



**Assessment of**

**Prevention of Parent to Child  
Transmission of HIV (PPTCT) Services  
Implementation in the States of Andhra Pradesh  
Telangana, Karnataka and Tamil Nadu**

Assessment Report 2014



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

The Prevention of Parent-to-Child Transmission of HIV (PPTCT) Programme under the Department of AIDS Control, has taken rapid strides during the past few years in bringing down the transmission of HIV from mother –to-child.

The PPTCT Programme has moved from the administration of single dose Nevirapine Prophylaxis to all HIV positive pregnant women to triple-drug Regimen (Option –B) from September 2012 onwards in three southern high HIV prevalent states of Andhra Pradesh, Karnataka and Tamil Nadu.

Government of India is committed to work towards achievement of the global target of “Elimination of new HIV infection among children” by 2015.

Recently, an assessment was undertaken by Basic Services Division of DAC along with technical experts from development partners (CDC, UNICEF, WHO, USAID, UNAIDS, CHAI & I-Tech) of the implementation of Option-B which has been documented for sharing with all other States / UTs which are implementing the PPTCT services in the country.

This assessment report has been prepared incorporating all the observations made by the technical experts, and highlights the challenges, gaps, opportunities and innovations in the implementation of PPTCT services in the states / districts assessed.

It is crucial that all the States / UTs strengthen the convergence between PPTCT services and National Reproductive & Child Health (RCH) to improve awareness, counseling and screening / testing services to detect HIV infection amongst pregnant women on their very first contact with health system. It is important that synergies with National Health Mission (NHM) and the General Health Care System are sustained for efficient delivery & management of PPTCT services with well functioning referrals and linkages.

The meticulous efforts made by the Basic Services Division with support from all concerned stakeholders and partners are appreciated for bringing out this Assessment Report, and surely the PPTCT services will rapidly scale up and strive towards elimination of mother-to-child transmission of HIV in our country.

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## Preface

Mother to child transmission of HIV is the primary route of transmission of HIV among children and is known to occur during pregnancy, delivery and breast feeding period. It is estimated that without any intervention the risk of transmission of HIV from an HIV infected pregnant women to her child is between 20 – 45%.

The Prevention of Parent-to-Child Transmission of HIV (PPTCT) in India was launched in 2002 using single dose Nevirapine as the drug of choice, which had the potential to reduce the risk of transmission to 12 – 15%.

Based on the WHO Guidelines (2010), the Department of AIDS Control in September 2012 rolled-out the triple drug prophylactic ARV regimen (Option-B) in three southern high HIV prevalent states of Andhra Pradesh, Karnataka and Tamil Nadu.

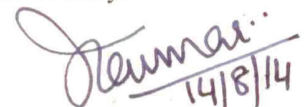
With the release of updated WHO Guidelines (June 2013) and based on the suggestions from Technical Resource Groups, the Department of AIDS Control decided to adopt and implement lifelong ART for HIV positive pregnant and breast feeding women irrespective of CD4 count or WHO clinical stage, with effect from 1<sup>st</sup> January, 2014, in the entire country. This strategy has the potential to reduce the risk of mother-to-child transmission of HIV to less than 5% and will facilitate the country to work towards the global goal of elimination of HIV among children.

The Basic Services Division of DAC along with support from all the concerned development partners and States / UTs undertook an assessment of the implementation of triple drug ARV in the four southern high HIV prevalent states of Andhra Pradesh, Telangana, Karnataka and Tamil Nadu during the last week of June, 2014.

The objectives of this assessment were to conduct a systematic review and document the lessons learned from the implementation of PPTCT services with focus on linkage mechanisms to ensure adherence & follow-up in the PPTCT cascade, convergence / integration of services at the state, district and facility levels, challenges faced, operational solutions adopted, etc.

The methodology and tools used for this well planned PPTCT Assessment are detailed in this Assessment Report.

This report has also captured the bottle-necks and gaps while accessing PPTCT cascade of services by HIV positive pregnant women & their babies, challenges, opportunities, innovations and best practices especially in integration between PPTCT services and the National Health Mission, which are so critical to the success of the PPTCT services in the country.

  
14/8/14  
(Dr Ashok Kumar)



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## LIST OF ACRONYMS

<b>ANC</b>	Ante-natal Care/clinic
<b>ANM</b>	Auxiliary Nurse Midwife
<b>APSACS</b>	Andhra Pradesh state aids control society
<b>ARV</b>	Anti-retrovirals
<b>ART</b>	Anti- Retroviral Treatment
<b>ARTC</b>	Anti-Retroviral Treatment Centre
<b>ASHA</b>	Accredited Social Health Activist
<b>ASMC</b>	Advocacy for Social Mobilisation and Communication
<b>BCC</b>	Behaviour Change Communication
<b>CHAI</b>	Clinton Health Access Initiative
<b>CoE</b>	Centre of Excellence
<b>CEA</b>	Clinical Establishment Act
<b>CMIS</b>	Computerised Management Information System
<b>CHC</b>	Community Health Centre
<b>CST</b>	Care Support & Treatment
<b>CPT</b>	Co-trimoxazole Preventive Therapy
<b>NACO</b>	Department Of AIDS Control
<b>DAPCU</b>	District AIDS Prevention & Control Unit
<b>DBS</b>	Dried Blood Spot
<b>DDHS</b>	Deputy Director Health Services
<b>DLN</b>	District Level Network
<b>DNRT</b>	DAPCU National Resource Team
<b>EID</b>	Early Infant Diagnosis
<b>EBF</b>	Exclusive Breast Feeds
<b>ERF</b>	Exclusive Replacement Feeds
<b>FPAI</b>	Family Planning Association of India
<b>FEFO</b>	First Expiry First Out
<b>F-ICTC</b>	Facility Integrated Counselling & Testing Centre
<b>FOGSI</b>	Federation of Obstetrics & Gynaecology Society of India
<b>GoI</b>	Government of India
<b>HEI</b>	HIV Exposed Infant
<b>HMIS</b>	Health Management Information Systems
<b>IAP</b>	Indian Academy of Paediatrics
<b>ICTC</b>	Integrated Counselling and Testing Centre
<b>IEC</b>	Information Education Communication





<b>IMA</b>	Indian Medical Association
<b>I-TECH</b>	International Training & Educational Centre for Health
<b>KPMEA</b>	Karnataka Private Medical Establishment Act
<b>KSAPS</b>	Karnataka State AIDS Prevention & Control Society
<b>LAC</b>	Link Art Centre
<b>LAC Plus</b>	Link Art Centre Plus
<b>LSCM</b>	Logistic & Supply Chain Management
<b>LFU</b>	Lost-to-Follow-Up
<b>LPV/r</b>	Lopinavir/ ritonavir
<b>MCH</b>	Maternal & Child Health
<b>MCTS</b>	Mother-Child Tracking System
<b>MDGs</b>	Millennium Development Goals
<b>NACO</b>	National AIDS Control Organisation
<b>NACP</b>	National AIDS Control Programme
<b>NHM</b>	National Health Mission
<b>NIRT</b>	National Institute for Research in Tuberculosis
<b>NRL</b>	National Reference Laboratory
<b>NSP</b>	National Strategic Plan
<b>ORW</b>	Out-reach worker
<b>PEP</b>	Post-Exposure Prophylaxis
<b>PICT</b>	Provider Initiated Counselling & Testing
<b>PICME software</b>	Pregnancy & Infant Cohort Monitoring & Evaluation software
<b>PPTCT</b>	Prevention of Mother-To-Child Transmission
<b>PPTCT</b>	Prevention of Parent-To-Child-Transmission
<b>PCR</b>	Polymerase Chain Reaction
<b>PCoE</b>	Paediatric Centre of Excellence
<b>PHC</b>	Primary Health Centre
<b>PPP</b>	Public- Private- Partnership
<b>PLHIV</b>	People living with HIV/ AIDS
<b>PNC</b>	Post-Natal care
<b>RMNCH+A</b>	Reproductive Maternal New-born Child Health Plus Adolescents
<b>SACS</b>	State AIDS Control Society
<b>SA-ICTC</b>	Stand- alone ICTC
<b>SC</b>	Sub-centre
<b>S&amp;D</b>	Stigma & discrimination
<b>SIMS</b>	Strategic Information Management Systems
<b>SIHFW</b>	State Institute of Health & Family Welfare
<b>SD NVP</b>	Single dose Nevirapine



<b>STI</b>	Sexually Transmitted Infections
<b>T-A-T</b>	Turn-around –time
<b>TANSACS</b>	Tamil Nadu State AIDS Control Society
<b>UNAIDS</b>	Joint United Nations Programme on HIV/AIDS
<b>USAID</b>	US Agency for International Development
<b>UNICEF</b>	United Nations International Children’s Emergency Fund
<b>US CDC</b>	US Centers for Disease Control and Prevention
<b>VCT</b>	Voluntary Counselling & Testing
<b>VHN</b>	Village Health Nurse
<b>VHND</b>	Village Health & Nutrition Day
<b>WHO</b>	World Health Organisation
<b>WBFPT</b>	Whole Blood Finger Prick Test
<b>WBS</b>	Whole Blood Specimen



# **Section I:**

## An Overview



## 1. BACKGROUND

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Mother-to-child transmission (MTCT) of HIV, is by far the most common source of paediatric HIV infections, significantly encumbering the modest gains made in previous decades to improve maternal and child health. Recent years has witnessed notable progress, in the global scale-up of prevention of mother-to-child transmission (PPTCT) of HIV, including in high burden and resource-limited settings.

There is ample global evidence, that significant reduction in new paediatric infections can be achieved as a result of high coverage with effective interventions<sup>1</sup> for PPTCT (WHO, 2010). In 2013, the WHO released new guidelines which recommend to provide life - long ART (triple antiretroviral drug regimen) for all pregnant women living with HIV, irrespective of the CD4 cell count; this new option (B+) will result in substantial reduction in transmission of mother to child transmission and would help in maximising coverage for those needing treatment for their own health and survival. It would also avoid stopping and starting drugs with repeat pregnancies, providing early protection against MTCT in future pregnancies, reducing transmission to sero-discordant male partners and avoiding drug resistance (WHO, 2012).

With an overwhelming global consensus to galvanize efforts and accelerate progress towards elimination of new HIV infections among children and to keep mothers and children living with HIV alive, a set of overarching goals<sup>2</sup> were targeted to be achieved by the year 2015 (UNAIDS, 2011). Furthermore, the elimination of transmission of HIV infection from mother-to-child contributes directly in the campaign towards achieving three (Goal 4, 5 and 6)<sup>3</sup> of the Millennium Development Goals (MDGs). There is now unprecedented collaboration and political will to accomplish these goals, and many countries are making remarkable progress towards this end.

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<sup>1</sup> Anti-Retroviral Treatment (ART) and Non-Antiretroviral (ARV) strategies.

<sup>2</sup> Reducing the number of children newly infected with HIV by 90%, reducing the number of women dying from HIV-associated causes during pregnancy, delivery and postpartum by 50% and reducing the mother-to-child transmission of HIV to less than 5%.

<sup>3</sup> MDG 4: Reduce Child Mortality; MDG 5: Improve Maternal Health; MDG 6: Combat HIV/AIDS, malaria and other diseases.



## 1.1. COUNTRY CONTEXT

India has a concentrated HIV epidemic with 0.27 percent prevalence (2011), with significant variations among states. Although HIV prevalence is less than 1 percent, it equates to about 2.1 million (2011) of People Living with HIV (PLHIV) in the country. Of these, women constitute 39% of all PLHIV while children less than 15 years of age constitute 7% of all infections (HIV sentinel surveillance, 2012-13 report). Regional and global data is given in *table 1* below in comparison with the Indian scenario.

**Table 1: HIV/AIDS Statistics, 2012, Comparisons**

Indicator	Global <sup>4</sup>	Regional (South Asia & SEAR) <sup>5</sup>	India <sup>6</sup>
<i>Adults &amp; Children living with HIV</i>	35.3 million	3.9 million	2.1 million
<i>Adults &amp; Children newly infected with HIV</i>	2.3 million	0.27 million	0.12 million (adult) <sup>7</sup>
<i>Adult Prevalence (15-49)</i>	-	0.3%	0.27%
<i>Adult &amp; child deaths due to AIDS</i>	1.6 million	0.22 million	0.14 million

As evident, of the global burden, India accounts for 5.9 percent of PLHIV and 5.6 percent of the new infections in adults and children.

About an estimated 29 million pregnancies take place annually in India. About 14,000 estimated HIV infected babies are born to an estimated 38,000 HIV infected pregnant women<sup>6</sup>. MTCT of HIV, which occurs during pregnancy, childbirth, or through breastfeeding, accounts for 4.7 percent of overall HIV transmission in the country (NACO annual report, 2013); it is the most significant route of HIV transmission among children in India. It is imperative that these infected pregnant women are provided the package of PPTCT services to reduce transmission of HIV to the baby. The initial challenge lies in reaching to all pregnant women accessing ANC services at government health service delivery points and to reach early in pregnancy to those reached, especially in line with the WHO guidelines that require women to attend ANC as early as possible.

Currently 75.3 % of pregnant women make at least three ANC visits and 63.1 % of deliveries occur in health facilities<sup>8</sup> under the care of skilled birth attendants (SBAs). These conditions provide

<sup>4</sup> UNAIDS. Report on the Global AIDS Epidemic, 2013

<sup>5</sup> UNAIDS. Report on the Global AIDS Epidemic, 2013

<sup>6</sup> Technical report on HIV/AIDS estimates 2012

<sup>7</sup> NACO Annual Report 2012-13

<sup>8</sup> % of institutional deliveries against the total estimated deliveries.



opportunities for women and infants to receive HIV testing and PPTCT services during pregnancy, intra partum and postnatal. The programme has tested about 9.7 million pregnant women for HIV in 2013-14. However, it is important to note that only 56% of pregnant women attend ANC services during the 1st trimester of pregnancy against the reported overall ANC registration in the country (NHM - HMIS, 2013-14).

**Table 2: Primary Healthcare infrastructure in India, 2012**

<i>Health Facility</i>	<i>Norm for Establishment</i>	<i>Number of Facilities</i>
District Hospital	One per district (671)	725
Sub Divisional Hospital	Depending on size of district	987
Community Health Centre (CHC)	80,000-120,000 Population	4,917
Primary Health Centre (PHC)	20,000-30,000 Population	24,049
Sub-centre	3,000-5,000 Population	148,366
Village Accredited Social Health Activist (ASHA)	One per 1,000 Population	800,819

*Source: Rural Health Statistics in India 2012-MOHFW/ GoI (March, 2012)*

**Table 3: HIV testing and treatment facilities, 2013**

<i>HIV Testing Facilities</i>		<i>ART Care Facilities</i>	
Stand Alone ICTC (CHC and above)	4,537	ART centres (Primarily at district level)	380
Facility Integrated ICTC (PHC / Dispensary / CHC)	9,196	Link ART centres (Primarily at CHC level above): For decentralized ARV distribution only	1,023
PPP-ICTC	1,805		
<b>Total</b>	<b>15,538</b>	<b>Total</b>	<b>1,403</b>

*Source: NACO annual report, 2013*

Table 2 and Table 3 above detail the community health and HIV testing and treatment infrastructure in the country.

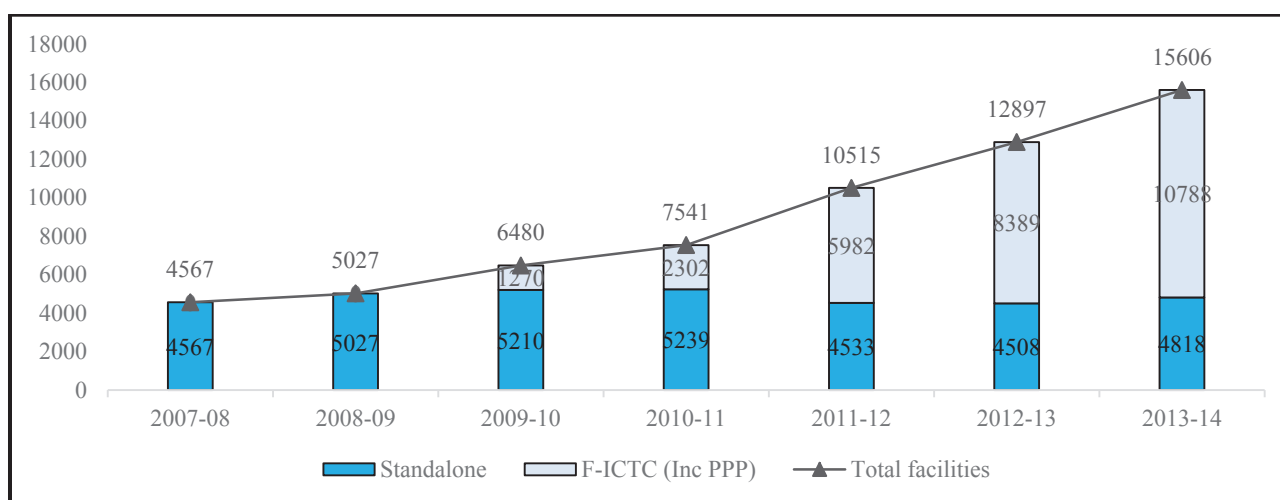
## **1.2. NATIONAL RESPONSE**

In India, the Department of AIDS control (NACO), has adopted the PPTCT component as an important service under NACP to respond to the challenge of controlling and reversing the HIV epidemic. The programme which is called the PPTCT (Prevention -of -Parent -to -Child -Transmission) programme started in 2002, and has witnessed a significant scale-up of HIV counselling and testing (PPTCT HIV screening is also undertaken in the sub-centers through ANMs), PPTCT, ART and EID services across the country over the last few years. Since 2007, there has been a progressive increase in the number of facilities providing PPTCT services, from 4567 in 2007-08 to 15606 ICTC centres in 2013-14 (*figure 1*). Between 2005 and 2013, the number of



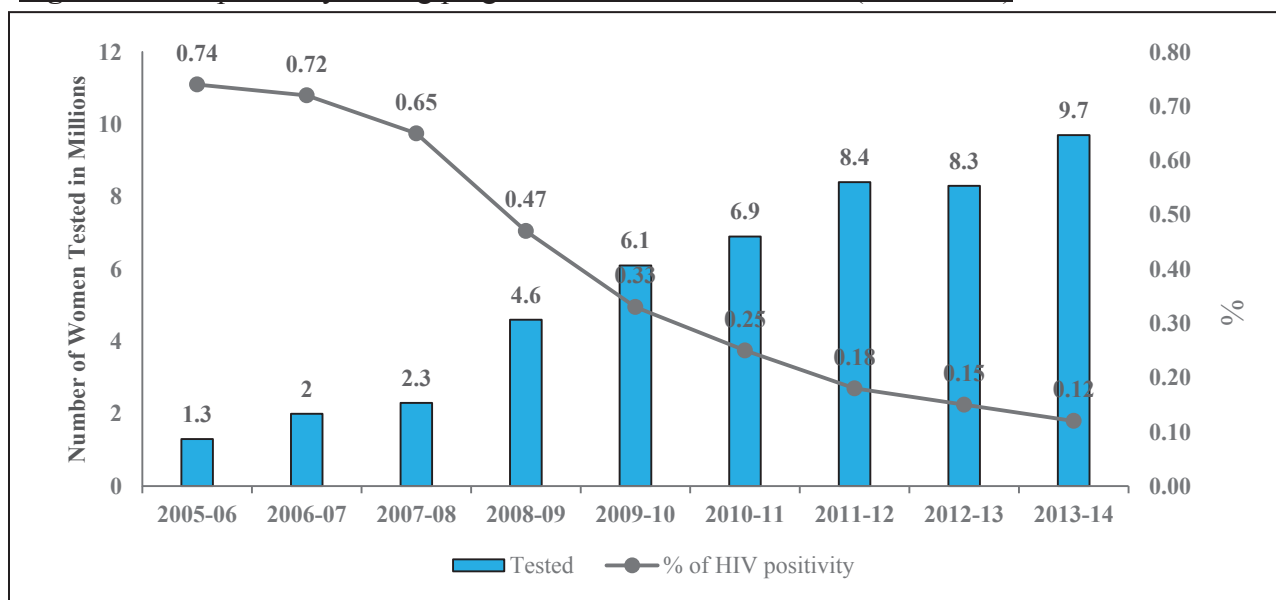
pregnant women tested annually under this programme increased from 1.2 million to 9.7 million (figure 2), with the coverage to rural areas increasing to a large extent (scale up of HIV testing services below the level of district. Concurrently, there has also been a significant decentralisation and scale-up of ICTC and ART services; with 7.34 Lakhs PLHIV receiving free ART across the country through 409 ART centres and 860 Link-ART centres (LAC). This provides an excellent opportunity for delivering PPTCT interventions and engaging these women and their children in a comprehensive continuum of HIV prevention, care and treatment services (NACO, 2013).

**Figure 1: Scale up of ICTC's (2007-14) in India**



Source: (NACO, 2014)

**Figure 2: HIV positivity among pregnant women tested in India (2005-2014)**



Source: (NACO, 2014)



In adopting a public health approach to enhance the coverage of services provided and in line with global evidence and recommendations on more effective protocols a joint directive from the National AIDS Control Programme (NACP) and the National Health Mission (NHM) regarding convergence of the two programme components was issued in July 2010, explicitly stating that universal HIV screening should be included as an integral component of routine ante natal care (ANC) check-up. The objective was to ensure universal HIV testing coverage for pregnant women and that those who are diagnosed with HIV would be linked to CST services.

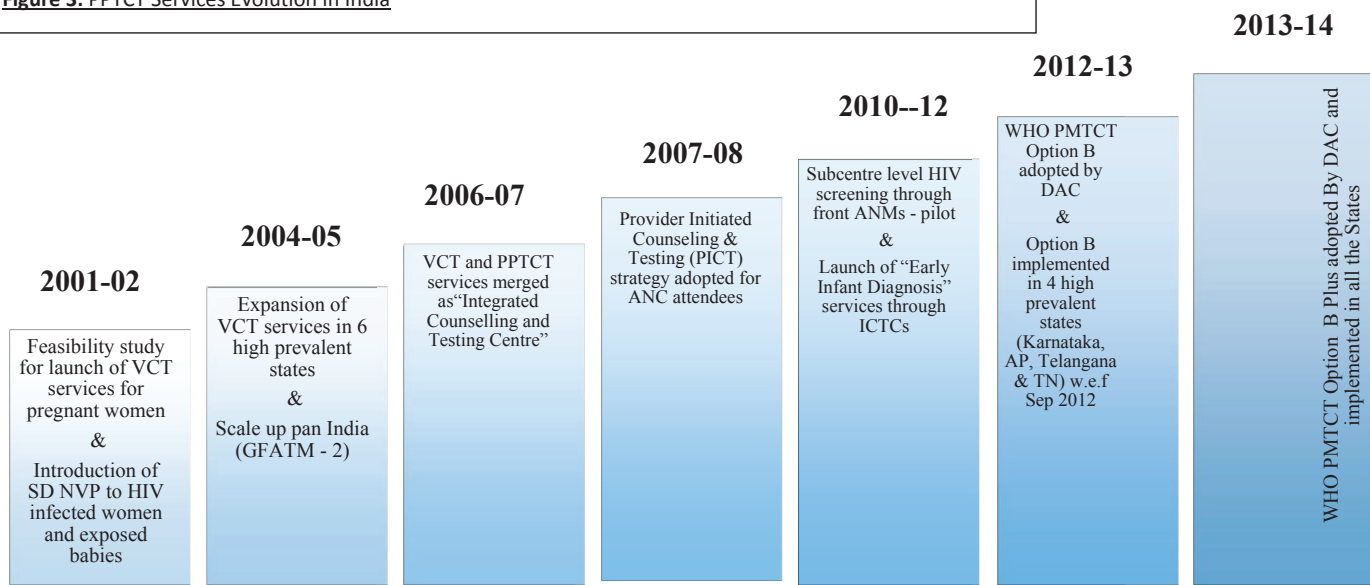




### 1.3. PROGRAMME DESCRIPTION

The evolution of PPTCT services over the years is shown below:

**Figure 3:** PPTCT Services Evolution in India





## **1.4. ROLL OUT OF PPTCT SERVICES-LIFELONG ART**

The prevention of parent to child transmission of HIV in India was launched in 2002, using single dose Nevirapine as the drug of choice which had the potential to reduce the risk of transmission to 12 – 15 %. Based on the WHO (2010) guidelines, NACO in September 2012 rolled out the triple drug ARV regimen (option B) in the 4 southern high prevalence states of Andhra Pradesh, Telangana, Karnataka and Tamil Nadu. It was crucial that for efficient PPTCT services the states had to strengthen the convergence between NACP and national Reproductive and Child Health (RCH) including STI/RTI, to improve access of HIV awareness, counselling and screening/testing services to detect HIV infection amongst pregnant women on their very first contact in the health system.

After the finalization of the technical guidelines, NACO conducted a training of trainers (TOT) for the state level medical and para medical master trainers. The states of Andhra Pradesh, Telangana, Karnataka and Tamil Nadu then ensured capacity building of all healthcare providers related to PPTCT services including sensitization of frontline health workers (ANMs, ASHAs etc.). In September 2012, the states AP (including Telangana), and Karnataka launched the implementation of option B on a pilot basis. The same was implemented by TN from March 2013. Test kits and ARV drug requirement and forecasting for PPTCT were established as well as mechanisms for transport and receipt of supplies from national level. Recording and reporting of stocks were also put in place.

Based on the new guidelines from WHO (June 2013), NACO has decided to initiate lifelong ART (triple drug regimen) for all pregnant and breast feeding women living with HIV, regardless of CD4 count or WHO clinical stage, for both for their own health and prevent vertical HIV transmission and with additional HIV prevention benefits.

## **1.5. PURPOSE OF THE DOCUMENT**

The potential for the latest national PPTCT strategy to eliminate paediatric HIV and to impact broader maternal and child health is compelling. The purpose of this report is to disseminate the results of an assessment of the pilot PPTCT programme roll-outs undertaken in the four high prevalence southern states of India (Andhra Pradesh, Telangana, Karnataka and Tamil Nadu), focusing on programmatic achievements and challenges and the level of integration at health facilities. Key activities, achievements and challenges at the facility and community levels are documented and lessons are identified, based on the last two years of experience. This report is



not an evaluation, but rather explores the respective state's PPTCT service implementation successes, innovations and best practices.

The document therefore contains considerations on key policy, programmatic and partnership/collaboration issues that relate to implementation. Adequate planning to address these key issues can be useful during the nationwide sAale to anticipate challenges, avoid bottlenecks and achieve PPTCT objectives.



## 2. ASSESSMENT

Department of AIDS control, conceptualized this assessment with the support from development partners engaged in PPTCT at the national level to document the achievements and best practices under PPTCT (Option B) and identify areas for further strengthening.

### 2.1. OBJECTIVES OF THE ASSESSMENT

The overall objective was to conduct a systematic review and document the lessons learnt from the implementation of PPTCT services using Option B and B+ in the four southern states. The lessons from these states will aid in the effective scale up of Option B+ programme in the rest of the country.

The specific objectives were:

- 1) To document experiences of implementing the Option B/B+ cascade of the following key PPTCT services:
  - a) Detection of HIV positive pregnant women in terms of testing coverage, detection coverage and testing early in pregnancy.
  - b) Linkage of detected HIV positive pregnant women to Care, Support and Treatment services in terms of enrolment at ART centre, efficiency in pre-treatment evaluation and initiation of ART and retention in care,
  - c) Institutional delivery of HIV positive pregnant women and immediate initiation of Early Infant Diagnosis coverage in terms of testing using Dried Blood spot (DBS) testing Nevirapine prophylaxis to the baby up to 6 weeks.
  - d) Among HIV exposed Infants and testing for Whole Blood Specimen (WBS) collection in those DBS positive infants and early paediatric ART initiation.
  - e) Linkages and mechanisms to ensure lifelong adherence and follow-up of both HIV positive pregnant women and child, covering the ante-natal, labour and delivery, post-natal and breast feeding period.
  - f) Follow-up of HIV exposed infants for confirmatory testing at 18 months and follow-up thereafter.
- 2) To identify innovations and best practices suitable for replication in the other states.
- 3) To understand the mechanism of convergence / integration of PPTCT services with the NHM, notably the services for maternal and child health and their impact on the success of the PPTCT interventions.
- 4) To document the challenges faced, operational solutions adopted and the overall learning from implementation of the PPTCT services in the selected states

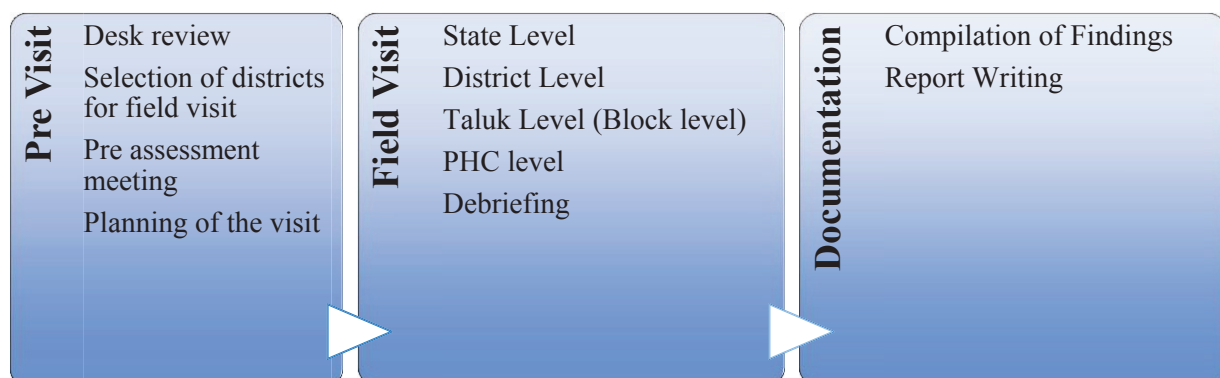


## 2.2. DESIGN AND METHODS

The assessment was conducted using standardized assessment tools and checklists developed for the purpose of gathering baseline information, desk review of secondary data and for guiding discussions during the field visit. The tools and checklists used are annexed.

### Design of the Assessment:

The assessment was done in 3 stages:

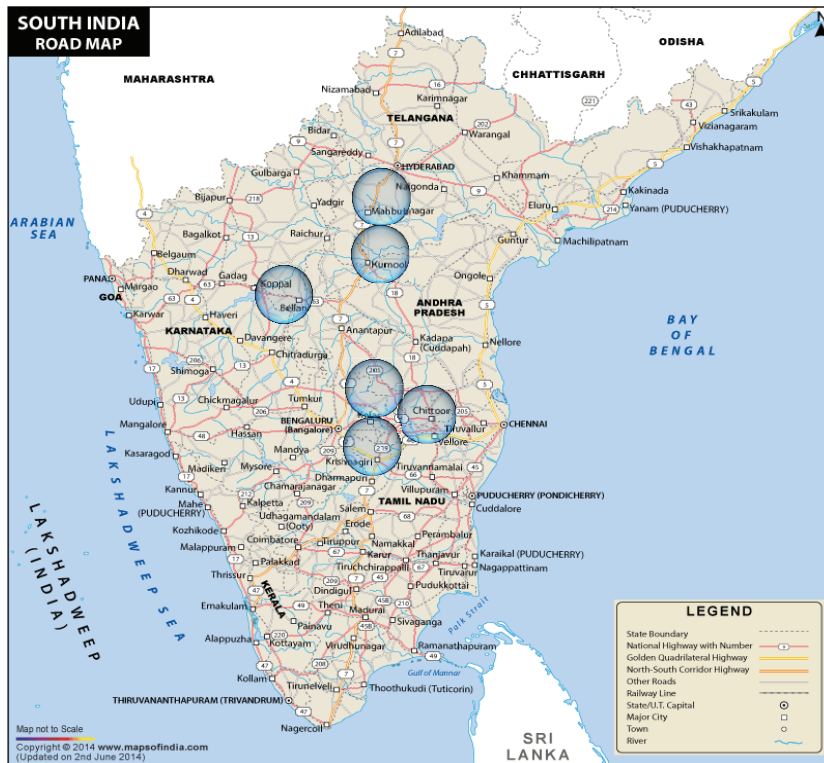


### 2.2.1 Pre Visit

- **Desk Review:** A desk review of secondary data from the states was undertaken, using CMIS and SIMS reports and HIV pregnant women positive line-lists (Excel spreadsheet) for the period (September, 2012 – March, 2014 for Karnataka, Andhra Pradesh and Telangana; April, 2013 – March, 2014 for Tamil Nadu).
- **Selection of Districts for Field Visits:** Subsequent to analysis of secondary data, two districts from each of the states of Karnataka and Tamil Nadu and one each from Telangana and Andhra Pradesh, were selected based on a composite index arrived from the criteria as listed below:
  - a) Achievement of HIV testing of pregnant women against the estimated number of pregnant women in the district.
  - b) Achievements in linkage of HIV infected pregnant women with ART centres.
  - c) Composite Index/ Indicator for MCH (which includes pregnancy care, child care, post natal care and reproductive health care).



Accordingly the following districts were selected for the field assessments. (Andhra Pradesh- Kurnool; Karnataka-Bellary, Kolar; Tamil Nadu - Krishnagiri, Vellore; and Telangana – Mahbubnagar). The districts visited are mapped in the *figure*<sup>9</sup> below.



- Pre assessment meeting: Planning of the assessment visit was jointly developed with the respective state SACS officials and the respective assessment teams.
- Planning of the visit: - NACO to orient the SACS on the methodology and finalize the logistics, field visit schedule etc.

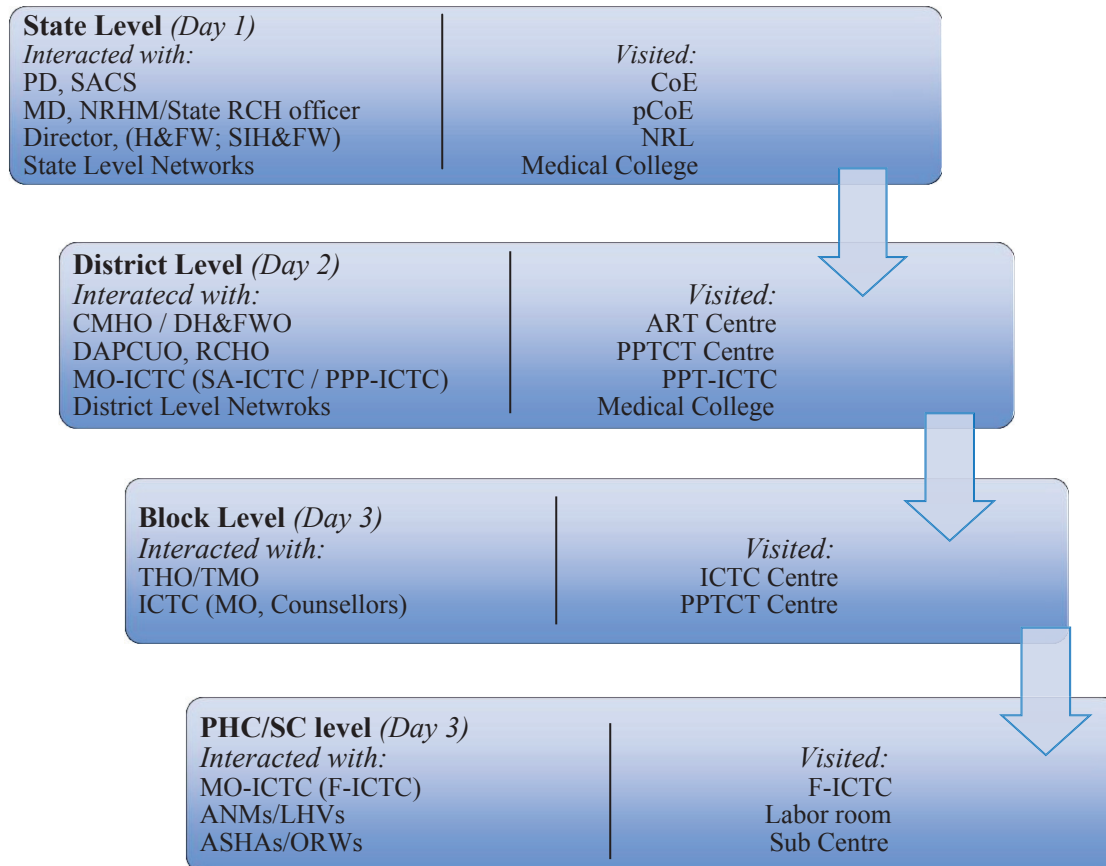
### 2.2.2 Field Visit

- Assessment teams: The assessment was undertaken by four teams of experts, with representations from NACO, WHO, UNICEF UNAIDS, US CDC, USAID, CHAI and I-TECH.
- The sequence of the schedule of events, together with the human resource interactions and facility levels visited is summarized below.
- Debriefing meeting: The State Principal Secretary (Health & Family welfare), MD NHM, Director Health and Family Welfare services, Project Director SACS, Commissioners, Health and Family Welfare services along with SACS officers and the state NHM counterparts were

<sup>9</sup> This map is available at <http://www.mapsofindia.com/south-india-road-map.html>



debriefed on the key findings of the assessments and recommendations for improving the programme.



### 2.2.3 Documentation

The initial findings from the State and District assessment visits were compiled by the respective teams for debriefing the State Principal Secretary (Health & Family welfare), SACS and NHM officers. After which all the state reports were synthesised to form a report to be disseminated for nation-wide scale up.

Desk reviews were completed by the beginning of June, 2014. The field assessment visits by the teams to the states and the selected districts were carried out over five days (23rd – 27th June, 2014). The five day schedule included state level meetings, two day field visits to the facilities, a day for compilation of initial findings and observations followed by a debriefing meeting with SACS and state NHM officers.

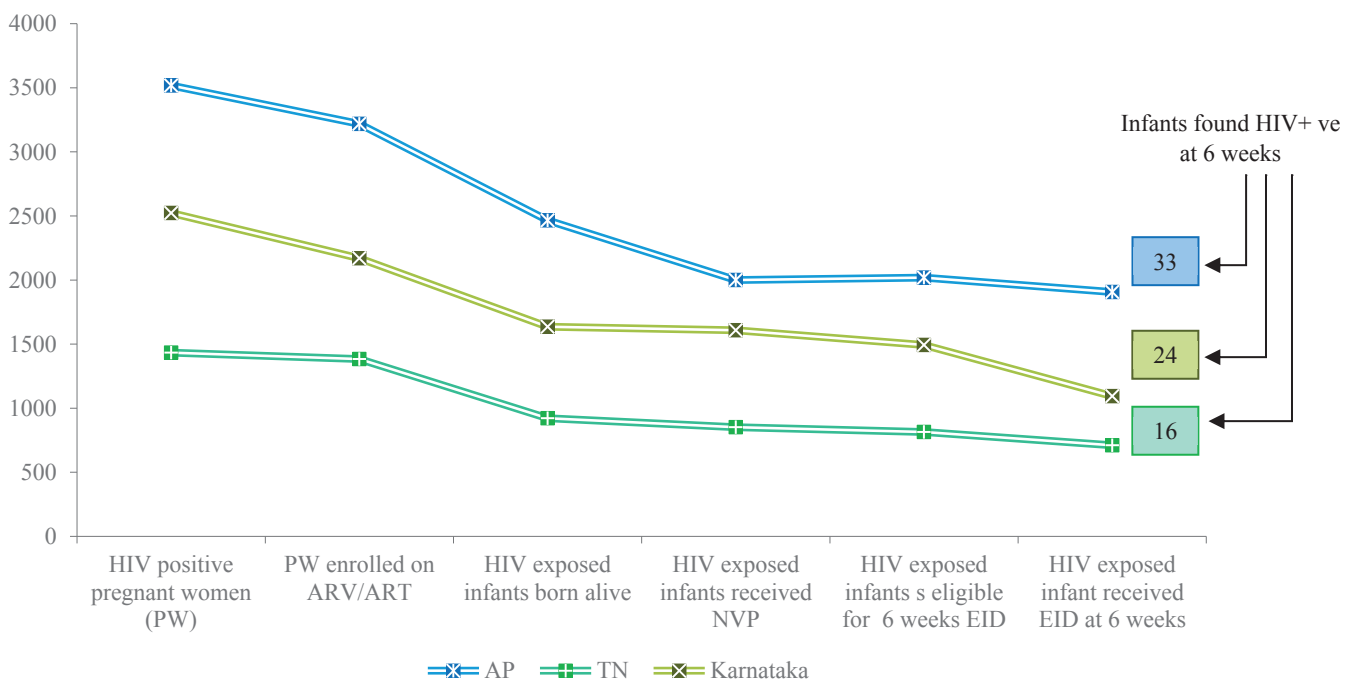


### 3. ACHIEVEMENTS

This section presents the overall achievements for the 4 states with regards to the performance of the PPTCT cascade and services delivery, programme management and functional convergence.

The PPTCT cascade for the three (A.P & Telangana are merged) states with their respective time periods is plotted below in *figure 4*. The graph below effectively showcases the continuum of care of services in the four assessed states, which optimally would follow a uniform horizontal path.

**Figure 4:** PPTCT cascade comparisons: Andhra Pradesh (including Telangana), Karnataka (2012-14); TN (2013-14)<sup>10</sup>



The 4 states have high coverage of ANC (>90%) and institutional deliveries (>90%), which provides an enabling platform for PPTCT services delivery. In some states, institutional deliveries are incentivized by maternal benefit schemes (e.g. Dr. Muthulakshmi Reddy scheme in TN). Additional efforts such as home visits by ICTC counsellors and PPTCT community outreach workers support institutional deliveries for HIV infected women.

<sup>10</sup> The data on A.P and Telangana are presented in the same cascade, based on the former situation (before bifurcation of the state)





The 4 states have achieved a high HIV testing coverage (around 90%) among ANC attendees due to the integration of HIV screening as part of routine ANC services by MCH staff at all levels. At the sub-centre level HIV screening is being undertaken by ANMs in some districts. Testing is also available in the delivery rooms.

However, since a significant proportion of pregnant women attend ANC services in the private sector; **universal testing can only be achieved if strong Public Private Partnerships are established at scale.**

In the 4 states, HIV positive women identified at ANC are successfully referred and linked to PPTCT services at ART centre level and when needed ARV/ART provision has been decentralized up to the Link ART centre (LAC) level. The proportion of identified HIV positive pregnant women enrolled on ARV/ART since the beginning of the programme ranges from 86% to 96% across states. With the start of option B+, **the mean time to ART start has been shortened due to the policy of initiation of lifelong ART, irrespective of CD4 count.** However, it is too early to assess the retention of women on ART after delivery since option B+ was started only in January 2014.

Major efforts are being undertaken to increase retention along the PPTCT cascade through individual client tracking, referral slips, monetary benefit schemes and effective follow-up by front-line health workers. Individual clients tracking wall charts have been placed at PPTCT and ART centers to facilitate a coordinated follow up by dedicated staff. The DAPCUs, district ICTC supervisors and ICTC/ART counsellors share the list of LFU cases with ANMs, ASHAs and community outreach workers (ORWs) on a regular basis to enhance **case holding in the PPTCT cascade.**

In the 4 states, since the beginning of the option B/B+ programme, >90% of HIV exposed infants received Nevirapine and 87%-94% of eligible infants received 6 weeks EID. However, accessibility to the required successive DBS for EID is not optimal at the decentralized level, leading to poor EID coverage at 6 months and thereafter. HIV transmission during breast feeding is therefore not well assessed. The **turnaround time of the EID test results is up to 6 weeks which leads to delay in paediatric ART initiation and contributing to LFUs.**

The PPTCT Option B+ lifelong ART programme has achieved good outcomes to date. Since the beginning of option B/B+ in the 4 states, the number of HIV positive infants reported has decreased significantly: of 5,024 infants born to HIV positive mothers, 3,684 have been tested for DNA PCR at 6 weeks and 72 of them of been detected HIV positive. Although not



representative of all infants born to HIV positive mothers, the MTCT rate (at 6 weeks) among those who have been tested is only 1.2% .

### **Leadership and Commitment**

High commitment and leadership by NACP and NHM for the PPTCT programme was observed at the State level. High commitment of DAPCU was also observed and significant efforts are being made by the district level programme managers to strengthen the service delivery in the sub district levels.

### **Programme Management**

**Resources for PPTCT** have been shared between SACS and NHM and a robust **Supply Chain Management** system has been put in place, ensuring adequate test kit and ARV drug stocking. PPTCT guidelines were translated in local languages and vacancy advertisements were found to be placed in health facilities. **PPTCT trainings** were organized jointly by NACP and NMH/RCH. PPTCT services are currently run by well trained, motivated and committed HIV staff. NHM staff are in general less knowledgeable about PPTCT guidelines. There is still scope for improving the understanding of all staff on the PPTCT new ARV regimen in some areas and strengthen the transfer of knowledge to all MCH staff as part of district general health training. There is also scope to increase knowledge on family planning services among the HIV services related staff.

Good initiatives of **Public Private Partnership** for PPTCT have been noticed. In some states, a tripartite agreement between SACS, private hospitals and NGO's (SAATHII, PLHIV networks) was used to raise awareness and facilitate training and partnership with the private sector. DAPCU's have also contributed in facilitating partnerships and signing MoU's with private clinics. State specific initiatives (Yeshaswini scheme in Karnataka, Dr. Muthulakshmi scheme in Tamil Nadu) are being used to reimburse HIV related services in the private sector. In Karnataka, accountability of the private sector for reporting and for linking HIV positive pregnant women to the public sector is high due to the enforcement of the Clinical Establishment Act. However, in other states, PPPs are still limited in scope and require further strengthening in provision of quality services.

Stringent **Programme Monitoring and Reviewing** has facilitated accountability at all levels. In most states, DAPCUs/ district programme managers monitor the PPTCT services on a monthly basis with regular review meetings and supervisory field visits. However participation by the district RCH officers and the DPMOs need to be enhanced in monitoring the services.



**PPTCT data collection and reporting system** are in place. PPTCT staff makes excellent use of line list information for patient tracking. However, there are some concerns with the quality and completeness of reporting and lack of data sharing between NACP and NHM/MCH.

### Functional Convergence

Tamil Nadu and Karnataka have established good mechanisms for functional convergence between HIV and NHM/MCH. Karnataka's good practice on convergence is illustrated in section 6.3. In Tamil Nadu, under MCH platform, a trust fund was created to support institutional deliveries, post natal care etc. This initiative has had an impact on the retention in the PPTCT cascade.



Tamil Nadu and Karnataka have established good mechanisms of functional convergence between NACP and NHM/MCH including issuing of Joint directives by Project Director, State AIDS Control Society and the Mission Director, NHM. Joint "Operational Guidelines" have also been developed with definition of respective roles and responsibilities for the delivery of PPTCT services.

A number of initiatives were undertaken to strengthen PPTCT services delivery using functional convergence:

- "Single-window approach" for testing through a single puncture and single sample of blood for all tests;
- Screening of HIV by ANMs at the sub-centre level;
- Funding support from NHM for supporting ICTC staff salaries working in PHCs; ASHA incentives for finding HIV positive pregnant women lost to follow-up.

Regular joint monitoring & supervision by programme managers of NHM and NACP at the state level as well as at the district and sub-district level has helped improve programme performance.

However, in Andhra Pradesh, limited ownership by NHM staff was noticed at the district level, which impedes real functional convergence. In this state, efforts should be made for PPTCT to



become a regular part of cluster and district level reviews. Data sharing between NHM and HIV can also be improved.

To summarize, the states have achieved excellent results in providing PPTCT services within the short time frame of implementation of PPTCT using lifelong ART. Sustaining the momentum and further strengthening the areas that require attention will contribute to achieving the goals and objectives of PPTCT services under NACP.



## 4. ISSUES AND CHALLENGES

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Based on the experiences of these 4 states a set of overarching challenges and a description of the way they have been addressed have led to key recommendations for other states to implement and strengthen their PPTCT programme.

### **Leadership and commitment**

Leadership and commitment is instrumental to the success of the efficient implementation of PPTCT services. Frequent changes in the leadership at state level, both from NHM and SACS, may lead to inconsistency in the programme management leading to inefficient PPTCT service delivery.

Persistent re-iteration on PPTCT programme goals with new top level leaders and staff is critical for sustaining high level commitment for the PPTCT programme.

### **Programme Management**

#### *1) Resources Mobilization Inadequate.*

Availability of resources in a timely manner is essential to ensure smooth implementation of the programme. The states faced challenges in making services available in a timely manner (either from SACS/NHM) to implement activities like capacity building, supply chain monitoring, conducting field visits, etc.

Adequate resource allocation and well- thought through mechanisms for smooth fund flows within SACS and NHM is recommended to ensure good implementation of the PPTCT Programme.

#### *2) Supply Chain Management (SCM)*

Ensuring a robust logistic supply chain management for tests and ARV drugs is SACS responsibility. Disruption in the supply of drugs, kits and consumables pose a significant threat to the programme implementation. TN and Karnataka, have good SCM models in place including SCM software and e-procurement. These models can be replicated.

#### *3) Decentralisation of Services*

ICTC including PPTCT and ART services have been substantially decentralised across the country. However it was observed in the 4 states, accessibility to EID and paediatric ART services require



attention. Limited EID and paediatric ART services does contribute to LFU of EID. Implementation of EID is cutting across divisional responsibilities at national and state levels leading to some inefficiency.

It is recommended that responsibilities are defined for EID and coordination mechanisms established as an integral part of PPTCT programme management at the state level. *EID* services should be made available up to the level of HIV confirmatory centres (stand-alone ICTCs) for DBS and up to the level of all ART centres for WBS. It is also recommended that paediatric ART should be made available at all ART centers.

#### *4) Capacity Building*

A clear plan for PPTCT guidelines and tools dissemination and training up to the lowest level of service delivery is necessary to cover the entire MCH system. However it is to be noted that public health systems and varying degrees of capacities among different states in India will be a challenge for the SACS to plan and implement PPTCT services effectively.

Hence it is recommended that good micro-planning, joint training by the HIV and MCH programme and monitoring the quality of trainings is required. Refresher trainings based on latest technical guidelines is also critical.

#### *5) Programme Reviews*

Periodic reviews of programme implementation at the state and district level have to be conducted regularly, jointly with HIV and MCH staff.

#### **Functional Convergence:**

There is a need to strengthen functional convergence between NACP and NHM in particular at the district and below levels. It is recommended to foster dialogue with key NMH/MCH stakeholders to build commitment and consensus on the PPTCT services. The creation of a convergence working group at state and district level should be considered to guide the process. Financial and human resources should be shared between NHM and NACP and/or NHM resources used for PPTCT. Operational guidelines for convergence should be developed and practical steps defined. PPTCT skills should be transferred to NHM, GHS staff: all MCH staff should receive PPTCT training as part of district general health training.

Efficient capacity building is essential and critical for ensuring standardised quality service delivery



Efforts should be made to make PPTCT become a regular part of cluster and district level reviews with active engagement of DAPCU and RCH/DPMU. Periodic joint monitoring and review of the PPTCT services should also take place at the state, district and sub-district level to help in removing the bottle-necks.

**Public-Private-Partnership (PPP)**

A significant proportion of pregnant women seek services in the private sector. The private sector is often unaware of PPTCT guidelines, provides inadequate/irrational management of HIV positive pregnant women and often rejects them for delivery or imposes unaffordable delivery fees. It has been difficult to ensure reporting by the private sector, which has led to an under-reporting of PPTCT activities. In some southern states, SACS have used Civil Society Organisations and NGOs to raise awareness and facilitate training and partnership with the private sector<sup>11</sup>. DAPCUs have also contributed in facilitating partnerships and signing MoUs with private maternity homes and hospitals. State specific initiatives (Yeshaswini scheme in Karnataka, Dr. Muthulakshmi scheme in Tamil Nadu are being used to reimburse services in the private sector.

In order to increase a quality private sector involvement in PPTCT, it is recommended that SACS create a provision to tie- up with private maternity homes (MoUs), and use NGOs to facilitate partnership with the private sector. Capacity building of private providers is necessary. The professional bodies (FOGSI, IAP, FPAI and IMA) can be used for disseminating PPTCT guidelines. Providing guidance on post-exposure-prophylaxis (PEP) drugs and safe delivery kits to the private maternity homes which can also help decrease stigma and discrimination in these maternity homes. It is also recommended to pro-actively implement the Clinical Establishment Act to ensure accountability by the private sector and case reporting.

**Information, Education, Communication (IEC):**

In A.P a number of educational materials have been designed and disseminated in all facilities, to raise public awareness and information about PPTCT services availability<sup>12</sup>. These can be replicated



<sup>11</sup> Refer to the detailed section on Tamil Nadu Assessments: Section 6.1  
<sup>12</sup> Refer to the detailed section on Andhra Pradesh & Telangana Assessments: Section 6.2



## Service Delivery

Ensuring universal coverage of HIV testing for large numbers of pregnant women remains a challenge. The 4 states have successfully integrated HIV testing as part of routine ANC services provided by RCH staff at all levels. At sub-centre level HIV screening is being undertaken by ANMs. They have also integrated testing and ART provision in the labour rooms. In the national scale up of the PPTCT programme it is important to integrate HIV testing as part as routine ANC.

Ensuring availability of ART for HIV positive pregnant women at decentralised level is also a challenge. In the 4 states, HIV positive women identified at ante-natal clinics are successfully referred and linked to PPTCT services at ART centre level and when needed ART provision has been decentralised up to the Link ART Centre (LAC) level. This phased approach seems to be an appropriate model for the country scenario.

Some challenges lie in counselling need of pregnant women for retention in ART, and during service delivery for direct in labour cases.

Transitioning from Option B to Option B+ is challenging because HIV positive women understand the importance of ARV for preventing HIV transmission to their baby but may not understand the importance of continuing ART lifelong. Hence these issues need to be addressed during counselling of ANCs.

Some settings have implemented the single prick and single window approach as means for one blood draw for two rapid tests, since it is more efficient, convenient and ensures more integration. To increase retention of HIV positive pregnant women some solutions have been identified such as:

- Patient tracking wall charts placed at PPTCT and ART centres to facilitate a coordinated follow up;
- Individual client tracking by line listing/ referral slips / periodic coordination meetings for finding lost to follow up (LFUs); and
- Monetary benefit scheme through the cascade, in addition to providing travel expenses and periodic follow up by outreach workers (ORW)/peripheral staff of the health system.
- In order to ensure continuation of ART after the end of the pregnancy (option B+), adequate counselling, educating and training of staff and clients on the importance of life long ART is recommended.





## **Monitoring and Evaluation (M&E)**

The experience from the 4 states has shown that PPTCT data is usually well recorded. Some facilities have standardized their ANC registers. Line listing of HIV positive pregnant women and baby pairs is well documented, because it is used for case tracking. However, facility level staff are less motivated to ensure accurate reporting. Data supervision, analysis and follow up actions are often limited.



## 5. WAY FORWARD

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In order to achieve elimination of paediatric HIV, the GOI is scaling up the PPTCT programme using option B+ nationwide in a phased manner.

The national scale up will have to enhance detection of HIV positive pregnant women in low HIV prevalence states which contribute to about 57% of HIV burden in India. Reaching out to the annually estimated 29 million pregnant women for routine HIV testing to identify the estimated 38,000 HIV infected women and provide them with early ART requires a strong functional convergence with NHM/MCH and a fruitful collaboration with the private sector.

Lessons learnt from the assessment in the 4 Southern States

### PPTCT and NHM/MCH Convergence

- Good planning, awareness raising and massive training of all staff involved in the necessary PPTCT interventions is required at the state and district level.
- An efficient supply chain management system has to be established.
- PPTCT activities should be conducted and coordinated jointly between NHM and HIV programmes from the start.
- Community level activities for HIV and MCH should be joined together including PPTCT awareness, infant feeding, nutrition, family planning to ensure high testing coverage and linkage of HIV positive pregnant women and their baby to appropriate services.

### Early Infant Diagnosis

There is a need to further strengthen the EID services, to ensure retention and high coverage of EID at six months and 12 months. In particular counsellors and ORWs should emphasize the need for follow up EID testing even when the 6 weeks EID is found negative.

For the purpose of EID testing and results dissemination, ICT services can be made use of, rather than disseminating results through courier services, which results in further delays in starting ART.

Conducting audit of HIV positive babies, on the lines of maternal death and infant death audits, will help identify the gaps in the PPTCT services and the EID services to further develop strategies to enhance the quality of EID services.



### Retention and Follow –up Issues

Other lessons learnt from the assessment of the four southern states are that once HIV positive women are detected early, most of them received ART and a reasonably good retention along the PPTCT cascade can be maintained until delivery. In order to ensure better follow up monitoring of HIV exposed infants, DBS collection sites will have to be decentralized further. Compliance on ART after the end of the pregnancy (option B+) will have to be accompanied by adequate counselling on its benefits for PPTCT in future pregnancies, preventing transmission to spouse and own health.

### Monitoring and Supervision

The recording and reporting of the PPTCT programme data should be integrated into HIV and MCH data systems and monitoring and supervision jointly conducted.

In the 4 southern states, the number of confirmed HIV positive infants born to HIV positive mothers has significantly decreased since the start of option B/ B+. It is possible to reduce and possibly eliminate MTCT of HIV if the above strategies are undertaken in all states.

Based on the observations and experience of implementing PPTCT services including Lifelong ART in the four southern states, the national programme can develop effective state specific implementation plans for the rest of the country. Special attention needs to be given to those states where the public health infrastructure and health service delivery capacities are not at the desired level. Additional technical support and rigorous management oversight and commitment from the stakeholders are critical factors in achieving the programmatic outcomes in some of the low performing states. Appropriate modifications in the guidelines, training of health care providers, high quality supervision and oversight with timely follow up at district and facility level will certainly result in achieving the PPTCT goals and objectives in all parts of India.





## **Section II:**

### Detailed State-wise Assessment Reports



## 6. Detailed Assessment Findings

This section presents the findings from the four states that formed part of the assessment visits. The findings are presented separately for the state and the districts<sup>13</sup>, as means to address the specific objectives conceptualized for the assessments at various levels of implementation. For each of the states assessed the findings are presented in five sections.

- The first section presents the state background on the HIV scenario;
- The second and third section present the assessments documented in the state and districts assessed as part of the site visits. The key experiences seen with the cascade of PPTCT services implementation including programme management and service delivery along the PPTCT cascade are discussed in detail.
- The fourth section identifies activities and innovations suitable for replication in states under scale-up as seen during the assessment visits.
- The final section depicts the solutions adopted to address challenges and the overall learnings from the roll out of PPTCT services.

### 6.1. Tamil Nadu



Tamil Nadu<sup>14</sup> is the Eleventh Largest State in India, in terms of its geographic area and the Seventh most populous in the country.

It is administratively divided into 32 districts. Major demographic features of its populace are provided in *table 4*. The districts visited in the state for the assessment were Krishnagiri and Vellore.

<sup>13</sup> The best and the least performing district selected for field assessment visits.

<sup>14</sup> This map is available at <http://www.mapsofindia.com/maps/tamilnadu/tamilnadu-district.htm#>



**Table 4: Tamil Nadu Key Population Demographic Indicators**

<i>Indicator</i>	<i>Year</i>	<i>Classification</i>	<i>Tamil Nadu</i>	<i>India</i>
<i>Population</i>	2011	Total	72,147,030	1,210,193,422
		Rural (%)	51.6	68.80
		Urban (%)	48.4	31.16
	2001-11	Average annual exponential growth rate (%)	1.56	1.64
<i>Literacy rate (%) in population</i>	2011	Total	80.33	74.04
<i>Crude birth rate<sup>15</sup></i>	2012	Total	15.7	21.6
<i>Crude death rate<sup>16</sup></i>	2012	Total	7.4	7.0
<i>Total fertility rate<sup>17</sup></i>	2012	Total	1.7	2.4
<i>Percentage of population below poverty line<sup>18</sup></i>	2012	Total	11.28	21.92

*Source: (SRS, 2012); (Planning Commission, 2013)*

### **Assessment Process**

The assessment of the PPTCT-Multi-drug Lifelong ART programme was carried out in Tamil Nadu from June 23-27, 2014.

#### State Level:

At the state level, meetings were held with Project Director of Tamil Nadu State AIDS Control Society (TNSACS), Mission Director-National Health Mission (NHM) and the State level programme managers for HIV as well as for RCH. Discussions revolved around the key lessons learnt and challenges in rolling out the PPTCT-Multi-drug Lifelong ART programme in the state, to understand the scope and the level of integration that has happened in the state between NHM and SACS. The team visited two NRLs:

- National Institute for Research in Tuberculosis (NIRT);
- Tamil Nadu (TN) Dr. MGR Medical University.

The team held discussions with the EID in-charge and the concerned staff of these two centers on the entire cycle of EID (Dried Blood Spot (DBS) and Whole Blood Specimen (WBS)) from

<sup>15</sup> Number of births per 1000 population

<sup>16</sup> Number of deaths per 1000 population

<sup>17</sup> Children born to a women in her lifetime in accordance with current age-specific fertility rates (World Bank, 2013)

<sup>18</sup> In accordance with the Tendulkar methodology, with figures extrapolated from the 2011 census.



receipt of samples, analysing them, maintaining a database of their reports locally at their center and further communicating the results to the respective states/districts/facilities. The team also visited the Tambaram ART and ICTC centers and discussed the lessons learnt and challenges in establishing linkages between ICTC and ART programme to ensure effective coverage of PPTCT services.

#### District Level:

For the district level assessment, the team split into two and visited the districts of Krishnagiri and Vellore from the 24<sup>th</sup> – 26<sup>th</sup> June, 2014. At the districts, the teams interacted with the District Collector, Deputy Director Health Services (DDHS) and the District Programme Manager (DPM), District AIDS Prevention and Control Unit (DAPCU) and discussed the implementation of the PPTCT services in the district. The teams further visited various ART and ICTC centers in the districts. In addition to visiting Government ICTCs, the teams also visited Public Private Partnership (PPP) ICTC centers. Furthermore, the teams had meetings with Outreach Workers (ORWs), appointed under the IL&FS PPTCT project (RCC II) and extensive discussions on the lessons learnt and challenges in mobilizing pregnant women to seek HIV testing services and linking HIV positive pregnant women to ART services follow-up for ART adherence and EID services.

### **6.1.1. STATE LEVEL FINDINGS**

#### 1) Background and HIV Scenario

The Tamil Nadu State AIDS Control Society (TANSACS) is responsible for HIV prevention, care, treatment and support services for the entire state. Strong efforts taken by the state over the years have helped control the epidemic, and there has been a steady decline in the antenatal prevalence of HIV from 0.83 % in 2003 to 0.38 % in 2010-11 (HIV sentinel surveillance, 2010-11 report). However still there are 4 districts in the state, namely Coimbatore, Erode, Salem and Tiruchirapalli with more than 1 % ANC prevalence as of 2011.

During the year 2013-14, there were 1.1 million deliveries, with 98% (60% in public health facilities and 38% in private facilities) of them being institutional. There has been a significant scale up of PPTCT services over the last five years and currently the state has 795 standalone ICTCs, 1102 FICTCs, 17 mobile ICTCs, including 149 PPP-ICTCs. Over 88 % of pregnant women were tested and counselled for HIV out of the total ANCs registered (2013-14).



## 2) PPTCT Programme Status

In the year 2013-14 over 10 lakh pregnant women were tested for HIV and a total of 1,434 HIV positive pregnant women cases have been detected including 40 direct in labour cases. Out of 1434 positive pregnant women, 1383 (96%) had enrolled in an ART center and started on ART/ARV prophylaxis as per the guidelines (option B). 34 (85%) of the direct-in-labor cases received ARV prophylaxis during labour and or post-partum.

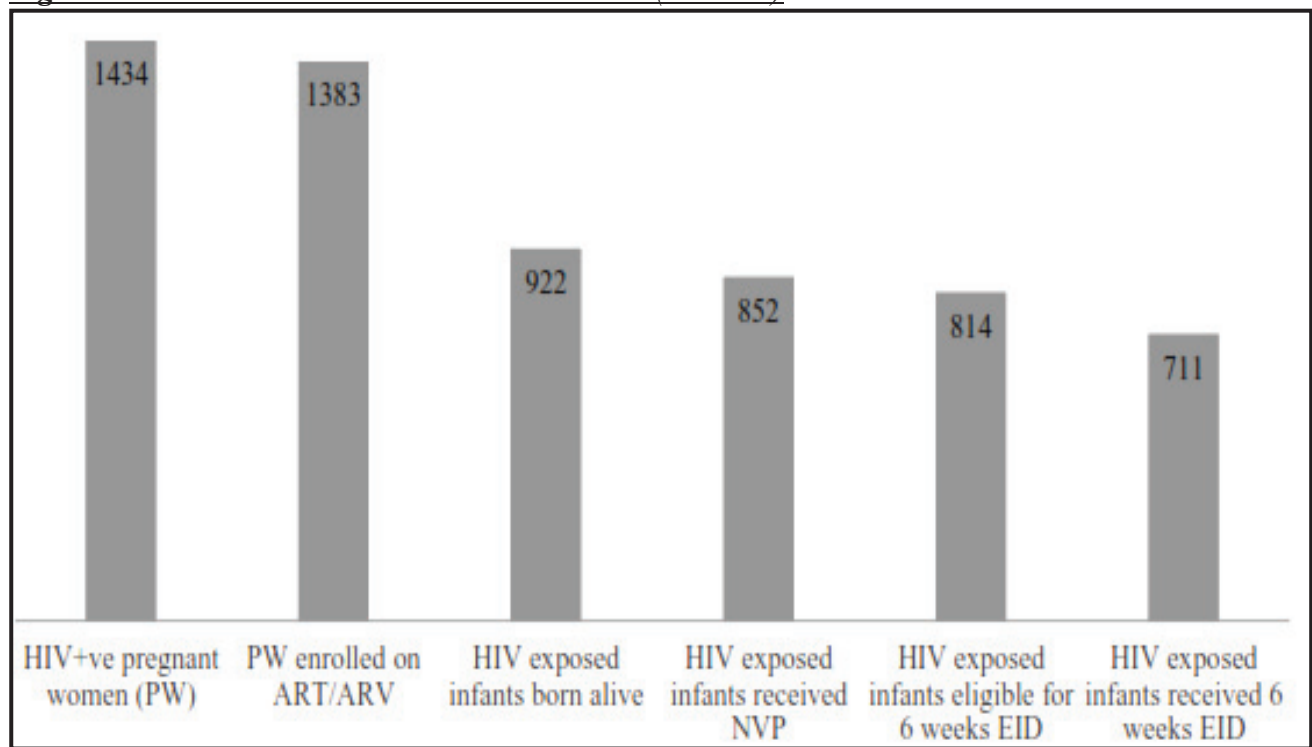
A total of 53 (6%) mothers discontinued ART during various periods, which included 17 during the antenatal period, 16 between delivery and six weeks, 12 between six weeks and six months of breast feeding and 8 between six months to 12 months of breast feeding.

Out of these 1434 HIV positive pregnant women, 989 have delivered till date, and there were 922 live births, of which 852 (92%) babies received Nevirapine prophylaxis.

About 711 (87%) out of the 814 babies eligible for DBS testing (attained 6 weeks of age) were tested for DNA-PCR and among them only 16 (2.2%) babies were detected as positive for HIV. All these babies were tested through WBS and 11 (70%) were initiated on paediatric ART. A major challenge identified by the state is that mothers do not bring babies for EID at six months even after repeated counselling and outreach efforts.

A snapshot of the PPTCT cascade at the state level is presented in *figure 6* below.

**Figure 6: Tamil Nadu – All state PPTCT cascade (2013-14)**



**Source:** (TANSACS, 2014)





### 3) Programme Management

#### a) *Human Resource Management*

The State had carried out training on the new Option B regimen in October 2012 and on PPTCT-Lifelong ART (option B+) in January 2014.

The State had challenges in terms of filling up all the sanctioned posts at the SACS level, resulting in limitations in programme implementation, monitoring and management. Apart from this, the human resources at the district and facility levels (ICTC, F-ICTC, ART, LAC/LAC+), especially at district hospitals and medical colleges demonstrated high workload.

There are 7 EID testing laboratories in the country, out of which, MGR Medical University at Tamil Nadu caters to DNA-PCR (DBS & WBS samples) for Andhra Pradesh as well. They receive over 7000 samples annually and have a backlog of 1000 samples that were received over the last two months. This was not only due to the non-availability of testing kits, but also chronic backlog due to the high volume of DBS/WBS samples and limited staffing and infrastructure. The facility is short staffed, owing to this extra workload and they suggested either reducing the sample load for improving turn-around-time for testing and reporting or reconsider the staffing pattern for EID testing laboratories. It needs to be appreciated that in spite of this heavy workload, there are no discordant DNA PCR results.

The team also visited the EID testing laboratory at the National Institute for Research in Tuberculosis (NIRT) which receives DBS and WBS samples from three states (Kerala, Puducherry and Tamil Nadu). This center processes about 1800-2000 samples in a year, and it was clearly evident that staffing and infrastructure are amply sufficient to manage this workload, with most reports completed and dispatched to the ICTCs within two weeks of sample receipt. There were no discordant DNA PCR results in this institute also.

#### b) *Supply Chain Management*

Broadly Tamil Nadu has a strong supply chain management system, mainly because of the involvement of Tamil Nadu Medical Supplies Corporation (TNMSC). The supply of HIV test kits is done from the state headquarters to the districts/regions through courier services maintaining cold chain management from where the respective facilities collect the supplies. As far as the drugs are concerned, they are couriered directly to the ART centres from the state headquarters.



c) *Convergence/Integration with NHM at the State/District/Facility Levels*

The Tamil Nadu Government has demonstrated significant efforts of integrating PPTCT services with the general health system. NHM is supporting the salaries of 402 counsellors and lab technicians including training for ICTC counsellors and Lab technicians in the state. Furthermore, the state has adopted a single window approach of conducting all investigations for ANC attendees using a single blood sample. TANSACS has developed an ante natal card which has been adopted by the state, and the same card is being used across all public health facilities for ante natal services. All the beneficiary details are updated in the Pregnancy and Infant Cohort Monitoring and Evaluation (PICME) Application Software. The State has also adopted task sharing among lab technicians supported by NHM and SACS at CHCs and PHCs. Lab technicians performs all tests when there is high load of patients and when the other person is away on leave.

The State has initiated free ambulance services (108 service) to all patients including mother and child. The government also has in place, the Dr. Muthulakshmi Reddy Maternity Benefit Scheme which provides INR 12000 for incentivizing the uptake of health services by the mother and child, which is dispensed in 3 instalments which are fixed with completion of key health services that include ANC registration and conducting testing of ANC profile which includes HIV testing, institutional delivery which includes ARV prophylaxis for HIV positive women and immunization which includes EID testing of HIV exposed baby. The state also facilitates free transportation (Bus pass) for attending routine ART visits. A concern raised by the PLHIVs was that the bus pass had the red ribbon symbol which discerned them from other general pass holders. As this was a major concern, the government has issued orders to remove the symbol and make it generalized.

However there is a scope for strengthening integration between PPTCT services and adolescent health clinics and family planning clinics to address the challenges of prong 1<sup>19</sup> and prong 2<sup>20</sup> of the PPTCT national guidelines.

d) *Public-Private Partnership:*

Willingness and commitment of the private sector is critical for ensuring success. The private maternity institutions in Tamil Nadu are complementing the national PPTCT services as per the national guidelines using their own staff (like lab technicians, nurses, data entry managers, etc.)

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<sup>19</sup> Primary prevention of HIV, especially among women of child bearing age.

<sup>20</sup> Preventing unintended pregnancies among women living with HIV.



and infrastructure. The SACS is closely working with the private sector, including coordination with the PPTCT NGOs (under IL&FS PPTCT project - RCC II) for linking HIV positive pregnant women to the ART centres for care, support and treatment services. Civil Society Organizations (CSOs) like SAATHI are playing a crucial role in building the capacity of private sector hospitals/institutions in partnering with SACS and thus ensuring efficient public-private partnerships. Currently there are around 87 sites providing PPTCT services as per national guidelines in partnership with SACS through SAATHI (TN-PPP-ICTC Programme).

e) *PPTCT Service Delivery*

Transitioning from Single Dose Nevirapine to Multidrug regimen was a challenge as there was some reluctance by physicians and beneficiaries to accept this change. This was addressed by structured sensitization of healthcare providers and intensive communication activities targeted at the beneficiaries to increase awareness. At the facility level the ICTCs and the ART centres have ensured good interpersonal communication which was further complimented by outreach services to increase uptake of services and adherence.

The facilities have also faced challenges in convincing HIV positive pregnant women for routine monthly visits at ART centers for drug collection, bearing the distance and other constraints, particularly during the immediate pre-natal and post-natal periods. To address this, innovative strategies were used such as providing ARV drugs through attendants (in-proxy) and dispensing 2-3 months ARV requirements in one visit.

It was noted that both EID testing centres in the state, send test result reports by mail/ courier services, which results in some amount of time delay. This could be avoided if there was an online reporting system.

The issue of sero discordant couples was observed in the state. It was noted that one of the important factors contributing to discordance was due to unsafe sexual practices before marriage; reiterating the importance of linkages with Rashtriya Kishor Swasthya Karyakram (RKSK) and adolescent educational programmes for school and out of school youths.

f) *Monitoring, Supervision and Data Management*

The State has established a robust system of individual client tracking for ensuring linkage between ICTCs and ART centres. These are monitored at the State/District level on a monthly basis through regular review meetings and feedback, with a special focus on those districts/facilities having less than 80 percent linkages.

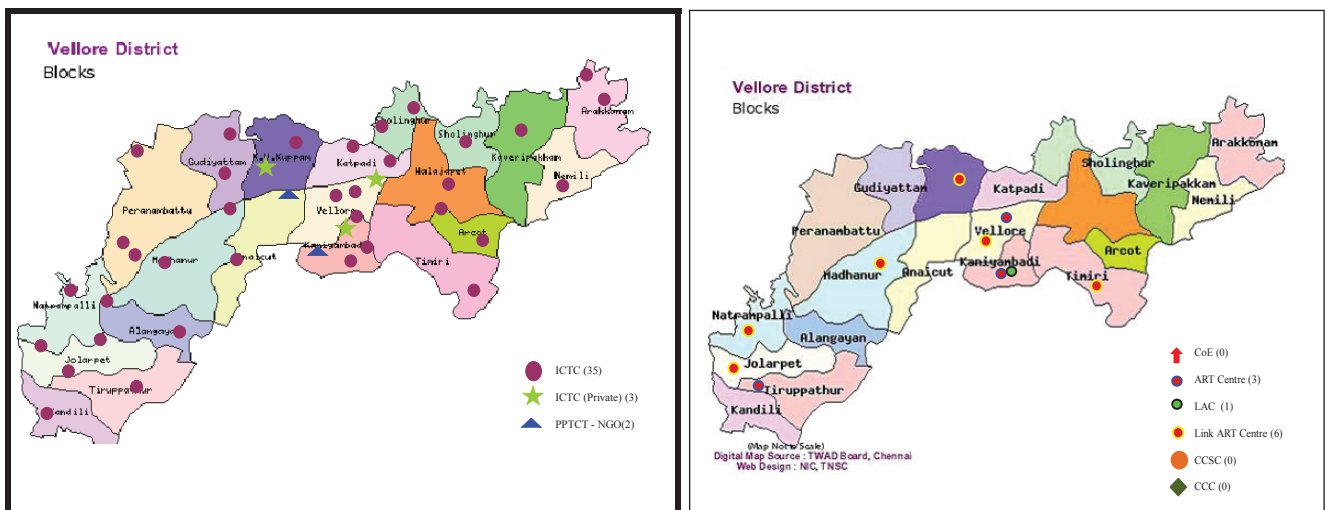


## 6.1.2. VELLORE (DISTRICT LEVEL FINDINGS)

### 1) Background and HIV Scenario

Vellore District situated in the northern part of Tamil Nadu, has a population of 3.94 million with the rural-urban divide being 56.8% to 43.2%, as per the 2011 census. The literacy rate is 79.2% and the recent HIV prevalence of the district was noted to be 1.2% (HIV sentinel surveillance). Vellore district has 37 standalone ICTCs, 54 Facility Integrated ICTCs and two PPP ICTCs. Besides, the district also has 54 HIV whole blood finger prick test (WBFFT) screening facilities.

**Figure 7: Block wise Distribution of facilities in Vellore District<sup>21</sup>.**



Vellore District has three ART centres and 14 Link ART Centres. There are nine DBS collection centres and two WBS collection centres. In 2013-14, 31,031 ANCs were registered. The total deliveries during this period (March'2013 - April'2014) were 27,487, out of which 27,443 (99.83%) were institutional deliveries

### 2) PPTCT Programme Status

In the year 2013-14, 77 pregnant women were detected HIV positive out of all the ANCs screened. All the 77 HIV positive pregnant women were registered at ART centers across the district. Out of the 77 cases registered at ART centres, 55 (71%) were initiated on ART/ARV. There was no ART drop outs between delivery and six weeks of post natal period and six weeks

<sup>21</sup> Source: (NACO, 2014)

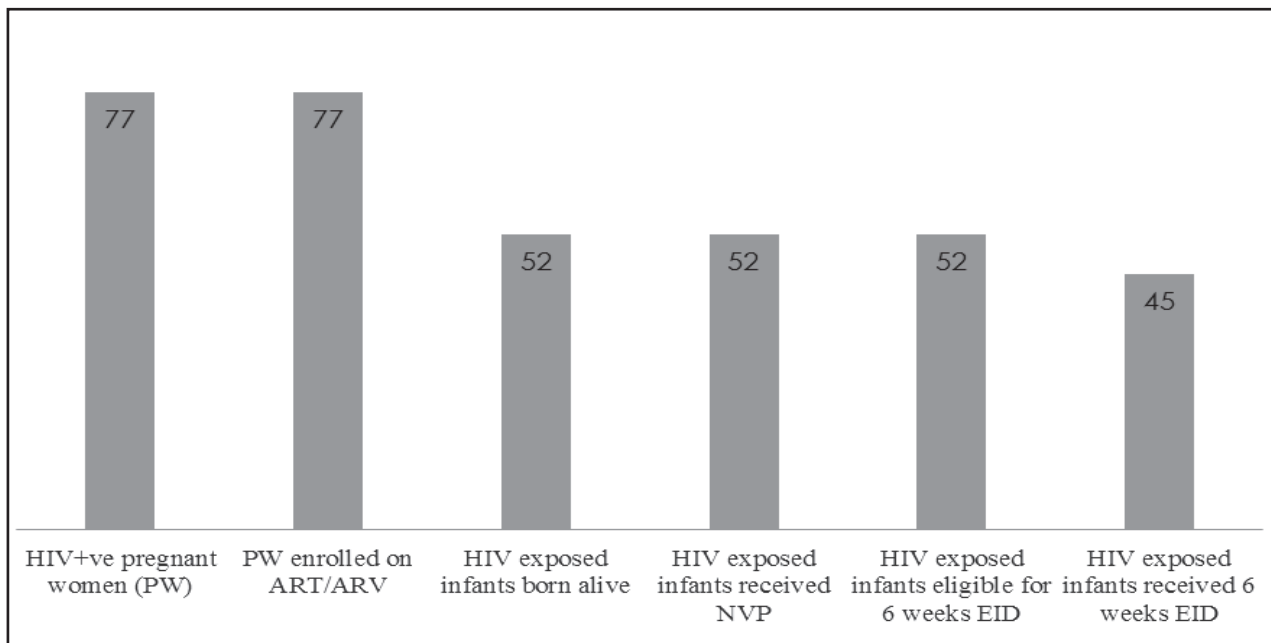


to six months of breast feeding period. However, there were 2 ART drop outs between six months to 12 months of breastfeeding period.

Out of these 77 HIV positive pregnant women, 56 have delivered till date, and there were 52 live births. Out of these 52 live births, DBS specimen was collected from 45 babies and all 45 DNA PCR reports were received. None were found positive, hence no WBS was collected.

A snapshot of the continuum of care cascade at Vellore district is presented in *figure 8* below

**Figure 8:** Vellore – All District continuum of care (April'13 - March'14)



*Source: (TANSACS, 2014)*

### 3) Programme Management

#### a) *Human Resource Management*

The district has 38 ICTC counsellors, seven ART counsellors, 36 ICTC lab technicians and 20 IL&FS ORWs. For HIV programme monitoring in the district, District AIDS Prevention and Control Unit (DAPCU) has been established. In the district the following centres were visited as part of the assessment:

1. Government Vellore Medical College and Hospital
2. Kanniyambadi Block PHC
3. Mathanur Block PHC
4. Christian Medical College and Hospital, Vellore
5. Sandhya Private hospital - PPP model



## 6. RUSHA Outreach Centre - PPP model

The human resource for PPTCT services at district hospitals and medical colleges were overburdened and there is a need to appoint additional staff as per NACO guidelines.

A major observation was that ORWs were overburdened with additional responsibilities beyond their core PPTCT responsibilities such as ART related follow up services and outreach for general clients including HIV-TB services. The major concern of multiple responsibilities assigned to ORWs is that it was diluting their efforts in scaling up and improving the quality of PPTCT services. The other concern articulated by them (ORWs) was that one ORW was assigned per block having a population of over 100,000. The HIV positive women are widely dispersed and the ORWs had to travel long distances to reach every HIV positive ANC/PNC woman. No remuneration is provided for their transport. Large blocks also have only one ORW, while there are over 20 ANC/PNC women who need regular follow up. It was observed from the discussions with ORWs that they were well aware of the PPTCT cascade of services, but lack complete knowledge on the benefits of life long ART for the women and their families.

The PPTCT staff skills need to be enhanced on all aspects of PPTCT services using lifelong ART such as improving coverage, strengthening linkages and ensuring retention. It is important to conduct refresher trainings on core skills to the counsellors and ORWs so that they are well informed in order to effectively implement PPTCT services using lifelong ART. In the PPTCT centres, it was informed that the Counsellors and Lab technicians together share their responsibilities and they take care of each other's work in the absence of the other person.

### b) *Supply Chain Management*

There is weekly stock taking and reporting from facility to district and district to SACS. There was no report of short supply of drugs and kits in the facilities the team visited. Only Vellore Medical College reported short supply of DBS kits. Vellore District receives the drug and kits supply from TANSACS quarterly, supplied through the Tamil Nadu Medical Services Corporation district warehouse.

### c) *Convergence/Integration*

In Tamil Nadu good efforts have been initiated on convergence/integration of NHM-SACS programme. This was well observed in Vellore District also. The District Collector conducts a monthly review of the PPTCT services as part of the overall Health Programme review. The Deputy Director of Health Services (DDHS), who is the Nodal Officer for HIV/AIDS programme in



the district, facilitates the review of the PPTCT programme. The ICTC/ART medical officers and counsellors from all the blocks attend the review and report the progress of PPTCT services in the district. The referral linkage issues and strategies of reaching pregnant women in difficult terrains are discussed to ensure 100 percent coverage. These were noted to be good efforts towards integration.

Vellore District borders Chittoor District of Andhra Pradesh. In the bordering villages, a large number of primi gravida women go to their mother's place in Chittoor District as it is a cultural practice of having the first delivery at the mother's place. Systematic efforts are being put by the programme on cross-notification and follow up to ensure that pregnant women avail PPTCT services in either of the districts.

In all the ICTC centres in Vellore District, it was reported that there was task sharing between NHM and ICTC lab technicians. Also the NHM organizes training for Lab technicians and Counsellors.

d) *Public - Private Partnership*

The team visited three PPP - ICTCs in Vellore District namely:

- Sandhya Private hospital- PPP model
- RUSHA Outreach Center- PPP model
- Christian Medical College and Hospital, Vellore

CSOs such as SAATHI identify and facilitate the enrolment of private hospitals for PPTCT services through a tripartite agreement between CSO, the private hospital and TANSACS.

Private partners contribute apart from space, time of lab technicians and staff nurse towards the PPP programme, which exhibits a willingness to ensure success of the PPP ICTC programme. However, the district has more potential for more private partners but as indicated by one of the hospitals that the motivation for partnerships depends on the confidence level of doctors which in turn depends on the training/sensitization for exposure for exposure to conducting HIV positive deliveries safely and ensuring availability of post exposure prophylaxis (PEP).

One of the private hospitals also provides ART at subsidized costs, though it is the choice of the HIV positive pregnant women to avail ART at this cost or avail services from a government ART



centre for accessing free ART drugs. It was also observed that some hospitals do not promote breast feeding as they think that they can minimize the risk of HIV transmission from mother to child to negligible levels. This issue of not promoting breast feeding is contrary to the infant feeding guidelines as per the national PPTCT technical guidelines. The private hospitals also arrange for alternate feeding either free or subsidized by raising resources through sponsorships. This is contrary to the recommendations.

e) *Monitoring, Supervision and Data Management*

The DAPCU ensures data management related to PPTCT services through regular monthly review meetings and establish linkages between service facilities like ICTC, ART etc. Monthly progress reports are entered into SIMS at all the ICTCs and separate excel sheet based PPTCT line lists are maintained at all the facilities (ICTC and ART). This is compiled, validated, reviewed and analysed at the district level by the district facility supervisors and the other related DAPCU staff.

4) HIV Testing Services and Linkages to Care, Support and Treatment

a) *Increasing Coverage of HIV Counselling and Testing Services*

A team approach that includes counsellors, nurses, lab technicians, ORWs and medical officers has been adopted in mobilizing the pregnant women to access HIV counselling and testing services in the district. Each ANC attendee is given an MCH card which captures all the antenatal, natal and postnatal information of mother and child, which is then uploaded in the Pregnancy and Infant Cohort Monitoring and Evaluation (PICME) software. The entry in the software is automatically linked to the payment platform in Dr. Muthulakshmi Reddy Scheme. The cash benefit coupled with the support services extended at the public health facility ensures that all ANC mothers are registered and also screened for HIV. On ANC clinic days, the counsellors carry out group and individual counselling of pregnant women for HIV testing. The ORWs support the counsellors in this process. This has led close to 100% HIV testing and counselling of pregnant women in Vellore District. As Tamil Nadu has initiated a single window approach through a single prick, all tests are done including HIV and syphilis.

b) *Establishing Linkages of HIV Positive Pregnant Women to Care, Support and Treatment Services*

Strong linkages including efficient follow up mechanisms between ICTC and ART services, is ensuring good coverage of ART among HIV positive pregnant women. DAPCU is playing a critical





role in managing the district level coordination including the linkages to related service delivery system. Community mobilization by ORWs in improving HIV testing and counselling, ART registration, treatment follow up and EID follow up has been central to ensuring a high coverage and reducing loss to follow up (LFU).

The ORWs through mobile technology are ensuring individual tracking of every HIV positive pregnant women for all services in the PPTCT cascade. Even if the ANC mother is migrating to another block or migrating to another district, the ORWs ensure that the concerned ORWs are kept informed and they follow up the patient.

There was not a single case of direct-in-labour case in the facilities the team visited. It was informed that owing to the increase in the coverage of registration of all ANC attendees, there were no incidents of direct in labour. The health facilities were well stocked with drugs for cases walking in with labour pains.

#### c) *Early Infant Diagnosis (EID) and Paediatric ART*

The EID programme was found to be robust in Vellore District. The ART centre upon identifying LFU case reports into the DAPCU which then puts in efforts to track and motivate the mothers to report to the ART centre and continue ART. The ICTCs have strong systems of tracking the mother and the baby with support from DAPCU and ORWs have been established. The system of collection of DBS and WBS at the ICTC and ART centre in Vellore and transporting to NIRT DNA /PCR labs for DNA /PCR Testing was found to be efficient.

They reported that the results were generally received between two to four weeks. The babies in the centres visited had not yet completed 18 months and hence were not eligible for antibody testing. Another good system reported was the linking of the EID with the immunization schedule. It was observed that the health workers at the facility level and the ORWs were aware of the EID services and the guidelines.

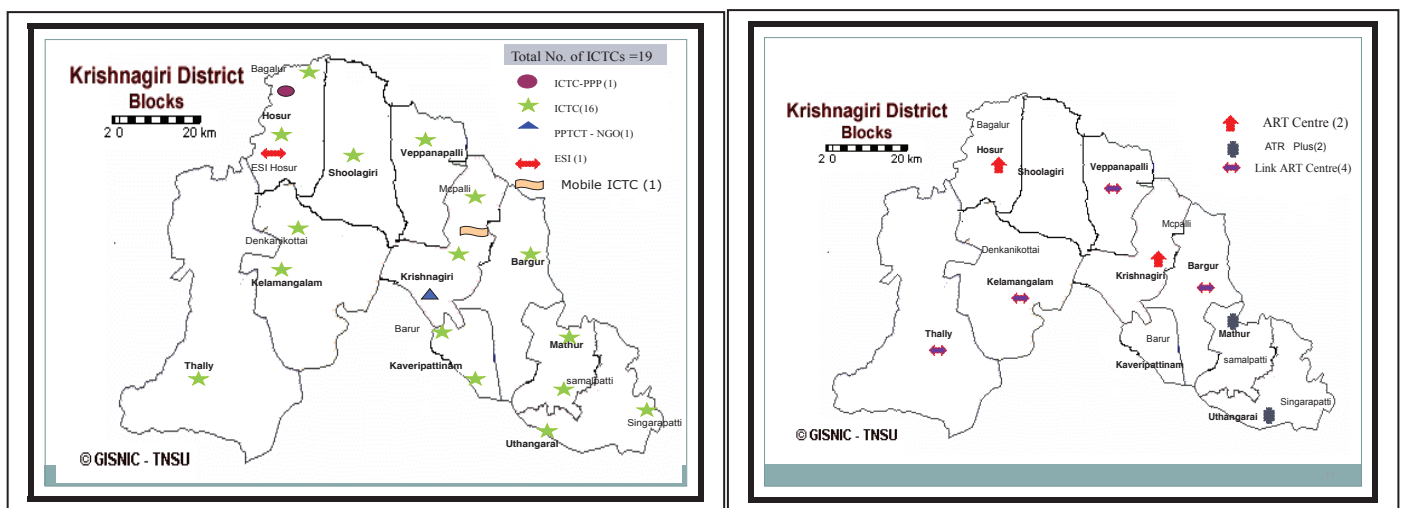


### 6.1.3. KRISHNAGIRI (DISTRICT LEVEL FINDINGS)

#### 1) Background and HIV Scenario

Krishnagiri District has a population of 1.9 million, with a literacy rate of 72.4% and a HIV prevalence of 0.68% (HIV sentinel surveillance). The district has 50 ICTCs (standalone ICTC 19, FICTC 19 and PPP 3) facilities providing HIV testing and counselling services to pregnant women. The district has two ART centers, 6 LACs, and 2 LAC+. Besides, there are six DBS and one WBS collection sites.

**Figure 9: Block wise Distribution of facilities in Krishnagiri District<sup>22</sup>**



#### 2) PPTCT Programme Status

In the year 2013-14, 33,455 pregnant women were tested for HIV in the district and 85 pregnant women were detected HIV positive. Out of 85 pregnant women who tested positive, 83 (98%) were registered and enrolled in one of the two ART centers in the district. Two positive pregnant women dropped out. Out of these, 83 HIV positive pregnant women registered at ART centers, 57 were initiated on ART and 26 on multidrug ARV. There was no ART drop out between delivery and beyond 18 months of delivery.

Out of 85 HIV positive pregnant women, 72 women have delivered till date, and there were 69 live births. However, only 61 (88%) babies received syrup Nevirapine for six weeks. Eight babies dropped out.

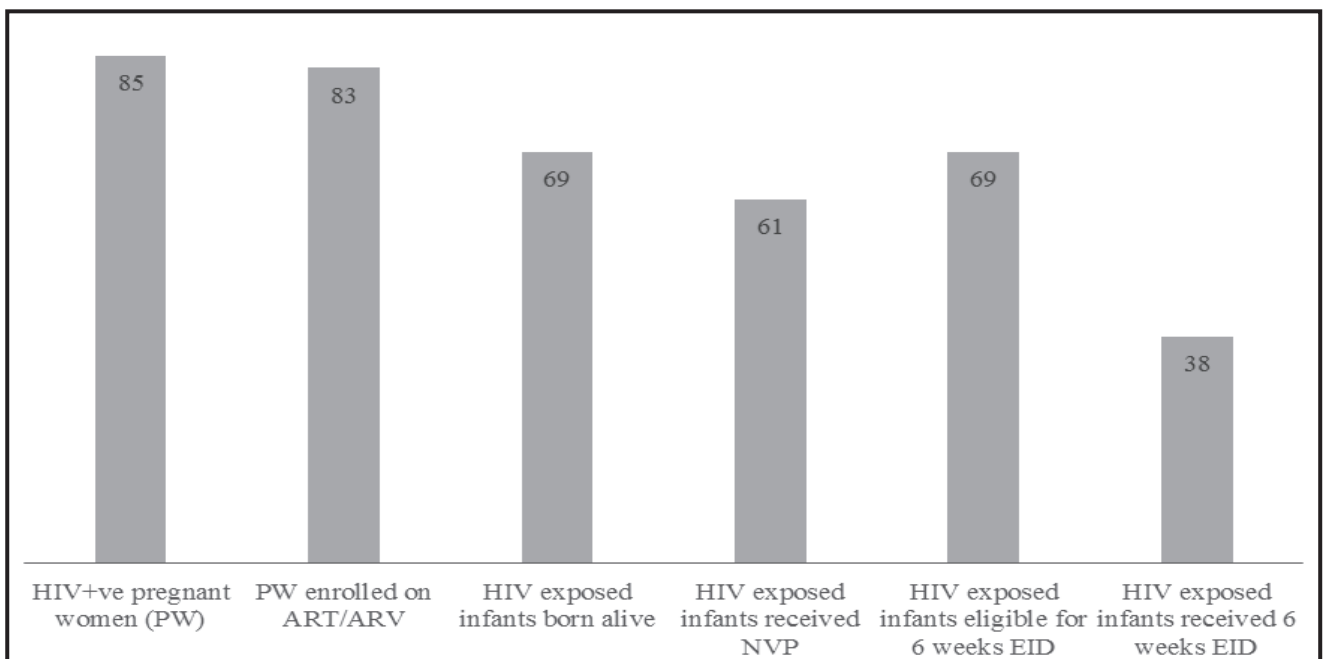
<sup>22</sup> Source: (NACO, 2014)



Out of 69 eligible babies for 6 weeks EID, DBS specimens were collected from 38 (55%) babies and all 38 reports were received. Out of these, two were found positive. WBS was collected from both these babies and were confirmed HIV DNA PCR positive. The two HIV positive babies were put on ART.

A snapshot of the continuum of care PPTCT cascade at the district level is presented in *figure 10* below.

**Figure 10:** Krishnagiri – All District PPTCT Cascade (April'13-March'14)



**Source:** (TANSACS, 2014)

### 3) Programme Management

#### a) *Human Resource Management*

In terms of human resources, the district has 18 ICTC counsellors, nine ART counsellors, 18 ICTC lab technicians, one nurse and 10 IL&FS ORWs. For programme monitoring in the district a full fledge DAPCU has been established. In the district the following centres were visited as part of the assessment:

- District Collector's office
- DDHS Office
- Krishnagiri and Hosur General Hospital (ICTC, ART)
- DAPCU



- PHC, Kaveripattinam
- New Life NGO-PPTCT (IL&FS)

Overall the human resources at the facilities visited were found to be adequate. However the ART center at Hosur started in February 2013, had major staff vacancies, which in turn was affecting the quality of services and documentation related activities. The major support to the PPTCT, EID and ART services come from the ORWs, who efficiently track HIV positive ANCs, PNCs and general HIV patients. But the deployment of ORWs at the district headquartered hospital/general hospital should be rational based on the number of beneficiaries they could cover as per the norms.

The staff of PPTCT, ART, PPTCT-NGO and DAPCU were trained at the Christian Medical College on the revised guidelines by master trainers from TANSACS/state level. There was found to be good clarity of roles and responsibilities in the PPTCT programme in the district. SACS/DAPCU needs to identify opportunities to leverage resources from NHM for the PPTCT programme. DAPCU needs to conduct regular monthly review meetings chaired by DDHS. The meeting needs to be documented and follow up actions initiated appropriately.

#### b) *Supply Chain Management*

Similar to the situation in Vellore, there is weekly stock taking and reporting from facility to district and district to SACS. There was no report of short supply of drugs and kits in the facilities the team visited. Krishnagiri District receives the drug and kits every quarter supply from TANSACS, supplied through the Tamil Nadu Medical Services Corporation district warehouse.

#### c) *Convergence / Integration*

The MCH OPD card for each ANC attendee included all essential tests such as HIV, syphilis, Hepatitis B, malaria, blood grouping, and haemoglobin. The cards were also supported by TANSACS during shortage. The support from the district collector on any issues suggested by the team were keenly noted and ensured for initiation. ASHAs were used during VHND for mobilisation of pregnant women for HIV testing with the support of the district collector, which was noted to be a good example for functional convergence. The NHM staff across the district eagerly expressed their willingness to work under the NACP-NHM umbrella. NHM has taken the initiative to organize PPTCT training for their Lab technicians and Counsellors. As a result, in all the ICTC centres in the district, it was reported that there was task sharing between NHM and ICTC lab technicians.



However the regular review of PPTCT programme, and sensitization of staff was suggested as a collaborative activity to get initiated as soon as possible including for the private practitioners.

d) *Monitoring, Supervision and Data management*

The DAPCU ensures data management related to PPTCT services through regular monthly review meetings and establish linkages between service facilities like ICTC, ART etc. Monthly progress reports are entered into SIMS at all the ICTCs and separate excel sheet based PPTCT line lists are maintained at all the facilities (ICTC and ART).

Overall the PPTCT line lists were found to be up to date. However the documentation (recording in hard & soft copy) at the facilities visited were in different formats and not updated in the line lists.

4) *HIV Testing Services and Linkages to Care, Support and Treatment*

a) *Increasing Coverage of HIV Counselling and Testing Services*

There was 100% ANC coverage under the PPTCT component. Out of total institutional deliveries, 72% were in government facilities. The district has 56 PHCs, out of which 15 are new. HIV testing facility is available in 10 block PHCs where there are standalone staff supported by NHM. In the other 31 PHCs, the ICTC counsellors and laboratory technicians will travel to the PHC centre on the ANC OPD days for testing the ANC attendees by whole blood test. The regular staff from the PHCs were not conducting HIV testing. It was suggested to the DDHS, to facilitate testing at all PHCs by the regular staff of the PHCs.

Furthermore it was suggested to rope in private facilities under PPPs to cover the remaining ANC mothers as well. With very few private practitioners in the district, local authorities including the District Collector mentioned that it was feasible to rope them in as soon as possible. Printing of MCH cards with all essential tests mentioned were supplied in the state by NHM to improve the ANC testing coverage in the state.

b) *Establishing Linkages of HIV Positive Pregnant Women to Care, Support and Treatment Services*

Linkages with Care, Support and Treatment services at district hospitals were more than 90%, with regular follow up by the counsellors at PPTCT & ART centres during weekly (formal and informal meetings) and by phone calls. Out of the total ANC attendees detected positive between April 2013 and March 2014, four cases were lost in follow up due to change of address,



stigma, fear of death due to drugs etc. which warrants high level of focused counselling and psychological support to positive pregnant women including strong IEC mechanisms. Family planning counselling needs to be promoted at ART centers and ICTCs.

In Krishnagiri, good linkages between DAPCU, ART centers and ICTC was observed even though the ICTC centers were not co-located with the ART centers. The documentation at the ART centers in Krishnagiri was excellent with good follow up details of HIV exposed baby in the mother's white card. Monthly CD4 due lists were available but it was suggested to keep a daily CD4 due list. Adherence was verified by validating each of the 68 white cards of the positive pregnant women. Less than 10% of the 68 women had missed 3-10 day doses intermittently. All laboratory registers were very well maintained.

It was noted that the district had the potential of using VHN, ASHA, VHNDs etc. as well as other cadre structures to eliminate MTCT of HIV/STI with >95% testing, counselling, treatment and adherence under the PPTCT revised guidelines.

#### *5) Early Infant Diagnosis (EID) and Paediatric ART*

As of date, 10 babies have been detected as DBS positive, since the inception of the EID programme. Eight babies were followed up for whole blood sample PCR and 7 babies were confirmed positive and were initiated on ART. One baby was confirmed negative by the whole blood sample DNA PCR. One DBS positive baby was not willing for follow up despite repeated follow up attempts by the PPTCT NGO. One baby died before the whole blood PCR collection could be done. In the EID programme the babies are being tested at 6 weeks and then at 18 months, without any follow up DNA PCR. This is perhaps because all the babies were initiated on exclusive replacement feeding in the district. Overall the EID programme was found to be good in the district, but the focus should be directed more towards documentation and data analysis.



#### 6.1.4. INNOVATIONS/BEST PRACTICES DOCUMENTED

The assessment team during its visit looked out for certain state/district specific innovation/best practices which could be of national interest and could be replicated in other states of India. Accordingly the assessment team felt that Tamil Nadu state is a best practice site for **“Increased Coverage of ANC screening services and Institutional deliveries”**

In Tamil Nadu the HIV and STI screening of Antenatal mothers is considerably higher in the public sector, owing to higher number of registrations of antenatal mothers in the public health facilities. Inter alia there are three key reasons for the increased Antenatal registration at the public sector facilities and also the HIV/STI screening, which are

- 1) Effective implementation of Dr.Muthulakshmi Reddy Maternal benefit scheme
- 2) Single window testing of all ANC attendees
- 3) Emergency ambulance service (108)
- 4) Travel support for attending ART centres

Having said that, the strong public health infrastructure and service delivery systems which are accessible and available round the clock for the antenatal mothers, is the single most key underlying factor upon which the above mentioned factors are tied to, thereby enhancing the antenatal coverage.

- 1) *Dr. Muthulakshmi Reddy Maternal benefit scheme*

The government of Tamil Nadu provides a cash benefit of INR 12,000 to every Antenatal mother in the below poverty line (BPL) group. This cash benefit is given only for the first two pregnancies and only for antenatal mothers above 19 years of age. This amount is given in three equal instalments upon qualifying certain conditions. The first instalment is given at the 7th month of the pregnancy upon registration of the ANC attendee in a public health facility and the completion of minimum 3 antenatal visits along with the completion of minimum prescribed lab investigations including HIV testing.

The second instalment is given upon delivery in a public health facility and the third instalment is given after the baby is given the 3rd dose of DPT/ Pentavalent vaccine. The registration of the mother, all the events and the respective payment schedules are monitored using the Pregnancy and Infant Cohort monitoring and evaluation (PICME) software. The cash benefit is directly transferred to the bank account of the beneficiary.



## 2) *Single Window Testing of all ANC Attendees*

In the state of Tamil Nadu with a single prick blood specimen during the antenatal visit all routine lab investigations along with HIV and STI testing are performed. All the ANC attendees upon registration are issued a standard MCH card which is used across the state. The card lists the tests that the ANC attendees are supposed to complete including HIV/STI. During routine ANC attendees visits all the newly registered pregnant women are referred to ICTC counselling/PPTCT service where they are counselled and tested for HIV.

## 3) *Emergency Ambulance Services (108)*



The State of Tamil Nadu has in place a free emergency ambulance response service which picks up the patients in emergency medical conditions and provides initial resuscitation during the transit time and takes the patient to the nearest hospital, either public or private, as per the preference of the patient or the attenders. This service is also being used for the free transport of pregnant mothers for institutional delivery, wherein the pregnant mother is picked up from her residence and dropped to the preferred public/private health facility. This service is also extended if the pregnant women requires referrals to any other facilities free of cost.

## 4) *Travel Support for Attending ART centres*

The state also facilitates free transportation (Bus pass) for attending routine ART visits. Upon certification from the ART centres the transport department issues a Bus pass which could be availed to visit the ART centre regularly.





## 6.1.5. RECOMMENDATIONS

### 1) *Programme Management*

Human resources: The human resource policies including remunerations for contractual employees being used under the programme in the facilities should have no disparities that would affect the motivation/morale of the staff. The remunerations should be comparable within the state across cadres. The recruitment of vacant positions at the state/district/facility level should be prioritized.

Capacity Building: Refresher training for all the field functionaries related to PPTCT for all aspects of PPTCT services using life-long ART needs to be provided. Ensuring consistency of message and content regarding treatment, prevention and breast feeding practices. Training/sensitization of the private healthcare providers on PPTCT technical guidelines, including breast feeding guidelines and universal safety precautions and PEP.

### 2) *Functional Convergence*

Tamil Nadu State has initiated good efforts towards integration of PPTCT services with the NHM. There is strong coordination between NHM and SACS at the district and facility level. However, there is a need to further strengthen the coordination at the state level. It is also critical to formalize the convergence activities, through the state coordination committees, joint review meetings, and joint supervisory and monitoring visits.

### 3) *HIV Testing Services and Linkages to Care, Support and Treatment*

Capacity building of laboratory technicians under the general health system for multitasking for HIV testing which will help the state to decentralize and optimize the rational use of staff. Likewise the capacity building of the nursing cadre should be done through institutionalized mechanism by incorporating aspects of HIV counselling in the nursing training curriculum. The existing staff nurses working in the institutions should also be sensitized on HIV related counselling and confidentiality issues, to ensure stigma free and client friendly service delivery.

District specific strategies for LFU tracking and minimizing linkage loss between ICTC and ART services needs to be developed in the State.



There is a need to address the issue of sero discordance among couples which are reported in large numbers.

#### *Early Infant Diagnosis and Early Initiation on Paediatric ART*

There is a need to further strengthen the EID services, to ensure retention and high coverage of EID at six months and 12 months. In particular counsellors and ORWs should emphasize the need for follow up EID testing even when the 6 weeks EID is found negative.

For the purpose of EID testing and results dissemination, Information and Communication Technologies (ICT) services can be made use of, rather than disseminating results through courier services, which results in further delays in starting ART.

Conducting audit of HIV positive babies, on the lines of maternal death and infant death audits, will help identify the gaps in the PPTCT services and the EID services to further develop strategies to enhance the quality of EID services.

#### *4) Monitoring and evaluation*

Data on known HIV positive cases should also be included into the existing lists. The district DAPCU including the district supervisor should verify, analyse and then forward the data to the state level. The lab forms being used at ICTCs were not as per the guidelines of NACO. Hence a strong suggestion on standard recording across all facilities is needed. The district and state level programme managers have to make monthly reviews, assessments by means of on-site visits to streamline the recording & reporting system in the district.



## 6.2. ANDHRA PRADESH & TELANGANA



Andhra Pradesh<sup>23</sup> was bifurcated<sup>24</sup> into two States in June, 2014. In this report, the State level data of both Telangana and Andhra Pradesh has been commonly presented based on the former situation. The combined state is administratively divided into 23 districts. Major demographic features are provided in *table 5*.

**Table 5: Andhra Pradesh Key Population Demographic Indicators**

Indicator	Year	Classification	A.P & Telangana	India
Population	2011	Total	84,580,777	1,210,193,422
		Rural (%)	66.51	68.80
		Urban (%)	33.49	31.16
	2001-11	Average annual exponential growth rate (%)	1.11	1.64
Literacy rate (%) in population	2011	Total	67.02	74.04
Crude birth rate <sup>25</sup>	2012	Total	17.5	21.6
Crude death rate <sup>26</sup>	2012	Total	7.4	7.0
Total fertility rate <sup>27</sup>	2012	Total	1.8	2.4
Percentage of population below poverty line <sup>28</sup>	2012	Total	9.20	21.92

*Source: (SRS, 2012); (Planning Commission, 2013)*

### Assessment Process

The assessment of the situation of the roll out of new PPTCT guidelines was planned in Andhra Pradesh and Telangana during the same time: 23-27 June 2014. From Andhra Pradesh, Kurnool district and from Telangana, Mahabubnagar district were selected for assessments. As a

<sup>23</sup> The map is available at <http://www.mapsofindia.com/maps/andhrapradesh/andhrapradeshlocation.htm>

<sup>24</sup> Telangana and residuary Andhra Pradesh.

<sup>25</sup> Number of births per 1000 population

<sup>26</sup> Number of deaths per 1000 population

<sup>27</sup> Children born to a women in her lifetime in accordance with current age-specific fertility rates (World Bank, 2013)

<sup>28</sup> In accordance with the Tendulkar methodology, with figures extrapolated from the 2011 census.



preparatory activity, desk review of data from the states were undertaken including HIV positive ANC line list and CMIS/SIMS Reports, for the period from September 2012 to March 2014. A team conducted field visits at the State, District, Sub-District level (Taluk and PHC level) using a standard assessment tool.

#### State Level Process:

The team visited the SACS, Gandhi Medical College and Hospital and Niloufer paediatric Centre of Excellence in Hyderabad.

#### District Level Process:

To carry out the district level assessment, two teams were formed that visited the respective districts from the 24th – 26th June, 2014.

- In Mahabubnagar, the team visited the DAPCU, the ART and PPTCT centre at Mahabubnagar district hospital, a CHC and a private clinic.
- In Kurnool, the team visited the DAPCU, the Medical College, ART centre, PPTCT Centre at the Government General Hospital, the PPTCT Centre at Kurnool CHC (Nagarkurnool), PPP ICTC Sushrutha hospital and PHC (Kodumur, Kallur) and the Sub-centre.

## **6.2.1. STATE LEVEL FINDINGS**

### 1) Background and HIV Scenario

In Andhra Pradesh, the HIV prevalence at ANC sentinel surveillance sites was 0.59% in 2012, showing steady declining trends since 1998. The PPTCT programme using option B (“Mamatha Plus” programme) was rolled out in September 2012 after action plan and timelines were prepared. The public sector was covered first followed by some involvement of the private medical colleges and health establishments. A working group was formed at the state level with administrative/programme management and technical support functions. The management team includes the joint director of basic services, the joint director of CST, the DD and AD of Basic services and the M&E officer. The Technical support team includes the regional coordinators, the PPTCT consultant and programme partners.



There has been a significant scale up of PPTCT services over the last five years. The state has 379 standalone ICTCs and 1199 F ICTCs, besides, there are 265 PPP-ICTCs. The state has also 59 ART centres, 58 Link ART Plus centres and 175 Link ART centres. Out of 379 ICTCs, 221 stand alone ICTCs are DBS collection centers. A total of 1,660 staff have been trained including 415 from NHM and 1245 from the AIDS control programme.

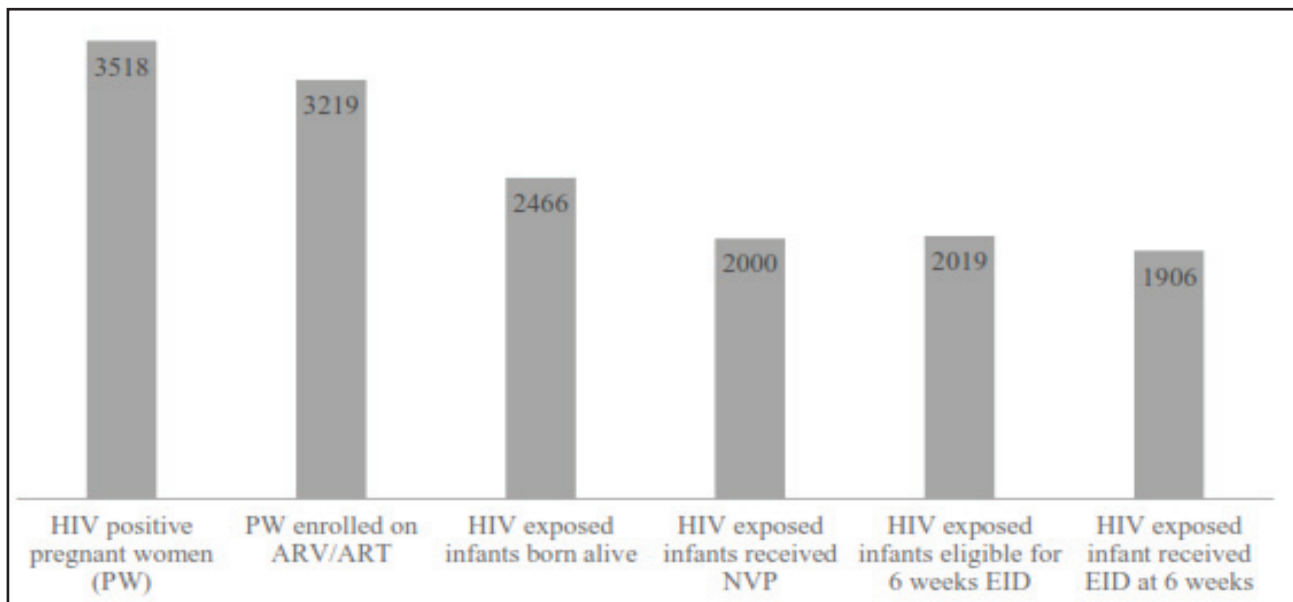
## 2) PPTCT Programme Status

Of 1.5 million estimated pregnant women in Andhra Pradesh, 1.15 million (77%) have been tested for HIV in 2013. From September 2012 to March 2014, 3518 pregnant women have been detected HIV positive. 3,219 (91.5%) have been put on ARV/ART.

Of 2,466 HIV exposed infants reported since Sep 2012, 2000 (81%) have received Nevirapine. Of 2019 exposed infants eligible for EID at 6 weeks as of March 2014, 1906 (94%) have received it. Among them only 33 (1.8%) babies were detected as positive for HIV.

A snapshot of the continuum of care cascade at the state level is presented in *figure 11* below.

**Figure 11:** Andhra Pradesh (including Telangana) – All state PPTCT Cascade (2012-14)



*Source: (APSACS, 2014)*

## 3) Programme Management

### a) *Human Resource Management*

High commitment and leadership for the PPTCT programme was observed at the State level. Major human resource issues were not observed in the state nor in the periphery. However



filling up of vacancies was an issue due to the bifurcation of the state. But this did not seem to affect the service delivery, since back up plans were in place using the staff nurses and lab technicians from the GHS.

ANMs and ASHAs have been trained in confidentiality issues during the past 3 years and receive periodic trainings on the same. Human resources were trained through 4 regional centers (Medical and para medical staff of NACP and NHM).

b) *Supply Chain Management*

Mobilization of HIV test kits and PPTCT drugs commensurate to the scale up took place simultaneously during the down trainings. No major stock outs took place while implementing the new regimen.

c) *Convergence/Integration with NHM at the State/District/Facility Levels*

A Government Order was issued for convergence and assignment of responsibilities between AIDS Control Programme and NHM. F-ICTCs have been screening for HIV using test kits purchased through NHM funds.

Good initiatives of community participation including auxiliary nurse midwives (ANM) and ASHA's involvement have been reported. Limited ownership by NHM staff was noticed at the district level. The programme is still far from real functional convergence.

d) *Public-Private Partnership*

Public private partnership (PPP) was initiated but limited in scope and sometimes of substandard quality. Two PPP - ART Centres in Guntur and Anantpur district, are providing free ART services to the PLHIVs.

e) *PPTCT Service Delivery*

The Mamata (Option B) and Mamata Plus (Option B +) were introduced and were scaled up across the state in a campaign mode. Tailored Information Education, Communication (IEC) materials were designed and developed on the latest PPTCT guidelines, translated in local language in tandem with scale up. These helped in retaining the HIV positive ANCs, PNCs and their babies through the PPTCT cascade of services.



The issue of discordant couples was observed in both the districts visited. It was noted that one of the important factors contributing to discordance was due to unsafe sexual practices before marriage; reiterating the importance of linkages with Rashtriya Kishor swasthya karyakram (RKSK) and adolescent educational programmes for school and out of school youths.

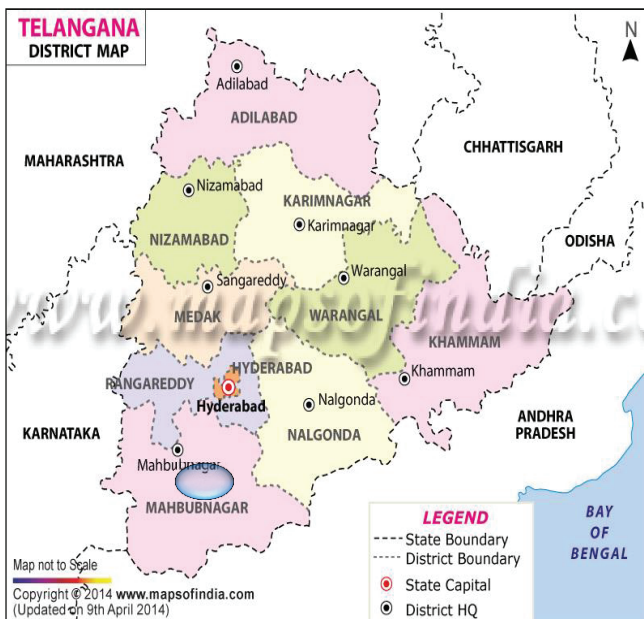
f) *Monitoring, Supervision and Data Management*

The state has established a robust system of individual client tracking for ensuring linkage between ICTCs and ART centres. These are monitored at the state/ district level on a monthly basis through regular review meetings and feedback.



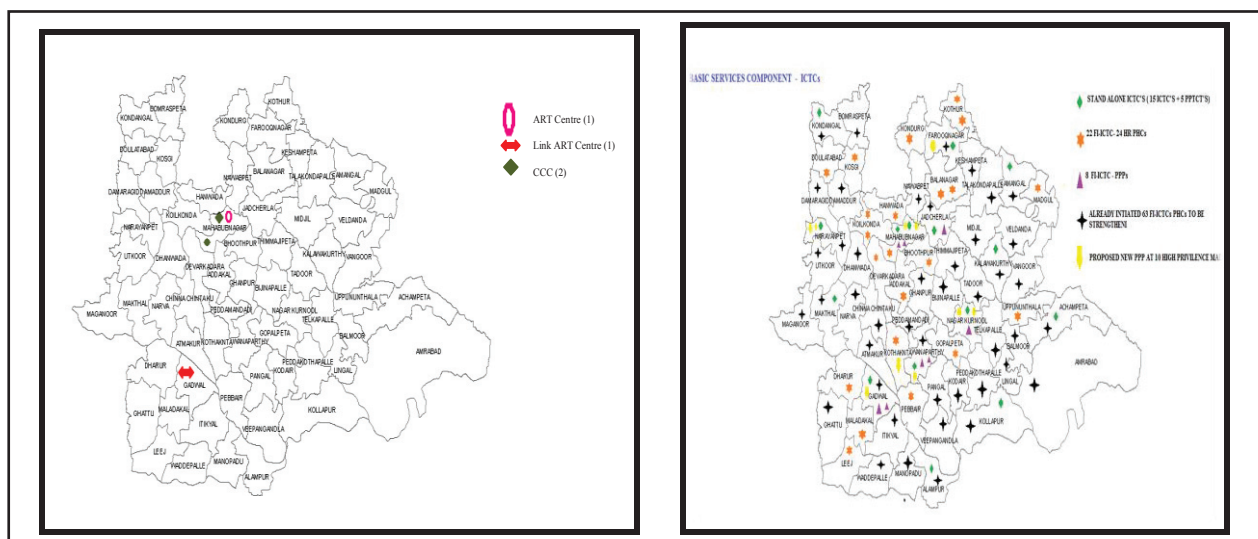
## 6.2.2. Mahbubnagar (District level findings)

### 1) Background and HIV Scenario



Mahbubnagar<sup>29</sup> is the largest district in the newly formed State of Telangana. It has a population of 4.04 million, with a urban-rural divide of 10.6% to 89.4%, as per the 2011 census. The district has 16 standalone ICTCs, 56 Facility Integrated ICTCs and 11 PPP ICTCs. In 2013-14, 31,031 ANCs were registered. Mahbubnagar District has one ART centre and 7 Link ART centres.

**Figure 12: Block wise Distribution of facilities in Mahbubnagar District<sup>30</sup>**



<sup>29</sup> The map is available at <http://www.mapsofindia.com/maps/telangana/>

<sup>30</sup> Source: (NACO, 2014)





## 2) PPTCT Programme Status

Based on HIV sentinel surveillance, the HIV prevalence among ANC attendees was 1.38% in 2013. Increasing prevalence trends in ANC surveillance suggest a possible rising HIV epidemic among ANC attendees in Mahbubnagar.

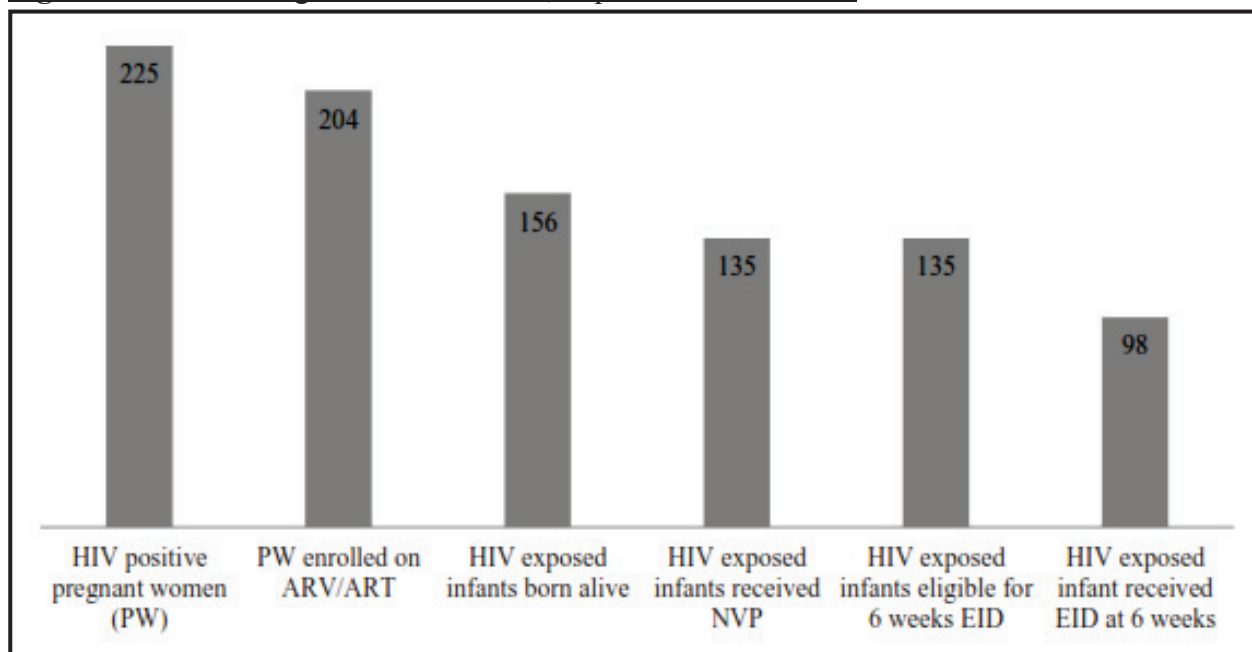
Of the 74,033 estimated pregnant women in Mahbubnagar district in 2013, 55,991 (76%) have been tested for HIV. The number of pregnant women who attended at least ANC 1 was reported as 90,177 in 2013, which does not match with the figure of estimated pregnant women.

From September 2012 to March 2014, 225 pregnant women have been detected/reported HIV positive at ANC. 204 (91%) HIV positive pregnant women have been put on ARV or ART. A total of 23 still births from HIV infected pregnant women have been reported.

Of 156 HIV exposed infants reported since Sep 2012, 135 (87%) have received Nevirapine. Of 135 exposed infants eligible for EID at 6 weeks as of March 2014, only 98 (73%) have received it. All of them were negative at 6 weeks.

A snapshot of the PPTCT cascade at the state level is presented in *figure 13* below.

**Figure 13:** Mahbubnagar PPTCT cascade, Sep 2012- March 2014



*Source: (APSACS, 2014)*



### 3) Programme management, partnership and functional convergence

#### a) *Human Resource Management*

The district does not have much issues related to vacancy. At facility level, a few positions are vacant. Training on PPTCT using option B is conducted by state level for the new staff. District resource team conducts refresher trainings at all levels. NHM Staff have not yet been trained on option B+.

#### b) *Supply Chain Management*

There was no shortage of HIV test kits or ARV drug in the district. Simultaneously while the down trainings were taking place the drugs, test kits and other consumables were being supplied to the end service delivery points. This has led to uninterrupted service delivery in the district.

#### c) *Convergence/Integration*

High commitment and leadership for the PPTCT programme was observed from DAPCU. Coordination meetings are being organized every quarter with staff from NHM. However, NHM staff do not seem to be leading the process.

Good initiatives of community participation including ANM involvement have been reported. The frontline health workers (ANMs and ASHAs) have been trained for the past three years on confidentiality and reduction of stigma and discrimination on PLHIVs. In addition they have been actively involved in positive ANCs case tracking during the antenatal, natal and post natal period and bringing children for testing in the PPTCT cascade.

Coordinated efforts between the lab technicians of general labs and ICTCs have ensured that a single sample of blood drawn from the pregnant women is distributed for multiple tests.

Limited ownership of NHM was noticed at district level. Though convergence activities are well demonstrated in the field (among frontline health workers), the mid-level and top level managers in the district are yet to pick up on integrating activities efficiently. The programme is still far from real functional convergence.



d) *Public - Private Partnership*

Public private partnership (PPP) was initiated but limited in scope. In one private clinic visited by the assessment team, the PPTCT programme was well understood and testing of pregnant women well implemented. More PPTCT PPP partnerships need to be scaled up in the district.

e) *Monitoring, Supervision and Data Management*

The data collection and reporting system are in place. Staff make good use of line-list information for patient tracking. Several registers are used at ANC/ PPTCT. Pre-printed registers are not available everywhere. Limited HIV data linkages/integration within MCH have been observed. The accuracy and completeness of data is limited, particularly in the electronic PPTCT line-list. The staff complained that the PPTCT line list format has kept on changing. Data entry staff were not always trained adequately for PPTCT line list data entry leading to untimely electronic data entry and errors in reporting. There is a lack of clarity on reporting tools by the sites visited (SIMS/CMIS). The use of data at district levels for analysis of the efficiency of the PPTCT cascade was found to be limited.

4) HIV testing services and Linkages to Care, Support and Treatment

a) *Increasing Coverage of HIV Counselling and Testing Services*

The HIV testing coverage of pregnant women attending ANC in public sector is high. PHC level testing works well with 600 ANMs trained for outreach testing. HIV infected pregnant women are sent to ART centres in a timely manner.

The overall HIV testing coverage is limited by the ANC coverage. Of 74,033 estimated pregnant women in 2013, 55,991 (76%) have been tested for HIV. Mobile testing to cover those pregnant women not attending ANC is limited in scope. Outreach testing is underused. ANC tools do not fully integrate testing: for example, the MCH card include HIV and Hepatitis-B but not Syphilis; the ANC register has no testing information. Syphilis testing is not available at all sub district level sites and single puncture for both HIV-syphilis is not enforced at all levels.

Once detected to be positive, the pregnant women should start ARV as soon as possible. However, it is too early to assess the retention on ART after delivery. Staff reported concerns of healthy pregnant women who may not be inclined to continue ART after delivery. Patient tracking wall charts have been placed at PPTCT and ART centres to facilitate a coordinated follow -up. In the facilities visited the PPTCT staff was found to be extremely committed and proactive in trying to ensure retention along the PPTCT cascade.



A number of HIV infected pregnant women are lost to follow-up because of migration. Link ART centre health staff is not always trained in PPTCT leading to loss to follow up.

A high coverage of institutional deliveries is reached for HIV infected pregnant women. Mechanisms are in place to support institutional deliveries (home visits by ANMs /ASHAs community outreach workers). Wall charts on management of HIV positive women coming directly- in-labour were observed in all labour rooms visited. (Although few were not updated). Post-exposure-prophylaxis (PEP) drugs are not always available in delivery rooms.

Pregnant women with known HIV status sometime hide their status at time of delivery by fear of being rejected (Stigma & discrimination issues). Death of several babies that are born to HIV positive women / still-births have been reported. It is not clear if these deaths were associated with the HIV status or as a part of other reasons. 10 % of HIV infected mothers do not choose exclusive breast feeding, which may put the baby's health at risk.

b) *Early Infant Diagnosis (EID) and Paediatric ART*

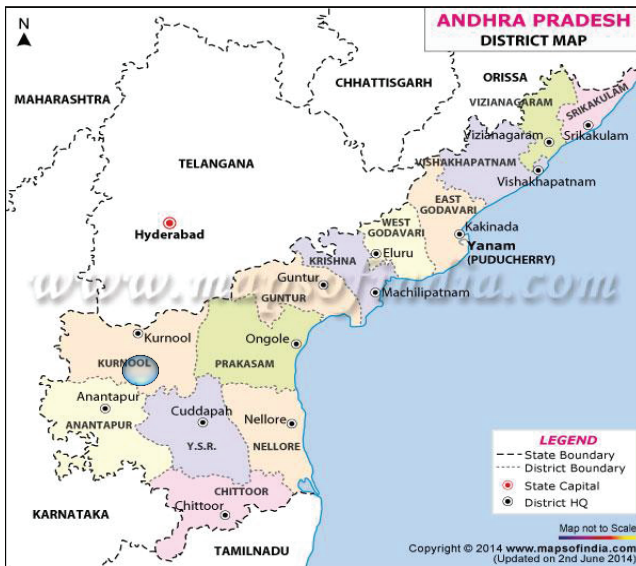
ICTC staff is well trained for dried blood spot (DBS) collection for EID. HIV exposed children are being put on CPT. Since, DNA PCR is currently available only in Chennai, the results turn-around- time (TAT) is too long: 3-6 weeks. DBS card kits stock shortages were reported. Mother-baby tracking and follow-up is difficult, with a significant number of lost -to-follow-up (LFU). A limited number of children can be tracked up to 18th month. Migrant women often leave the district several months after the delivery, without notice.

The number of infants infected through vertical transmission are perceived / experienced by the service providers as decreasing drastically in the last 2 years. In infants who have been tested in the district, there is no report of HIV infection through mother -to- child transmission since the start of option B.



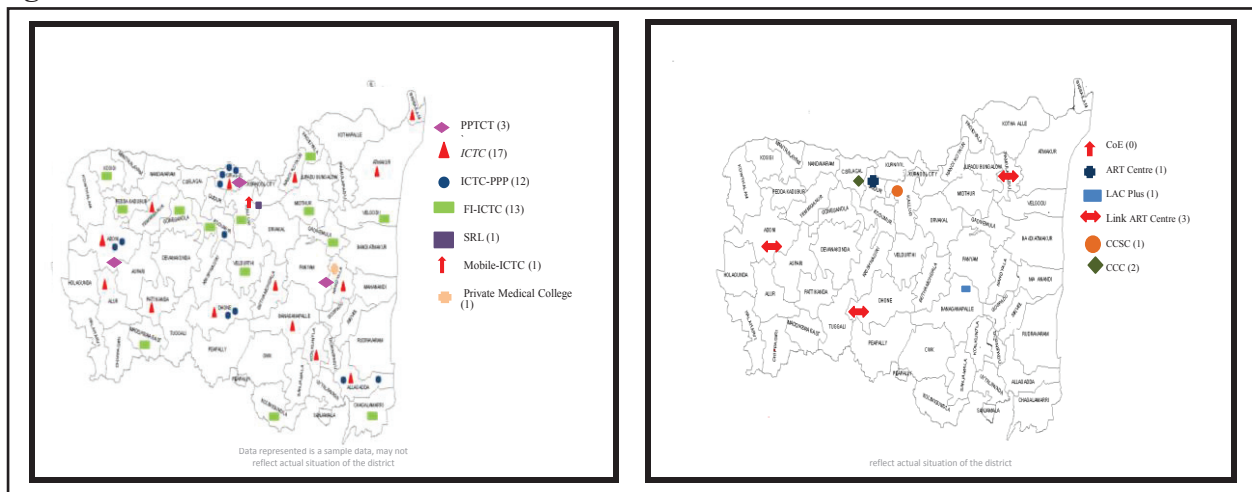
### 6.2.3. KURNOOL (DISTRICT LEVEL FINDINGS)

#### 1) Background and HIV Scenario<sup>31</sup>



Kurnool is a district in the state of Andhra Pradesh. It has a population of 4.05 million (Census 2011), with a rural-urban divide of 28% to 72%, as per the 2011 census. The district has 23 standalone ICTCs and 90 Facility Integrated ICTCs centres. As of 2012, the HIV prevalence in the state was 0.59 %. Kurnool District has 2 ART centres and 5 Link ART centres.

**Figure 14: Block wise Distribution of facilities in Kurnool District**<sup>32</sup>



#### 2) PPTCT Programme Status

Based on HIV sentinel surveillance, the HIV prevalence among ANC attendees was 0.59% in 2012. Of the 88,396 estimated pregnant women in Kurnool district in 2013, 53,691 (60%) have been tested for HIV, which was lower than the state average. The number of pregnant women

<sup>31</sup> The map is available at <http://www.mapsofindia.com/maps/andhrapradesh/>

<sup>32</sup> Source: (NACO, 2014)

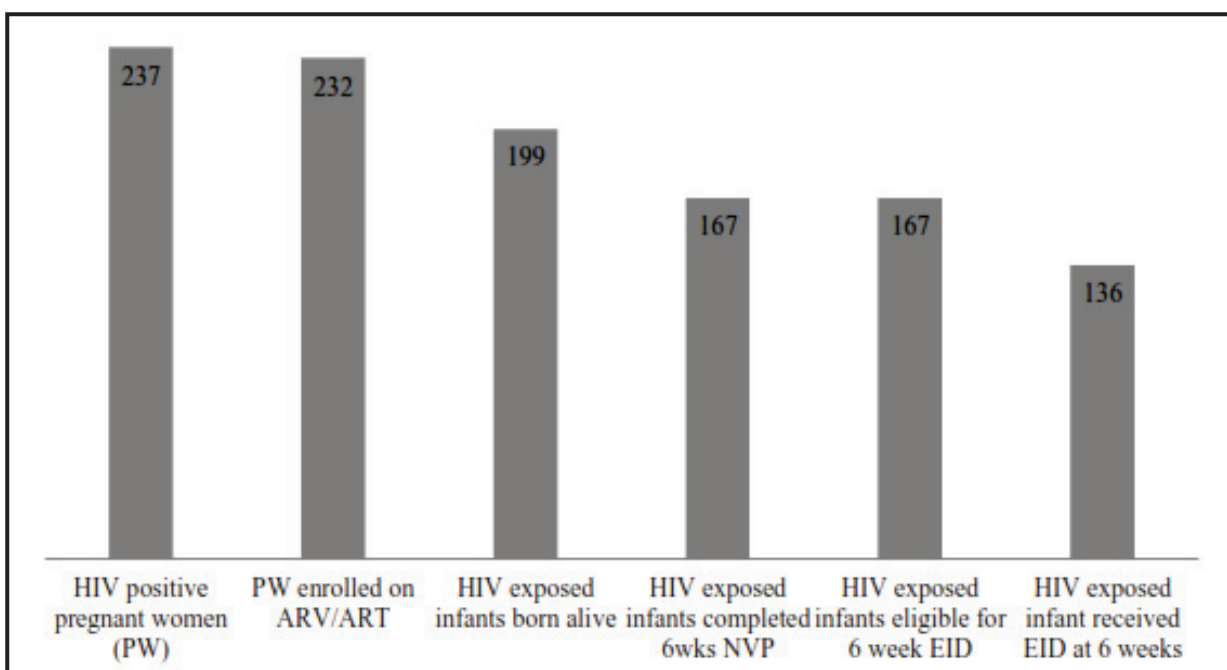


who attended at least one ANC checkup was not available for 2013. From September 2012 to March 2014, 237 pregnant women have been detected/reported HIV positive at ANC. A total of 232 (98%) HIV positive pregnant women have been put on ARV or ART.

Of 199 HIV exposed infants reported since Sep 2012, 167 (84%) have completed 6 weeks Nevirapine. Of 167 exposed infants eligible for EID at 6 weeks as of March 2014, 136 (81%) have received it. Three infants were confirmed HIV positive on WBS.

A snapshot of the continuum of care cascade at the state level is presented in *figure 15* below.

**Figure 15:** Kurnool PPTCT cascade, Sep 2012- March 2014



*Source: (APSACS, 2014)*

3) Programme Management

a) *Human Resource Management*

Training on PPTCT using option B Plus is conducted by state level for the new staff. District resource team conducts refresher trainings at all levels. Training of NHM Staff on option B+ is in process.

b) *Supply Chain Management*

Simultaneously while the down trainings were taking place the drugs, test kits and other consumables were being supplied to the end service delivery points. This is led to uninterrupted



service delivery in the district. Stock outs of LPV/r and DBS kits have been impeding the PPTCT programme efficiency.

c) *Convergence/Integration*

High commitment and leadership for the PPTCT programme was observed from the Kurnool DAPCU. Coordination meetings are being organized every quarter with staff from NHM.

Similar to Mahbubnagar, good initiatives of community participation including ANM involvement have been reported. The frontline health workers (ANMs and ASHAs) have been trained for the past three years on confidentiality and reduction of stigma and discrimination on PLHIVs. In addition they have been actively involved in positive ANCs case tracking during the antenatal, natal and post natal period and bringing children for testing in the PPTCT cascade.

Coordinated efforts between the lab technicians of general labs and ICTCs have ensured that a single sample of blood drawn from the ANCs is distributed for multiple tests.

Limited ownership of NHM was noticed at district level. Though convergence activities are well demonstrated in the field (among frontline health workers), the mid-level and top level managers in the district are yet to pick up on integrating activities efficiently.

The team did not notice any specific ASMC activities that focused on PPTCT and RCH convergence

d) *Public - Private Partnership*

Initial efforts have been made to involve the private sector. Management of HIV infected pregnant women was inadequate at the private facility visited (e.g. Incorrect protocol with 2 drugs was use for direct in labor cases). More PPTCT PPP partnerships need to be scaled up in the district.

e) *Monitoring, Supervision and Data management*

The data collection and reporting system are in place. Staff make good use of line list information for patient tracking. Several registers are used at ANC/ PPTCT to give a complete picture. Limited HIV data linkages/integration within MCH has been observed. The accuracy and completeness of data is limited, particularly in the electronic line list. The sites visited had difficulty in reporting the programme data through the SIMS that has been introduced by NACO. The computers (software versions) seem incompatible with the versions that are used by the



SIMS. Hence, the sites are sending the information, and the data are uploaded into SIMS from internet kioske /café periodically. Data quality issues require attention.

#### 4) HIV Testing Services and Linkages to Care, Support and Treatment

##### a) *Increasing Coverage of HIV Counselling and Testing Services*

Kurnool district has been able to establish ICTC in different ICTC models have been established across the district FICTC, SA, mobile and PPP model. The district is planning to implement community based HIV testing by auxiliary nurse midwives to increase the coverage of HIV testing of pregnant women from 60% to 100%. HIV testing is an integral part of the package of ANC care.

The HIV testing coverage of pregnant women attending ANC in public sector is high. ). Most of the pregnant women detected HIV positive reached the ART centre within 1-3 days of detection HIV infected pregnant women are sent to ART centers in a timely manner.

The overall HIV testing coverage is limited by the ANC coverage. Mobile testing to cover those pregnant women not attending ANC is limited in scope. Vacancies of laboratory technicians in some ICTC and FICTC limit testing at these sites. Syphilis testing of ANC attendees was not available, particularly at sub district level.

##### b) *Establishing Linkages of HIV Positive Pregnant Women to Care, Support and Treatment Services*

With the start of Option B+ in January 2014 the mean time to ART start was shortened since the treatment start does not depend on CD4 results. However, it is too early to assess the retention on ART after delivery. Staff has reported concerns of healthy pregnant women who may not be incline to continue ART after delivery. Patient tracking wall charts have been placed at PPTCT and ART centers to facilitate a coordinated follow up. A number of HIV infected pregnant women are lost to follow up because of migration.

A high coverage of institutional deliveries is reached for HIV infected pregnant women. Wall charts on management of HIV positive women coming in directly in labor were observed in all labor rooms. Pregnant women with known HIV status sometime hide their status at time of delivery by fear of being rejected. Post exposure prophylaxis (PEP) drugs needs to be made available in all delivery rooms.





Most mothers choose exclusive breastfeeding. Even though exclusive breast feeding is reported in all the columns of the register, information about actual infant feeding practices could not be confirmed.

ICTC staff is well trained for dried blood spot (DBS) collection for EID. Since DNA PCR is currently available only in Chennai, the results turnaround time is too long: 3-6 weeks. DBS card kits shortages were reported. Mother-baby tracking and follow up is difficult, with a significant number of lost to follow up (LFU). A limited number of children (25) could be tracked up to the 18th month.

c) *Early Infant Diagnosis (EID) and Paediatric ART*

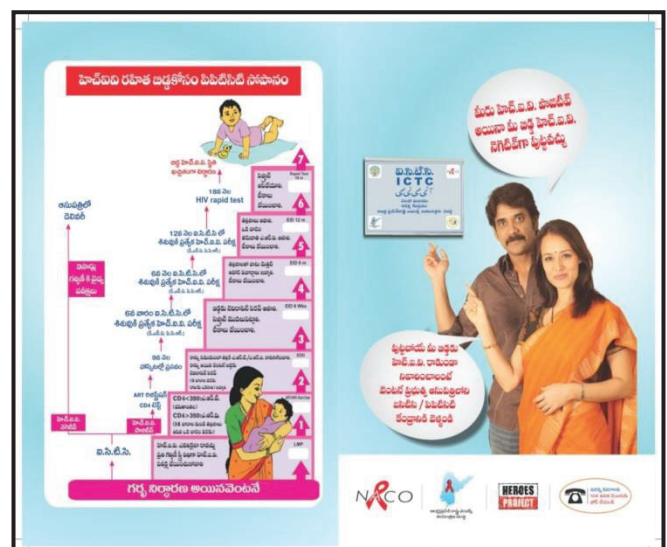
The number of infants infected through vertical transmission is perceived / experienced by the service providers as decreasing drastically in the last 2 years. In infants who have been tested in the district, there is no report of HIV infection through mother to child transmission since the start of option B.

### 6.2.4. INNOVATIONS/BEST PRACTICES DOCUMENTED

*Importance of Information Education & Communication (IEC) materials /tools in implementing successfully the PPTCT Programme (multi-drug regimen –Option B & Option-B+) roll-out in Andhra Pradesh:*

The development of appropriate IEC materials simultaneously is very important when new programmes or guidelines are launched to bring about awareness in the community regarding them immediately. This was very well demonstrated by the State AIDS Control Society, Basic Services Division, Andhra Pradesh, when they launched and rolled out the PPTCT Programme Option B and subsequently Option B+.

Simple, yet effective IEC materials and tools were developed for easy understanding ability by ANC cases, spouses and partners so that they could access the Prevention of Parent to Child Transmission (PPTCT) services





completely: HIV Counselling & Testing; if found positive take Anti-retroviral Therapy during the risk period of transmission. Animated IEC materials as well as printed materials on all the interventions were developed. Pamphlets & charts for mounting on walls as well for distribution during campaigns and on Village Health and Nutrition Days (VHND) where large numbers of the community participate. All Health care facilities –right from the Primary Health Centres to the Tertiary Care health care facilities had put up these materials in vantage points including OBGYN clinics/PPTCT Centres, so that all the clients visiting the hospitals and health care centres have a complete understanding of the of PPTCT package of services. This ensured HIV positive pregnant women did not miss any visit themselves and brought their babies as well periodically for evaluation. It was essential and critical that all HIV exposed infants undergoing EID bring their babies for testing right from 6 weeks of age so that they can be detected early and initiated on Paediatric ART which is life-saving. The IEC materials thus developed has helped a great deal in retention in care of HIV positive pregnant women and their exposed babies thus reducing numbers lost to follow-up (LTFU) and accessing care, prophylaxis and treatment. This has significantly contributed in reducing the transmission of HIV from mother-to-child the past 2 years.

The launch of the multi-drug regimen in the PPTCT Programme in Andhra Pradesh called the "MAMATHA" Programme (in September 2012 and continued under the same banner until December 2013) rapidly scaled – up due to the wide dissemination of IEC messages early on in the Programme developed by the State AIDS Control Society. When the Department of AIDS Control decided to roll-out Option-B +, country-wide from January 1st 2014 onwards, these IEC materials also underwent a quick modification to match the Programme's needs. Option-B+ was then re-named as the "MAMATHA PLUS" Programme which entailed life-long ART.

The development of these IEC materials. Especially in the regional language which has contributed significantly to the success of the roll-out PPTCT Programme -Option B and now Option-B+ in Andhra Pradesh could be followed in other states as while rolling out the PPTCT Programme - Option B+.



## 6.2.5. RECOMMENDATIONS

### Andhra Pradesh & Telangana

#### 1) *Programme Management*

PPTCT services are run by well trained, motivated and committed staff from the HIV programme. The PPTCT programme has achieved good outcomes to date. However, there is scope for better engagement of the rest of the health system. The Convergence is work in progress but the following concrete steps need to be taken:

- Single prick and single window testing for both HIV, syphilis testing
- MCH tools integration of HIV and syphilis information
- Data sharing between NHM and HIV (both sides)
- Skills transfer/ PPTCT training of all MCH staff as part as district general health training.
- Efforts to make PPTCT become a regular part of cluster and district level reviews
- Mutual share of resources between NHM and NACP
- Joint monitoring and review at district level with active engagement of DAPCU and DPMU

The creation of a convergence working group at state and district level should be considered to guide the process.

#### 2) *HIV Testing Services and Linkages to Care, Support and Treatment*

Integration of HIV and syphilis testing (single puncture) should be ensured at all levels of facilities. ANC tools from MCH should incorporate testing information. HIV testing access should be expanded through mobile ICTC and Mobile Medical Units. Paramedical staff should be trained to conduct HIV screening test. The guidance, quality assurance system and reporting mechanisms for community based testing should be standardized in consultation with NACO.

#### 3) *ARV/ART Provision for HIV Positive Pregnant Women*

- Counselling and support for potential migrant workers should be strengthened by offering several months ART to ensure retention on treatment.
- PPTCT and ART staff should be trained in Family Planning counselling through NHM and fully trained for option B+
- Retention on ART after delivery (option B+) should be monitored closely.

#### 4) *Institutional Deliveries*



Updated SOPs should be provided to all labor & delivery rooms and drugs for PEP should be made available inside delivery rooms.

#### 5) *Infant Feeding*

More counselling and support for EBF should be provided by ASHAs, ANMs and PPTCT outreach workers. An analysis of infant deaths should be conducted to assess if there is any link with formula feeding or inappropriate feeding practices.

#### 6) *Early Infant Diagnosis and Early Initiation of Paediatric ART*

- DNA PCR results should be reported by email to facilities to fasten result provision and ART start. DNA PCR should also be started in Hyderabad as soon as possible. MCH should consider integrating 18 month follow up into mother child tracking system (MCTS).
- A detailed prospective of analysis of data should be conducted to assess the outcome of the PPTCT intervention.

#### 7) *Monitoring and Evaluation*

- Guidance, clarity and troubleshooting should be provided by SACS. A pre -printed register for HIV positive PW and their infant should be used. The line list excel spreadsheet should be improved to limit data entry errors (eg. drop down menu for EID results; locked formulas in dashboard)
- Training should be conducted on line listing /dashboard and on how to use data for improving programme efficiency. An analysis of the determinants of HIV infection in infants and infant deaths should be conducted. Ultimately syphilis testing and treatment data integration in the line list should be considered by NACO.



### 6.3. KARNATAKA



Karnataka<sup>33</sup> is administratively divided into 29 districts. Major demographic features of its populace are provided in table 6 to help foster a better understanding of the current prevailing scenario. The districts visited in the State for the assessment were Bellary and Kolar.

**Table 6: Key Population Demographic Indicators**

Indicator	Year	Classification	Karnataka	India
Population	2011	Total	61,095,297	1,210,193,422
		Rural (%)	61.43	68.80
		Urban (%)	38.57	31.16
	2001-11	Average annual exponential growth rate (%)	1.56	1.64
Literacy rate (%) in population	2011	Total	75.60	74.04
Crude birth rate <sup>34</sup>	2012	Total	18.5	21.6
Crude death rate <sup>35</sup>	2012	Total	7.1	7.0
Total fertility rate <sup>36</sup>	2012	Total	1.9	2.4
Percentage of population below poverty line <sup>37</sup>	2012	Total	20.91	21.92

*Source: (SRS, 2012); (Planning Commission, 2013)*

#### Assessment Process

The assessment of the situation of the roll out of new PPTCT guidelines was planned in Karnataka during the same time: 23-27 June 2014. As a preparatory activity, desk review of data from the states were undertaken including HIV positive ANC line list and CMIS/SIMS Reports, for

<sup>33</sup> The map is available at <http://www.mapsofindia.com/maps/karnataka/karnatakalocation.htm>

<sup>34</sup> Number of births per 1000 population

<sup>35</sup> Number of deaths per 1000 population

<sup>36</sup> Children born to a women in her lifetime in accordance with current age-specific fertility rates (World Bank, 2013)

<sup>37</sup> In accordance with the Tendulkar methodology, with figures extrapolated from the 2011 census.



the period from September 2012 to March 2014. A team conducted field visits at the State, District, Sub-District level (Taluk and PHC level) using a standard assessment tool.

#### State Level Process:

The team visited the SACS, KCGM, CoE (Bowring), PCoE (IGICH) and NIMHANS: EID centre

#### District Level Process:

To carry out the district level assessment, two teams were formed that visited the respective districts from the 24th – 26th June, 2014.

- In Bellary, the team visited the DAPCU, PPTCT and ART plus service delivery centre at Bellary Medical College (Vijaynagaram Institute of Medical Sciences), CHC level ICTC at Toramagallu in Bellary district, Link ART Centre at Toramagallu in Bellary district, 24x7 PHC, Sanganakal, CHC MOKA and a FPAI, PPP ICTC Centre.
- In Kolar, the team visited the DAPCU, District Hospital, Taluk Hospital, 24 x 7 PHC and a PPP site.

### **6.3.1. STATE LEVEL FINDINGS**

#### 1) Background and HIV Scenario

Strong efforts taken by the state over the years have helped control the epidemic, and there has been a steady decline in the antenatal prevalence of HIV from 1.43 % in 2003 to 0.69 % in 2010-11 (HIV sentinel surveillance, 2010-11 report). The state has a total of 1752 facilities offering HIV counselling and testing: 567 standalone ICTCs, 1022 FICTCs and 163 PPP ICTCs. ICTCs are available in all 46 medical colleges (12 public and 34 private), 31 district hospitals, 137 Taluka Hospitals/ General Hospitals and 51 CHCs. Out of the 2350 PHCs in the state, about 1500 are 24 x7 PHCs, of which 1022 are FICTCs. In addition 163 PPP mode ICTCs are functional and include a range of private healthcare facilities, including maternity homes.

#### 2) PPTCT Programme Status

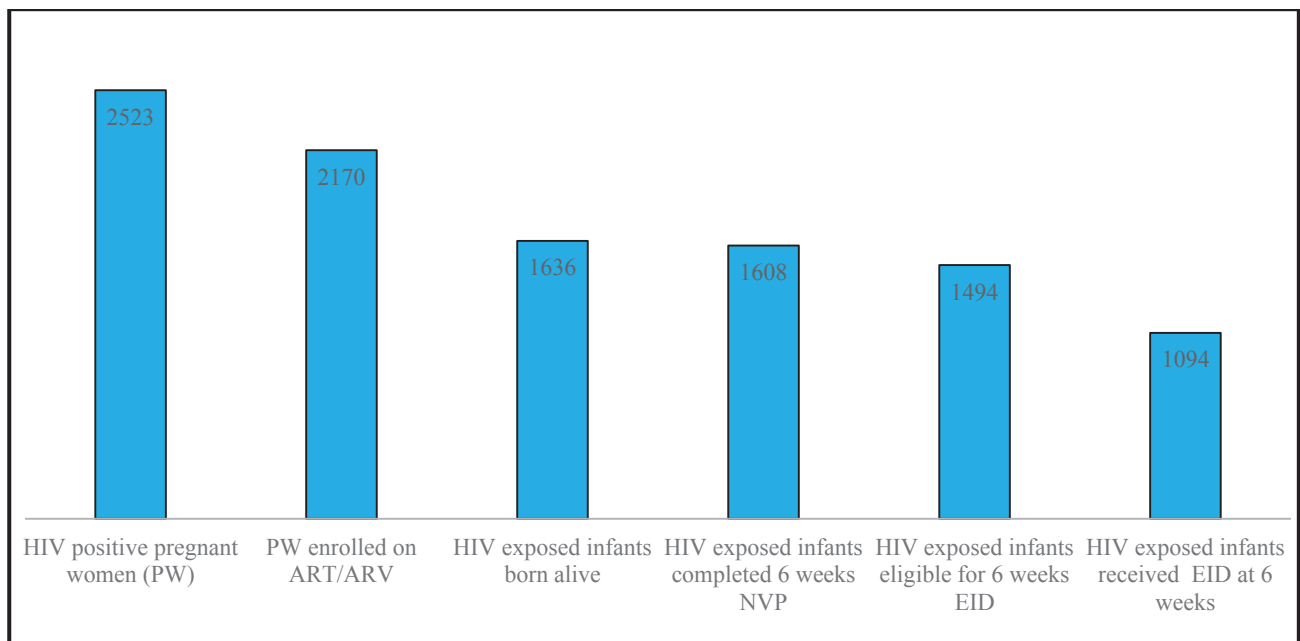
From September 2012 to March 2014, of the 17 lakh pregnancies tested for HIV in the state (Sep'2012-Mar'2014), 2523 pregnant women have been detected HIV positive at ANC. 2170 (86%) have been put on ARV/ART.



Of 1636 HIV exposed infants reported since Sep 2012, 1608 (90%) have completed 6 weeks Nevirapine. Of the 1494 exposed infants eligible for EID at 6 weeks as of March 2014, 1094 (73 %) have undergone DNA PCR testing. Among them only 24 (2.2%) babies were detected as positive for HIV.

A snapshot of the continuum of care cascade at the state level is presented in *figure 16* below.

**Figure 16:** Karnataka PPTCT cascade, Sep 2012- March 2014



*Source: (KSAPS, 2014)*

While 94% of the estimated pregnant women are tested for HIV, syphilis testing and HBsAg testing have a coverage of > 95% in the state and the two districts visited Kolar and Bellary cover > 98% of the pregnancies with the above three tests.

### 3) Programme Management

#### a) *Human Resources Management*

The state has invested well in terms of HR Capacity Development before the roll out of PPTCT new regimen in September 2012. A series of trainings had been conducted by KSAPS, through a cascade model, for the general health system staff involved in the provision of PPTCT services. There has been minimal turn-over of District and facility level staff in the state. A good practice that the state has in terms of HR recruitment is a 'resource-pool' of eligible candidates, valid for a year, from where any vacancy arising is rapidly filled up. There is a disparity in the salaries



between the NHM and NACP paramedical staff, which has led to a considerable decrease in the overall efficiency. Limited involvement of the adult CoE, SIHFW, NHM and MCH experts in the PPTCT capacity building and roll out.

b) *Supply Chain Management*

There was no instance of stock out of any drugs or kits reported in last six months, except for DBS collection kits, similar to other states. Drug stocks were well maintained and were stored as per good storage practices. There were adequate stocks of PPTCT drugs (for 5 months) at the ART centre. The ARTc followed First Expiry First Out (FEFO) principle. Drug stock register and dispensing register (adult, paediatric & OI) were up to date and there were separate sections for recording PPTCT drug stocks. 17 drug warehouses which cater to the entire state also have been provided with walk-in coolers by KSAPS which are jointly used by NHM and NACP (for storing HIV test kits and certain drugs). Inventory reporting is done weekly by the state on all commodities related to HIV testing and PPTCT drugs.

c) *Convergence/Integration*

Traditionally, the overall commitment in the state of Karnataka and in the districts for 'Health' and 'HIV' in general as well as PPTCT in particular has been high. 'Functional convergence' and/or 'Integration' of aspects of the PPTCT services with general health systems has been ongoing in the state since 2007-08. Many 'processes' and 'systems' have been put in place over the years and these continue to operate in the current situation, albeit at various levels of functionality. The district systems are well geared up and have robust integration mechanisms in place for effective PPTCT service delivery.

Also as a step towards achieving convergence, the general health system has made contributions to PPTCT services by making provisions including financial through State NHM PIPs for below CHC level standalone ICTCs, diagnostic tests for HIV, diagnostic and drugs for STI management.

In addition the state has also made provision for Cashless delivery services and incentives for service providers under the Yeshaswini scheme. For ensuring uptake of PPTCT services, retention in care and follow up till 18 months additional incentives have been incorporated in the state budgets for ASHAs for following up mother baby pairs.





Linkage of EID/ ART programmes with Infant and Young Child Nutrition and Immunization programmes needs further strengthening. It found that there was limited convergence between NHM and KSAPS in IEC related activities.

d) *Service Delivery*

To ensure 100% HIV testing of pregnant women, single window approach for HIV test and other general lab tests has been implemented by the state. HIV testing along with Syphilis and Hepatitis B testing are part of routine ANC Package. HIV testing is included in the MCH card (THAYI card). By implementing this routine ANC package the state has managed to successfully provide HIV testing and counselling services to over 94 % of HIV pregnant women in the state. Family Planning among HIV positive women is a weak link. A number of HIV positive women still come with repeated pregnancies.

Access to EID is a major bottleneck in the state. Out of the 567 SA-ICTCs (standalone ICTC) in the state, only 220 are DBS collection centres. IEC materials for PPTCT programme are available, but would need to update periodically in line with the current guidelines.

Also there is yet no clarity on the sero discordant cases, which creates lots of confusion in the field in tackling the treatment of such cases. It was noted that one of the important factors contributing to discordance was due to unsafe sexual practices before marriage; reiterating the importance of linkages with Rashtriya Kishor swasthya karyakram (RKSK) and adolescent educational programmes for school and out of school youths.

e) *Public Private Partnership*

The state of Karnataka has enforced the Karnataka Private Medical Establishment Act (KPME-2007), through which the district authorities ensure reporting of HIV testing coverage among pregnant women in all the private hospitals, in addition to other health parameters as required by the State/District. The state has ensured sensitization and capacity building of all the health professionals related to PPTCT service provisioning through professional bodies like IMA, FOGSI and IAP. This has helped the state to ensure that standardized PPTCT services as per the new technical guidelines is implemented in the entire state including the private sector.

f) *Data Management, Monitoring and Evaluation*

In order to harmonize PPTCT line list with health department's mother-child tracking system, a separate page in MCTS with password protection is provided to ICTC counsellors for entering



HIV data. This helps to identify missing clients between ANC and PPTCT centres and avoid duplication. The same ID is also maintained in the MCTS where both RCH and HIV services offered are entered. HIV testing is included in the MCH card as whether test done or not (THAYI card).

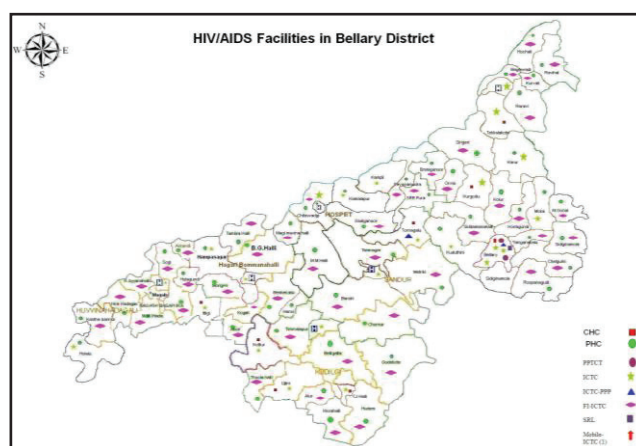
The state has established robust monitoring mechanisms for ensuring efficient PPTCT service delivery. Regular monthly review meetings are held by the DAPCUs in all districts which are also attended by the designated nodal officers from the state headquarters (KSAPS officers and state programme managers for general health system). Senior level state administrators also conduct periodic review of all the districts through innovative ICT solutions like video conferencing.

### 6.3.2. BELLARY (DISTRICT LEVEL FINDINGS)

#### 1) Background and HIV/AIDS Scenario

Bellary District situated in the eastern part of Karnataka, has a population of 2.45 million with the rural-urban divide being 62.5 % to 37.5 %, as per the 2011 census. Administratively, the district is divided into 7 Taluks. The literacy rate was 67 % and the district has a sex ratio of 983 females per 1000 males (2011). Bellary district has 37 standalone ICTCs, 54 Facility Integrated ICTCs and two PPP ICTCs. Besides, the district has 54 HIV whole blood finger prick test (WBFPT) screening facilities.

**Figure 17:** Block wise Distribution of facilities in Bellary District<sup>38</sup>



<sup>38</sup> Source: (NACO, 2014)

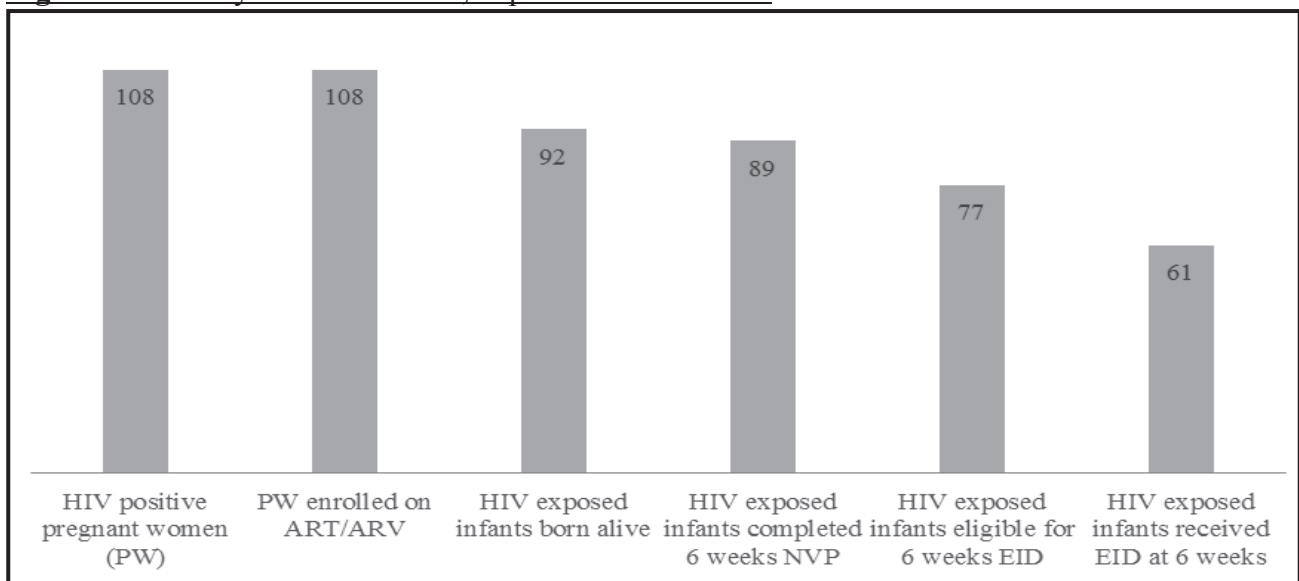


## 2) PPTCT Programme Status:

From September 2012 to March 2014, 108 pregnant women have been detected HIV positive at ANC. 108 (100%) have been put on ARV/ART. Of the 92 HIV exposed infants reported since Sep 2012, 89 (96%) have completed 6 weeks Nevirapine. Of 89 exposed infants eligible for EID at 6 weeks as of March 2014, 61 (79 %) have received it.

A snapshot of the continuum of care cascade for Bellary district is presented in *figure 18* below.

**Figure 18:** Bellary PPTCT cascade, Sep 2012- March 2014



*Source: KSAPS (2014)*

## 3) Programme Management:

### a) *Human Resource Management*

The district officials had a sense of ownership of the programme which was reflected in the good functioning of the DAPCUs. Prior to the roll out of Option B, trainings were provided for all the health care workers. Additional implementation oversight was provided to the ART and ICTC centres, district supervisors, District level officials, regional coordinators and KSAPS officials at periodic intervals. But prior to the launch of Life long ART for the mother or after the implementation of this option, there has not been any formal training.

It was noted that there were some Medical officer posts that were vacant, which need to be filled. Overall the staff mentioned that there is pay disparity between various SACS staff personnel and respective staff categories in the general health department, even though the



type and volume of work is the same. This has been a demotivating factor for the SACS staff personnel.

ASHAs in the district are incentivized with INR 1000 (since April 2014, earlier it was INR 600) for following up HIV positive pregnant women for a period of 18 months till delivery.

b) *Supply Chain Management*

There is weekly stock taking and reporting from facility to district and district to SACS. Supply Chain Management drugs is excellent in the district, with facilities always keeping buffer stock for minimum three months. There is limited or non-availability of the drug Lopinavir.

c) *Convergence/Integration*

The HIV programme has been mainstreamed along with other health programmes as well as social welfare programmes in the district. During the monthly review meeting of all Medical officers in the district, the PPTCT programme is also being reviewed. The PPTCT programme data is regularly shared with the NHM district level office.

There is a single window testing for Antenatal mothers for the HIV testing as well the routine ANC tests. The testing for HIV along with Syphilis and hepatitis B are part of the routine Antenatal lab investigation tests. The same lab facility is being used for HIV testing as well as other tests and also the ICTC lab technician and the general lab technician work in coordination and share each other's work.

d) *Public - private partnership*

Good linkage between district HIV programme and Private sector and NGOs/ CBOs/ Networks.

Through the Karnataka Private Medical Establishment Act, KSAPS is getting data on HIV testing from private practitioners.

e) *Monitoring, Supervision and Data management*

Similar to the entire state, Bellary also has the THAYI card linked to the MCTS to link ANC and PPTCT services. This helps to identify missing clients between ANC and PPTCT centres and avoid duplication. In order to harmonize PPTCT line lists with mother-child tracking system, a separate web page in MCTS with password protection is provided to the ICTC counsellor for entering the HIV data.



The district has strongly laid out processes for reviewing the programme data during the routine monthly review meetings. The HIV testing coverage data is shared between NHM and NACP in state level review meetings.

4) HIV Testing Services and Linkages to Care, Support and Treatment

a) *Increasing Coverage of HIV Counselling and Testing Services*

Access to the HIV testing is very good, since testing facilities are available across all the PHCs. The district has tested around 100,000 pregnant women during the 18 months implementation period, which is over and above the estimated pregnancies of 99,226 for this period. This is an extraordinary achievement.

In 2007-08, 9245 pregnant women were tested out of which 113 were positive. In 2009-10, 197 pregnant women were tested positive out of 36154 pregnant women screened. However from 2010-11 onwards there has been a consistent decline in the number of HIV positive mothers (68 in 2013-14) even though the testing coverage has considerably increased (9245 in 2007-08 and 64658 in 2013-14).

HIV, Syphilis and HBsAg testing are offered as part of the routine ANC lab test package. The coverage of the three tests among pregnant women is more than 98 % in Bellary. There is a good referral linkage between ANC clinics and PPTCT services within the hospitals. PPTCT Counselors are located in/close by to ANC clinics in order to ensure that every pregnant woman has HIV counseling after ANC check-up.

Hard copies of new Guidelines have not been found in most of the visited field units. There is no updated IEC material in the field; IEC visibility is lacking in the district.

b) *Establishing Linkages of HIV Positive Pregnant Women to Care, Support and Treatment Services*

Out of the total 108 HIV infected pregnant women detected (ANC + direct in labour) during the period Sept, 2012 to March 2014, 107 pregnant women were put on ART. Out of the 107 women, 98 HIV infected pregnant women had delivered with 90 live births. It was noted that on an average a newly detected positive pregnant women is registered and enrolled at the ART center within a day.



If a pregnant woman reaches directly to the labour room with unknown HIV status, they are first screened with single test WBFP by staff nurse and later confirmed within 24 hours by triple test by ICTC (counselling by counsellor and HIV test by lab technician). If found positive in the screening test, then both the mother and the exposed infant are started on ART/ARV at the labour room. A stock of ART/ARV drugs are maintained at the labour room, following which they are linked to the ART Center. In one of the centres the nurse explained that a direct in labour case gets HIV screening test in the labour room and if the test is reactive the mother will get ART and baby NVP syrup after which the following day the ICTC counsellor is informed.

### c) *Early Infant Diagnosis (EID) and Paediatric ART*

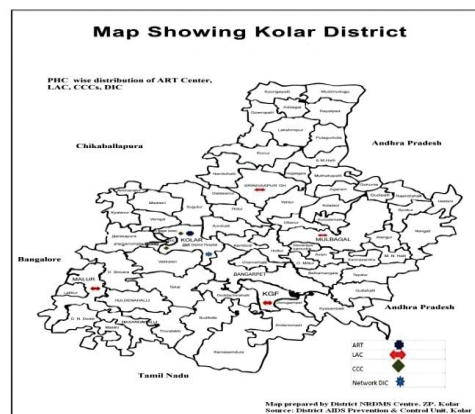
Implementation of EID is a concern. The DBS collection centers are few and the mothers are finding it difficult to travel to avail the services. There has been a major stock-out of DBS test kits for over 6 months now. The NIMHANS EID testing lab which is processing the EID tests across Karnataka, is over-burdened.

## 6.3.3. KOLAR (DISTRICT LEVEL FINDINGS)

### 1) Background and HIV/AIDS Scenario

Kolar District situated in the south-eastern part of Karnataka, has a population of 1.53 million with the rural-urban divide being 68 % to 32 %, as per the 2011 census. Administratively, the district is divided into 6 Talukas. The literacy rate was 64 % and the district had a sex ratio of 960 females per 1000 males (2011). Kolar district has 12 standalone ICTCs, 59 Facility Integrated ICTCs and 7 PPP ICTCs.

**Figure 19: Block wise Distribution of facilities in Kolar District<sup>39</sup>**



<sup>39</sup> Source: (NACO, 2014)



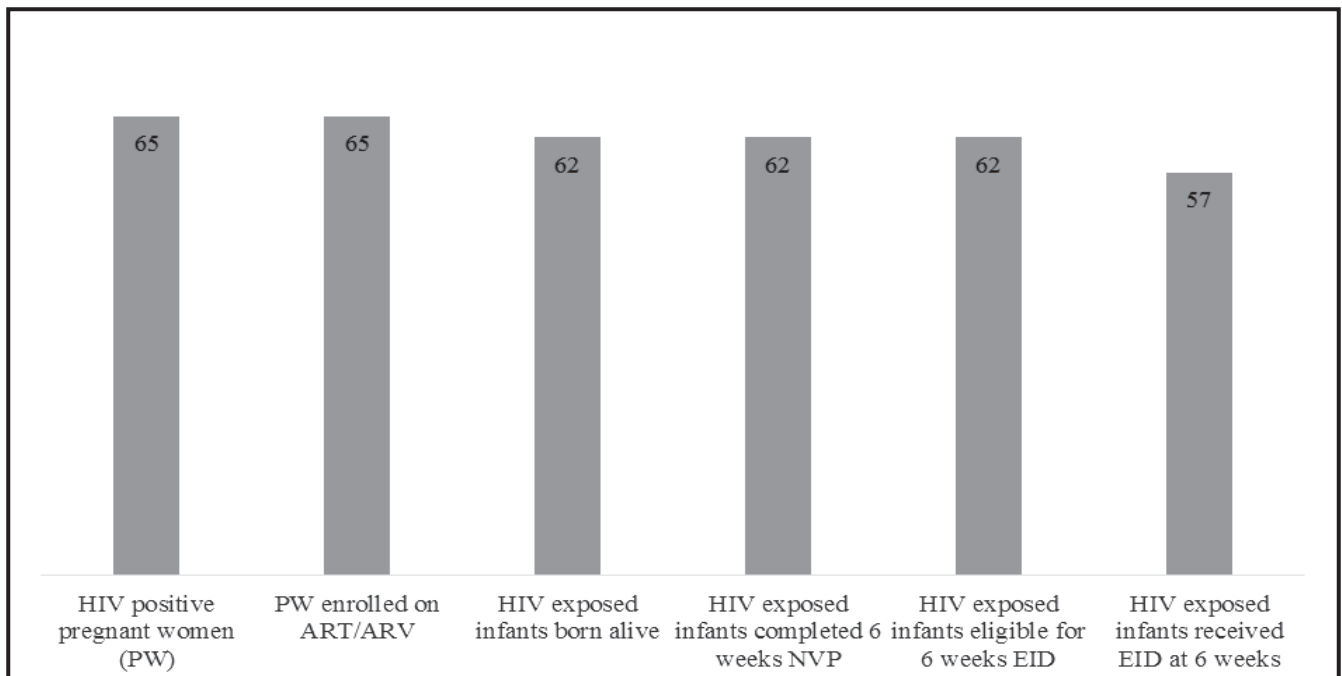
## 2) PPTCT Programme Status

From September 2012 to March 2014, 108 pregnant women have been detected HIV positive at ANC. 108 (100%) have been put on ARV/ART.

Of the 92 HIV exposed infants reported since Sep 2012, 89 (96%) have completed 6 weeks Nevirapine. Of 89 exposed infants eligible for EID at 6 weeks as of March 2014, 61 (79 %) have received it.

A snapshot of the continuum of care cascade for Bellary district is presented in *figure 20* below.

**Figure 20:** Kolar PPTCT cascade, Sep 2012- March 2014



*Source: KSAPS (2014)*

## 3) Programme Management:

### a) Human Resource Management

Prior to the roll out of Option B, trainings were provided for all the health care workers.. But prior to the launch of Lifelong ART for the mother or after the implementation of this option, there has not been any formal training.

The district officials had a sense of ownership of the programme which was reflected in the good functioning of the DAPCUs. ART and ICTC centres are visited by DAPCU, DAPCU supervisor, regional coordinator and KSAPS officials at periodic intervals. Data manager at DAPCU provides



online M&E support to ICTC and ART centres through the 'Team viewer' platform. ICTC staff (counsellor and LT) and DAPCU Supervisor provide supervisory visits to FI ICTC. A supervisory visit remark register has been initiated at facility level.

Similar to the state, there is a special incentive for ASHAs in the district for providing PPTCT services. Earlier the incentive was Rs. 600/- paid for different services at different levels but according to a new GO (April 2014) ASHAs would be paid Rs. 1000/- in a single tranche, if she follows a HIV positive pregnant women for 18 months.

#### b) *Supply Chain Management*

Drug stocks were well maintained and were stored as per good storage practices specification. There were adequate stocks of PPTCT drugs (for 5 months) at the ART centre. The ARTC followed First Expiry First Out (FEFO) principle. Wherever required, reallocation of stocks is done between centres and also between districts.

#### c) *Convergence/Integration*

The HIV programme has been mainstreamed along with other health programmes as well as social welfare programmes in the district. During the monthly review meeting of all Medical officers in the district, the PPTCT programme is also being reviewed. There is regular sharing of data between NACP and NHM at the district level through various mechanisms: F-ICTCs submits monthly screening data to ICTC; data sharing between RCHOs and DAPCUs; DAPCUs also shares data with Taluka MOs for tracking of positive Mother-Baby pair.

The DAPCO in Kolar is handling joint responsibilities of DAPCU and Family Welfare, as a result of which there is effective collaboration between PPTCT and ANC. ANMs and ASHAs are contributing in HIV screening using WBFPT and ANC-PPTCT/ART linkages. There are 791 ASHAs and 6 ASHA mentors in Kolar.

There is a single window testing for Antenatal mothers for the HIV testing as well the routine ANC tests. The testing for HIV along with Syphilis and hepatitis B are part of the routine Antenatal lab investigation tests. The same lab facility is being used for HIV testing as well as other tests and also the ICTC lab technician and the general lab technician work in coordination and share each other's work.





d) *Public - Private Partnership*

Good linkage between district HIV programme and Private sector and NGOs/ CBOs/ Networks. Through the Karnataka Private Medical Establishment Act, KSAPS is getting data on HIV testing from private practitioners. It is mandatory that all the PPPs and private sector institutions report DAPCU monthly on pregnant women and HIV testing as per the joint GO released by KSAPS and NHM

There are 7 PPP clinics for HIV testing among ANCs. Outreach worker from Vihaan project contributing in tracking positive Mother -Baby pair and maintaining high level of retention and compliance to ART drugs.

e) *Monitoring, Supervision and Data Management*

The district has strongly laid out processes for reviewing the programme data during the routine monthly review meetings. The HIV testing coverage data is shared between NHM and NACP in state level review meetings.

There are two softwares used to update the PPTCT line lists. The staff are using Google drive in updating PPTCT line list developed by KSAPS and all the EID data is entered separately in the excel sheet format provided by NACO. KSAPS in collaboration with NIC developed a new software where one can retrieve ANC mothers' data by entering MCTS tracking number. This unique software has PPTCT line list and EID data included and is linked to MCTS. If mother has no MCTS card then counsellor generates a new ID and NHM can verify the data later. The future plan is to retain the new software linked to MCTS and abandon the Google drive and excel sheet.

4) HIV Testing Services and Linkages to Care, Support and Treatment

a) *Increasing Coverage of HIV Counselling and Testing Services*

Measures are in place for achieving 100% coverage of ANC attendees with HIV testing. In DAPCU meetings any gap in referrals are discussed. In order to ensure 100% coverage of pregnant women with HIV testing, various mechanisms are in place: ANC clinics and PPCTC centres are co-located in most of the hospitals; LTs of PPTCT centre and General laboratory share the same room and tasks, when required; single window approach (where a single blood sample is collected from an ANC mother to do all the routine ANC tests (e.g. Hb, blood grouping, VDRL, HBs Ag, RBS etc.) including HIV; HIV screening by ANMs using Whole Blood Finger Prick Test ;



making difficult terrain accessible through mobile ICTCs; and demand generation by ASHAs as there is a special incentive package in place for them.

b) *Establishing Linkages of HIV Positive Pregnant Women to Care, Support and Treatment Services*

HIV testing is included in the basic ANC package. Counsellors are playing an important role in linking positive pregnant women with ART centre, through counselling and then later confirming whether they reached the ART centre and providing accompanied referral to the co-located ART centre. ICTC counsellor also provides visits to ART centre once in a month or two in order to ensure coordination. During the period September 2013 to March 2014, 100% of positive ANC detected at ICTC/PPTCT reached ART centre.

If a pregnant woman reaches directly in labour (DIL) with unknown HIV status, they are first screened with single test either by PPTCT LT or staff nurse and then later confirmed within 24 hours by triple test, if found positive in screening test. Both the mother and exposed infant are started on ART/ARV at ICTC and within 7 days they are linked to ARTC.

Based on the review of few ANC ART cards it was found that for option B regimen the average time taken by a positive pregnant women, was one week to reach from ICTC to ART. Since the introduction of multidrug regimen, 100% of positive pregnant women put on ART/ARV. Post card and telephonic reminders are sent to PLHIVs attending ART centres. For the new regimen (Option B+) most of the time, the positive pregnant women reaches the ART centre for registration on the same day of detection at ICTC, if both are collocated or nearby. In case the ART centre is located at a distance, they reach the centre in 1-2 days' time. Usually the positive pregnant women are initiated on ART on the same day of registration after proper counselling

In order to ensure 100% institutional delivery of positive pregnant women various mechanisms are in place –

- Yeshaswini scheme, where the hospital staff (government and private) who conducted the delivery receive INR 10000/C Section and INR 8000/Normal Vaginal Delivery;
- Janani Suraksha Yojna; Madilu kit for mother and child; ambulance service for pick up and drop;
- ASHA incentives; safe delivery kits for hospital staff; PEP drugs; counselling and rapport building with mothers; discussion in monthly review meetings.



The PPTCT and ART Counsellors (outreach activities on Saturdays), outreach worker (ORW) of Care Support Centre (Vihaan project), district positive people network are ensuring tracking positive Mother-Baby pairs for retention and maintaining high level of ART drug adherence rate (>95%). There is a proper MIS/ LFU tracking mechanism in place.

c) *Early Infant Diagnosis (EID) and Paediatric ART*

Implementation of EID is a concern. The DBS collection centers are few and the mothers are finding it difficult to travel to avail the services. There has been a major stock-out of DBS test kits for over 6 months now. The NIMHANS EID testing lab which is processing the EID tests across Karnataka, is over-burdened. ICTC staff informed that on an average, the turn-around-time (TAT) for DBS is 15 days. For more than six months now, the stock of DBS kits is exhausted in the district.

### **6.3.4. INNOVATIONS/BEST PRACTICES DOCUMENTED**

*Integration of the Prevention of Parent- To- Child- Transmission (PPTCT) of HIV with the National Rural Health Mission (NHM) in Karnataka State: “A best practice model “for national replication*

Karnataka is one of the first few states in India who embarked on the integration of HIV activities with the National Health Mission in 2007. Karnataka State AIDS Prevention and Control Society (KSAPS) clearly understood that the success of the PPTCT Programme was not dependent on the endeavours of the NACP programme alone but how collaborative efforts with the Maternal & Child Health programme would yield the desired results of preventing HIV positive pregnant women from transmitting infection to their babies, keeping mothers and babies alive and healthy.

Karnataka State AIDS Prevention Society along with the Maternal & Child Health Department of the National Health Mission developed jointly “Operational Guidelines” defining interventions from the time a pregnant woman is detected HIV positive at ANC by the ANM (front-line Health worker of NHM) and referred to the Integrated Counselling & Testing Centre (ICTC) for knowing her HIV status until the born HIV exposed child is tested for its HIV status at 18 months of age.



Understanding that the PPTCT cascade has at least 8-10 critical service delivery points that the HIV positive pregnant women access both on the MCH and the PPTCT platforms during ante-natal period and similarly another 6-8 service delivery points that the HIV positive mothers and the exposed babies visit during the post- natal period until the child has attained 18 months of age when the child's HIV status would be known, roles and responsibilities for both MCH and NACP staff were put up so that there was clarity in their functions and ownership of the programme .

Joint monitoring & evaluation by programme managers of NHM and NACP regularly at the state level as well as at the district and sub-district level has helped in ensuring that HIV positive ANCs/ mother-baby pairs were followed- up effectively.

Joint directives were issued by Project Director, State AIDS Society and the Mission Director, NHM to keep up the momentum and scale of integration.

A number of initiatives were taken to strengthen PPTCT services delivery using functional convergence: "Single-window approach" for blood testing through coordinated efforts between lab technicians of the general lab and the ICTC ensured, through a single puncture and single sample of blood, that all tests could be done by sharing the samples; screening of HIV by ANM at the sub-centre level; funding support from NHM for supporting ICTC staff salaries working in PHCs, purchase of HIV tests kits for tests undertaken at the primary health care level, incentives for both public and private health care providers for conducting HIV positive deliveries (Yeshaswini Scheme); ASHA incentives for effectively following up HIV positive pregnant women lost to follow-up or HIV positive mother-baby pairs until the end of the cascade. The Health Management Information Systems (HMIS) and Mother-Child-Tracking -System (MCTS) of NHM and the CMIS and SIMS of NACP were also linked for sharing of data and tracking the HIV positive ANCs, mothers and babies.

The results and impact of integration showed a five -fold rise in HIV counselling & testing in three years (2007-10) and in five years (2007-12) all the qualitative indicators in terms of early detection of HIV positive cases (in first trimester itself), early spouse/partner testing and other live children testing, early referral to ART centres reached 95-98%, and reduced lost -to- follow-ups.



### 6.3.5. RECOMMENDATIONS

#### 1) *Political and Administrative Commitment*

While larger policy discussions/ debates on the above are carried out by MoHFW/NACO, the assessment team recommends some interim measures, in order to continue with the good programme performance

- Need for regular EC meetings and routine review of PPTCT in such meetings.
- PPTCT to be included as a standing agenda in all other inter-departmental meetings of Health department and KSAPS
- Rapid updating/ orientation of the new members in the state RCH/ NHM team on new policy initiatives and global/ national commitments on PPTCT.
- Greater involvement of health systems in Mother-Baby tracking and LFU tracking, with adequate processes and/ or checks in place to ensure confidentiality and consent of positive clients for disclosing status to ANM/ASHA

#### 2) *HIV Testing Services and Linkages to Care, Support and Treatment*

- HIV staff should also be trained on RMNCH+A so that they can perform comprehensive assessment of positive Mother-Baby pair and provide referral services as appropriate.
- Sharing of information on RCH services between NHM and DAPCU
- Documentation of strategies and practices in the district which have ensured high testing levels, for use by other districts.
- Greater involvement of CoE in PPTCT activities in the state - capacity building/ mentoring, operations research and referrals of complicated cases.

#### 3) *Early Infant Diagnosis and Early Initiation of Paediatric ART*

- Expansion of DBS collection to all 567 standalone ICTCs immediately and later to the FI- ICTCs.
- Urgent need for strengthening of Forecasting and Supply Chain Management System of Kits and Drugs
- Further decentralization of ART
- Conducting exclusive SACEP meetings for Paediatric cases.
- Current guidelines for discordant cases need to be strengthened at the earliest through additional local evidence generated through the PCoE



- Greater involvement of PCoE in mentoring support, to improve quality of care.
- Stronger focus on holistic care of child rather than disease focus.
- Explore convergence beyond health- WCD and other departments, for appropriate linkages

#### 4) *Drug Management System*

- To avoid duplication of efforts and costs, it is recommended that KSAPS reviews what OI drugs are part of the state/ facility EDL, include OI drugs as a part of the state EDL list if not already included and lay down processes for drawing the drugs from the parent facility

#### 5) *Monitoring and Evaluation*

- There is an urgent need to clarify processes and set in motion a single process/ tracking tool, to avoid duplication of efforts.
- The MCTS software seems to be a promising innovation conceptually for interlinking MNCH data with PPTCT, using existing platforms. However, it seems to be nascent at this stage and is currently being used as a data entry software by ICTC counsellors. No outputs / analysis have been generated so far. There is no access for PPTCT data for the Health department currently.
- There is an urgent need to move forward to: synchronize MNCH and PPTCT data, client-wise; allow select access for the health department; and use the outputs/ analysis for meaningful action.



# ANNEXES



**Annex 1: Directive from the BSD division of NACO for the nationwide rollout of option B+**



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सत्यमेव जयते

भारत सरकार

स्वास्थ्य एवं परिवार कल्याण मंत्रालय

एड्स नियंत्रण विभाग

6वां तल, चन्द्रलोक बिल्डिंग, 36 जनपथ, नई दिल्ली - 110001

Government of India

Ministry of Health & Family Welfare

Department of AIDS Control

6th Floor, Chandralok Building, 36 Janpath, New Delhi - 110 001

Ref. No. T.11012 / 1 / 2010- NACO / BSD (PPTCT)

Dated the 01st January, 2014

**Sub: PPTCT – Diagnosis of HIV amongst Pregnant Women and Life Long ART for all HIV Positive Pregnant Women Irrespective of CD4 Count in India – Reg**

**Dear Project Directors Of All State AIDS Control Societies**

Government of India is committed to work towards achievement of the global target of “Elimination of new HIV infections among children”. Based on the WHO (June 2013) guidelines, the Department of AIDS Control (DAC) / GOI, has decided to provide lifelong ART (triple drug regimen) for all pregnant and breast feeding women living with HIV in India. Henceforth it is planned to provide all HIV positive pregnant women with a triple-drug ART regimen regardless of CD4 count or WHO clinical stage, both for their own health and to prevent vertical HIV transmission as well as for additional HIV prevention benefits. This regimen has the potential to dramatically reduce HIV transmission from mother-to-child to less than 5%. **This would also help in** (a) increasing coverage of ART for those requiring anti retroviral treatment, (b) provide early protection against mother-to child transmission, (c) reduce the risk of HIV transmission to HIV sero discordant partners and (d) improve maternal health.

The National Guidelines as well as National Strategic Plan for Prevention of Parent to Child Transmission have now been updated (December 2013) while incorporating the above mentioned strategy for nationwide implementation

It is requested that with immediate effect all the States / UTs may ensure linkage of all HIV positive pregnant women to ART Centres for provision of care, support and treatment services as per these new guidelines. Henceforth all HIV positive pregnant women should be started on Tenofovir (TDF) 300mg + Lamivudine (3TC) 300mg + Efaviranez (EFV) 600mg lifelong, and all HIV exposed infants should be provided with Syrup Nevirapine daily for minimum 6 weeks (refer to PPTCT Technical Guidelines for details).

The drugs required for implementing the PPTCT multi drug regimen are available under the ART services. However, the requirement for Syrup Nevirapine may be met through local procurement for which orders from this office have already been issued on 21<sup>st</sup> November, 2013 vide Letter No P-11014/17/2013-NACO (Proc)

The **Operational Guidelines** for implementing the above referred PPTCT multi drug regimen is **attached** for ready reference.

It may be appreciated that to successfully implement the above said strategy under PPTCT, the **States / UTs must ensure** that all pregnancies are offered HIV counseling and testing services, all HIV positive pregnant women are linked to the nearest ART centre and all HIV exposed infants are linked to services for care of HIV exposed child including EID, with immediate effect.

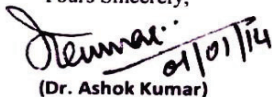
In this context, **kindly advise the BSD, CST and all other divisions concerned** to efficiently implement this strategy with close co-ordination, collaboration and on the spot supervision along with well functioning monitoring & reporting mechanisms, etc.

Together we shall work towards achievement of the global target of “Elimination of new HIV infections among children”.

Action(s) taken in this regard be kindly informed to this Department.

Regards & Greetings for 2014

Yours Sincerely,

  
(Dr. Ashok Kumar)

Kindly note that this letter along with said enclosures “Operational Guidelines” has already been sent to you through email on 01<sup>st</sup> Jan. '14.

अपनी एचआईवी अवस्था जानें, निकटतम सरकारी अस्पताल में मुफ्त सलाह व जाँच पाएँ

Know Your HIV status, go to the nearest Government Hospital for free Voluntary Counselling and Testing





## Annex 2: Assessment Field Visit – Data Collection Tools

### Basic State, District and Facility Level Background Information needed for Assessment

I. State level

Name of the State:

Name of the Supervisor:

### Situational Analysis:

A) Infrastructure: Levels of Saturation of Service Delivery points with HIV testing facilities

Name of District	Medical College			District Hospital			Sub-District Hospital			CHC			PHC			Sub-centre	
	No.	SA-ICTC	F-ICTC	No.	SA-ICTC	F-ICTC	No.	SA-ICTC	F-ICTC	No.	SA-ICTC	F-ICTC	No.	SA-ICTC	F-ICTC	No.	HIV screening facility
1																	
2																	
3																	
4																	
<b>Total</b>																	

*Note: No =total number of facilities in the district, SA-ICTC=Stand Alone ICTC, F-ICTC-Facility integrated ICTC*

Name of district	PPP ICTC					
	No.	Maternity Homes	Corporate Hospitals	Private Industries	Public Sector Undertakings	Others
1						
2						
3						
4						
<b>Total</b>						

B) Availability ART facility

	Name of district	Number of ART centre	Link ART-Plus centre	Link ART centre	Number of DBS collection centres	Number of WBS collection centres
1						
2						
3						
4						
	<b>Total</b>					



C) Reproductive and Child Health (RCH) Services in the State

	Name of District	ANC Registration					Institutional Delivery				
		Total	At district hospital	Sub-district hospital	CHC /Block level hospital	PH C	Total	At district hospital	Sub-district hospital	CHC /Block PHC	PHC
<b>1</b>											
<b>2</b>											
<b>3</b>											
<b>4</b>											
	<b>Total</b>										

D) State Level compiled PPTCT Data: Period Since roll out of the PPTCT Multi Drug Regime

SN	Service Utilization / Referral Details	Value (numerator /Denominator where applicable)	Observation
<b>1</b>	Estimated number of annual pregnancies in the state		
<b>2</b>	Total Number "HIV tested" in the period assessed (ANC+ Direct in labour)		
<b>3</b>	Number detected HIV Positive during ante-natal care (ANC )		
<b>4</b>	Number detected HIV positive "directly in labour"		
<b>5</b>	Total HIV infected pregnant women detected (ANC + direct in labour)		
<b>6</b>	Total number of HIV infected pregnant women delivered		
<b>7</b>	Number of live births		
<b>8</b>	Number of direct in labour cases who received ARV prophylaxis during labour and / or post-partum		
<b>9</b>	Number of new born who received Syp NVP for 6 weeks		
<b>10</b>	Out of Sr. No 5, Number of HIV infected pregnant women enrolled at ART centres		
<b>11</b>	Out of Sr. No 10, Number with CD4 count more than 350		
<b>12</b>	Out of Sr. No 10, Number with CD4 count less than 350		
<b>13</b>	Out of Sr. No 10, Number initiated on ART		
<b>14.1</b>	Number discontinued ART during Ante-natal period		
<b>14.2</b>	Out of Sr. No 13, Number discontinued ART during Labour & Delivery period		
<b>14.3</b>	Out of Sr. No 13, Number discontinued ART between delivery and 6 weeks of post-natal period		
<b>14.4</b>	Out of Sr. No 13, Number discontinued ART between 6 weeks to 6 months of breast feeding period		
<b>14.5</b>	Out of Sr. No 13, Number discontinued ART between 6 months to 12 months of breast feeding period		
<b>14.6</b>	Out of Sr. No 13, Number discontinued ART between 12 months to 18 months of breast feeding period		
<b>14.7</b>	Out of Sr. No 13, Number discontinued ART beyond 18 months		



	of delivery		
14.8	Out of Sr. No 13, Total Number discontinued ART (sum of rows 14.1 to 14.7)		
15	Out of Sr No 7, Number of babies after birth eligible for 6 weeks DBS		
16	Out of Sr No 15, Number in whom DBS specimen is collected and sent for DNA PCR		
17	Out of Sr No 16, Number of reports received		
18	Out of Sr No 17, Number found positive on DBS		
19	Out of Sr No 18, Number Whole Blood specimen was collected for DNA/PCR		
20	Out of Sr No 19, Number of reports received		
21	Out of Sr No 20, Number found positive on Whole Blood test		
22	Out of Sr No 21, Number of children enrolled at ART centre		
23	Number started on ART		
24	Out of all HIV exposed babies reaching 18 months of age, number of babies confirmed with rapid test at 18 months (mention numerator and denominator)		

E) Convergence with NHM (NHM)

S. No.	Activity	Yes/No /Number	Remark /Reason
1	Is state level PPTCT implementation committee formed?		
2	Number (%)of districts where “district PPTCT implementation committee” is formed		
3	Number (%)of district reporting conduct of district PPTCT implementation committee meeting in previous quarter		
4	Is the state government order to incorporate HIV testing in the routine ANC Packageof services issued?		
6	Is the state government order to incorporate common ANC /PPTCT registration at all hospitals issued?		
7	Is the state government order to ensure co-location of ANC clinic and HIV testing facilityat all hospitals issued?		
8	Is there a mechanism to share data between NACP and NHM		

F) Supply Chain Management for Drugs and Kits

S. No.	Activity	Observation	Remark /Reason
1	Is stock position for drugs and test kits available at state level facility / block / district wise?		
2	What is the frequency and timeliness of reporting from facility to district, district to SACS and SACS to NACO (should be monthly and during critical		



	stock position periods, weekly)		
3	What is distribution system for drugs and kits? (should be based on consumption pattern, closing stock and requirement for indenting period)		
4	Frequency of distribution? = monthly, quarterly, yearly or need based of facility or based on supply of drugs from NACO		
5	Is there a system for periodic relocation of stocks between districts at SACS level and / or between facilities at District level?		

#### G) Supervision and Monitoring

S. No.	Activity	Observation	Remark /Reason
1	How is PPTCT line-list data compiled at state level? Is software recommended by NACO used for the same?		
2	How is PPTCT data validated?		
3	Is feedback provided to district units regularly? If yes –frequency		
4	Number of field visit from SACS officers in previous quarter for review of PPTCT activities – review tour reports		
6	Number of state review meetings held in last 6 months		

#### H) Linkages, Follow up and Adherence

SN	Service Utilization / Referral Details (Previous Quarter)	Mechanism	Observation –is it working	Remarks
1	Mechanism to ensure linkage to ART		Confirm information during visit to ART centre If <80% of registered at ART centre, reason for drop-out be ascertained	
2.	Mechanism for retrieval action if 1.Non-linkage to ART 2.No CD4 testing 3. ART not initiated 4. Missed visit for drug collection		Interact with out-reach workers and patients to judge the robustness of mechanism	
3	Coordination of SACS with outreach worker (ILFS) programme			
4	Is there a mechanism that tracks the mother and baby across different service delivery points under MCH/ Immunization and PPTCT programmes			



II. PPTCT checklist for State Level Officers-District Level Visit

Name of the District:

Name of the supervisor:

Situational Analysis:

A) Human Resource:

	<b>Staff</b>	<b>Number of Positions Sanctioned</b>	<b>Number of Positions Filled (currently occupied)</b>	<b>Number of vacancies</b>	<b>Vacant Since (dd/mm/yy)</b>
1	District Programme Manager				
2	District ICTC supervisor				
3	ART Centre SMO /MO				
4	Stand Alone ICTC Counsellor				
5	ART centre counsellors				
6	Stand Alone ICTC Lab Technician				
7	ART centre /LAC-plus Nurse				
8	Outreach Worker (IL&FS)				

B) Infrastructure:

Levels of Saturation of Service Delivery Points with HIV Testing Facilities

	<b>Name of district</b>	<b>Total Number</b>	<b>Stand-alone ICTC</b>	<b>Facility integrated-ICTC</b>	<b>HIV Screening Facility (WBFPT)</b>
1	Medical College				
2	District hospital				
3	Sub-district hospital				
4	CHC				
5	PHC				
6	Sub-centre				
7	PPP Models				

Note: No =total number of facilities in the district, SA-ICTC=Stand Alone ICTC, F-ICTC-Facility integrated ICTC

Availability ART facility

	<b>Name of Block /Taluk</b>	<b>Number of ART centre</b>	<b>Link ART-Plus centre</b>	<b>Link ART centre</b>	<b>Number of DBS Collection Sites</b>	<b>Number of WBS Collection Sites</b>
1						
2						



<b>3</b>					
	<b>Total</b>				

C) Reproductive and Child Health (RCH) Services in the District

		<b>Number</b>	<b>Percentage of total</b>
<b>ANC registration</b>	At district hospital		
	Sub-district hospital		
	CHC /Block level hospital		
	PHC		
	Private Sector		
	<b>Total</b>		
<b>Institutional Delivery</b>	At district hospital		
	Sub-district hospital		
	CHC /Block PHC		
	PHC		
	Private Sector		
	<b>Total</b>		

D) District Level compiled PPTCT Data:

<b>S. No.</b>	<b>Service Utilization / Referral Details</b>	<b>Value (Numerator /Denominator where Applicable)</b>	<b>Observation</b>
<b>1</b>	Estimated number of annual pregnancies in the district		
<b>2</b>	Total Number "HIV tested" in the period assessed (ANC+ Direct in labour)		
<b>3</b>	Number detected HIV Positive during ante-natal care (ANC )		
<b>4</b>	Number detected HIV positive "directly in labour"		
<b>5</b>	Total HIV infected pregnant women detected (ANC + direct in labour)		
<b>6</b>	Total number of HIV infected pregnant women delivered		
<b>7</b>	Number of live births		
<b>8</b>	Number of direct in labour cases who received ARV prophylaxis during labour and / or post-partum		
<b>9</b>	Number of new born who received Syp NVP for 6 weeks		
<b>10</b>	Out of Sr. No 5, Number of HIV infected pregnant women enrolled at ART centres		
<b>11</b>	Out of Sr. No 10, Number with CD4 count more than 350		
<b>12</b>	Out of Sr. No 10, Number with CD4 count less than 350		
<b>13</b>	Out of Sr. No 10, Number initiated on ART		
<b>14.1</b>	Number discontinued ART during Ante-natal period		
<b>14.2</b>	Out of Sr. No 13, Number discontinued ART during Labour & Delivery period		
<b>14.3</b>	Out of Sr. No 13, Number discontinued ART between delivery and 6 weeks of post-natal period		
<b>14.4</b>	Out of Sr. No 13, Number discontinued ART between 6 weeks to 6 months of breast feeding period		



14.5	Out of Sr. No 13, Number discontinued ART between 6 months to 12 months of breast feeding period		
14.6	Out of Sr. No 13, Number discontinued ART between 12 months to 18 months of breast feeding period		
14.7	Out of Sr. No 13, Number discontinued ART beyond 18 months of delivery		
14.8	Out of Sr. No 13, Total Number discontinued ART (sum of rows 14.1 to 14.7)		
15	Out of Sr No 7, Number of babies after birth eligible for 6 weeks DBS		
16	Out of Sr No 15, Number in whom DBS specimen is collected and sent for DNA PCR		
17	Out of Sr No 16, Number of reports received		
18	Out of Sr No 17, Number found positive on DBS		
19	Out of Sr No 18, Number Whole Blood specimen was collected for DNA/PCR		
20	Out of Sr No 19, Number of reports received		
21	Out of Sr No 20, Number found positive on Whole Blood test		
22	Out of Sr No 21, Number of children enrolled at ART centre		
23	Number started on ART		
24	Out of all HIV exposed babies reaching 18 months of age, number of babies confirmed with rapid test at 18 months (mention numerator and denominator)		

E) Convergence with NHM

S. No.	Activity	Observation	Remark /Reason
1	Is District level PPTCT implementation committee formed?		
2	Number (%) of meetings of the “district PPTCT implementation committee” in past six months?		
3	Is HIV testing of pregnant women incorporated in common ANC Package of services?		
4	Are HIV testing facilities co-located with ANC clinic at all hospitals?		
5	Is PPTCT agenda included in review meeting of General Health System (MO review meeting) at district level? If Yes, can it be verified in the Minutes of the meeting?		
6	Is there a mechanism to share data between DAPCU/DNO office and District RCH officer?		

F) Supply Chain Management

S. No.	Activity	Observation	Remark /Reason
1	Is stock position for drugs and test kits available at facility / block / district wise?		
2	What is the frequency and timeliness of reporting from facility to district and district to SACS (should be monthly and during critical stock position periods, weekly)		
3	What is distribution system for drugs and kits? (should be		



	based on consumption pattern, closing stock and requirement for indenting period)		
4	Frequency of distribution? (monthly, quarterly, yearly or need based of facility or based on supply of drugs from NACO)		
5	Is there a system for periodic relocation of stocks between facilities at District level?		

#### G) Supervision and Monitoring

S. No.	Activity	Observation	Remark /Reason
1	How is PPTCT line-list data compiled at district level? Is software recommended by NACO used for the same?		
2	How is PPTCT data validated?		
3	Is a feedback provided to field units regularly? If yes –frequency		
4	Number of field visit from DAPCU office DAPCU officer, DPM, DIS in previous quarter for review of PPTCT activities –review tour reports		
6	Number of review meetings held in last 6 months		

#### H) Linkages, Follow up and Adherence

S. No.	Service Utilization / Referral Details (Previous Quarter)	Mechanism	Observation –is it working	Remarks
1	Mechanism to ensure linkage to ART-		Confirm information during visit to ART centre If <80% of registered at ART centre, reason for drop-out be ascertained	
2.	Mechanism for retrieval action if 1.Non-linkgae to ART 2.No CD4 testing 3. ART/ARV not initiated 4. Missed visit for drug collection		Interact with out-reach workers and patients to judge the robustness of mechanism	
3	Performance of outreach worker (ILFS)			
4	Is there a mechanism that tracks the mother and baby across different service delivery points under MCH/ Immunization and PPTCT programmes			

<b>Name of Facility:</b>	<b>Date of Visit:</b>
<b>Name of Block/ Mandal :</b>	Name of District & State:
<b>Person available:</b>	Type of facility:
a) <b>MO-ICTC:</b>	a) Standalone ICTC
b) <b>ICTC counsellor:</b>	b) Facility Integrated ICTC





c) <b>Lab-technician:</b>	c) Facility Integrated ICTC under PPP scheme
d) <b>Outreach Worker:</b>	d) Mobile ICTCs
e) <b>Staff Nurse /ANM</b>	e) Sub-centre with HIV screening facility

III. Facility level Basic information:

Performance:

S. No.	Service Utilization / Referral Details	Value (Numerator /Denominator where Applicable)	Observation
1	Estimated number of annual pregnancies in the jurisdiction of the facility		
2	Total Number "HIV tested" in the period assessed (ANC+ Direct in labour)		
3	Number detected HIV Positive during ante-natal care (ANC )		
4	Number detected HIV positive "directly in labour"		
5	Total HIV infected pregnant women detected (ANC + direct in labour)		
6	Total number of HIV infected pregnant women delivered		
7	Number of live births		
8	Number of direct in labour cases who received ARV prophylaxis during labour and / or post-partum		
9	Number of new born who received Symp NVP for 6 weeks		
10	Out of Sr. No 5, Number of HIV infected pregnant women enrolled at ART centres		
11	Out of Sr. No 10, Number with CD4 count more than 350		
12	Out of Sr. No 10, Number with CD4 count less than 350		
13	Out of Sr. No 10, Number initiated on ART		
14.1	Number discontinued ART during Ante-natal period		
14.2	Out of Sr. No 13, Number discontinued ART during Labour & Delivery period		
14.3	Out of Sr. No 13, Number discontinued ART between delivery and 6 weeks of post-natal period		



<b>14.4</b>	Out of Sr. No 13, Number discontinued ART between 6 weeks to 6 months of breast feeding period		
<b>14.5</b>	Out of Sr. No 13, Number discontinued ART between 6 months to 12 months of breast feeding period		
<b>14.6</b>	Out of Sr. No 13, Number discontinued ART between 12 months to 18 months of breast feeding period		
<b>14.7</b>	Out of Sr. No 13, Number discontinued ART beyond 18 months of delivery		
<b>14.8</b>	Out of Sr. No 13, Total Number discontinued ART (sum of rows 14.1 to 14.7)		
<b>15</b>	Out of Sr No 7, Number of babies after birth eligible for 6 weeks DBS		
<b>16</b>	Out of Sr No 15, Number in whom DBS specimen is collected and sent for DNA PCR		
<b>17</b>	Out of Sr No 16, Number of reports received		
<b>18</b>	Out of Sr No 17, Number found positive on DBS		
<b>19</b>	Out of Sr No 18, Number Whole Blood specimen was collected for DNA/PCR		
<b>20</b>	Out of Sr No 19, Number of reports received		
<b>21</b>	Out of Sr No 20, Number found positive on Whole Blood test		
<b>22</b>	Out of Sr No 21, Number of children enrolled at ART centre		
<b>23</b>	Number started on ART		
<b>24</b>	Out of all HIV exposed babies reaching 18 months of age, number of babies confirmed with rapid test at 18 months (mention numerator and denominator)		



**Annex 3: Checklists for Information Gathering During Field Visits - Circulated Prior to the Field Visits**

Review period focused: (Sept 2012-March 2014)

**A. Checklist for assessment of PPTCT services -Facility level**

**Name of Supervisory Officer:**

**Basic Information:**

<b>Name of Facility:</b>	<b>Date of Visit:</b>
<b>Name of Block/ Mandal :</b>	Name of District & State:
Person available:	<b>Type of facility:</b>
<b>f) MO-ICTC:</b>	f) Standalone ICTC
<b>g) ICTC counsellor:</b>	g) Facility Integrated ICTC
<b>h) Lab-technician:</b>	h) Facility Integrated ICTC under PPP scheme
<b>i) Outreach Worker:</b>	i) Mobile ICTCs
<b>j) Staff Nurse /ANM</b>	j) Sub-centre with HIV screening facility

**Key information for ANC services and PPTCT for specific site:**

**DETAILS OF ANC OPD FUNCTIONING**

1. How many number of days in a week that ANC clinic is functional in the hospital:  
.....
2. What is the Average daily ANC clinic attendance: .....
3. Who conducts the ANC clinic? ..... (*Gynaecologist/Other Doctor/Nurse/ANM/Other: .....*)
4. Who is the in-charge of ANC OPD/ Clinic?
5. Who is the in Charge of PPTCT centre?
6. If both are different how are the services for ANC/PPTCT coordinated?



**HIV testing:**

1. Does ANC essential package include HIV & Syphilis testing at visited centers? If YES details on it and how it's been conducted
  - a. Are these tests done routinely for every pregnant woman or only for those prescribed by the doctor?
  - b. What is blood collection approach for Syphilis & HIV test?
  - c. When are test results returned to the pregnant woman?
  - d. *What is HIV test result follow up percentage at the center?*
  - e. *Details on follow up visits and its percentages at 6 weeks, 6 months, 12 months and 18 months?*
  - f. Data recording & reporting system at the centers
  - g. Check available records, no. screened, no. reactive and no. collected reports from visited facilities of last 3 months

**Functional Linkages between ANC Clinic and PPTCT Centre**

1. Is there a PPTCT centre functioning in your hospital in same premises as the ANC? ..... (Yes/ No)
2. How is it ensured that every pregnant woman attending the ANC clinic for check-up reaches PPTCT centre and gets tested for HIV? (Tick one or more options below. If any other, describe it in the blank)
  - a. Every pregnant woman is referred to PPTCT centre by doctor in ANC clinic, and the doctor verifies and ensures if HIV test results are available during next visit
  - b. PPTCT Counselor sits in/close to ANC clinic and ensures that every pregnant woman comes for HIV counseling after ANC check-up
  - c. Every pregnant woman is brought to PPTCT centre from ANC clinic by nurse/ out-reach worker/ hospital attendant (accompanied referral)
  - d. Every pregnant woman first comes to the PPTCT centre and goes to ANC clinic for check-up only after registration at PPTCT centre
  - e. ANC clinic & PPTCT centre work independently. Pregnant women come to PPTCT centre on their own. No specific procedures are employed.
  - f. Any \_\_\_\_\_ other \_\_\_\_\_ mechanism:  
 .....  
 ...  
 .....  
 .....  
 .....
3. How is HIV test results issued? ..... (Written on ANC card/ Separate Report/ Both)

**Guidelines:**

1. Do you have any national guidelines/ circulars or orders from SACS or NACO for HIV testing and treatment?
2. Does the process at the facility differ from in the guidelines?



3. If yes, describe in details?

**VII. Opinion on drop outs / cases not treated**

1. If not all women diagnosed with HIV are not registered, what are the reasons for drop outs?
2. What would help to ensure that all women who need treatment receive it?

**PATIENT FLOW OF A PREGNANT WOMAN ON A NORMAL ANC OPD DAY**

*(Think of the normal steps that a pregnant woman goes through when she visits your health facility for ANC check-up. The common steps are listed below. **But, the order of steps in your hospital may be different from the order mentioned here. Mention numbers starting with '1' in the empty boxes in the serial order of steps for new and old ANC case as followed in your hospital. If any step is not applicable to your hospital, leave it blank.)***

Steps of Patient Flow for a ANC case	Step No.
Entry into the hospital	<b>0</b>
<b>OPD/ANC registration counter</b>	
<b>Point where OPD/ANC card is issued</b>	
<b>ANC Clinic/ Point where doctor conducts antenatal check-up</b>	
<b>PPTCT centre/ Point where HIV counseling is done</b>	
<b>PPTCT centre/Point where blood is collected for HIV testing</b>	
<b>General testing lab/ Point where blood is collected for routine tests</b>	
<b>PPTCT centre/ Point where HIV test results are issued</b>	
<b>PPTCT centre/ Point where HIV and syphilis test results are issued</b>	
<b>General testing lab(like Hb, urine examination, Syphilis) / Point where routine test results are issued</b>	
<b>Referral for CD4 test</b>	
<b>Referral for ART</b>	
<b>Any Other: .....</b> .....	
Exit from the Hospital	



## Observations

### A. Human resources

Staff	Number of Positions Sanctioned	Number of positions filled	Date / Month of Induction Training	Date / Month of Refresher Training	Vacant Since (dd/mm/yy)
<b>MO In-charge</b>					
<b>Counsellor</b>					
<b>Lab Technician</b>					
<b>Staff Nurse/ANM</b>					
<b>Outreach Worker (IL&amp;FS)</b>					
<b>Any others</b>					

### B. Recording and Reporting

Register	Whether Exists? (Y/N)	Updated up to (dd/mm/yy)	Remarks (Reasons for backlog if any and suggested action)
<b>1. PID register</b>			
<b>2. Register for general clients</b>			
<b>3. Register for Pregnant Women</b>			
<b>4. Post-natal follow-up register</b>			
<b>5. PPTCT line-list</b>			
<b>6. Lab Register</b>			
<b>7. Stock Register</b>			
<b>8. EIC – 3 (Register (only for EID facility))</b>			
<b>9. Any other Register / Records</b>			Look for innovation

- Is monthly CMIS / SIMS report for previous three months sent to District before 5<sup>th</sup> of the month? (hard copy / soft copy in SIMS) Yes / No if No reason \_\_\_\_\_
- Is the entry made in SIMS? Yes / No if No reason \_\_\_\_\_

### Linkage and outreach

SN	Service Utilization / Referral Details (Previous Quarter)	Mechanism	Observation –is it working	Remarks
<b>1</b>	Mechanism to ensure linkage to ART-		Confirm information during visit to ART centre If <80% of registered at ART centre, reason for drop-out be ascertained	
<b>2.</b>	Mechanism for retrieval action if 1.Non-linkgae to ART 2.No CD4 testing		Interact with out-reach workers and patients to judge the robustness of	



	3. ART/ARV not initiated 4. Missed visit for drug collection		mechanism	
3	Performance of outreach worker (ILFS)			
4	Is there a mechanism that tracks the mother and baby across different service delivery points under MCH/ Immunization and PPTCT programmes			

**C. Physical Verification of Stocks**

Name of the commodity	Is there a stock out? (Yes / No)	Is storage condition appropriate? (Yes / No)	Remarks
1. HIV Test Kit 1			
2. HIV Test Kit 2			
3. HIV Test Kit 3			
4. Whole Blood Finger Prick Test			
5. Nevirapine Tablets			
6. Nevirapine Syrup			
7. AZT+3TC or TLE			
8. Safe Delivery Kits			
9. DBS Kit			

**D. IEC Material Availability (Look for State / District / Facility Level Innovations)**

Name of material	Type –Flip Chart etc.	Whether being used

**Is the material available appropriate for PPTCT services? YES/NO**

**Details:**

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**E. Please note down any comments / remarks / feedback given by the persons from service delivery sites that they think are important to improve the quality of service delivery or any intervention that they have undertaken locally to increase the quality of services as well as the coverage. (This will be the provider perspective plus any suggestions and innovations from their end. Please also ask if they are aware of the new National guidelines, know the process of flow of the pregnant women , any training needs, counselling tools availability, etc... as guiding questions , if needed)**

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**B. Checklist for Supervisory Visits of ART Centre (with reference to PPTCT) (Please note that like in other fields of the tool, focus should be on the assessment period and not the current scenario. The questions below should be asked for the period from September 2012 to Dec 2013 and for Jan- March 2014)**

Name of ART Centre: \_\_\_\_\_

Date of visit \_\_\_\_\_

Name of Supervisor: \_\_\_\_\_

Name of ART Centre In charge: \_\_\_\_\_

Please note your observations at ART center for following:

1. Were pregnant women or exposed child given immediate attention at the ART sites- was there a delay in accessing services
2. Were all pregnant women screened and initiated ARV prophylaxis at first visit?
3. Were pregnant women started on ART treatment without waiting for CD4 results?
4. How many times the counselling was done for PPTCT and by whom? Does counselling at ART center address the PPTCT component- ART/Arv prophylaxis, infant feeding options, family planning issues, positive prevention? Were there documented cases of high risk groups accessing PPTCT services ( FSW)
5. Were exposed children initiated CPT immediately?
6. Were all positive children below 2 years initiated ART?
7. What was the time interval between diagnosis and initiation of ART
8. Was TB screened at every visit in pregnant women on ARV prophylaxis
9. Were paediatric services and services for pregnant women available in same premises?
10. Were follow up dates given to mother and baby / family same?
11. Were CD4 testing dates for pregnant women / husband/infant harmonised?
12. Were proxy samples of HIV positive ANCs for CD4 testing (Cases who genuinely cannot reach the ART Centre but reached by the Lab technician of the ICTCs especially those coming directly- in -labour) accepted for CD4 testing on a priority and reports handed over to the lab technician?
  - a. Yes/ No. If Yes, how many such samples had been accepted and reported
13. What issues were faced by the ART Centre for WBS testing?
14. Are data of PPTCT Programme (Option B) Roll out details being filled up (in the PPTCT M & E Tool) by the ART Counsellors/Data Manager ART/Staff nurse and being shared regularly with the ICTC Counsellors? : Yes /No.

If Yes,





- (a) How often is it being shared: daily/weekly/fortnightly/monthly
- (b) Are there gaps in accessing services by ANCs/m-b pairs: Yes/No. If Yes,
- (c) Who contacts the ANM/ASHA/COW/POW for seeking her services to bring the ANC/MB pair back? (a)ART Counsellor (b) ICTC Counsellor (c) Both (d) None
- (d) Is there a list of ANMs/ASHAs/COWs/POWs available in the ART Centre? Yes/ No

Please note down any comments / remarks / feedback given by the persons from service delivery sites that they think are important to improve the quality of service delivery or any intervention that they have undertaken locally to increase the quality of services as well as the coverage (this again will be a provider perspective)

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*Certain Additional areas that have influence in PPTCT service delivery at ART center should be looked into (for the time period Sept 2012 to Dec 2013 and Jan-Marc 2014):*

<b>I Drug stocks</b>			
1. Is the drug stock register and dispensing register (adult, paediatric & OI) up to date? Is there separate section for recording PPTCT drug stock and dispensing register	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
2. Are there adequate PPTCT drugs (including LPV/r) for the next 3 months (stock position)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
3. Are the drugs stored as per the specifications?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
4. Is the "First Expiry First Out" principle followed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<b>II Laboratory Services Availability</b>			
Are baseline tests being done for all the patients, including pregnant women and children	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Any of the above testing is charged	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Are biomedical waste management guidelines practiced?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<b>III CD4 Testing</b>			
5. Is CD4 testing done daily	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
6. What are the timings for blood collection for CD4 testing			
7. Is single prick Blood collection done for all testing (including CD4 testing) in the ART Centre itself?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
8. Is there a waiting period for the pregnant women to get tested? How long? How many?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
9. Has there been break in supply of CD4 test kits, or vacutainers in last 3 months?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
10. Number of days machine not in use during last 6 months.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
<b>IV Referral &amp; Linkages</b>			
11. Are there referrals from the ICTC to the ART Center for pregnant women? (Write the number in last 3 month). Compare with total positives detected at	<input type="checkbox"/> Yes	<input type="checkbox"/> No	



ICTC in same period. Look for the referral slips availability.			
12. Are ICTC & ART facility collocated	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
13. Does ART Centre refer the spouse or others suspects to ICTC?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
14. Is a proper MIS/ LFU tracking mechanism in place	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
15. How many LFU pregnant women have been tracked back by CSC/DLN/ILFS during last three months out of the list shared	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

#### **Annex 4: Schedule of Field Visits and Timelines:**

Day 1:	Activity	Purpose	Person Responsible
<b>9:00 am</b>	Meeting of national and state team members	Briefing of team members with regards to objectives and tools	Team leader
<b>10:00 -11:0 am</b>	Presentation on the Status of PPTCT implementation in the state	Overall state perspective on PPTCT	Project-director SACS
<b>11:00 -01:00 PM</b>	Review and analysis of ANC, PPTCT and EID data at state level		Work distribution among the team members
1:00 to 2:00 PM	<b>Lunch</b>		
<b>2:00 to 3:00 PM</b>	Meeting with MD-NHM	Assessment of NACP-NHM collaboration	All team members along with Project Director SACS and concerned SACS officials
<b>4:00 PM</b>	Formation of District teams and travel to districts		
Day 2&3:			
<b>9:00 -10:30 am</b>	DAPCU office	Presentation on the status of PPTCT in the districts	DAPCU officer
<b>10:30-11:00 am</b>	Office of District health Officer	Briefing regarding purpose of visits	Team leader
<b>Remaining time</b>	Field visits as per programme below	Review and data collection	All team members
Day 4:			
<b>9:00 to 12:30 PM</b>	Visit to DNA/PCR testing centre (PCR laboratory)	Assessment of efficiencies/ infirmities in receipt, processing and reporting of EID	Work distribution among the team members
	Visit COE / PCOE	Assessment capacity building, supervision and mentoring roles of COE/PCoE	
	Visit to one PPTCT centre and one ART centre at state headquarter	Field visit at state headquarter	
<b>2:00pm to 5:00 pm</b>	Compilation of visit reports	For debriefing the state team	Team leader
Day 5:			
<b>9.00am – 11am</b>	Compilation of visit reports and presentation		
<b>11:00am -1:30pm</b>	Debriefing meeting with SACS/State NHM Officers	Senior officer from NACO (DDG BSD, DDG CST and DDG STI respectively in three	Senior NACO Officer /team leader



		states	
1:30pm – 2:30pm	<b>LUNCH</b>		
<b>2:30pm onwards</b>	Travel Back to Head Quarters		

## Annex 5: Reporting Format

### FIELD VISIT REPORT

SUMMARY	
1.1.1 Names of team members	1.2 NAME OF THE DISTRICT
	1.3 DATES OF VISIT
Brief summary of findings:	
Key recommendations for the District	
2 <i>PLEASE ATTACH A LIST OF PLACES VISITED AND PERSONS MET (ONE CONSOLIDATED LIST PER DISTRICT TEAM).</i>	



### 3 STATE LEVEL ASSESSMENT REPORT

Note: After completing the field visit, use the following template to collate the findings. Teams are required to submit one report containing the State level findings and findings for each District visited. Findings and recommendations for State level are based on visits to State level institutions, i.e. State AIDS Control Society (SACS), State NHM office, DNA/PCR laboratory, COE etc. analysis of data available at state level and interaction with State level authorities, e.g. Project Director SACS, JD-BSD, JD-CST, PPTCT Consultant, State Regional Coordinator for CST, State RCH officer etc.

Name of State:

4

#### 1. Observations

##### 1.1. Political and administrative commitment

Note the extent of political commitment to health in general, and PPTCT in particular. Assess the level of involvement of the State Health Secretary and the Director of Health Services /State RCH Officer in the PPTCT programme. Note the systems in place for the Health Secretary and Director of Health services to conduct systematic monitoring and review of the PPTCT. Review the NHM support to the programme and discuss.

##### Key Questions:

- 1) Is State NACP-NHM committee formed?
- 2) Number of meetings of State NACP-NHM committee in last one year?
- 3) Number of State level review meetings of State health officers/RCH officers at State level where PPTCT was discussed?
- 4) Does coordination mechanism exist at State /regional level?

##### Achievements

##### Constraints and gaps

##### Recommendations



## 1.2. Human resources

Review staffing and training status of key State level officers associated with PPTCT activities. Assess whether JD BSD /JD CST are full time and note proportion of States with DAPCU officers. Review overall vacancy status of key staff in the State including ICTC counsellors, LT, State ICTC supervisors, ART centre SMO/MO, ART centre staff nurse etc. Assess plans and systems in place for training (induction training for new and turnover staff, retraining and update training for existing staff).

### Achievements

### Constraints and gaps

### Recommendations

## 1.3. HIV testing services in the State

Key Questions:

- 1) What is the estimated number of pregnancies in 2012?
- 2) What proportion of the estimated number of pregnant women, have HIV status known?
- 3) When do pregnant women get tested -1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> Trimester and direct-in labor?
- 4) Where do they get tested –Stand-Alone ICTC /F-ICTC /Sub-centre /PPP-ICTC /testing Camps etc.
- 5) What are the strategies adopted by the authorities to ensure 100% coverage of estimated number of pregnant women?
- 6) How many of those with known HIV status, are HIV positive?

### Achievements

### Constraints and gaps

### Recommendations

## 1.4. PPTCT linkages

- a) Linkage for HIV testing where the facilities are not available or confirmation of HIV status
- b) linkage to ART
- c) linkage for institutional deliveries

### Key questions:

- 1) Is HIV testing included in basic ANC package? Is there a strategy to cover ANC when HIV testing facility is not available?
- 2) What is mechanism for confirmation of HIV status among women screened positive directly in labor?
- 3) How many women screened positive “directly in labor” received confirmatory test at ICTC in last six months?
- 4) Out of all HIV positive pregnant women detected in last 6 months, how many are enrolled at ART centre?



- 5) What is the time taken by positive pregnant women to enrol at ART centre after detection?
- 6) What is time taken for initiation of ARV /ART after detection?
- 7) What are mechanisms to ensure compliance with ARV/ART regimen?
- 8) Out of positive pregnant women detected in January-March 2013 how many delivered?
- 9) Out of above number of institutional deliveries?
- 10) Mechanisms/measures to ensure 100% institutional deliveries?

#### **Achievements**

#### **Constraints and gaps**

#### **Recommendations**

### **1.5. Direct In Labor**

#### **Key Questions:**

- 1) How many delivery points exist in the State?
- 2) Do HIV testing facilities exist at all delivery points? What are the types of testing facilities?
- 3) Do all delivery points have arrangement for provision of ARV drugs for direct-in labor cases?
- 4) Is the stock of HIV test Kits and ARV drugs adequate at all delivery points?
- 5) What is the time taken by direct in labor cases to enrol at ART centres?

#### **Achievements**

#### **Constraints and gaps**

#### **Recommendations**

### **1.6. Early Infant Diagnosis and Paediatric ART**

- 1) How many were live births among positive deliveries between January-March 2013?
  - 2) Out of above, for how many babies the Dried Blood Spot (DBS) was collected for DNA/PCR testing?
  - 3) Out of above how many reports are received from laboratory at SACS level?
  - 4) Out of DBS positive children how many positive children are enrolled at ART centre?
  - 5) Out of above, how many Whole Blood Specimen (WBS) are collected for DNA/PCR testing for confirmation?
  - 5) Out of above number of results available
  - 6) Out of above number of positive children initiated on ART?
  - 7) *Is the breast feeding period over before a definitive infant diagnosis is made.*
- Considering above, comment if the EID is happening in the State

#### **Achievements**



### **Constraints and gaps**

### **Recommendations**

#### **1.7. DNA/PCR testing Laboratory and reporting mechanism**

Review the status of the DNA/PCR testing Laboratory with regards to efficiency in receipt of specimen and reporting to the SACS and ICTC. Also look into the mechanisms to share the reports with ART centres, DAPCU officers etc. to update the PPTCT line-list

### **Achievements**

### **Constraints and gaps**

### **Recommendations**

#### **1.8. Capacity of the PPTCT unit in SACS in programme monitoring**

Evaluate the capacity of PPTCT Unit in the programme management. Vacancy of staff, Payment of salary, frequency of supervisory visits by JD BSD/JD CST/PPTCT consultant and RC for monitoring of PPTCT activities, frequency of review meetings, quality of programme data analysis and feedback provided to States. *Please also explore if there are issue with financial management, funds flow or other programme management issues, and also if there are certain innovations done at the state level for programme monitoring.*

### **Achievements**

### **Constraints and gaps**

### **Recommendations**

#### **1.9. PPTCT data management**

*Review State level mechanism for management of PPTCT data from the facility level to the State level –event based updating of PPTCT line-list, consolidation at State and State level*



**Achievements**

**Constraints and gaps**

**Recommendations**

**1.10. Drug management system**

Visit and evaluate the SACS level ARV drug storage space. Review the system for storage, indenting and distribution of PPTCT drugs to States and facilities. Note any shortages / stock-outs / expiry in the past six months. Assess the systems in place for managing shortage of drugs. Assess whether State is procuring ARV drugs.

**Achievements**

**Constraints and gaps**

**Recommendations**

**1.11. Involvement of other health sectors (public and private)**

Review efforts undertaken to involve private practitioners, NGOs, corporate sector, other government health facilities outside health department and other partners in PPTCT. Note the extent to which medical colleges are involved in PPTCT

**Key Questions:**

- 1) What proportion of estimated pregnancies avail services in private sector?
- 2) What level of adoption of PPP schemes by private sector?
- 3) Is there a mechanism to capture pregnant women tested in Private sector?

**Achievements**

**Constraints and gaps**

**Recommendations**

**1.12. Assess Advocacy Communication Social Mobilization (ACSM) activities**

Assess the State IEC action plans and its implementation, and the steps undertaken to increase advocacy for PPTCT

**Achievements**





**Constraints and gaps**

**Recommendations**

**1.13. Any other issues**

Discuss other issues as and when they emerge during the visit

**District level Observations (Use one format for one district)**

Note: After completing the field visit, use the following template to collate the findings. Teams are required to submit findings for each district visited. District level findings and recommendations are based on field visits and interviews with district level authorities, e.g. District Magistrate, Chief Medical Officer of Health Services, DAPCU officer, District RCH Officer etc. Field visit in each district will include a visit to the District Headquarter, ART centres, Stand Alone ICTC, F-ICTC, including ICTC in other sectors. In addition visit to labor rooms, assessment of activities at medical college /district hospital, etc. are critical

**Name of District:**

.....

**Brief summary of findings:**



## Key recommendations for the District

### 1. Observations

#### 1.1. Political and administrative commitment

Note the extent of political commitment to health in general, and PPTCT in particular. Assess the level of involvement of the Chief Medical Officer and District RCH Officer in the PPTCT programme. Note the systems in place for the District Magistrate and CMHO to conduct systematic monitoring and review of the PPTCT. Review the NHM support to the programme

##### Key Questions:

- 1) Does the mechanism for NACP-NHM coordination exist at district level?
- 2) Number of District level meetings where NACP-NHM coordination activities were discussed in last one year?
- 3) Number of District level review meetings of Medical Officers and health staff at District level where PPTCT was discussed?
- 4) Are PPTCT issues discussed at the block level review meeting of health staff?

##### Achievements

##### Constraints and gaps

##### Recommendations

#### 1.2. Human resources

Review staffing and training status of key District level officers associated with PPTCT activities. Assess whether the posts in DAPCU are filled. Review overall vacancy status of key staff in the District including ICTC counsellors, LT, District ICTC supervisors, ART centre SMO/MO, ART centre staff nurse etc. Assess plans and systems in place for training (induction training for new and turnover staff, retraining and update training for existing staff).

##### Achievements

##### Constraints and gaps

##### Recommendations



### **1.3. HIV testing services in the District**

Key Questions:

- 1) What is the estimated number of pregnancies in 2012?
- 2) What proportion of the estimated number of pregnant women, have HIV status known?
- 3) When do pregnant women get tested -1<sup>st</sup>,2<sup>nd</sup> or 3<sup>rd</sup> Trimester and direct-in labor?
- 4) Where do they get tested –Stand-Alone ICTC /F-ICTC /Sub-centre /PPP-ICTC /testing Camps etc.
- 5) What are the strategies adopted by the authorities to ensure 100% coverage of estimated number of pregnant women?
- 6) How many of those with known HIV status, are HIV positive?

**Achievements**

**Constraints and gaps**

**Recommendations**

### **1.4. PPTCT linkages**

- a) Linkage for HIV testing where the facilities are not available or confirmation of HIV status
- b) linkage to ART
- c) linkage for institutional deliveries

**Key questions:**

- 1) Is HIV testing included in basic ANC package? Is there a strategy to cover ANC when HIV testing facility is not available?
- 2) What is mechanism for confirmation of HIV status among women screened positive directly in labor?
- 3) How many women screened positive “directly in labor” received confirmatory test at ICTC in last six months?
- 4) Out of all HIV positive pregnant women detected in last 6 months, how many are enrolled at ART centre?
- 5) What is the time taken by positive pregnant women to enrol at ART centre after detection?
- 6) What is time taken for initiation of ARV /ART after detection?
- 7) What are mechanisms to ensure compliance with ARV/ART regimen?
- 8) Out of positive pregnant women detected in January-March 2013 how many delivered?
- 9) Out of above number of institutional deliveries?
- 10) Mechanisms/measures to ensure 100% institutional deliveries?

**Achievements**

**Constraints and gaps**

**Recommendations**



### **1.5. Direct In Labor**

#### **Key Questions:**

- 1) How many delivery points exist in the district?
- 2) Do HIV testing facilities exist at all delivery points? What are the types of testing facilities?
- 3) Do all delivery points have arrangement for provision of ARV drugs for direct-in labor cases?
- 4) Is the stock of HIV test Kits and ARV drugs adequate at all delivery points?
- 5) What is the time taken by direct in labor cases to enrol at ART centres?

#### **Achievements**

#### **Constraints and gaps**

#### **Recommendations**

### **1.6. Early Infant Diagnosis and Paediatric ART**

- 1) How many were live births among positive deliveries between January-March 2013?
  - 2) Out of above, for how many babies the Dried Blood Spot (DBS) was collected for DNA/PCR testing?
  - 3) Out of above how many reports are received from laboratory at SACS level?
  - 4) Out of DBS positive children how many positive children are enrolled at ART centre?
  - 5) Out of above, how many Whole Blood Specimen (WBS) are collected for DNA/PCR testing for confirmation?
  - 5) Out of above number of results available
  - 6) Out of above number of positive children initiated on ART?
- Considering above, comment if the EID is happening in the District

*Ask about the normal infant feeding practices that the district has. Is the breast feeding period over before a definitive infant diagnosis is made.*

#### **Achievements**

#### **Constraints and gaps**

#### **Recommendations**

### **1.7. PPTCT data management**

Review District level mechanism for management of PPTCT data from the facility level to the District level –event based updating of PPTCT line-list, consolidation at district and District level including information on ART and EID



**Achievements**

**Constraints and Gaps**

**Recommendations**

**1.8. Drug management system**

Visit and evaluate the District level ARV drug storage space. Review the system for storage, indenting and distribution of PPTCT drugs to sub-district and facilities. Note any shortages / stock-outs / expiry in the past six months. Assess the systems in place for managing shortage of drugs.

**Achievements**

**Constraints and Gaps**

**Recommendations**

**1.9. Involvement of other health sectors (public and private)**

Review efforts undertaken to involve private practitioners, NGOs, corporate sector, other government health facilities outside health department and other partners in PPTCT. Note the extent to which medical colleges are involved in PPTCT

**Key Questions:**

- 1) What proportion of estimated pregnancies avail services in private sector?
- 2) What level of adoption of PPP schemes by private sector?
- 3) Is there a mechanism to capture pregnant women tested in Private sector?

**Achievements**

**Constraints and Gaps**



**Recommendations**

**1.10. Assess Advocacy Communication Social Mobilization (ACSM) activities for PPTCT**

**Achievements**

**Constraints and gaps**

**Recommendations**

**1.11. Any other issues**

Discuss other issues as and when they emerge during the visit



