PLHIV, marginalized and vulnerable populations was mentioned. The MTA visits highlighted that it's necessary to continue to work to build an enabling environment, given that stigma continues particularly in the community and work place settings and also in private health care facilities. Communication to build an enabling environment also assumes importance in the light of the fact that newer population sub groups need to be brought into the ambit of the programme, and this can be facilitated by providing a secure environment for them to come forward and seek the services on offer.
2. **Sustain capacity building in communication:** Budgetary constraints limit the roll out of trainings in the short term, but it would be essential not to curtail capacity building budgets in communication in the long run, as that would adversely impact the quality of decentralized communication activities and initiatives.

3.8. Mainstreaming

3.8.1. PROGRESS AND GAPS AGAINST TARGETS, RECOMMENDATIONS & PRIORITIES IDENTIFIED IN NACP IV

Mainstreaming is central to a concerted multi-stakeholder response against HIV/AIDS. Mainstreaming approaches to HIV have increasingly gained ground with the realization that the non-health sector can play an important and meaningful role in reducing vulnerability to HIV and mitigating its impact on those infected and affected. The importance of mainstreaming and partnerships becomes all the more relevant in a country like India which has low prevalence and low visibility, thus creation of HIV specific health infrastructure all across the country is not appropriate. The resources available under health infrastructure with any constituency, whether urban or rural, public or private, need to be optimally utilized to contribute to the National programme.

NACP III has taken mainstreaming efforts to new heights. Some of the key achievements include formation of the National Council on AIDS consisting of 31 Ministries, formation of State Council on AIDS in 25 States and 14 legislative fora, launch of policy initiatives such as National policy on HIV/ AIDS and the World of Work, operational guidelines for Tribal Action Plan, Mainstreaming HIV and AIDS for women's empowerment ,etc., Strategic partnership with 31 major ministries, training and sensitization programmes for different grassroots functionaries such as SHG, Anganwadi Workers, ASHA, ANM and members of Panchayati Raj Institutions, flagship initiatives in coordination with other ministries such as Red Ribbon Express, Adolescent Education Programme, etc. and Provision of HIV and AIDS related services in railway hospitals, defense hospitals, ESI hospitals and establishment of ART centers and ICTCs on PPP model.

Key strategies for mainstreaming under NACP IV include

1. Creation of enabling environment where the legal, policy and living environments are conducive for the PLHIV and HRG groups to access services.
2. Reduction/ elimination of stigma and discrimination faced by PLHIV and HRG at family, community and services level.
3. Provision of appropriate social protection schemes, by largely modifying existing schemes to make them more PLHIV and HRG friendly.
4. Expansion of HIV/AIDS services by fostering partnerships with other ministries, industry and corporate. There is vast health infrastructure and resources available with other ministries, which can be utilized to contribute to NACP-IV.

The four key constituencies for mainstreaming efforts under NACP include

- 1. Departments/ Ministries of Government:** This includes Ministries and Departments (Central, State, District, Block levels, including convergence with other departments within Health Ministry) Public Sector Undertakings, Panchayati Raj Institutions, Urban Local Bodies, Armed forces, Police and Paramilitary forces, Railway Protection Force, Judiciary, Parliament/legislature and other elected representatives, Statutory Authorities/Regulatory Bodies, Central and State owned universities, laboratories and special bodies (such as ICMR, CSIR, DRDO).

- 2. Civil Society:** This includes Not-for-profit organizations, Community Based Organizations, Faith Based Organizations, and Networks of people Living with HIV (PLHIV). Local self-governance units at the grassroots level in rural and urban setting are also included in this category.
- 3. Corporates:** This includes Private sector (large), Small and Medium Enterprises (SMEs), and CSR Foundations
- 4. Development Partners:** This includes multi-lateral, bilateral agencies and international foundations.

Mainstreaming with Public & Private Sectors

Significant in-roads were made in mainstreaming through MoUs with government departments & industry. Formal MoUs were signed between NACO, MoHFW and 14 other government departments/ ministries. Joint Working Group (JWGs) are formed at the national level, convened meetings and action points discussed. Directives are issued by higher officials in the concerned departments and circulated to States/ UTs for implementation of mainstreamed efforts at lower levels. Joint action plans are developed for roll out of MoUs.

Joint Working Groups are formed at State level to implement activities laid down in MoUs. These comprise members (officials) of the departments/PSUs/Private organisations and NACO, chaired by PD-SACS. Efforts are being made for regular meetings of Joint Working Group. Monitoring and addressing issues in implementation of Action Plan is an ongoing activity.

The outcomes of the MoUs and partnering with various ministries and State governments are summarized in the table below.

Particulars	Number
Joint Working Group (JWGs) for roll out of MoUs	All States/UTs
Public and Private Sector	
Number of PSUs and Private Sector approached and meetings held	227
Number of Institutions incorporated HIV Module in training	58
Number of Resource persons trained (TOT)	1101
Number of People Trained (Govt. Departments, PSU/Private Sector, Civil Society)	33720
Number of Institutions incorporated HIV Module in training	58
IEC	
Number of hoarding erected by Dept./PSUs	57
IEC material developed/displayed	33
No of IEC material developed electronically	4
Any other IEC activities	25
Services	
Number of ICTC established	11
Number of FICTC established	25
Social Protection	
Number of Directives issued by Govt: for specific schemes (Exclusive)	18
Number of Directives issued by other Departments	102
Directory of HIV Sensitive social protection	11

Enhancing social protection cover for PLHIV, affected population & Key Population

The following actions were initiated to enhance social protection for PLHIV & KP.

1. Advocacy for Social Entitlement & HIV Sensitive Social Protections for PLHIVs, CABA and MARPs.
2. Discussions held with departments/ industries for Inclusive and Exclusive programmes and Schemes of Social Protection.
3. Analyze existing schemes of social protection under various Ministries and propose amendments to make it HIV sensitive
4. Advocacy for issuance of Govt. Orders/ Circulars to extend the benefits of schemes to PLHIV.
5. Demand Generation and facilitate to access of benefits by PLHIV, CABA & MARPs from Industries and
6. Linkages with government schemes and or support for enhancing the uptake.
7. DAPCU led Single Window Model for Social Protection
 - a. Piloted and up-scaled DAPCU led Single Window Model for Social Protection.
 - b. Guidelines finalized on DAPCU Led Single Window Model for Social Protection.
 - c. 189 Districts (DAPCUs) from 21 States were trained on guidelines in 10 Regional Workshops.
 - d. Social Protection Initiatives have been incorporated in State & Districts Action Plan and Regularly reviewed and monitored.
8. HIV Sensitive Social Protection Portal and Compendium of Social Protection Schemes are developed.

As a result of all these efforts, around 135 directives have been issued by government to include HIV in social protection schemes, and around 9 lakh benefits have been accrued by the PLHIV till 2015.

Modifications in policies and guidelines

The following modifications have been achieved till date.

1. Policy inputs at National level were provided to include HIV related sections in the following.
 - a. Draft National policy on Children, 2013
 - b. Draft National Youth Policy, 2013
 - c. Draft Assisted Reproductive Technology Bill, 2013
 - d. Draft National Sports Development Bill, 2014
 - e. EFC/SFC on Saksham, Sabla. NSS
 - f. Draft Merchant Shipping Act
2. EFC proposed for age relaxation of widows infected by HIV by MORD

3. Transgender prioritized under Indira Awas Yojana
4. Antyoday Anna Yojana prioritized PLHIV
5. RSBY- HIV taken out from the exclusion list
6. Guidelines on privacy and confidentiality of PLHIV in Health Care Settings developed
7. Guidelines on HIV+ Health care workers in health care settings developed

Capacity Building

Almost 20 lakh front line health workers and personnel from various Government Departments ,Civil Society Organizations and corporate sector is sensitized during NACP IV.

3.8.2. KEY ISSUES & CHALLENGES

1. Process of mainstreaming HIV in the programs of the Ministries is slow and there is an expectation of human and financial resources to be provided by NACO. Though Joint Working Groups and coordinating mechanisms have been set up, there is limited momentum.
2. The pace of progress and development of an engagement relation is different with each ministry/ State and this makes it tough to have uniform performance standards for monitoring success. Some States are doing exceptionally good work and some are still at the beginning of advocacy with other departments.
3. Shortage of human and financial resources for mainstreaming limited the provision of technical support that other ministries expect from NACO in rolling out HIV activities & interventions.
4. There are no IEC/ communication efforts to generate awareness about and promote access to social protection programmes.
5. Fear of stigma is a deterrent for people to access social protection schemes. Free education for affected and infected children is not availed because parents/guardians do not want to disclose status of their children.
6. Grievance redressal committees are not established or non-functional to address stigma & discrimination at State level.

3.8.3. RECOMMENDATIONS

SHORT-TERM RECOMMENDATIONS

Strategy-related

1. Set up strong coordinating mechanisms & structures between NACO & other ministries/ departments with which MoUs are signed, to prevent fragmented multi-sectoral response and to make the efforts most productive; including synergistic reporting systems
2. Prioritisation of Ministries should be done and sustained partnership pursued with few ie Ministry of Women and Child, Ministry of Social Justice and Empowerment, skill development, etc.

3. Evolve and recommend a basic minimum social protection package for PLHIV (nutrition, financial assistance, education, shelter & travel for ART etc.), and ensure SACS work with concerned departments to operationalise them.
4. Political Commitment is one of the proven successful strategies, NACO should focus to revitalize National Council on AIDS (NCA) CA at national level and ensure regular meetings of State Council on AIDS (SCA), Legislative Forum on AIDS (LFA) at State level.

Operational

5. Setting up reporting and monitoring protocols is a requirement and NACO would need to support the ministries on this front. Having synergistic reporting systems across different ministries to measure and consolidate impact of mainstreaming activities undertaken in the respective ministries is the need of the hour. Currently SIMS is capturing some indicators of mainstreaming, we may explore increasing the range of mainstreaming indicators including the sub activities.
6. Conduct a study for assessment of utilization, effectiveness and efficiency of help desk and grievance redressal mechanisms in reducing stigma and discrimination; Evolve mechanisms to strengthen them
7. Plan and undertake comprehensive capacity building on issues of mainstreaming and social protection for staff at all levels (District, State and central level), avoiding standalone training of different ministries staff
8. Advocacy and sensitization of District level officials especially senior police officials is a pre-requisite for effective usage of social protection benefits and creation of enabling environment for PLHIV and KP at ground level.
9. More focus need to be given on establishment and functioning of grievance redressal mechanisms at all SACS to address stigma and discrimination effectively.

LONG-TERM MEASURES

10. Need to bring children & youth into the focus of mainstreaming efforts. Similarly, efforts are to be made to ensure specific needs of Transgender, greater enrollment and entitlements are addressed.
11. Single window model for easy access of social protection schemes to PLHIV & vulnerable groups, supported by a social protection schemes portal should be put in place in all districts. Options like digital lockers for social protection schemes and digital platforms like e kiosks that are being set up by different States to deliver services to the most deprived and HIV affected need to be explored. The Social Protection web portal need to be advertised and used widely for accessing the schemes and for easy monitoring.
12. Prioritise and strategize mainstreaming to increase public investment in HIV across all sectors.
13. Advocate scaling up enrollment of PLHIV and HRG especially in exclusive schemes to ensure maximum benefits are received.
14. Explore innovative methods of an integrated card to address the issue of confidentiality on HIV status while accessing social sector benefits.

3.9. Cross-Cutting Issues

NACP IV highlighted the focus to be given to five cross-cutting themes.

1. Quality
2. Innovation
3. Integration
4. Leveraging Partnerships
5. Stigma and Discrimination

To ensure **quality** of interventions and outcomes, it was felt that each intervention in NACP needs to be viewed in terms of a set of interrelated interventions leading to better outcomes and therefore need to be addressed in an integrated manner and coordinated effectively. Towards this end, the programme would focus on developing robust systems to ensure better quality of services. Five pillars of service quality: (a) human resources, (b) process of planning and coordination, (c) organizational relationships, (d) programme component linkages, and (e) technology (use of IT to track services) would be strengthened.

Given the maturity and complexity of NACP, the fourth phase provided the right opportunity to develop **innovative** approaches to achieve the goals of the programme. NACP IV would emphasize the spirit of innovation within all key programme strategies. Continuing the previous efforts innovative approaches would be used for integration of services, quality assurance at all service delivery points, coverage saturation, treatment adherence, data quality and use. IT based solutions would be leveraged for developing and showcasing innovations.

NACP IV continued its emphasis on **integration** of HIV/AIDS services with larger health system work towards sustainability of NACP activities without compromising on quality and coverage. It was proposed to enhance integration of OST interventions with MOH and harm reduction and social protection strategies with Ministry of Social Justice and Empowerment, STI care of general population, counseling and testing services and CST services with the general health care services as part of NACP IV. Joint coordinating mechanisms between NACP & NHM at national and State levels would be strengthened to execute effective integration.

In order to achieve the goal of the NACP IV, the programme envisaged promoting and leveraging of **partnerships**. NACP design offered a number of interventions, which needed widespread coordination and collaboration between various public and private sector entities. Partnership would be made with communities, civil society, positive networks, Government health system, other related Ministries/Departments of the Government, public sector units and the private sector both in the health and non-health sector. Leveraging on strengths of each other could significantly contribute to the achievement of targets.

Lastly, NACP-IV would further build up and strengthen the **stigma and discrimination** initiatives taken up during NACP-III and increase the efforts on the following: (a) creating an overarching enabling environment which reinforces positive attitudes and practices at the societal level, (b) addressing self-stigma among PLHIV and most at risk populations, family settings at health care settings, at workplaces, and at educational institutions, (c) facilitating

support to PLHIV, marginalised and vulnerable populations by periodically reviewing / developing policies and legal framework and (d) encouraging Greater Involvement of PLHA (GIPA).

STIGMA & DISCRIMINATION

NACP addresses the issue of stigma and discrimination at all levels through communication, research and advocacy, capacity development and partnership building, besides policy & programme guidelines. NACO in 2015 established a Technical Resource Group (TRG) on Stigma and Discrimination for providing necessary guidance and assistance to National AIDS Control Programme for developing National framework to address HIV related stigma and discrimination. State Grievance Redressal Committees have been set up at State level to protect the interests/ rights of HIV/AIDS infected people and to ensure that stigma free services are being provided to PLHIV and other marginalised communities.

Issues & Challenges

1. Persistent cases of stigma & discrimination; lack of efficient tracking of local initiatives promoting S&D based on HIV status
2. There is no structured or uniform mechanism for recording, tracking or addressing incidences of stigma and discrimination episodes even though the cases are being addressed due to proactive role played by SACS official/District officials or community push.
3. Stigma still persists in urban and rural India. IBBS, NFHS-IV and UNDP studies show high level of stigma and low HIV awareness in most States.
4. Gender imbalance in field level positions, especially medical officers, leading to sexual and reproductive morbidities of women living with HIV going unreported and unaddressed.

Recommendations

Policy-related

1. Need to promote "voluntary disclosure". This would help in reduction of stigma and discrimination through acceptance of HIV as "Normal" infection.
2. Advocacy with Niti Aayog & National Legal Service Authority for provision of free legal aid to all PLHIV and for inclusion of PLHIV under the BPL list, to be taken up.
3. Institutionalize mechanisms such as broader regulatory instruments covering entire health domains and private health care providers to prevent human rights violations of PLHV and Key populations
4. Strengthen community monitoring and systems by increasing the participation of PLHIV and key populations networks and communities.

Operational

1. Stronger 'positive speaker' and 'positive prevention' programmes through networks and SACS. Refresher training for counselors and Health care providers of public health domain. The matter needs to be handled sensitively with greater community involvement conveying "Rights with responsibility" perspective.

2. Stronger linkages with other line departments including WCD
3. TRG on Stigma to be convened at the earliest and develop a road map to monitor the situation and guide NACO and SACS with guidelines in addressing stigma and discrimination.
4. Local initiatives need to be monitored as they could trigger human rights violation among those who have been forced to undergo testing for HIV
5. Commission research on gender-related aspects of HIV programming and service reach.
6. Advocacy for taking the HIV & AIDS (Prevention and Control) Bill, 2014 forward.
7. Strengthen capacity building efforts on Universal Precautions and Stigma & Discrimination, by training institutes for counselors and Health care providers of Public Health system

GENDER & YOUTH

Gender dynamics in the context of HIV need to be understood in the larger perspective where the issues of vulnerability, access to prevention & treatment, as well the impact of HIV on their sexual and reproductive rights are understood and addressed. Women are more vulnerable to HIV due to biological, social and economic factors. Further, the impact of HIV is more severe on women than men as they are more likely to be stigmatized and discriminated if they are HIV positive or belong to marginalized communities.

As of now thousands of widows infected and affected by HIV are receiving widow pension. Few of the States have relaxed age and BPL status for widows infected and affected by HIV. The Adolescent Education programme (AEP) is aimed at providing correct information to youth. However, it addresses gender norms that are stereotypical and lacks focus on differential impact on boys and girls in their life cycles at different stages of development.

Primary prevention for women is left to be taken care of under the general prevention program for women. There is a need for more focused IEC/BCC material for youth and adolescents. Analysis of age and sex disaggregated data with regard to profile of key affected women and young people is lacking. There are cases of sexual violence and abuse against FSW, MSM and TGs and WLHIV.

Consider setting up a TRG on women and HIV, mandated to look into women, gender and HIV, changing gender norms and context to guide HIV responses through gender transformative approach. Strengthen primary prevention for women within PPTCT and revise SRH guidelines at national level in line with WHO guidelines to ensure SRH services for Women living with HIV and key affected women. Consider designating one of the Taluk level health center in a district to function as community care center for WLHIV and CLHIV, managed with the support of NGOs.

COMMUNITY PARTICIPATION

Various mechanisms have been created at both State and national level to increase their involvement and participation, both at governance as well as programmatic and technical mechanisms such as National Council on AIDS (NCA), State Council on AIDS (SCA), Technical resource Groups (TRGs) at national level, Country Coordinating Mechanisms (CCM), Grievance Redressal committees at the State level, NACP-IV working groups, etc. Networks have also

played key role in advocacy on issues related to stigma & discrimination; overdose prevention and management; Hep C diagnosis and treatment. Most of the facilities are playing critical role in facilitating government schemes through DAPCU-led single window system.

The National Council on AIDS may be reconstituted and meeting called at the earliest with critical involvement of civil society partners. TRGs should have a fair degree of community participation. Consider establishing a think tank or consultation to explore the need for fresh thinking on models of community involvement in TI and care, support and treatment services, institutionalizing community intelligence and knowledge as a key technical resource and promoting community ownership of HIV responses at all level.

3.10. Care, Support and Treatment

3.10.1. PROGRESS AND GAPS AGAINST TARGETS, RECOMMENDATIONS & PRIORITIES IDENTIFIED IN NACP IV

India has the second largest ART programme in the world launched in the year 2004 and has been widely acclaimed both, nationally and internationally.

NACP IV aimed at ensuring universal access to comprehensive HIV care services that include (i) free anti-retroviral treatment (ART) including second line as per National Guidelines (ii) management of opportunistic infections and (iii) facilitating access benefits from social protection schemes for all those who are in need, through a wide network of treatment facilities and collaborative support from PLHIV and civil society and with the existing support structures i.e. CCC, DIC & PLHIV networks. A network of Centers of Excellence (CoEs) and ART plus centers would also be established to provide high-quality treatment and follow-up services for PLHIV on ART with special needs. Besides this, the programme would also explore avenues to increase public-private partnerships.

The strategies under NACP IV include:

- Providing comprehensive HIV care and support through need based package of services
- Up-scaling access to Anti-Retroviral Treatment for all eligible PLHIV including children
- Strengthening systems for management of opportunistic infections
- Addressing stigma and discrimination issues in health care settings
- Strengthening systems for quality assurance, monitoring and evaluation of services to ensure continued high level of drug adherence and retention in care
- Building capacities and integrate with health system,
- Facilitating access to support services i.e. psycho-social and nutritional support through linkages with key departments and ministries.

Scale up of Facilities

The programme targets set for NACP IV include 12.5 lakh PLHIV on ART through 650 ART centres. The facilities providing HIV treatment services are mentioned in the table below.

Facility for CST	Baseline (Dec 2012)	As on March 2015	As on April 2016
ART Centers	355	475	525
Link ART Centers	685	1068	1107
Centers of Excellence	10	10	10
Pediatric Centers of Excellence	7	7	7
ART Plus Centers	24	37	70 (18 more sanctioned)
Care & Support Centers	253 (CCC)	325	360
PLHIV Active in Care			11,50,000
PLHIV Alive & on ART			9,50,000

There has been successful scale-up of the service delivery sites under NACP-IV as was planned. The expansion of service delivery points for ART has been significant with ART centers, FI-ARTC, LAC and LAC plus. Increasing number of LAC has successfully demonstrated feasibility of decentralization as well as partial integration within the HIV programme as well as with the broader health system. However, Issues of sub optimal linking out of PLHIV to LAC, loss to follow up and deaths at LAC demand attention and further analysis, and need to strengthen monitoring and mentoring of the decentralized sites. Recently, the concept of FI-ART centre has been introduced to cater to less accessible geographical areas. Currently 37 FIART are functional.

PLHIV receiving ART

By March 2016, around 9.4 lakh PLHIV were on ART including 15,500 on second line ART. The proportion of patients who were being lost to follow up is on a decline. The need for second line ART could be much higher than those currently receiving second line ART. There is a need to build the capacity of human resource at ART center for timely identification of immunological failure and referral ; expand number of sites for second line initiation as well as to expand viral load testing early for identification of failure and the programme has already simplified SACEP mechanism.

The number of CLHA enrolled under the HIV care are almost 7 % of the adults under care. This has remained consistently in the range of 6-8% over the years. A possible reason could be the level of epidemic (concentrated) but there will be need to strengthen the diagnosis in exposed infants so as to reduce the mortality and ensure that the exposed children are linked to care.

CD4 Testing Services

The CST programme provides facility for baseline investigations and CD4 cell count free of cost to all PLHIV registered at the ART Centres. Currently, there are 276 CD4 machines in the country and around 15 lakhs PLHIV are being tested annually. In the near future, if "Treat all" option recommended by WHO is adopted by India, then the 12 lakhs PLHIV registered in active care would require 2 test every year i.e. 24 lakh CD4 tests annually. Hence, there is a need of additional CD4 machines even if the CD4 test frequency is reduced after VL becomes available for all.

HIV-TB Coordination

The HIV-TB collaboration have been introduced and built upon in the program since NACP-II and there are established guidelines, operational plans and monitoring mechanisms to assess the evolution and collaboration. This is also evidenced by an improving retention cascade. The use of CBNAAT for the diagnosis of TB in PLHIV has been introduced but needs to be reiterated and its uptake needs to improve. Use of the CBAAT machines for viral load has to be explored. Though the national average for registered TB patients knowing their HIV status is at 77%, the range for States is wide (31-100%) and the States with a lower percentage should be monitored for further improvement.

Positive Prevention and Linking PLHIV to Social Schemes

Under NACP-IV, the positive prevention of PLHIV, positive living and to link them to existing social protection and benefit schemes were envisaged as key component of the strategy for

care, support and treatment of PLHIV. Counsellors at the ART centres, are expected to provide psychosocial support and counselling to all the PLHIV about ART eligibility, CD4 testing, regular follow up, positive living, positive prevention, nutrition & hygiene. The ART center assessment provided important insights into the efficiency and quality of counselling. It was documented after the assessment that one of the key gaps observed in counselling was the use of counselling tools, be it the IEC material (44%) or usage of the penis model to demonstrate the correct usage of condoms (48%). This is probably influenced by the fact that only 34% of the ART centres had all the IEC materials. It was also seen that 63% of beneficiaries were provided counselling about correct and consistent use of condom as per guidelines.

PLHIV are referred to Care & Support Centres (CSC) where they are linked to Social Welfare Schemes. CSC's are doing LFU tracking, providing peer and psychosocial counseling, treatment literacy/adherence, home visits, stigma reduction, advocacy with other line department to increase the access (But most of the time the procedures/paper work is the major challenge in this), partner testing, local resource mobilization, and Intensive case finding for HIV as well as TB. CSCs have linked **3,39,804** PLHIV to Social welfare schemes and entitlements till March 2016, out of **11,50,000** clients registered under the programme.

Quality of Care

There are several inbuilt features in the program that address the quality issues. Standardised training curriculum, regular review meetings at National and State level and the monitoring and mentoring of the sites by Regional coordinators have proved to be very beneficial. However, there is a need to ensure that the State level meetings are held regularly and are goal oriented. There are a lot of vacant positions for RC as well as at the ART centers that adversely influence the quality of care. This has been supported by the findings from the ART center assessment that establishes that the centers assessed were performing very differently in different domains although they were receiving similar financial support and lack of HR and training were very evident contributory factors.

The Early Warning Indicators are important quality of care indicators and trainings have been successfully conducted across the country using standardised tools and methodology. However, it has to be ensured that these remain an annual and regular activity.

3.10.2. KEY ISSUES AND CHALLENGES

Strategy-related

1. Gaps in treatment cascade:

The cascade approach to analyse retention is an important quality parameter of care support and treatment services. There is an evident gap in the linkage between detection and linkage to care (85%) and this needs to be immediately addressed. 93% of those registered for pre-ART under CD4 testing. Out of them, around 73% are found to be eligible for ART at the current guideline of CD4 350. Out of all those who are eligible for ART, only 85% get started on ART. Out of those who are started on ART, around 93% are retained on ART at the end of Oct 2015-16. The same was at the level of 86% for the year 2014-15.

The limited number of CD4 machines has been perceived as major factor in the gap that occurs in the cascade for baseline CD4 testing. Even when there are linkages for CD4 testing, they are already overstretched and having fixed days for CD4 testing leads to lack of testing at many places as patients do not come on that day and miss the testing. The situation is also made worse when there is a breakdown of CD4 machine and shortage of the CD4 testing kits.

Though the cascade for pregnant women and TB co-infected PLHIV has evolved significantly, there is paucity of data on linkages and cascades for at-risk population. Retaining PWIDs in care is not an easy task. And since IDU is major concern in the some States, ART centers have large number of LFUs and many of them are PWIDs. Since this problem is limited to certain States, a plan to deal with this problem needs to be developed at a regional or State level.

2. Effectiveness of strategy of setting up Link ART Centres

The link ART centers and LAC plus were developed based on findings from operational research by NACO that established that long travel distances, time and associated expenses were a significant barrier to access to care as well as barriers to adherence. However, the program has seen less than 10% PLHIV to be linked out from the ART centers. There have been LAC with significant numbers of lost to follow up and deaths. Non availability of staff nurse at decentralized facilities also hinder expansion of LAC plus.

3. Adoption of international guidelines of CD4 eligibility of 500, test and treat and scale up of viral load testing: While India has adopted these guidelines, a detailed road map for their roll out has to be evolved with due consideration of context of India's programme, targeting of population sub-groups, implementation approaches & budgetary requirements. In the current context of large number of vacancies & serious issues with supply & distribution of ARV drugs, the system preparedness for shifting to higher CD4 eligibility or introduction of test & treat need to be systematically assessed, as these revisions will add further burden to the system.

Operational

1. Vacancies across all types of CST facilities with limited training

There are large number of vacancies of all cadres of staff- doctors, lab technicians, counselors, pharmacists, data managers, staff nurses and care coordinators at all the ART centres across the country. These are due to non-availability of specified cadre, remuneration issues and high attrition rates. Further, there is a gradual decrease in the number of trainings that have taken place and a lot of newly recruited staff remain untrained. This has an effect on the quality of the services provided at the ART centres.

2. Supply & distribution of ARV drugs

There have been issues with supply of ARV drugs in last 2 years. Several ART centers faced shortages for one or other drug- both adult and pediatric. Even when the National supply was ensured, there were gaps in the distribution within the State. Supply chain management for delivery of drugs to ART centres is not well-defined, leading to improper coordination between NACO, SACS and ART centres. Frequent stock outs hamper the progress achieved

through investments in ART programme, and hence need to be addressed with utmost urgency.

3. Sub-optimal scale up of Second line ART

There are patients who are failing on first line treatment but are still continuing same failing regimen due to various reasons starting from - irregular CD4 testing, not identified as failure by ART staff, delay in getting appointment of SACEP, inability of client to visit SACEP and unavailability of viral load test, etc. There is a need to build the capacity of the ART center staff to identify and timely referral of the PLHIV with suspected failure. Operationally, the process of SACEP has to be simplified and there is a need to have higher number of ART plus centers with ensured supply of viral load test kits and second line medicines. Even with revised SACEP mechanism there is significant risk of delay.

4. Sub-optimal HIV-TB referral

Referral for TB diagnosis from ART Centres is not optimum at all ART centers and is very selective. Four symptom screening for TB is not happening as per guidelines and needs to be further strengthened. AIC measures are not optimum.

5. Non-uniform quality of care across ART centres & overcrowding of ART centres

The ART centers are dispensing ART on monthly basis. Patients at times are not able to come every month to collect medicines, leading to low level of adherence and chances of high LFU. With the increase in the CD4 threshold for initiation of ART to 500, the current available infrastructure and facility will be further challenged to take the increased burden. Coupled with HR and supply chain issues, quality of care at various ART centres is sub-optimal and non-uniform.

6. Inadequate availability of drugs to treat OIs

Regular access to free OI drugs for patients registered at the ART centers is essential. The availability of OI drugs at ART center either through SACS or through the health system was often limited. At the State level the SACS needs to coordinate with the general health system to ensure availability of basic drugs included in the list of the State essential drugs such as CPT. The funds provided by NACO should ideally be used for drugs that are not generally procured by the hospitals or in short supply.

3.10.3. RECOMMENDATIONS

SHORT-TERM RECOMMENDATIONS

Policy-related

1. Consider implementation of new CD4 threshold at CD4 < 500 for ART start and Test and Treat for KPs and SD couples (with emphasis on consistent condom use) to reduce LFU in pre-ART.
2. To improve quality of services, decrease mortality and prevent HIV DR, consider scaling up Viral Load testing for treatment monitoring and for that, infrastructure with the general health system needs to be strengthened.

3. Pharmacovigilance activities need to be scaled up further in collaboration with the pharmacovigilance program of India.
4. A pilot at high load ART center to understand feasibility of having LAC in CSC/ TI coupled with longer drug dispensing duration should be considered.

Strategy-related

5. Conduct national and State HIV DR survey.
6. Ensure Uninterrupted Supply chain management of ARV drugs to all centres.
7. Develop a model of task shifting and increase drug dispensing duration to manage overcrowding of ART centres and improve quality of care.
8. Set up case tracking mechanisms through appropriate upgradation & integration of existing softwares with SIMS. This is very critical to plug the gaps in testing and treatment cascade and promote retention on ART and minimize the numbers of registers maintained at the ART centers.

Operational

9. Simplify SACEP mechanisms so that it does not become a hurdle in scale up of second and third line ART. Fast track referral to SACEP.
10. SACS and DAPCU should coordinate with general health system for ensuring OI drugs availability and for improving access of HCV testing and treatment.
11. DAPCUs to be engaged in CST reviews in all districts where they are functioning. TI-ICTC-ART and Retention (cascade) should be discussed together at district level. DTO should be involved in ART meetings.
12. Improve counselling of TB patients and PLHIV on airborne infection control.
13. Improve counselling tools and Regular training for counselors. Include positive prevention and counselling for adolescents, self-stigma and viral hepatitis co-infection.

LONG TERM RECOMMENDATIONS

Policy-related

1. Consider Test and Treat for all.
2. Review the operational guidelines (incl. Finance and HR) for ARTC based on newer initiatives and existing client load

Strategy-related

3. Role of Centres of Excellence should be redefined. Role should be strengthened to second and third line ART, off site mentoring, trainings, research and pharmacovigilance.
4. Need to strengthen the positions and role of Regional Coordinators at States in view of the changing guidelines and further scale up.
5. CSCs can continue to play an effective role as a bridge between all institutional services

(ICTC, PPTCT, ARTC) and add value to CST program in stigma reduction, which will motivate people to come forward. Their role may be further expanded to include HIV testing for all, refill of ARV drugs with flexibility of timings, promoting partner/ family testing and positive prevention and living and Inter district/State coordination for LFU tracking.

6. To strengthen the LACs, prioritize the monitoring and supervision of LAC by the parent facility where ART centre is located. Criteria for initiating LAC need to reflect the decentralization of patient load as a perspective. Start LAC at some TIs with high numbers of PLHIV, with clear SOPs.

Operational

7. Simplify M&E based on digitalization of white cards with use for patient monitoring as well as program reporting.

3.10.4. AREAS FOR FURTHER DELIBERATION AND REVIEW, BEYOND MTA

1. Strategies to strengthen CD4 testing services
2. System preparedness & roadmap for roll out of international recommendations (Test & Treat, Viral load testing, etc.)
3. Strategies to address risk behaviours of PLHIV & prevent transmission to partners

STRATEGIC INFORMATION MANAGEMENT

3.11. Strategic Information (Surveillance, Research, Programme Monitoring, Data Analysis & Use)

3.11.1. PROGRESS AND GAPS AGAINST TARGETS, RECOMMENDATIONS & PRIORITIES IDENTIFIED IN NACP IV

India's success in tackling its HIV/AIDS epidemic partly lies in how India has developed and used its evidence base to make critical policy and programmatic decisions. Over the past 15 years, the number of data sources has expanded and the geographic unit of data generation, analysis, and use for planning has shifted from the national to the State, district and now sub-district level. This has enabled India to focus on the right geographies, populations and fine tune its response over time.

The National AIDS Control Programme recognizes that rigorous and scientific evidence is central to an effective response and hence, having a strong Strategic Information management was a high priority agenda under NACP-IV. Under NACP-IV, it is envisaged to have an overarching knowledge management strategy that encompasses the entire gamut of strategic information activities starting with data generation to dissemination and effective use. The strategy will ensure

1. High quality of data generation systems such as Surveillance, Programme Monitoring and Research;
2. Strengthening systematic analysis, synthesis, development and dissemination of Knowledge products in various forms;
3. Emphasis on Knowledge Translation as an important element of policy making and programme management at all levels; and
4. Establishment of robust evaluation systems for outcome as well as impact evaluation of various interventions under the programme.

Surveillance

Most of the key recommendations of NACP IV on surveillance and epidemiology have been acted upon. Country implemented 2 rounds of ANC-HSS and world largest Integrated Biological and Behavioral Surveillance during NACP-IV. Surveillance sites among MSM, TG, IDU and Migrants were enhanced for better understanding of the epidemic within the group.

With a view to strengthen the surveillance activities among HRGs, NACO implemented the Integrated Biological and Behavioural Surveillance (IBBS) to generate evidence on risk behaviours among HRGs to support planning and prioritization of programme efforts at the district, State and national levels. Never before has an attempt been made to capture nationally representative biological and behavioral data from 138,400 individuals from 258 domains across around 350 districts of the country- the largest sample for an IBBS anywhere in the world; computer assisted personal interview (CAPI) devices have been successfully used for conducting all interviews; and an entire information management system platform was created for real time monitoring and supervision which had a tremendously positive effect on the quality of the data that was collected. The Real Time Monitoring & Data Management System

enabled quick data cleaning and analysis of the data leading to publication of national report in a record time.

Data from surveillance has been used to generate estimates of HIV burden at national & State levels in the country through two successful rounds of HIV estimations in 2012 & 2015. HIV Estimations 2015 was done using the latest model with most recent epidemiological and programmatic evidences. Additional bio-markers were added in the surveillance system with all specimen for ANC HSS 2015 and IBBS 2014-15 being tested for HCV. Dissemination of findings from surveillance system were fast tracked in the form of Technical Briefs, National Reports and Epidemic Fact Sheet. Studies have been commissioned on the issues like HIV Incidence Surveillance, case based surveillance as well as using PPTCT data for HIV surveillance.

While a lot of progress has been made on the Surveillance and Epidemiology under NACP-IV, there have been certain shortfalls against the recommendations for NACP IV. Expansion of ANC surveillance sites among private sector could not be done. India HIV Estimations borrows many of key assumptions from foreign countries in the absence of India specific data and hence one of the key recommendations under NACP-IV was to commission studies to generate India specific data; however not much of the progress has been made on this key recommendation. Further, the HIV estimation process could not be extended to the district level, and lack of district level estimates remains a key information gap in the programme. The progress on the in-depth analysis of the epidemiological evidences, though improved, has not been satisfactory.

Programme Monitoring through Strategic Information Management System (SIMS)

SIMS is an integrated web-based reporting and data management system that captures monthly programme monitoring data and manage over 30,000 users across the country for various components of HIV/AIDS Control Programme. SIMS has made real time data entry & access to the user and also the latest data item report is available for analysis and evidence based action for timely corrective measures for programme managers and policy makers and also helps in monitoring at the grass root level.

Key improvements brought in management of SIMS include

1. IT team having four members deployed at NACO with the support of partners CDC, WHO & UNAIDS
2. Successful Takeover & Knowledge transfer of SIMS from the developing vendor.
3. Implementation, Maintenance and Development of SIMS at NACO under the supervision of M&E.
4. Resolution of Bugs / Errors identified & reported by users & changes in formats as suggested.
5. Database of SIMS is cleaned by removing duplicate records to increase the quality to get the meaning output & reports.
6. Masters of SIMS are centralized for Activate / Deactivate and Registration of New Facilities on regular basis with the consultation of divisions at NACO.

7. Most important new features added to SIMS include
 - a. Standard Report Module is developed to increase the Accessibility & Use of data at the State & National level having more than 4000 Excel files ready for download for Key Indicators providing Data / Information across State / District / RU.
 - b. Basic Profile Indicators are added on the Home Page of SIMS which is to be updated by each center so that the Name, Address, Mobile Number etc. is available at NACO / SACS / DAPCU level.
 - c. Report Section is now open at the Center / RU level to get the trend analysis and aggregate reports of their own monthly data. Each Section of Data Item Report is now generating all the Registered RU List so that the Indicators along with data can be compared across the sections.

Data Analysis and Dissemination

NACP IV identified that the element of Knowledge Translation would be given the highest priority to ensure making the link between Knowledge and action at all levels of the programme. The programme would focus strongly on building capacities of Epidemiologists, Monitoring & Evaluation Officers, Statisticians as well as Programme Managers in appropriate and simple methods and tools of analysis and modeling. Institutional linkages will be fostered and strengthened to support programme for its analytical needs, at national and State levels. Specific activities will be undertaken for promoting data use at national, State and district levels. Scientific writing within the programme on important topics will be promoted and their publication in peer-reviewed journals and conferences will be facilitated.

Setting up of a separate Data Analysis and Dissemination Unit at NACO with one Epidemiologist and one Programme Officer (Statistics) is a major achievement towards reaching the goals of NACP IV. National Data Analysis Plan, a flagship initiative launched during NACP IV was a systematic effort to address all the above priorities identified in NACP IV. To address the evidence gaps in the programme and to make the best use of available data, the Data Analysis and Dissemination Unit of National AIDS Control Organisation (NACO) has initiated the **National Data Analysis Plan (NDAP)** under NACP-IV. The NDAP is an effort to analyze the huge amount of data generated under the programme, to develop analytic documents, scientific papers, journal articles, etc. for publication and wider dissemination, and to provide scientific evidence for programme management by strengthening and scaling up appropriate strategies.

28 institutions (ICMR, medical colleges, development partners and multilateral agencies) apart from NACO and SACS collaborated with NACO in facilitating NDAP. 68 analysts from various institutions, including SACS, ICMR, medical colleges and consultants were engaged. 30 mentors (senior researchers in HIV across the country) were engaged to mentor the analysts. NDAP developed skills among programme personnel as well as analysts for reviewing large programme data sets for quality issues, systematic analysis of data, conceptualization of research questions, developing hypotheses, and scientific writing. Out of 40 topics which have been finalised for the analysis plan, 32 topics (80%) could progress to the stage of scientific writing. Of these, 16 topics (articles) reached the stage of submission to journals for publication.

Reports on 21 topics summarizing the findings and programme implications have been prepared. A dissemination seminar was organised on 30 September, 2015 for wider publicity of the NDAP findings.

As part of creating knowledge products, apart from NDAP reports and research articles, Data Analysis and Dissemination Unit has brought out State Epidemic Fact Sheet, State Programme Fact Sheet and District Epidemiological profiling report of States.

Research and Evaluation

Research is a vital component of Strategic Information Management under the National AIDS Control Programme (NACP). National AIDS Control Organisation (NACO) focuses on ensuring translation of research outputs into programmatic action and policy formulation. NACP IV envisaged that research priorities will be customized to the emerging needs of the program. Emphasis would be given to undertaking HIV/AIDS research required to answer the key questions and grey areas in the programme. The research mandate under NACP included preparation of national plan for HIV/AIDS research, promoting and coordinating research on HIV/AIDS through partnership and networking with stakeholders, supporting capacity building for HIV/AIDS research and being a central repository of all relevant resources, research documents and data base on HIV/AIDS in the country.

In order to identify key evidence gaps and research needs of the programme and to systematically address them through scientific research, NACO has articulated the 'National HIV/AIDS Research Plan' (NHRP). NHRP focused on commissioning time-bound research studies in a phased manner, with a multi-centric approach and evolving a strong mechanism to use the research outcomes for programmatic purposes. The key defining features of NHRP are as follows:

1. Research focused at addressing current evidence requirements of the programme and to assist evidence based policy decisions and programming
2. Multi-centric and representative research for meaningful evidence at the national level
3. Ability to offer solutions customised to region specific context
4. High standards of scientific rigour and robustness
5. Innovative research methods to overcome research barriers
6. Institutional collaboration and cross-learning
7. Active involvement of programme leading to ownership of research outcomes and their translation into programme

A detailed exercise to assess existing information gaps in the programme was conducted involving programme managers at NACO, State level and development partners. Research priorities identified by Working Groups during NACP-IV Planning Process for all programme divisions were also included and reviewed. The compiled list was screened and reviewed to separate the topics that can be studied through analysis of available secondary data and those that need fresh research. Key research questions were developed for the identified topics

and were categorised as epidemiological studies, socio-behavioural, bio-medical and clinical research, and operational research.

The Phase-I of National HIV/AIDS Research Plan under NACP-IV has been rolled out with the support of development partners. All the guidelines, norms, procedures & institutional framework developed for implementing NHRP have been duly approved. Around 91 research priorities have been identified – phase I (37), phase II (34) and phase III (20). Under Phase I of the National HIV/AIDS Research Plan, proposals were invited from over 150 government and private institutions on around 37 key research areas. The proposals were screened & reviewed by the Research Plan Screening Committee, Technical Resource Group on Research & Development and NACO-Ethics Committee. Proposals have gone through 4 meetings of Research Plan Screening Committee, 3 meetings of TRG on R&D and 3 meetings of NACO Ethics Committee and over 60 researchers and senior faculty from 52 institutions and organisations have been involved in this process of revision & refinement of protocols. Overall, a total 34 Phase I studies – 15 NACO supported; 19 donor supported – were approved. Ten NACO supported research studies have been commissioned, while donor supported studies could not be commissioned due to withdrawal of funding support from donors and changing programme priorities.

Besides, Indo-foreign collaborative research proposals referred by Health Ministry's Screening Committee, PRC on STI & HIV, ICMR have been reviewed from time to time. Around 120 research proposals have been reviewed by TRG on R&D and NACO Ethics Committee. National Guidelines on Ethics for Research in HIV/AIDS were finalised and published. Network of Indian Institutions for HIV/AIDS Research (NIHAR) was promoted to include 42 institutional members currently. Initiatives for building human resource capacities were also undertaken through 9 National and regional Capacity Building workshops on subjects including ethics, operations research in Basic Services, Management of STI/RTI, Care, Support & Treatment and Targeted Interventions. Fourth round of NACO Research Fellowship Scheme, 2012-13 was initiated to build the capacities of young researchers in the field of HIV/AIDS in the country. So far in four rounds of NRFS, 37 students have been awarded this fellowship. The fellowship has been discontinued after the 4th Round.

3.11.2. KEY ISSUES AND CHALLENGES

Surveillance and Epidemiology

1. Redefining the approach and model of HIV surveillance systems to suit the changing epidemic patterns and programmatic considerations
2. Sub-optimal utilization of institutional support structures
3. Lack of epidemiologists to support epidemiological work under the programme

Programme Monitoring

1. Integration of all IT applications operating under NACP with SIMS to facilitate strong linkages and individual patient tracking across various components of NACP is a critical challenge.
2. Removal of Excel based systems of various divisions of NACO and making SIMS as single source of data / information to increase the accessibility and quality.

3. TI – TG Formats to be developed and Masters of TI in SIMS to be updated & modified to gain the confidence of users to start using the SIMS.
4. Separation of ICTC Monthly New Format of SIMS into four different formats to reduce the bugs / errors reported during upload / view and generating the output reports.
5. Development of ART Monthly MIS Format in SIMS & Frequent Changes in Formats.
6. Browser Compatibility, Excel Version Update, Hardware & Poor / No Internet Connection are some field level issues reported. Tablet / Android based data entry expected by the users.
7. Servers of SIMS are getting old; SIMS needs to be shifted to NACO Cloud which is a major challenge.

Data Analysis & Dissemination

8. Lack of ownership of programme divisions on the programme data
9. Data quality issues have to be addressed.
10. Lack of dedicated staff to address the area of data use; existing staff charged with multiple routine responsibilities
11. Administrative push for Data analysis and dissemination; Regular training and capacity building of staff at national and State level for producing quality data analysis reports and papers

Research & Evaluation

12. Lack of assured funding to support research activities from NACO and development partners
13. Lack of clarity on the research mandate of NACO and lack of administrative support
14. Procedural delays in the processing of research proposals, leading to loss of relevance of some studies with time

3.11.3. RECOMMENDATIONS

SHORT-TERM RECOMMENDATIONS

1. Organise an expert consultation to review and evolve a roadmap for development of Surveillance & Research activities as detailed discussion on these issues is beyond the scope of MTA. A technical consultation needs to be organized with international and national experts to discuss and propose the most effective and efficient way to conduct surveillance, and obtain data for monitoring the epidemic and the response over time. Evolution of case based surveillance mechanisms and HIV estimations should also be deliberated.
2. Efforts to further strengthen national and State level HIV estimations/projections with Spectrum by using up-to-date surveillance and programme data should be considered. Various models for generation of district level estimates may be deliberated and piloted in select States with adequate data to provide road-map for getting estimates of programme coverage at sub-district levels.

3. Partnerships with national and regional institutes to support surveillance activities should be discussed and reinvigorated.
4. **Capacitate SIMS as One integrated system** for data management & data analysis to avoid multiple data reporting & parallel data management systems and to ensure linkages and individual patient tracking across programme components. Foster ownership of SIMS by programme staff across levels. CST and TI reporting systems need to be fully integrated into SIMS. Top leadership push needed to accelerate consolidation of multiple IT systems of data reporting and management systems into SIMS (incl. TI and CST); No new parallel systems should be developed outside SIMS. Improve linkages and referrals across programme components. Resolve remaining technical and substantive shortcomings of SIMS so that it can be used effectively for reporting, data analysis, and strategic planning. Add supplementary features to SIMS so that it becomes an effective operational analysis and strategic planning instrument to be used at service delivery, district and State levels.
5. **Strengthen SI – Programme Component collaboration & coordination for effective use of programme data for decision making.** SI/ M&E functions should be managed in close collaboration and reciprocal support between SI and programme staff at all levels. To avoid duplicate systems & mismatches in data, position NACO M&E officers (currently working under prog components) under SIMU and designate them to support respective programme components. Training and orientation on use of SIMS and SIMS outputs for strategic planning to programme, M&E and TSU personnel at different levels. Enhance collaboration between SI and programme staff through regular (weekly) data review & feedback meetings at national & State levels. Involve M&E teams at all levels of training in other IT systems by the prog divisions (PALS, IMS, etc.).
6. **Undertake a indicator rationalization exercise** with objective of minimizing the reporting burden from peripheral level and simplify reporting formats as much as possible; Operationalise a dashboard for regular programme monitoring; Afterwards freeze reporting formats and refrain from changing them for next 2-3 years. M&E guidelines & training manuals need to be updated and tailored for use at different level.
7. **Strengthen data management & data use at sub-national level (State/ district/ block).** Geo-prioritization should be updated based on new evidence and applied for customised programming. Invest in upgrading the IT architecture at reporting unit level to enable moving towards real time monitoring and effective use of data for strategic planning and programming. Capacity building of SI & programme managers, TSU staff in data analysis & data use. Leverage institutional support (PSM departments of medical colleges) to support sub-national data analysis & data use. District level estimates need to be produced to obtain denominator for first 90. ART data needs to be disaggregated by residence of patients for this purpose. SI vacancies at national & State level, especially of M&E officers & Epidemiologists need to be filled on an urgent basis; SI staff need training and mentoring to better understand programme and data analysis.
8. Commission already approved studies on the identified priorities by securing funds from domestic or donor support.
9. Review and finalise research mandate at NACO through an expert consultation. Strengthen

the research work through filling up of vacancies in research division at NACO, developing a road map for the research activities, ensure financial commitment from partners and domestic budgetary allocation for research through creation of a research fund and fast track research proposals.

LONG-TERM MEASURES

10. Move towards real time monitoring, feedback and action at sub-national level
11. Development of mechanisms and systems to generate outcome and impact data at sub-national level for effective programme response. (through use of good quality programme data; HSS Plus; Etc.)
12. SIMS need to evolve to support individual tracking across TI, ICTC and ART and cascade analysis through case reporting systems, including linkages (e.g. with Aadhaar etc)
13. Identify the evidence & research requirements for NACP V & repeat the flagship initiatives such as NDAP, NHRP at the beginning of NACP V to address them; Incl finalising research mandate & collaboration protocols with ICMR, institutes, medical colleges, etc.; Undertake periodic programme component evaluations
14. Strengthen surveillances, estimations & modeling to address incidence, prevalence, mortality trends including drug resistance at sub-national level and generation of India-specific evidence for modeling etc.

INSTITUTIONAL STRENGTHENING

3.12. Institutional Strengthening

3.12.1. PROGRESS AND GAPS AGAINST TARGETS, RECOMMENDATIONS & PRIORITIES IDENTIFIED IN NACP IV

In response to the evolving HIV/AIDS epidemic, the National AIDS Control Programme (NACP) had identified institutional strengthening as one of the key objectives and expanded its scope accordingly over the years. Several initiatives were undertaken to establish and monitor the program at national and State levels during the first and second phases of NACP. The National AIDS Control Organisation (NACO) and the State AIDS Control Societies (SACS) were fully established and coordinated the programmatic response.

Under NACP-III, the programme implementation structures expanded further down to the district levels by establishing District AIDS Prevention and Control Units (DAPCU) within the framework of District Health Societies. The institutions, systems and processes identified and strengthened during this phase achieved significant results in most parts of the country. The key organisational structures and the partnerships forged at national, State and district levels for securing the required level of involvement and participation from all stakeholders have been well defined and executed during the course of NACP III implementation. One of the key successes of NACP III program was due to the high quality human resources which were built in the area of HIV and AIDS due to the many capacity building programs which were conducted during the program period.

NACP IV was geared to sustain and strengthen the key programme implementation structures and institutional arrangements established under NACP III. To sustain the efforts of NACP III, NACP IV would build on these achievements and ensure consolidation and sustenance of the institutional capacities. Keeping in view the disease burden, programmatic needs and the future direction of implementation strategies, some modifications to the on-going structures would be introduced with an emphasis on quality, innovation and optimum utilisation of resources. Institutional Strengthening activities provide the required technical, managerial and administrative support for implementing the core activities under NACP-IV at national, State and district levels. The planning processes and systems under NACP IV are based on evidence, local priorities and in alignment with national program's goals. Increased collaboration and convergence with other departments to sustain epidemic response is envisaged through a phased integration of HIV services with routine public sector health delivery systems, streamlining of supply chain mechanisms and quality control mechanisms and building capacities of governmental and non-governmental institutions and networks.

The key institutional structures supporting the scaled up NACP include the following.

1. National AIDS Control Organisation (NACO)
2. State AIDS Control Societies (SACS)
3. District AIDS Prevention & Control Units (DAPCU)
4. Technical Resource Groups on various programme components
5. Technical Support Group on Condoms

6. National Technical Support Unit (NTSU) and Technical Support Units (TSU) at State level to support TI programme
7. North East Regional Office
8. External support structures such as Reference Laboratories, Regional Institutes, State Training Resource Centres, etc.

Rationalisation of HR Structure of NACP

In NACP IV, a more efficient approach has been used to decide the size of individual divisions of NACO & SACS. States were categorized into four different categories based on the norms developed for each component and decided through a consultative process. These norms factored in the response calibrated on the basis of workload, number of facilities which were specific to each component of the program and also considered the variability across the country. It was ensured that States were grouped to match the local need versus the envisaged response during the NACP IV period. The norms used for different divisions at the SACS level were based on the disease burden and volume of activities. Given the heterogeneity among States, issues related to the HR and supervisory structure required for NACP IV were factored into the criteria developed for categorization of States. Keeping this in mind, the management structure at the National level was also determined.

Detailed analysis of positions in each component from the lowest to the highest level position, including work load assessments in terms of actual work done, were considered following which decisions were taken on the number, experience, qualifications and remuneration needed for specific positions. Wherever required, positions were consolidated; an increased emphasis was given to multi-tasking and positions strengthened by ensuring that qualifications and experience required were in line with the requirements of the positions.

Positions were rationalized keeping in view integration by rationalizing existing personnel and merging facilities. Having identified the basic structure a cautious and strategic approach towards utilizing the existing resources available has been proposed for rationalization of positions and merging of existing facilities. Opportunities for human resource integration were also considered for specific components in various government programs on the ground, keeping in mind the States and specific program component involved.

Salary structures were modified to ensure that required personnel are available in required positions. Discrepancies of salary structures have been minimized by levelling salaries with appropriate salary increase wherever necessary.

HR positions & vacancies affecting programme planning and management functions

NACP IV aimed at enhancing programme planning and management responsibilities at national, State, district and facility levels to ensure high quality, timely and effective implementation and supervision of field level activities to achieve desired programmatic outcomes. Significant progress has been made in enhancing the management capacities spread across the different program verticals at NACO through 26 direct regular officers and 112 contractual staff (including all categories). Institutional structures such as NTSU, TSU, Condom TSG, STRC were given specific responsibilities to support the NACO, SACS and DAPCU. A new Data Analysis & Dissemination Unit was set up at NACO to give impetus to the analysis and use of rich

programme and epidemiological data available to the programme and strengthen evidence-based planning and implementation.

During NACP-IV various MoUs have been signed with other government structures to enable their capacity to deliver HIV related services through various approaches. Similarly non-governmental institutions and networks have been strongly involvement in Knowledge Exchange Program under South to South Collaboration, World Bank.

However, NACP IV has seen a very high turnover of staffs at NACO, SACS and field level, possibly due to relatively lower salaries compared with similar roles in NHM and due to delay/non-payment of salaries for a long time due to budget cuts. Budget constraints have led to a practical halt in all fresh recruitments at all levels. There is a large number of vacancies across all programme components at State and facility levels. The divisions of IEC, Lab Services, SIMU and CST were the most affected with very high number of vacancies. Key positions supporting the supervision and quality functions under the programme such as Epidemiologists, Regional Coordinators under CST, etc. are grossly vacant. Vacancies of key positions at SACS level has led to task shifting and management concerns. Priority areas such as migrant and trucker & IDU/OST interventions need corresponding technical strengthening at NACO/SACS level. Overall, budget constraints and large scale HR vacancies have brought a standstill in the programme implementation across components in many States, over the last two years.

Procurement & Supply Chain Management

Regional and National level procurement consultants were put in place to support supply chain management issues. Condom TSG was further strengthened to support the supply chain mechanism including weekly reporting systems. Despite these, supply chain management remained a key challenge in the field context, across all programme components. Skill transfer and capacity building of local NHM team at district level to manage supply chain and quality control is also a challenge.

Project Directors of SACS

The posts of Project Director – SACS, are occupied by competent personnel from Civil Services or Medical Services, either only for the SACS, or the NHM Mission Director with additional charge of SACS. This latter arrangement proved to be of a great help in implementation of NACP and managing financial challenge during the period when funds were routed through treasury route to SACS.

Capacity Building

Capacity building activities have taken a big hit due to the budgetary constraints over the last two years. Practically, no trainings were conducted under any programme component. This has led to a decrease in the efficiency and quality of service delivery at the field level. There is also need to relook at and update the training modules and material under various programme components to make them more relevant for the programme.

3.12.2. KEY ISSUES & CHALLENGES

- 1. High turnover & large number of vacancies** at SACS and field level is seriously affecting the scale, reach and quality of programme implementation across the country. This issue needs to be addressed immediately through strong directives from NACO to SACS and undertaking strong recruitment drives.
- 2. Sustaining NTSU & TSUs** over the long term is an important issue. 17 TSUs in coordination with 21 SACS and NTSU have been supporting the AIDS control programme at the State and national level. The TSUs provide technical assistance to SACS to identify gaps in service delivery, access and quality of prevention services. The TSUs and the NTSU are donor supported structures that have enabled a smooth implementation of the program with a definitive impact on the epidemic response. Over the years the strategic role of the NTSU has diminished, with a reduced five-member team, which makes it difficult to respond efficiently to the diverse needs of the programme. The NTSU carried out State wise periodic reviews through field visits and shared insights with TSU and SACS but these visits have diminished. Also, its involvement in administrative tasks takes away its focus from technical and programmatic areas.

Continuation of technical support through TSUs and the NTSU beyond March 2017 is unclear. TSUs in the States of AP and Karnataka will be transitioned to Gol/World Bank funding from July 2016 onwards, however, there is a lack of clarity on the existing TSUs in other States. Transition plans for States with donor support nearing closure should be prepared for ensuring sustainable response to the epidemic.

3. Expanding service delivery using NHM service delivery mechanisms especially for HIV testing and treatment component remained a challenge, partially due to lack of training and unified mechanism of reporting at the PHC and CHC level. Not much progress has been made in integration and convergence of HIV/AIDS service delivery with larger health system.
4. During the last year, individual divisions at NACO have also explored the possibilities of convergence and rationalization of positions at facility levels for optimum utilization. There were opportunities for human resource integration for specific components. However, there are still gaps and the desired level of HR efficiency is still not achieved. There are still coordination issues between various service delivery facilities in the same hospital under the programme.

3.12.3. RECOMMENDATIONS

SHORT-TERM RECOMMENDATIONS

Strategy-related

1. To address the large number of vacancies in the programme and to bring back the lost momentum, consider fixed term employment of contractual staff for minimum 3 years. Rationalize salaries at par with NHM. Promote a healthy work environment and provide incentives for better performance.

2. Improve convergence at National, State & District level.
 - a. Issue policy direction from Secretary, Health to all States recommending MD-NHM and PD SACS to be held by one functionary and preferably at least for three years.
 - b. Improve collaboration between DAPCU and the Chief Medical Officers of all the districts; Ensure HIV be taken up in all the health reviews conducted at district level
 - c. District TB Officers may be given the responsibility of coordinating HIV/AIDS activities in non-DAPCU districts. Consider renaming DTO to DTHO (District Tuberculosis & HIV Officer), in coordination with Central TB Division, MoHFW.
3. Strengthen HR functions/ HR units at NACO & SACS levels to manage the large workforce including a clear definition of HR processes and systems for contractual staff. A standard review process of divisions within NACO and SACS should be incorporated for effective HR management of contractual and regular employees. Training/capacity building efforts should be intensified for clearer understanding of roles and responsibilities. Performance evaluations should be followed-up with mentoring support to allow comprehensive development of the organization. A comprehensive HR strategy should be put in place.

Operational

4. **Fill up the vacancies** of key positions in SACS, DAPCU and facilities across all States on a top priority. Issue directives to SACS to undertake immediate recruitment drives to fill all the positions.
5. **Strengthen capacity building** of HR at all levels of programme, through updation of training modules, identification & collaboration with institutions to support capacity building at State & district levels & use of innovative ICT tools. A training needs assessment segmented by (i) Level of employee (management, officer, technical associate, etc.) (ii) Tenure in the organization (new, >1 year, >2 years) (iii) Type of employee (government vs. contractual) can be conducted to develop a comprehensive training plan for various cadres of staff. Training should also focus on basic program management and financial planning. On-going formal training for the staff through targeted training modules covering areas such as technical skills, managerial/leadership training, program management should be institutionalized along with the provision for On-the job training to enable career development opportunities, peer based mentorship and job rotation.
6. An expert committee may be set up to reassess the current SACS HR strength, composition and distribution. Many teams reported redundancy in different divisions in SACS, such as IEC staff and understaffing of TI and M&E division. Recommendations from the committee may subsequently be shared with States and finalised.
7. **Role clarity for TSUs:** It would be useful for TSUs to focus on field support, mentoring and supporting Targeted Interventions, rather than performing administrative functions at SACS. TSU's can be catalytic in identifying newer populations, proposing strategies and methodologies to reach the highest at risk and most vulnerable populations in cognizance of the local context. The TSU can also forge strong links between prevention and treatment

services thereby maximizing treatment access to key populations. Given the success of the TSUs, in keeping with the future, the TSU model could be reviewed and future TSU's be shaped on the basis of next generation TIs, specific needs of the States as also the ability to link prevention and treatment services. The human resources identified to provide technical assistance should be tailored to the need of the program, however it should also promote flexibility whereby short term human resources procured through flexible finances be considered.

8. Leverage the successes from the Knowledge Sharing work done at NACO in strengthening the capacity building activities across all components, especially with respect to development of learning sites & experience sharing/exchange across various units/levels. At the grass roots, conduct regular cadre wise learning melas, where in Peers, ORWs, Programme Managers, etc. meet - either at State or district or regional level, to share with each other their experiences, challenges and innovative solutions they are experimenting.
9. Reaffirm the need for the Technical Resource Groups (TRGs) as an institution for technical advice and support. Establish TRG and re-issue TORs and repopulate if necessary.

LONG-TERM MEASURES

10. Leverage resources of public health system through bottom up convergence of HIV with the general health system at the sub district /district level, for all components other than outreach activities for key populations
11. Ensure sustainability of the NTSU /TSU structure, since it provides techno-managerial support in an environment of continuous change/ high turnover/ vacancies in SACS. Transition plans for TSUs of States with donor support nearing closure need to be prepared for ensuring sustainable response to the epidemic.
12. Develop a think tank body at a State level, eg. State HIV Technical Unit, with senior advisors who can help think through the State-specific priorities that need to be addressed and advise the program
13. Reconsider and reconstruct the structure and scope of responsibilities of SACS in an environment of progressive convergence with the health system

3.12.4. AREAS FOR FURTHER DELIBERATION AND REVIEW, BEYOND MTA

1. Measures to strengthen HR functions/ HR units at NACO & SACS to manage such a large workforce
2. Mechanisms to strengthen effective functioning of DAPCUs and their improve their productivity
3. Concrete recommendations on relevance and rescoping of SACS as the management unit at State level for NACP
4. Mechanisms to strengthen HIV programming in non-DAPCU districts

3.13. Financial Management

3.13.1. PROGRESS AND GAPS AGAINST TARGETS, RECOMMENDATIONS & PRIORITIES IDENTIFIED IN NACP IV

Financial management deals with approval and review of annual plans (AAPs) and budgets, fund flow mechanisms, delegation of financial powers, accounting and internal control systems, to ensure that funds are effectively used for programme objectives. It also deals with financial analysis for programmatic and management use and meeting reporting obligations for all stakeholders. Fiduciary requirements are addressed by designing and implementing effective audit mechanisms at all levels. NACP IV envisaged that the following areas would receive attention.

1. Delegation of Financial Powers
2. Asset Management
3. Audit structures
4. NGO financing and accounts
5. Advances
6. Inter-unit Transfers
7. CPFMS
8. Human Resource for FM

Design of financial management system of NACP IV focused on the following areas:

1. making better use of CPFMS for information on disbursements, and management decision-making;
2. improved internal control environment at SACS;
3. improved control framework for cash advances at SACS;
4. enhanced monitoring controls observed by NACO over SACS
5. strengthened approach to selection of external auditors;
6. timely release of funds to NGOs; and
7. management of NGO grants

Flow of funds from NACO to States had to be changed to treasury system for about two years till FY 2015-16 but due to major delays under this system, the system was reverted to direct funding of SACS from FY 2016-17. NACO has released funds for first quarter for AAP of FY 2016-17 to SACS.

Most of the SACS accounts are updated on CPFMS. Internal audit for FY 2014-15 for TIs/PUs completed for most SACS. System of electronic payments introduced in many SACS. Separate bank accounts have been created for different funds in SACS.

3.13.2. KEY ISSUES & CHALLENGES

1. Weak maintenance of accounts (settlement of advance) in peripheral units (PUs) and TIs and weak controls (large cash payment) in some TIs has been a matter of concern.
2. Delay in internal audits in SACS and repeat observations in some TIs
3. Vacancies of finance staff in SACS and district/sub-district level and lack of training leading to absence of supervisory visits to peripheral units.
4. In some SACS, settlement of old pending advances is a challenge e.g. for staff, closed TIs and district facilities.
5. Payment by ECS has not been implemented universally.
6. Lack of sufficient funds and irregular releases over last two years is a critical issue, that led to non-payment of salaries for a long time at peripheral units and demotivation of field staff. In some TIs visited by the MTA, staff salary/PE's honorarium had not been paid for several months.

3.13.3. RECOMMENDATIONS

SHORT-TERM RECOMMENDATIONS

Strategy-related

1. Audit Committees should be institutionalized as a governance mechanism in all SACS to monitor timeliness of audits, key issues and their compliance.
2. SACS may explore accessing DPDC (collector level fund) for some innovative activities/IEC etc. CSR funds may be used for IEC/mainstreaming activities.
3. A policy should be made mandating that the details of all payments which are made by NGOs/Peripheral Units (PUs), should be available at SACS e.g. details of Peer Educators, OR Workers, Staff etc.

System-related

1. **Accounting:** CPFMS data needs to be sent on weekly basis by SACS. Proper accounting records need to be maintained at all levels. UCs should be updated in CPFMS.
2. **Payments:** E-payment to all, including employees of NGOs, ensuring statutory compliance. Bank account details of payees should be updated monthly at SACS.
3. **Internal Controls:** Stipulated guidelines for financial management should be complied with at all levels. Bank Reconciliation statements to be reconciled on a monthly basis. Advance Settlement should be expedited, particularly for old pending advances. UCs should be obtained from NGOs within the stipulated time. Settlement of advances to NGOs closed in 2015-16 should be initiated.
4. **Audit:** Audit Reports with compliances should be sent to NACO within the stipulated time. The Internal Audit Report along with compliances should be submitted within two months of the closure of the financial year.

Operational

1. Full staffing of finance divisions in SACS and districts should be ensured.
2. SACS to obtain all audit reports till FY 2015-16 and review quality of audit reports. The system of compliance by TIs/peripheral units should be strengthened.
3. Regular training by SACS finance staff of PUs/TIs based on review of internal audit reports and monitoring visits. Regular finance training to M&E cum Accountant in TIs on quarterly/six-monthly basis.
4. Bank reconciliations should be done and reviewed and approved on a monthly basis at SACS and PUs.
5. Communicate availability of funds for each financial year to States **in** advance, so that they can calibrate the activities accordingly.
6. In SACS, DDO's responsibility is not being specifically earmarked and finance division needs to be streamlined by assigning specific responsibilities to staff.
7. Standardization of records in districts by having printed accounting records may be considered for district/sub-district level.
8. Monthly Review should be taken by SACS PD of key controls e.g. of pending advances and settlement of pre- 2015-16 advances in a time bound manner and implementation of payments by ECS.
9. Audit system in States should be strengthened. Strict adherence to audit timetable should be ensured for completion of audit of TIs/PUs and compliance by TIs/PUs to be monitored. SACS staff must review quality of audit reports.

LONG-TERM MEASURES

10. Full implementation of system of payments by ECS, including in TIs
11. System may be established of Financial Management Indicators (FMIs) and their monitoring at various levels (NACO/State/district/sub-district/TIs) quarterly/six-monthly. These FMIs may include aspects such as status of FM staffing and training; flow of funds; accounting; reporting (SOEs/UCs); internal controls; and status of audits, compliance of audits, disallowance etc.

3.14. Procurement & Supply Chain Management

3.14.1. PROGRESS AND GAPS AGAINST TARGETS, RECOMMENDATIONS & PRIORITIES IDENTIFIED IN NACP IV

Procurement & Supply Chain Management (PSCM) is the backbone of any public health program as program delivery depends immensely on it, and stops completely without it. Almost all NACO divisions deal with commodities of some sort and commodity budget accounted for approximately 44% of annual budget of NACO in 2014-15. A strong PSM function is thus a key enabler but if weak, can be a major Potential risk. The rapidly expanding size and complexity of the programs also means that procurement and supply management should be adapted in order to help NACO meet its strategic objectives for the future. Thus a strategy to transform PSM in NACO programs is also very important.

Across NACO & SACS, procurement & Supply Management of HIV/AIDS commodities involves a series of activities to ensure the continuous supply of products from the point of manufacture to the point of care. The supply chain functions operate within a system that provides program managers with data to help determine what types of products are needed, where and when they are needed, and in what quantity and condition. Yet, competing priorities for scarce funding devoted to public health programs often result in insufficient financial, human, and technical resources for implementing and strengthening of procurement and supply management system. As a result, supply interruptions and shortages of critical HIV/AIDS commodities are often unavoidable.

In order to ensure access to effective and quality assured health products, the National AIDS Control Organization has developed a procurement and supply management strategy that aims to:

- Design a robust yet flexible procurement and supply management through a strong foundation of organization structure, policies, procedures and guidelines;
- Leverage all available support functions/resources in the form of Human Resources, Finance, External Stakeholders/Partners, Information Technology and Communication/Public Relations in order to overcome constraints of limited PSM resources;
- Support the timely procurement of quality-assured health products in adequate quantities so that program delivery is never compromised or delayed;
- Attain cost efficiencies in procurement and supply management activities so that limited funds can be utilized to the fullest;
- Ensure the reliability and timeliness of distribution systems so that programs can plan and expand with confidence at the front-end;
- Encourage appropriate use of health products so that clients receive the best that is possible under given constraints;
- Enable the monitoring of all procurement and supply management activities so that PSM and program management is clear and transparent;

- Evolve the network to bring commodities and services as close to clients as possible and are delivered in the most convenient manner to them;

Current Status

Procurements are done using pool fund (World Bank and Domestic), Global Fund for AIDS, Tuberculosis and Malaria (GFATM) through a procurement agent. During NACP IV, M/s Rites Ltd. and SAMS are providing services to NACO as Procurement Agent. As in the past, all the main items required for the National AIDS Control Programme, including test kits viz. HIV (Rapid), HIV (ELISA), HBs Ag (Rapid), HBsAg (ELISA), HCV (Rapid), HCV (ELISA), RPR kits, and other items such as ARV drugs, STI drug kits, blood bags and equipment (CD4 Machines and Blood Bank equipment), etc., are centrally procured and supplied to peripheral units and SACS.

In NACO, procurement division plays the role of Procurement and Supply Management Unit, and its responsibility is to ensure availability of commodities at more than 20,000 facilities (Stand-alone ICTCs, Facility ICTC, ART Centers, Link ART Centers, STI/RTI Clinics, OST Centres, Blood Banks, Labs and TI NGO etc.). Procurement division is presently headed by Director (Finance & Procurement) with assistance from Deputy Secretary (Admin and Procurement). The division include National Procurement Specialist, Programme Officer (Procurement), National Procurement & Logistics Coordinator, Technical Officer and Technical expert at headquarters.

At regional level (North, South, West, North East, Central and Delhi region), 6 positions of Regional Procurement & Logistics Coordinator have been made functional to coordinate the PSM functions with all the SACS. The procurement and supply management functions at a SACS level are headed by a Project Director or Assistant Project Director with assistance from Assistant Director (Procurement), Store Officer, Procurement assistant and Admin assistant.

In NACO, the forecasting of commodities is centrally driven activity and performed annually before the allocation of coming years' budget. Every program division starts the process as per its own schedule in the year, requesting the SACS to prepare the Annual Action Plan and estimate the demand for the next year based on the last year performance and future program goals. The data is then consolidated by the program division at NACO based on the consumption data collected from all the SACS. The forecast is further reviewed by the concerned program division at NACO along with technical experts from WHO and academic institutions (i.e. AIIMS etc.) and final quantities are decided in a consultative process with the SACS. Based on the aggregated forecasts prepared at NACO level and considering the current stock on hand in the States (SACS and facilities), an indent is prepared by the program division and shared with procurement division to start the procurement.

NACO procures 50 plus commodities (ARV Drugs, Diagnostics Kits, Blood Bags, Condoms, STI/RTI Drug, OST Drug, Equipment's etc.) through an open tendering process by itself or through Procurement Agent. SACS procure consumables, syringes, gloves, IEC material etc. at State level after following the necessary procedures including Open Tendering, Shopping Method and Direct Contract Method.

Progress & Achievements

Procurement: Procurement division is in-charge of a large value of procurement (*out of total budget 35-45% is for commodities procurement only*) in the total expenditure. Besides this even the non-commodity procurement also has a large contribution in the form of services

procurement. The total procurement value in NACP-IV is as below;*In crore (INR)*

Year	Diagnostic Kits	ARV Drugs	Blood Bags	Other Items *	Total value
2012-13	10.28	193.64	0.0	0.02	203.94
2013-14	49.39	467.32	46.0	15.19	577.89
2014-15	30.02	513.60	22.29	8.24	574.79
2015-16	39.86	489.34	22.91	18.13	570.24
2016-17	67.09	690.81	48.18	4.54	810.6 (May 2016)
Total (NACP-IV)	196.64	2354.71	139.38	46.12	2737.46

*CD4 reagents, Buprenorphine and STI/RTI kits

Inventory management: Inventory monitoring of commodities is done by program division and procurement division in close coordination with State AIDS Control Society (SACS). Currently most of the HIV/AIDS Commodities are centrally procured, supplied and distributed to the State AIDS Control Society (SACS) warehouse. On receiving the contract/supply order from NACO or Procurement Agent, suppliers deliver the goods to State Warehouse, where it is stored and later issued to all the Facilities (ART Centres, ICTCs, Blood Banks, STI/RTI Clinics, OST Centres, and TI NGOs etc.).

Storage/Warehousing : It is the responsibility of the State AIDS Control Societies (SACS) to ensure the storage of supplied drugs and consumables and distribute to the facilities or district stores under temperature controlled condition (i.e. cold chain items). Testing kits for ICTC and Lab delivered directly to the SACS, and stored in State or district warehouse at cold storage in temperature in between 2^o-8^oC.

Distribution and Transportation: In existing scenario, the personnel at facility level involved in the supply chain (Pharmacist, Lab Technician, Counsellors, Nodal Officer) come from the Facilities/District Stores to the SACS warehouse to collect the drugs/kits (except ARV drug) with their indents and logistic arrangement. Indents are verified by the Programme Division at the State level and sent to the Store Officer on the same day to issue the goods to Facilities/District Store and handed over to the representatives.

Inventory Management System: To strengthen PSCM, NACO has developed a cloud based application i.e. Inventory Management System (IMS) to integrate all centrally procured inventory and drug dispensation data into one platform. Inventory Management System (IMS), captures the transactions for all the commodities starting from supplier dispatch to SACS (for all centrally procured commodities) and further to the point of care and patients (only for ARVs at present). The transactions in the IMS provide the real time visibility of inventory and generate various reports related to patient and regimen.

3.14.2. KEY ISSUES & CHALLENGES

- 1. Inadequate organizational arrangement (i.e. human resource, guidelines, SOPs and budget) to manage and coordinate the procurement and supply chain function.**

- a. Procurement division is not enough staffed to support all the PSM functions for e.g. no focal person (*i.e. State Logistics Coordinator post is vacant everywhere except MDACS*) at SACS to coordinate PSM activities at State and as well with facilities.
- b. Limited involvement of procurement and store staff in overall PSM function.
- c. Lack of regular supportive supervision is conducted from NACO to SACS and SACS to facilities.
- d. Staffs have not been formally trained and skilled to perform PSM functions
- e. Guidelines for various PSM functions are missing especially for non-procurement functions
- f. SOPs are not developed to support the standardized work practices. It is observed in Uttar Pradesh, that physical register for commodities are not been maintained uniformly by all facilities, physical verification of stock is also not regularly carried out
- g. Sufficient budget is not made available to meet the local PSM need of program especially with regards to procurement of consumables, internet connectivity and infrastructure upgradation
- h. No mechanism to support and strengthen the integration of resources and services for PSM (*i.e. procurement, storage, distribution etc.*) functions with State Health Department (Directorate of Health Services, NHM, Medical Corporations, CMSS etc.)

2. Lack of real time visibility of PSM data for decision making

- a. Lack of an integrated information system for management of all HIV/AIDS commodities
- b. Consistency in data reporting is compromised due to lack of IT infrastructure (*i.e. computer, internet connectivity*) at facilities.
- c. No formal method/tool to check the accuracy of reported data in between SIMS and excel
- d. All the functions of IMS are not optimally used by facilities and SACS (*i.e. online indenting, issuing and receiving*).

3. Lack of standard communication & co-ordination mechanism

- a. No standard protocol for communication or coordination of PSM function between SACS and NACO. It is observed in Manipur that there is lack of clear communication to blood banks regarding type of NACO support –supply of consumables, AMC/CMC of equipment etc.
- b. No formal schedule for interaction/meeting (*i.e. video conferencing etc.*) to review the PSM status at SACS level or share any changes/revisions in the orders/supplies made by NACO. Need to improve coordination for adequate forecasting, procurement and supply management.

- c. Punjab reported that there is lack of timely information from National level regarding impending stock out or delay in supply of drugs so that timely measures can be taken to meet the requirement of State with NHM support.

4. Fragmented and unorganized PSM functions lacking holistic approach and impacting program performance and patient compliance {i.e. Forecasting, Procurement, Inventory Management, Equipment maintenance (AMC/CMC) etc.}

- a. Not enough dissemination and training of tool/process of forecasting available at SACS level. It is observed in the Manipur, that Forecasting is usually done for the year by all the divisions during AAP but the procurement is done depending on the fund availability
- b. Need to strengthen the handholding and support to the SACS to explore efficient procurement practices such e-procurement and rate contracts for non-centrally supplied items
- c. In most SACS no formal indent and issue mechanism (i.e. monthly) from facilities exist and it is all managed through push system based on the availability of the stock at SACS.
- d. It is difficult to maintain the buffer stock of all commodities at State level resulting no emergency backup for stock out leading to massive relocations. It is observed in Maharashtra that there is adequate 3 months stock at State level but not reflected at ART Centre, ART stocked outs at least 3 times in past year.
- e. Shortages of various commodities is observed due to one or the other reasons (Kit-3 and Kit 5 drugs in Manipur and Maharashtra, Blood bags and kits in Punjab, inadequate and irregular supply of consumables in Manipur and Maharashtra, limited availability of OI drugs are reported in Manipur and Maharashtra, Shortage of Paediatric drugs (ABC/3TC, ZL and ZLN) and adult Tab TL in Punjab).
- f. Compliance to the treatment is affected in case of delayed supply (i.e. patients are issued medicines for 7-10) days.
- g. In Maharashtra, Most of ART centres never had a buffer stock of three months, centres report when buffer stock goes below one month, centre's start providing the medicine for 15 days. Turn-around time to receive stock after reporting stocks-out is more than one month.
- h. It is observed in Maharashtra, that lack of functioning equipments such as centrifuge, refrigerators etc., storage space for HIV and syphilis kits at some facilities poses a challenge on daily basis as well as delay in calibration and renewal of AMC/CMC. Punjab had examples of lack of calibration for all equipment.

5. Inadequate standard storage and distribution facilities to manage the HIV/AIDS commodities

- a. Many places storage space is not sufficient at SACS level and if at all made available they are in far flung areas with no arrangement of travel and stay to do the work

at store (i.e. office at warehouse). In Manipur, it is observed that Store is in a bad condition and need maintenance. Walk-in cooler is old (installed in 2001).

- b. Lack of optimal storage arrangements at facility level to manage the commodities.
- c. No provision of support staff for receiving, repacking and issuing of commodities at warehouse.
- d. Lack of adequate infrastructure (i.e. lights, fan, racks and pallets etc.). Cold chain management during distribution of commodities to the facilities is a challenge and affects the quality of the kits.

3.14.3. RECOMMENDATIONS

SHORT-TERM RECOMMENDATIONS

1. **Set up institutional mechanisms for comprehensive uplift of PSCM functions under NACP**

- a. **Human Resource**

Define roles and responsibilities of staff related to procurement and supply Chain management (currently it is component specific): This include revisiting the ToR of existing staff and revise to include the PSM specific roles for the staff. It is also needed to clearly define the role of staff working in the procurement division of NACO in other consultancy procurement currently done by technical teams. This will clearly make the procurement division of NACO accountable for all the procurements that are taking place under the program. Similarly, the function of supply chain management are currently done by both technical and procurement division teams. The better clarity of role will give clear responsibility to staff who are currently on involved completely in SCM activities.

- b. **Training**

Regular Capacity building of NACO/SACS staff on Supply Chain Functions, guidelines and SOPs:To engage with professional agency to develop the need based training programme for capacity building of supply chain workforce at NACO/SACS level, in the area of Forecasting, Procurement, Inventory management, Storage and Distribution. Mode of e-learning can also be adopted for refresher training and updating existing knowledge of staff involved in PSM functions. As result of this activity, the standard modules for training will be developed and provision of training will be created for staff at national and State level.

- c. **Policies & Procedures, Guidelines, SOPs, Manuals (e-procurement)**

To develop/update the Guidelines and Standard Operating Procedures for supply chain functions, including the standard formats for PSCM functions: The designing and roll-out of standardized supply chain guidelines and SOPs will improve the management of HIV/AIDS commodities at all levels of the supply chain in country. It will provide set of instructions and job aids designed to guide the work of those managing the supply chain – from the NACO HQ to the

point of care. Existing procurement guidelines to be updated to include the best procurement practices adopted by other government department and industry player.

d. Budget/Financial Support

Allocation of budget for PSCM functions: Sufficient funds to be allocated for Procurement and supply chain management functions (i.e. warehouse/storage, eLMIS, capacity building, transportation etc.). Currently, the budget allocated is mainly for staff salary and the cost for core SCM activities are linked with respective component such as CST, blood safety etc.

e. Governance/ Redressal Mechanism

i. Maintenance of complaint books and action taken: This is the basic documentation that need to be maintained at State and national level. These complaints shall be documented in detail and shall be reviewed periodically. This will also strengthen the internal system to keep the track on nature of complaint that will improve the future procurements to avoid such complaints.

ii. Immediate experience sharing between center and State on common issues/complaints: A knowledge bank on the issues will be prepared and shared among the States and centre to find the solution for most common problems faced by the States. Specific issues will be dealt on case to case basis and steps would be taken to resolve them within the prescribed time frame.

2. Strengthen Operational Mechanisms across the spectrum of PSCM functions.

a. Forecasting

Development of tools and training of staff on effective forecasting: Preparing a forecast using an efficient forecasting tool is a critical for coordinating procurement and supply planning. This will greatly assist programs in understanding their long-term needs, in assessing progress toward achieving treatment goals, and setting new goals for program expansion. Staffs can be trained on the developed tools to carry out the efficient forecasting.

b. Indenting and Inventory management

i. Map the existing indenting process, revise tools (i.e. formats) and systems (i.e. procedures): Mapping of existing indenting, issuing and receiving processes of commodities will be done to suggest the necessary changes in the process for overall improvement in commodity management. This mapping will also cover the various forms and formats existing in the field for various PSCM functions and suggesting the standard formats for transaction, records and reports. Besides As-Is mapping the To-Be process mapping will be done.

- ii. **Follow standards to ensure sufficient stocks (i.e. Maximum and minimum inventory levels):** It is important to maintain the optimum stock level of the commodities to ensure the smooth functioning of program. The most successful inventory control systems are maximum–minimum inventory systems that ensure that the stock levels are maintained within an established range. Pharmacist/Technician at the facilities routinely monitor consumption and stock on hand at facilities to calculate new indent quantities.

c. Procurement

- i. **Preparation of Comprehensive Procurement Plan:** Procurement plan is developed to coordinate the key processes with various stakeholders (i.e. Procurement division, program division, Procurement agent, SACS etc.). A step by step procurement process planning and tracking tool has to be developed and discussed with all the relevant stakeholders to follow the agreed timelines to improve the performance and efficiency of procurement. The overall objective of the procurement plan is to improve timely access of high quality commodities to the beneficiaries at affordable prices, minimize the procurement delays, and improve the contract management (i.e. timely payment to the suppliers).
- ii. **Create provision of procurement by SACS for most required commodities and consumables – stop gap arrangement:** The procurement capacity varies across States. However, there are many States which has established internal systems with in SACS and Health department that can manage the procurement efficiently (i.e. Medical Corporation, Procurement Division). Creating a mechanism of decentralized procurement at State level will be encouraging step to decentralization of procurement, and during the event of acute emergency, State shall be allowed to procure drugs and commodities for stop gap arrangement. To start with NACO can assess the procurement capacity of States to draw threshold for procurement under different category.

d. Storage/Warehousing (Ambient & Cold)

- i. **Assessment of storage and warehouse requirement:** An assessment of the existing warehousing facilities at SACS level will be done to find out the actual space requirement. This assessment will also focus on various facilities required to be in place at warehouse to manage pharma grade storage practices.
- ii. **Development / Hire requisite infrastructure at SACS Warehouse, DAPCU & Facility comprising of IT enabled tools, Manpower, material handling equipment:** There is a need to revamp the warehouse infrastructure i.e. Renovation, IT System (Hardware & Software), Internet connectivity, Racking System, Cold chain equipment, Manpower etc. at selected State and district warehouses. Availability of requisite infrastructure

at State/District Warehouse will improve storage of stock, following the FEFO (First Expiry First Out) mechanism, handling, digitalized receipt and issue of goods.

e. Distribution and Transportation

i. Preparation of Comprehensive distribution and transportation

plan: A comprehensive distribution and transportation plan will be developed comprising the types of transportation modes required for various commodities, at various levels and at different frequency. This will help us to streamline the downstream distribution of commodities to the facilities

ii. Contracting of Third Party Logistics agency to provide logistics

services at National /regional/State Level: It is suggested to explore the option of hiring services of third party logistics (3PL) agency for distribution activities, which guarantees rapid distribution of commodities from State level warehouses to point of care or facilities. As the needs of HIV/AIDS program and the scope of products managed by a NACO is huge, outsourcing may be an opportunity to expand without making additional investment in infrastructure and staff.

f. AMC/CMC Services

i. Prepare and periodic update and database of all equipment

require AMC/CMC: A database of all the functional equipment needs to be prepared and assessment will be done to verify their functional status. This will cover all the details about the equipment and type of maintenance services required to keep it functional.

ii. Map the available resources for covering the cost of AMC/CMC

between National and State: An exercise has to be carried out to estimate the requirement and source of funds to carry out the maintenance contract of the available equipment under the program. It is also essential to encourage States health department to include the cost of maintenance for the equipment purchased under HIV program.

g. Monitoring System (MIS, Field Monitoring, Physical Verification).

i. KPI for PSCM monitoring will be developed:

Public health supply chains are very vast and resource intensive; unless clear measurable indicators are in place, it is difficult to control and maintain the performance of the system to ensure the access of essential health care commodities to the populations. The key to making data useful in a program setting is not looking at every single bit and byte, but instead, determining “KPIs” – Key Performance Indicators which are quantitative and meaningful to the program. Therefore, key performance indicators for PSCM will be developed and monitored for consistency performance level of various PSCM functions.

ii. Utilization of existing monitoring software (i.e. IMS) across all components: After successful implementation of IMS in care support and treatment for ARV commodities, it has been planned to extend to other commodity divisions (Basic Service Division and Blood Transfusion Services). The scale-up will start with the automation of the supply chain management of diagnostic kits in basic services division.

iii. Development of “Dashboard for Strategic Decision Making”: The importance of availability of essential commodities and other supplies at the health facility cannot be overstated, and their availability mainly depends on the performance of supply chain system. But, to improve supply chain performance, you must understand how it is currently performing, e.g., it needs to be measured. Real time analytic dashboards based around those KPIs, when done right, can make even the most complex data digestible, useful and ready for decision making. Similarly, track the progress of procurement activities to avoid any future stock outs.

h. Quality Assurance (Internal/External)

Develop/ implement guidelines for quality check at State and facility level

It is observed that there are various issues regarding the quality of commodities at field level, therefore it is required that all the existing guidelines/manuals for quality assurance of the commodities are reviewed, updated and disseminated following with training of staff.

i. Old, unused, damaged and expired commodities

Revisit the existing guidelines and update as needed: The States have their own disposal/condemnation guidelines which need to be studied and adopted for HIV/AIDS programme. This will help the SACS to dispose-off the unwanted and unused/old/damaged commodities to free the valuable storage space.

j. Communication and Co-ordination

i. Communication mechanism to share status/progress with various stakeholders: Develop a framework for answering media & parliament queries including templates and formats for communication. Create a knowledge repository of all queries with replies as well as feedback. This repository should be indexed and searchable. Key learnings from the communication process should also be captured to facilitate improved communication in the future.

ii. Regular Co-ordination meeting at National and State level: A framework needs to be created that will provide a medium to share the updates on all the PSCM work being done (area wise) by various stakeholders and their inter-linkages with each other and NACO. It should also provide all details of the activities and responsibilities of individual stakeholders. Such a tool will need updation every month and form an

important basis of discussion and review in various committees involving the stakeholders.

LONG-TERM MEASURES

1. Institutional Mechanisms

a. Human Resource

- i. Appointment and retention of staff at State level to fill up the vacant positions.
- ii. Leverage the available staff at State level/Central level from State health department.

b. Training

- i. There has to a continuum skill development/capacity building plan; which will include training on the PSCM functions in the induction of newly appointed staff.
- ii. The training material and methodology will have the best of information available in the market for imparting training to the staff.

c. Policies & Procedures, Guidelines, SOPs, Manuals (e-procurement)

Advocacy to take the policy level decision to make the phased transition of all the procurement through e-procurement at center and State level

d. Budget/Financial

- i. Every budget cycle, review the allocation of budget for PSCM function by percentage of total component (i.e. ARVs, Kits, Blood bags, services etc.) managed in the supply chain to continue to provide the necessary budgetary provisions.
- ii. The performance of various PSCM components will be reviewed for its efficiency and to decide the continuous budgetary support for that component.

e. Governance/ Redressal Mechanism

To strengthen usage of existing redressal mechanism both at central and State level; develop transparent online system for recording updates

2. Operational Mechanisms

a. Forecasting

- i. Online module in the existing system/software will be developed to make the real-time data based decentralized forecasting of commodities.
- ii. To prepare long-term rolling forecast using systematic tool to make procurement more efficient and supplies uninterrupted.

b. Indenting and Inventory management

- i. To develop/implement online indenting mechanism in the existing system/software from facilities to SACS and tracking mechanism to check indent fill rate.
- ii. To strengthen the coordination with State health systems to synchronize supplies of common commodities (i.e. consumables, OI drugs etc.)

c. Procurement

To start the process of integrating the procurement of HIV/AIDS commodities through CMSS at National level and with State Corporations at State level.

d. Storage/Warehousing (Ambient & Cold)

To integrate with State health system at State level (i.e. Medical Corporation, CMSS) for sharing the infrastructure and systems at district and facility level for better and efficient storage.

e. Distribution and Transportation

To collaborate with health systems at State level to streamline distribution and transportation from State to facility level for optimal utilization of existing mechanism and resources.

f. AMC/CMC Services

To integrate the services of AMC/CMC at the time of procurement and develop tracking mechanism for timely provision of maintenance services and renewal of service contract.

g. Monitoring System (MIS, Field Monitoring, Physical Verification)

To facilitate the integration of PSCM monitoring mechanism/system with State level system (i.e. integration with eAushadhi) for State ownership (wherever required/possible).

h. Quality Assurance (Internal/External)

To develop the mechanism for detail monitoring of implementation of quality guidelines for quality assurance.

Discussion & Way Forward

The previous chapter presented the progress and gaps against the stated targets and priority areas under NACP IV, for various programme components. This chapter attempts to consolidate the observations made in the earlier chapter and draw a pen picture of where India is heading in terms of reaching the goals of NACP IV as well as the global targets.

4.1. Reaching the Stated Targets for NACP IV (2017)

At the outset, based on the analysis of the progress made till date in programme implementation and scale up, it may be summarized that the targets set under NACP IV for various programme components will largely be achieved, while some have already been achieved. The targets for scale up of HIV testing, both in terms of facilities as well as number tested, have been already achieved. So are the targets to put PLHIV on to ART that are already surpassed, forcing the programme to reset the targets for 2017. NACP IV targets have also been achieved in terms of number of STI episodes managed with syndromic management. In some other areas such as testing of pregnant women, collection of blood units in NACO supported blood banks, setting up of ART centres and mainstreaming efforts, while the targets of NACP IV are not yet reached, the programmes are well on track to achieve them by 2017.

On the other hand, declining coverage of key & bridge population through targeted interventions is a cause of concern, though there have been improvements in the areas of HIV testing & treatment coverage among key and bridge population, reaching out to informal labour through employer led model and scale up of OST. Similar slowdown has also been noted in the implementation of IEC activities, though certain key achievements such as launch of national helpline and effective social media outreach have been made. Delivery of laboratory services have also witnessed a slow down. The major reason identified for this slowdown across programme components is the issue with budget allocations and fund flow to SACS.

While testing targets are largely achieved, there are critical gaps in the linkages of key population segments to testing as well as linking the detected positive cases with care & support. Gaps continue to exist in the coverage of HIV positive pregnant women with PPTCT regimen, owing to the challenges related to ANC utilization in public sector in North Indian States. While STI management has scaled up adequately, there are critical gaps in Syphilis screening and treatment of pregnant women to reach the declared target of elimination of parent to child transmission of Syphilis. While the blood unit collection and voluntary blood donation are on track to reach the set targets, there are serious gaps in the distribution and availability of blood units at State and district level. Similarly, infrastructure scale up in terms of setting up ART centres, provision of CD4 testing facilities and ensuring quality of care under ART programme have received a setback and have fallen short of expected levels. While the benefits of mainstreaming efforts have started reaching to a wider segment of beneficiaries, there has not been much progress in the operationalisation of the MoUs signed between NACO and various government ministries/ departments.

On the strategic information front, flagship initiatives of National IBBS & National Data Analysis Plan have been successfully completed and functional use of SIMS has been significantly improved through stabilisation, removal of redundancies and smooth & timely generation of reports. However, research activities have slowed down and many of the targeted research work could not be commissioned due to procedural delays as well as withdrawal of donor support.

Institutional strengthening has been noted as the most under-performed area over the last three years of NACP IV due to high turnover of staff at all levels of the programme creating large scale vacancies, practical standstill in fresh recruitments due to funding constraints and almost complete absence of any training and capacity building initiatives over the last few years. This has led to a widespread demotivation among field level staff and loss of momentum affecting practically every area of programme implementation. Similarly serious gaps have been noted with respect to the procurement, supply and distribution of essential commodities such as HIV test kits, ARV drugs, STI drug kits and condoms. There were also issues in ensuring availability of OI drugs, Penicillin injections for Syphilis treatment and IEC material across the service facilities. Need to streamline financial management at SACS and peripheral units, including TIs, has also been highlighted by MTA.

To assess the progress against the overall objectives of NACP IV, the 2015 round of HIV estimations have shown that 33% reduction in new HIV infections could be achieved from 2007 till 2015 against a target of 50% reduction till 2017. But, in view of the slowdown of the programme over the last two years, decreasing coverage of key & bridge population, slowdown of general population prevention through condom promotion & IEC, reaching the first objective of NACP IV appears to be a difficult challenge. With respect to the second objective of NACP IV related to provision of comprehensive care, support and treatment to all those who need, while the programme targets have been surpassed in terms of number of PLHIV put on ART, there are still critical cascade gaps in linkages between the detections and registering for care & treatment, initiation of ART among those registered for care and ensuring treatment adherence and retention on ART. Further, the areas of scale up of second line ART, management of Opportunistic Infections, positive prevention among PLHIV and sero-discordant couples, linking of PLHIV with social protection schemes and ensuring uniform quality of care in the delivery of ART services remained wanting for more serious and concerted efforts.

4.2. Reaching the Global Fast Track Targets by 2020

In the efforts to achieve the Millennium Development Goals, in particular Goal 6, the principle of universal access to HIV services (prevention, treatment, care and support) has been reflected consistently through the 2001 Declaration of Commitment on HIV/AIDS, the 2006 Political Declaration on HIV/AIDS and the 2011 Political Declaration on HIV/AIDS adopted by Member States at the relative United Nations General Assemblies. The global community is committed to accelerate efforts to ensure universal access to HIV treatment, particularly for key populations, as well as women, children and adolescents and young people living with HIV, including addressing the barriers to access.

In view of the need for defining new milestones and targets for the AIDS response beyond 2015 and to assess the quantum of effort and the speed required to end the AIDS epidemic by 2030, several national and regional consultations were held across the world. The main conclusions emerging from the target setting consultations are a) the AIDS epidemic can be ended, b) the response has to focus on the right populations and locations and c) the next five years from 2015 are the fast track years where investments and speed of scale up for HIV treatment and prevention services are most crucial to not just bend the epidemic trajectory, but to break it irreversibly.

To achieve the end of AIDS, revision of country targets is considered a critical initial step. The rationale for this is that: targets drive progress, new scientific evidence has emerged, new targets are needed to guide action for saving lives (and money) beyond 2015, targets promote accountability, and, finally, bold new targets to end the epidemic demonstrate that AIDS is a winnable fight.

From the various international, regional and country level consultations, there is an emerging consensus on the targets that will help achieve the end of the AIDS epidemic by 2030 defined as 90% reduction of new HIV infections and AIDS related mortality, compared to 2010. Through a series of Regional and country target-setting consultations, the following targets have been finalized.

90-90-90 Treatment Targets: By 2020

90% of all people living with HIV will know their HIV status;

90% of all people with diagnosed HIV infection will receive sustained antiretroviral therapy; and

90% of all people receiving antiretroviral therapy will have durable viral suppression.

Prevention Targets for 2020 & 2030

With dramatic scale up in HIV treatment and roll out of population and location specific combination prevention programmes, it is estimated to break the HIV transmission trajectory irreversibly. There is an emerging consensus, backed by modeling and scientific evidence around the HIV prevention target "To reduce to less than 500,000 new adult HIV infections per year, by 2020 and to less than 200,000 by 2030" at the global level. This target is further defined for country level assessments as 75% reduction in new infections by 2020 from the current levels, especially focusing on new infections among women and key population. In addition, countries will also have eliminated new HIV infections among children in every setting by 2020 and sustain these gains through 2020 and 2030.

Zero discrimination

To reach the 2030 goal of ending AIDS, ending HIV-related discrimination is a prerequisite. HIV-related discrimination goes beyond discrimination based on real or perceived HIV status, including behaviours or practices associated with HIV risk. Some of the targets considered for ending discrimination include:

- By 2020, no new HIV related discriminatory laws, regulations and policies are passed, and 50% of countries that have such laws, regulations and policies repeal them.

- By 2020, all people living with or affected by HIV enjoy healthcare services with no discrimination
- By 2020, less than 10% of people living with or affected by HIV are discriminated within community and less than 10% of general population report discriminatory attitudes towards people living with HIV or acceptance of intimate partner violence

India Scorecard

An assessment of Indian context with respect to the above mentioned global targets shows that reaching the targets is challenging, but achievable, with focused and reinvigorated efforts to address the critical bottlenecks and ensure rapid implementation of last mile strategies. Specific indicator-wise analysis supports this understanding, as described below.

The analysis shows that there is a gap of 33% in the progress towards the first 90 of the treatment targets. Out of the estimated 21.2 lakh PLHIV, around 14.2 lakhs (67%) are aware of their status. However, with the sustained scale up of HIV testing services across the country, with introduction of newer strategies such as community based testing for key population and strengthening linkages with STD, TB, TI and focus on sero-discordant couples, India will be able to reach the fast track target of 90% of PLHIV being aware of their HIV status by 2020. The fact that every year, around 2.5 lakh new detections are made at the ICTCs across the country, supports that achieving first 90 is possible by 2020, even after accounting for duplications in the detected cases.

With respect to the second 90 of treatment targets, India could reach 66% level in terms of ensuring those who are aware of their status currently receiving ART. Out of the estimated 14.2 lakh PLHIV who are aware of their status, 9.4 lakh (66%) PLHIV are currently alive on ART. Calculated upon a target of 17 lakh (81% of estimated PLHIV), the current coverage comes to 55%. Part of this gap is due to the current eligibility criterion of CD4 350 for treatment initiation. The linkage losses between detection and registering for care and between registration for care and initiation of treatment also contribute to this gap. However, with the decision taken by the Government of India to revise the eligibility criterion to CD4 500 for treatment initiation and active consideration of implementation of 'Test and Treat' option in near future, this gap will be largely filled. However, there is an urgent need to strengthen the implementation structure in terms of ensuring adequate human resource availability, uninterrupted supply of drugs, improving capacities, supervision and quality of care across the country, if India has to position itself achieving the second 90 of fast track targets.

Regarding the third 90 of the treatment targets, India currently does not have reliable data on the number of PLHIV on ART who are virally suppressed. Viral load testing is limited to a few national reference laboratories in the country currently and the coverage of PLHIV through viral load testing is very low. In view of the resources required for scale up of viral load testing for monitoring of patients on ART and efforts being made to leverage the viral load testing facilities in the private sector, it may take more time for the programme to demonstrate evidence and success on this global target.

The prevention target of reducing new infections by 75% compared to 2010 levels appears to be difficult for India, if the same trajectory of new infections continues over the next five years. As mentioned earlier, 2015 estimations have shown that the reduction in new infections

from 2007 till 2015 was only 33%. The major reason for this is the fact that India has already achieved over 50% reduction in new infections at national level and over 70% reduction in the high prevalence States over the last decade between 2001 and 2011. Incremental gains are always more difficult and achieving the same level of reduction from an already low level of new infections is going to be very demanding. Recent projections also show that there is a stabilisation of new infections at the national level. Further, the changing patterns of epidemic in India where the low to moderate prevalence States are now accounting for over 50% of all new infections in the country and some of them are showing rising trends, pose further challenge in sustaining and accelerating the reversal that was witnessed in the past. Even the transmission dynamics related to driver population such as migrants and general population transmission among sero-discordant partners are much more challenging to be addressed through prevention interventions. While the programme is making all the required efforts in repositioning the strategies to tackle these challenges, it may take a while before successful results are demonstrated against this fast track target.

With respect to elimination of parent to child transmission of HIV and new infections among children, India's programme may not reach the fast track targets at national level if the same trajectory is projected till 2020. The programme has reached 42% of the total estimated pregnant women in the country, in the year 2015-16 with HIV testing. Twenty nine percent of the estimated HIV positive pregnant women were identified in 2015-16 and 94.7% of them were put on lifelong ART. As it is evident from this data, the major gap is in the detection of HIV positive pregnant women while follow up after detection and ensuring ART is very effective. With lifelong ARV regimens for PPTCT being rolled out across the country only towards end of 2014, around 50% of pregnancies being catered to by the private health sector, persistent challenges of poor ANC utilization rates in public health system in most of the north Indian States and weak public health systems hindering effective integration in some States, it will be extremely challenging for the programme to ensure that every HIV positive pregnant woman is covered under PPTCT. However, with the recently approved revision in the testing guidelines and roll out of new strategies to reach out to a larger segment of pregnant women, India may make slow but, certain strides in reaching this global target of elimination of parent to child transmission of HIV. At the same time, there are certain States and districts where almost universal access and saturation has been achieved in reaching to HIV positive pregnant women with PPTCT. MTA has recommended undertaking validation exercises to assess if the global targets are met at sub-national level, at least in some select States and districts, and learn lessons from that experience.

Lastly, on the indicators related to stigma and discrimination, recent reliable data is not available on the levels of stigma against PLHIV in various settings. Results from the latest National Family Health Survey 2015 are still not released. National IBBS conducted in 2015 among key population showed that 27% FSW, 17% MSM & 46% IDU reported disrespectful treatment by family, friends, neighbours due to their HIV/AIDS related risk behaviour. However, there is a reduction in the overall number of cases of stigma & discrimination reported to the programme. NACO has adopted a multi-pronged approach to tackle stigma & discrimination against PLHIV and KP, including effective multimedia campaigns, mainstreaming HIV into various non-health sectors, sensitization of healthcare providers and creating an enabling environment for PLHIV and KP. Most importantly, NACO is seriously pursuing introduction of HIV/AIDS Bill, an anti-

discrimination legislation, in the Parliament that will be the most effective tool in reducing stigma & discrimination against those who are infected, affected and vulnerable to HIV. The Bill has provisions to address stigma & discrimination in all public and private settings, and enables the victim to seek legal recourse against the same.

Thus, overall, India is geared up to reach the global fast track targets by 2020 and end of AIDS by 2030. However, there are certain critical priorities to be immediately and effectively addressed and certain areas of programme implementation that need to be strengthened to ensure that India is on a strong footing to achieve the global targets. There is also an urgent requirement to relook at the long term goals and targets of the programme for various specific strategies, and align them with the global targets. There is also a need to strengthen the system of measurement of outcomes.

4.3. Most Important Policy & Strategy Level Recommendations from MTA

Mid-Term Appraisal of NACP IV has given a unique opportunity for the programme to review its current position, its direction and challenges, and has enabled the programme to identify the refinements and on-course corrections needed. It has brought all the stakeholders and community voices to one platform and has ensured that all the perspectives are given due consideration while arriving at a way forward. It has set another wonderful example of effective multi-stakeholder response in the implementation of HIV/AIDS control efforts in the country. Every finding, observation and recommendation was carefully reviewed, put in context and analysed for its implications and adoption. Following is a consolidation of the most important policy and strategy level recommendations that have emerged from the detailed consultations and field visits undertaken during MTA.

One of the foremost recommendations emerging is to immediately address the institutional strengthening aspect of the programme that has led to a slowdown in the recent years and improve the pace of programme implementation. Initiate recruitment drive to fill the vacant positions in the programme at national, State, district and facility levels on an urgent basis. Conduct induction and refresher trainings under all components to update the personnel with new guidelines as well as to instill motivation and enthusiasm among the field staff, thereby galvanizing the programme implementation. Immediately focus on the areas where programme performance has been affected over the last few years through heightened priority, improved supervision and handholding, including enhanced supervisory field visits and on-field reviews by NACO and SACS officers.

Coming to the specific programme components, an important recommendation has been to relook at the design of the TI programme to ensure that it is appropriately targeted towards the changing patterns and dynamics among the key & bridge population. It also identifies the urgent need to focus on strengthening the field interventions to improve the coverage, build capacities of the TI personnel, reinforce community partnerships and improve community engagement mechanisms through use of ICT. It also recommends commissioning an options paper to review and evolve a road map for future of the targeted intervention strategy.

Another important recommendation is to focus on bridging the gaps in detection of HIV positive cases by strengthening the linkages with other programme components, roll out of newer initiatives such as community-based testing, adoption of population prioritization and geo prioritization strategies to target the efforts for a high yield. Strengthening integration with NHM is also recommended as an important means to reach out to the pregnant women for scale up of PPTCT and moving towards elimination of parent to child transmission of HIV.

In order to address the gaps in reaching the fast track treatment targets, it is recommended to revise the eligibility criterion for treatment initiation to CD4 500 and to introduce 'Test and Treat' for key population and sero-discordant couples. However, it is also highlighted that the system issues and preparedness to take the additional load of treatment need to be addressed effectively on an urgent basis. A model of task shifting and increase drug dispensing duration was recommended to improve quality of care at the ART centres.

Another critical recommendation is to strengthen SIMS as an effective integrated tool for programme management, decision-support system as well as to ensure linkages across all programme components for effective individual-level case tracking and retention in care. Updating the geo-prioritisation of districts based on latest programme and surveillance data will give strategic direction to the programme efforts in future. Further, it was identified that the procurement and supply chain management needs a comprehensive uplift and standardization to ensure that programme implementation at the field level is not impacted due to lack of commodities.

These are some of the most important policy and strategy level recommendations that emerged from the MTA, for immediate consideration by the programme. Top ten recommendations covering various programme components are summarized in the box below.

Top Ten Policy/ Strategy Level Recommendations from MTA

1. Adapt TI strategies to match changing dynamics of key and bridge populations.
2. Target to improve yield of detection through strong linkages with other components, roll out newer strategies such as community based testing, population and geo-prioritisation strategies.
3. Strengthen STI programme management through involvement of apex centres, rational use of counselors, ensuring timely and adequate supply of essential commodities, etc. and target efforts towards elimination of parent to child transmission of Syphilis
4. Strengthen the functioning of NBTC & SBTC in all States through provision of adequate resources.
5. Consider revising the eligibility criterion for treatment initiation to CD4 500 and to introduce 'Test and Treat' for key population and sero-discordant couples, with due consideration to system strengthening issues.
6. Strengthen SIMS as an effective integrated tool for programme management to ensure linkages across all programme components for effective individual-level case tracking and retention.
7. Revitalise IEC strategies by shifting to interactive formats, harnessing channels for specific audience segments such as migrants & MSM, upgrading the IEC material and making them relevant to the changing context and newer programme guidelines.
8. Focus on institutional strengthening – filling of vacancies, capacity building and strengthen supervision – to reinvigorate the programme.
9. Streamline financial management at SACS and peripheral units for effective transfer and utilization of financial resources.
10. Undertake a comprehensive uplift of procurement and supply chain functions under NACP.

4.4. Conclusion and Way Forward

The goal of the fourth phase of National AIDS Control Programme (NACP IV) in India was to 'accelerate reversal and integrate response'. The elaborate multi-stakeholder review and assessment undertaken as a part of MTA shows that several programme targets have been met or will be met in near future, despite the challenging situations the programme has seen over the last two years. While there has been 32% reduction in new infections from 2007 till 2015, bridging the gap would demand strengthened and targeted last mile efforts. Improving the pace of implementation and reinforcing the focus on priority areas will enable the program to achieve the goal of reversing the HIV epidemic. Collaborative efforts with the focus States will enable the program to leverage the service delivery mechanisms at the district level and below and maximize the impact of the epidemic response.

India is also poised to reach global fast track targets by 2020. However, there are tough challenges ahead that the programme has to handle in achieving the global targets. Programme architecture needs to be strengthened to monitor the programme and measure outcomes at district and sub-district level on a real time. Systems to facilitate and strengthen individual level tracking of cases across service delivery units should be put in place. Capacities of the staff at the district, sub-district and facility levels should be strengthened to ensure that the target population is saturated with prevention, treatment and care services in an integrated approach.

Prevention focus is critical to the success of NACP IV. The saturation of TIs and their effective coverage are key contributors to the NACP IV goal. A well-directed coordinated effort is needed at State and district levels to meet the targets. Testing and treatment services should prioritise target population, ensure individual level follow-up, strengthen linkages and ensure adherence on treatment. Efforts should be made to maximize the coverage of KPs, strengthen the linkages to HIV services, reach-out to the vulnerable populations through various channels of communication and address any implementation issues in partnership with communities and civil society. Additional support from TSUs and donor partners can be leveraged to facilitate good project implementation and outcomes.

A number of initiatives were undertaken to integrate the national response with the general health systems under NACP IV. The management responsibility of NACO is directly under Secretary & DG, NACO, MOHFW. At the State level, integration efforts have so far received mixed response. Some States have rationalized the senior management positions and brought SACS under the leadership of Health administrators. Several initiatives were also undertaken by some States to promote the integration process at the district level by broadening the scope of responsibility of district level health systems and administrative mechanisms. The programme needs to explore possibilities of additional resources from NHM for condoms, STI/RTI services, blood safety programme, care and treatment services at the district and sub-district level.

The financing gap may become a major deterrent in accomplishing the NACP IV goal. The extra-budgetary resources need to be more effectively coordinated and utilized. The role of private sector is still evolving and its contribution is to be assessed in greater detail. These

resources should play a complementary role and assist in ensuring effective coverage. The focus of the programme implementation should be on effective use of available resources and a more prudent fiscal management system is critical at national, State and district levels to maximize the impact. Strong and well-coordinated procurement and supply chain management system is a critical enabler for smooth implementation of the programme.

NACP IV is well positioned to undertake the mid-course corrections required to increase the pace of implementation and address the impending bottlenecks. It will review, assess and explore the areas that need further work and identify possible new strategies as it moves into the next phase of the programme.

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4. Dr. Archana Beri, CDC
5. Ms. Arupa Shukla, Unicef
6. Dr. Bhavna Sangal, NACO
7. Mr. Chandramouli Mukherjee, NACO
8. Dr. Dan Rosen, CDC
9. Mr. Deepak Dobhal, BMGF
10. Ms. Deepika S Joshi , CDC

11. Ms. Elizabeth Michael, NACO
12. Mr. Farns Stobbelaar, WHO
13. Dr. Govind Bansal, NACO
14. Mr. Haresh Patel, WHO
15. Mr. Jimreeves K, NACO
16. Mr. Kannan Mariyappan, NACO
17. Dr. Kiran Chaudhary, RMLH, New Delhi
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25. Ms. Nandini Kapoor Dhingra, UNAIDS
26. Mr. P Srikar, NACO
27. Ms. Pallavi Joshi, NACO
28. Dr. Pradeep Kumar, NACO
29. Dr. Prashant, MPSACS
30. Mr. Praveen Prakash Gupta, NACO
31. Dr. Preeti Kumar, PHFI
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33. Ms. Richa Pathak, NACO
34. Dr. Sameer Kumta, BMGF
35. Dr. Sangeeta Kaul, CDC
36. Ms. Savina Ammassari, UNAIDS
37. Ms. Sonalini Mirchandani, Consultant
38. Dr. Srilatha Sivalenka, CDC
39. Dr. Sunita Upadhyay, CDC
40. M. Supriti Dua, World Bank
41. Mr. Ugra Mohan Jha, NACO
42. Ms. Vinita Verma, NACO
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2. Ms. Alka Ahuja, NACO (Convener-Procurement)
3. Mr. Dan Rosan, CDC (Team Lead, TSC-F&P)
4. Mr. Amith Bathula Nagaraj, World Bank
5. Ms. Asha Bhagat, World Bank
6. Mr. Ashish Kumar, NACO
7. Mr. Deepak Kumar, Empower School of Health
8. Mr. Frans Stobbelaar, WHO
9. Mr. Gautam Chatterjee, NACO
10. Ms. Heena Doshi, World Bank
11. Mr. Jimreeves K, NACO
12. Mr. Kuldeep Singh, NACO
13. Mr. Madhur Gupta – PSM, WHO India
14. Dr. Nidhi Gupta, Empower School of Health
15. Dr. Paul Lalvani, Empower School of Health
16. Mr. Prakash Mehrani, Senior Technical Representative from RITES
17. Ms. Riham Hussein, World Bank
18. Mr. S. R. Bhonsle, NHM, Maharashtra
19. Mr. Sachin Jagtap, Empower School of Health
20. Dr. Swarup Dutta, NIC Consultant
21. Mr. Utpal Das, NACO
22. Mr. Vijay Singh, Empower School of Health

MANAGEMENT & COORDINATION SECRETARIAT FOR MTA OF NACP IV

1. Dr. C V Dharma Rao, Joint Secretary, NACO
2. Dr. Ajay Chauhan, Director-Finance, NACO
3. Mr. Jimreeves K., Team Leader & Donor Coordinator, NACO
4. Mr. Utpal Das, Specialist-Knowledge Transfer, NACO
5. Dr. Yujwal Raj, Consultant.

Terms of Reference

A. **Terms of Reference (TOR) of the Steering Committee:**

- To provide strategic direction and oversight to the MTA activities,
- To review the recommendations presented by the Technical Sub Committees(TSCs),
- To provide direction regarding the financial support to MTA.

B. **Terms of Reference (TOR) for the Technical Sub-Committee:**

- To take a stock of efforts undertaken in NACP IV and earlier phases in terms of coverage, quality of interventions, gaps, constraints, etc in respect of the goals and objectives set in NACP IV.
- Identify barriers in the implementation of the prevention and control strategies and thereby suggest possible solutions.
- Take into account the international call for 2030 goals, technical strategy changes, fulfillment of the international commitments and national commitments in terms of SDGs.
- Suggest practical goals, objectives and strategies for NACP V keeping in view the above and also the financial resource availability.
- Suggest changes in the infrastructure at various levels of implementation in line with proposed strategies and availability of resources.





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