Government of West Bengal
Department of Health & Family Welfare
State TB Cell (NTEP), Swasthya Bhawan
GN 29, Sector V, Salt Lake City, Kolkata- 700091.
☎ : (033) 2357 4021 / 2333 0201 / 2333 0200, E-mail:stowb@rntcp.org

Memo. No. HFW-44099/2/2023-TB SEC/ 94 (4) **Date** 20.03.**2023**

To,

1. The Principal, All Medical Colleges, West Bengal,
2. The MSVP, All Medical Colleges, West Bengal,
3. The CMOH, All Districts (including Health districts), West Bengal,
4. The CMHO, Kolkata Municipal Corporation, West Bengal.

Subject: Screening for Tuberculosis among Pregnant Women and their Management – Operational Guidelines.

Tuberculosis remains a global health emergency and continues to present major public health challenges worldwide. Worldwide, TB is the 13th leading cause of death and the second leading infectious killer after Covid-19 (above HIV/AIDS). Every year, about 10 million people fall ill with TB disease globally and kill around 4,000 people every day. India accounts for more than one fourth of the global TB burden i.e. 27 Lakh new cases annually.

In tune with the National target, West Bengal is committed to Eliminate TB by 2025, five years ahead of the SDG targets of 2030 and achieve the goal of TB Mukto Bangla (টিবি মুক্ত বাংলা).

A mother's well-being is intimately linked to that of her children. Women of reproductive age group (15-49 years) bear a significant burden of TB in India and globally. TB among pregnant women can adversely affect the health of the mother, foetus, neonate, and their children with a wide spectrum of short and long-term implications. TB may spread from mother to child during pregnancy which in turn disrupts the whole family. When a mother has TB, it is dangerous not only for her but also for her baby. Women infected with TB are twice as likely to have a premature or underweight baby, and the baby can be born with congenital TB.

TB in pregnancy can have serious and sequential effects: repeated reproductive failure, fetal ill-health, preterm delivery, and TB of the newborns and infants, leading to high maternal and perinatal morbidity and mortality. Tuberculosis is also one of the principal causes of death in women of reproductive age and is a common non-obstetric cause of maternal mortality. While drug sensitive TB can be completely cured in 6 months, the drug resistant cases may take up to one to two years time.

Keeping these issues in mind, the National guideline on "Collaborative Framework for Management of Tuberculosis in Pregnant Women" has been developed which envisages early diagnosis and treatment of TB in pregnancy would not only reduce the adverse effects of Maternal TB but also reduce the overall burden of childhood TB in India. Thus, it is the need of the hour to integrate NTEP and Maternal Health (MH) services to ensure that pregnant women are screened for TB as part of their regular antenatal checkup and mitigate barriers to accessing quality TB care.

This framework highlights integrations in service delivery, setting up of co-ordination mechanisms between NTEP and RCH programmes focussing on sensitization of health care service providers, IEC activities and monitoring mechanisms.

Enclosed herewith, please find the State specific adaptation of the said National framework titled as "**Screening for Tuberculosis among Pregnant Women and their Management – Operational Guidelines".**

Implementing this collaborative framework jointly by NTEP and Maternal Health programme will ensure prompt, accurate diagnosis and timely treatment of TB among pregnant women which will go a long way in saving the lives of TB affected women and their children and contribute significantly in our march towards achieving **TB Mukto Bangla (টিবি মুক্ত বাংলা) by 2025.**

Enclosure: as stated.

All concerned are informed for immediate implementation at all levels.

This has the approval of the competent authority of the department.

20/03/2023

Director of Medical Education
Dept. of Health & Family Welfare
Govt. of West Bengal

20/03/23

Director of Health Services
Dept. of Health & Family Welfare
Govt. of West Bengal

Memo. No. HFW-44099/2/2023-TB SEC/ 94(4)/1(47) **Date** 20.03.....**2023**

Copy forwarded for information and necessary action to:-

1. The Mission Director (NHM) & Secretary, Govt. of West Bengal,
2. The Additional Mission Director (NHM), Govt. of West Bengal,
3. The Commissioner, Kolkata Municipal Corporation, West Bengal,
4. The Project Director, State AIDS Prevention & Control Society, Govt. of West Bengal,
5. The Director, Family Welfare & Additional Mission Director (NHM), Govt. of West Bengal,
6. The Director, Hospital Administration & Planning, Govt. of West Bengal,
7. The Director, Public Health Programme, Govt. of West Bengal,
8. The Director, State FMG (NHM), Govt. of West Bengal,
9. The Addl. Secretary, Dept. of UD & MA and Additional Director (SUDA), Govt. of West Bengal,
5. The District Magistrate, All Districts, West Bengal,
6. The State TB Officer (NTEP), West Bengal,
7. The Jt. DHS (TB) & Director, STDC, Kolkata, West Bengal,
8. The Jt. DHS (TB) & STO (NTEP), West Bengal,
9. The Jt. DHS (FW) & SFWO, West Bengal,
10. The Jt. DHS (BSD), WBSAP&CS, West Bengal,
11. The PO-I (NHM), West Bengal,
12. The PO-II (NHM), West Bengal,
13. The HOD, Department of Respiratory Medicine, All Medical Colleges, West Bengal,
14. The HOD, Department of Medicine, All Medical Colleges, West Bengal,
15. The HOD, Department of Paediatric Medicine, All Medical Colleges, West Bengal,
16. The HOD, Department of G&O, All Medical Colleges, West Bengal,
17. The HOD, Department of Microbiology, All Medical Colleges, West Bengal,
18. The HOD, Department of Community Medicine, All Medical Colleges, West Bengal,
19. The DDHS (TB), West Bengal,
20. The DDHS (Admin), West Bengal,
21. The DDHS (HA), West Bengal,
22. The DDHS (FW), West Bengal,
23. The DDHS (NCD-I), West Bengal,
24. The Epidemiologist, STDC, Kolkata, West Bengal,
25. The Nodal Officer for all C&DST Labs, West Bengal.
26. The ADHS (TB), West Bengal,
27. The ADHS (Maternal Health), West Bengal,
28. The ADHS (School Health), West Bengal,
29. The ADHS (NCD-II), West Bengal,
30. The State Nodal Officer, NUHM, West Bengal.
31. The Team Lead, STSU, West Bengal,
32. WHO Consultants (NTEP), West Bengal,
33. The DADHS (CH), West Bengal,
34. Co-ordinating Officer (FBMC), West Bengal,
35. The State Nodal Officer, ASHA Programme, West Bengal,

36. The Dy. CMOH – I / II / III / IV / DMCHO – all Districts, West Bengal,
37. The DPHNO, all Districts, West Bengal,
38. The CTO, Kolkata Municipal Corporation, Kolkata, West Bengal,
39. The DTO, all Districts, West Bengal,
40. The Health Officer, all ULBs, West Bengal,
41. The DPC (NTEP)/DSM/DAF, all Districts, West Bengal,
42. The ACMOH, all Sub-Divisions, West Bengal,
43. The BMOH, all Blocks, West Bengal,
44. The MO-TC, all TB Units, West Bengal,
45. Sr. PA to the Principal Secretary, Health & Family Welfare Department,
46. The System Coordinator, IT Cell with request to post in the Departmental website,
47. Office copy.

20/3/2023

Jt. DHS (FW) & SFWO
Dept. of Health & Family Welfare
Govt. of West Bengal

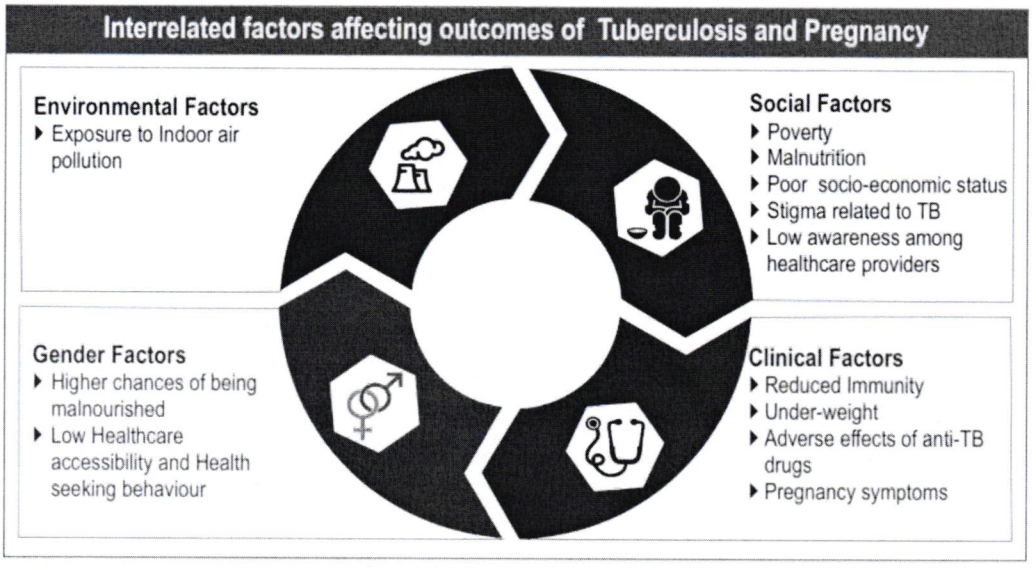
20/03/23

Jt. DHS (TB) & SPO (NTEP)
Dept. of Health & Family Welfare
Govt. of West Bengal

Screening for Tuberculosis among Pregnant Women and their Management – Operational Guidelines

1. Introduction:

Tuberculosis (TB) remains a major public health challenge worldwide. Women of reproductive age group (15-49 years) bear a significant burden of TB in India and globally. TB among pregnant women can adversely affect health of the mother, fetus, neonate, and child with wide spectrum of short and long-term implications. TB in pregnancy can have serious and sequential effects: repeated reproductive failure, fetal ill-health, preterm delivery, and TB of the newborns and infants, leading to high maternal and perinatal morbidity and mortality. Although, these issues have been reported widely from several countries including India, no systematic efforts have been made to detect TB among pregnant women, especially in high prevalent countries, which bear a higher burden of maternal TB.



A quarter of women of reproductive age in India are undernourished, with a Body Mass Index (BMI) of less than 18.5 kg/m (Source: NFHS 4 2015-16). Under-nutrition in patients with active TB is associated with a two-to four-fold increase in mortality, five-fold risk of drug-induced hepatotoxicity, and patients are unable to regain a normal weight, despite effective treatment, in the setting of poverty and food insecurity. Evidence suggests that nutritional interventions are associated with better outcomes in TB patients including reduced mortality, improved weight gain and body composition, earlier sputum conversion, improved pharmacokinetics of key drugs, improved functional status and adherence to therapy (Guidance document: Nutrition care and support for patients with Tuberculosis in India, MoHFW, 2017).

Keeping these issues in mind, this national guideline has been developed jointly by the Central TB Division and Maternal Health Division of Government of India after wide consultation with stakeholders. This is one of the major steps towards the goal of 'Elimination of TB in India' by 2025, which envisages that early diagnosis and treatment of TB in pregnancy would not only reduce the adverse effects of maternal TB, but also reduce overall burden of childhood TB in India.

2. **Burden of tuberculosis in India:**

According to WHO, nearly 26.9 lakh people fell ill with TB in India in 2018, which alone accounted for more than a quarter of the world's TB burden. In India, women of reproductive age (15 to 49years) face a substantial burden contributing approximately 26% of all TB cases notified in 2019.Moreover, the risk of activation of latent TB infection is much higher during pregnancy as a result of the immunological changes (Bates M, Ahmed Y, Kapata N et al. Perspectives on tuberculosis in pregnancy. International Journal of Infectious Diseases 32 (2015) 124–127). Unfortunately, women are most profoundly affected by tuberculosis, which is the third leading cause of death among women of reproductive age. As tuberculosis mostly occurs in young women, many infected women are diagnosed having the disease during pregnancy, while others become pregnant during anti-tuberculosis medication; and more importantly, a significant proportion remain undiagnosed and suffer worse maternal and perinatal consequences. Therefore, it is pertinent to address the issues of TB among pregnant women in India with a special focus.

3. **TB in pregnancy:**

The prevalence of TB among pregnant women is largely unknown. The incidence of tuberculosis in pregnancy is not readily available in many countries due to a lot of confounding factors. However, it is expected that the incidence of tuberculosis among pregnant women would be as high as in the general population, with possibly higher incidence in developing countries. Two independent estimates suggest that the burden of active TB cases in pregnant women in India is substantial. In a recent epidemiological modelling study, Sugarman et al. estimated that there may have been 216,500 (95% uncertainty range 192,000– 247,000) active TB cases among pregnant women globally in 2011. For India alone, their estimated burden of active TB among pregnant women was 44,500 (95% uncertainty range 36,000-62,000), which contributes 20.6% of global burden of all active TB among pregnant woman. Considering the incidence of tuberculosis among women of reproductive age (around 100 cases per 100,000 populations) and a total of 26 million births annually, Jana et al. estimated that approximately 20,000 to 40,000 pregnant women are likely to suffer from active TB in India annually. Although congenital TB occurs rarely, there is a significant risk of transmission to infant in postpartum period as a result of inhalation of droplets coughed out by the mother (Repossi AC, Bothamley GH. Tuberculosis and pregnancy: an updated systematic review. Pulm Res Respir Med Open J. 2015; 2(1): 63-68.

4. **Impact of Pregnancy on TB:**

Pregnancy masks the effects and symptoms of tuberculosis, while these effects are exacerbated in the immediate postpartum period. Early postpartum women are twice as likely to develop tuberculosis as non-pregnant women (MathadJS, Gupta A. Tuberculosis in Pregnant and Postpartum Women: Epidemiology, Management, and Research Gaps). Clin Infect Dis. 2012 Dec, 55(11):1532-49.

5. **Impact of TB on Pregnancy:**

The presence of tuberculosis disease during pregnancy, delivery, and postpartum is known to result in unfavorable outcomes for both pregnant women and their infants, which is compounded by the late presentation, non-specific symptomatology delaying diagnosis and need for prolonged medication. These outcomes include a roughly two-fold increased risk of preterm birth, low birthweight, intrauterine growth restriction, and a six-fold increase in perinatal death. (Figure 1).

Figure 1:

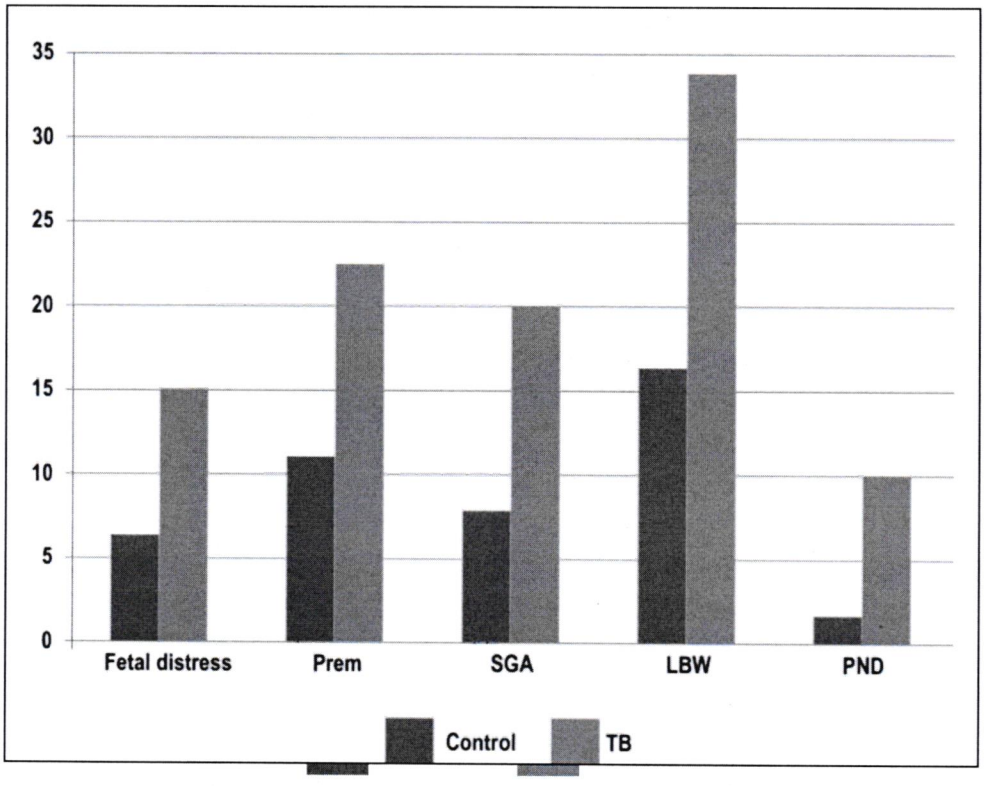
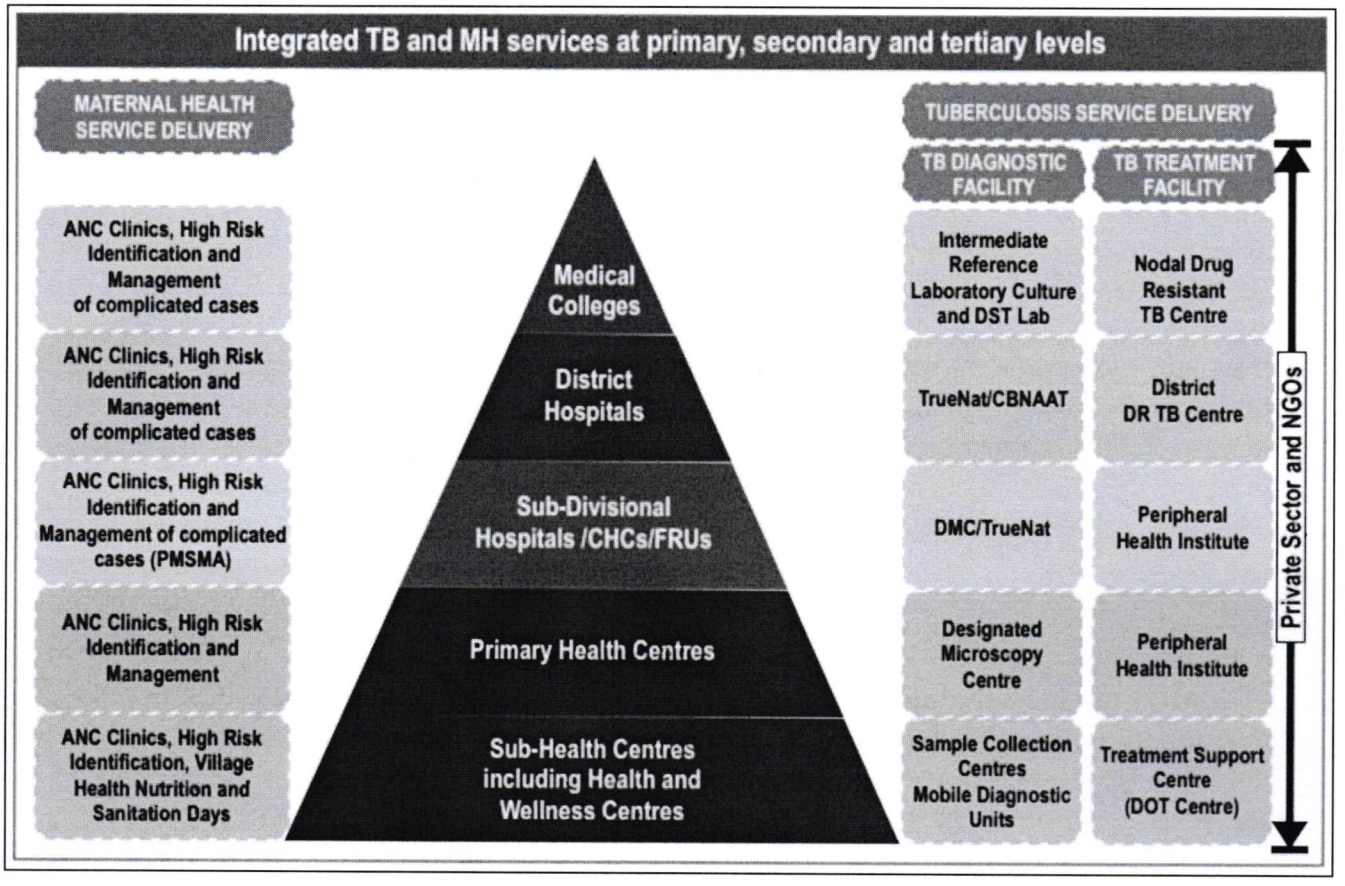


Figure 1: Perinatal outcome in pregnancies complicated by pulmonary tuberculosis (Data from Jana et al. 1994; reference 7. Prem. - Prematurity; SGA – Small for gestational age; LBW – Low birth Weight; PND – Perinatal Death. Data in Y-axis is expressed in percentage)

With the exception of tuberculous lymphadenitis, extra-pulmonary tuberculosis – abdominal, vertebral, renal, and meningeal involvement – has adverse outcomes for pregnancy including increased antenatal hospitalization and perinatal complications. Recent systematic analysis which included studies from India and other countries clearly showed that "active TB in pregnancy is associated with adverse maternal and fetal outcomes". Compared with pregnant women without TB, pregnant women with active TB were associated with significantly increased risks of overall maternal morbidity [odds ratio (OR) 2.8], maternal anemia (OR 3.9), caesarean section (OR 2.1), preterm birth (OR 1.7), low birth weight neonates (OR 1.7), birth asphyxia (OR 4.6), and perinatal death (OR 4.2). Recent Indian studies also re-affirmed these adverse effects of TB involving pulmonary and extra-pulmonary sites on maternal and perinatal morbidity and mortality. A recent post-mortem analysis of maternal deaths highlights that infection, including TB, is an important contributor to maternal death in India. Furthermore, it has been emphasized that TB results in nearly 10 million cumulative orphans because of parental deaths, which include maternal mortality due to TB. Therefore, active tuberculosis poses grave maternal and perinatal risks, for which early diagnosis and appropriate and adequate anti-tuberculosis treatment of the mothers are mainstay for successful pregnancy outcomes. Maternal care services could be used as a platform to improve case detection.

Recently, WHO recommended that "in settings where the tuberculosis prevalence in the general population is 100/1,00,000 population or higher, systematic screening for active TB should be considered for pregnant women as part of antenatal care"

6. Integrated TB and MH services at primary, secondary and tertiary levels:



7. Framework for Joint TB and Maternal Health Collaborative Activities:

a) Purpose:

The overall purpose of the national framework for TB–Maternal Health is to articulate the collaborative activities between NTEP and MH Program to ensure early detection and timely management of TB cases in pregnant women in India.

b) Goal:

To reduce morbidity and mortality due to TB in pregnant women and newborns through prevention, screening for early detection and prompt management of TB in pregnant women and achieve optimum maternal and perinatal outcomes.

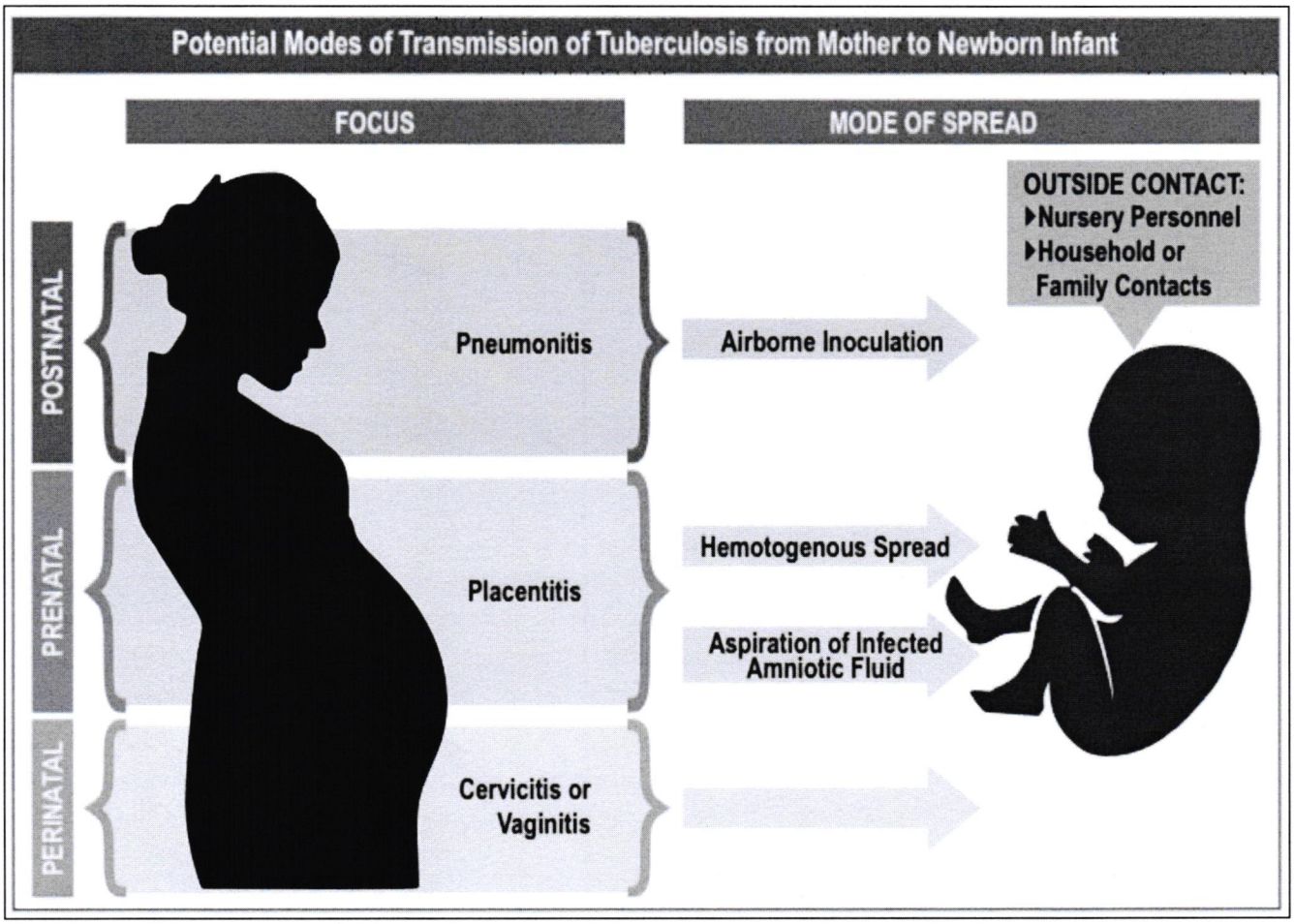
c) Objectives:

1. To develop collaborative mechanism between NTEP and MH for addressing TB among pregnant women
2. To ensure screening and detection of active TB cases among pregnant and postpartum women
3. To strengthen referral linkages between NTEP and MH program, including leveraging tele-

medicine options

4. To augment treatment of TB among pregnant women and screening for family members
5. To address TB and obstetric complications
6. To ensure screening for active TB, vaccination, and chemoprophylaxis/TB treatment to newborns of pregnant mothers affected by active TB
7. To provide supportive care on mental health and appropriate counseling to address lifestyle aspects, nutrition including linkages to nutritional and social support schemes
8. To establish surveillance, and Monitoring and Evaluation (M&E) mechanism for collaborative activities
9. To prepare joint annual budgeted plans for collaborative activities
10. To promote research and training in issues related to TB in pregnancy

8. Potential Modes of Transmission of Tuberculosis from Mother to Newborn Infant:



9. Implementation strategy:

The following strategy is being proposed for collaboration between MH Program and NTEP:

A. Establishing joint planning and review committees for collaboration at national, state and district levels.

B. Establishing service delivery protocols that address joint activities as follows:

1) Activities to improve diagnosis and management of TB among pregnant women:
    a) Intensified screening of TB among all pregnant women availing ANC services at community outreach activities and at health-care settings.
    b) Establishing functional Sample Collection Transportation (SCT) mechanism from community outreach activities and facility settings through appropriate mechanisms, including incentives available under the programme and partnership guidelines.
    c) Ensuring availability of functional referral linkages between the programmes for timely diagnosis and appropriate management of TB in pregnant women.
    d) Timely provision of drugs to TB patient at a convenient location through a health care worker or institutional treatment support centre (Su-Swasthya Kendra / Sub--Centre), including monitoring of adverse drug reactions.
    e) Inclusion of TB affected pregnant women as High-Risk PW under PMSMA / extended-PMSMA activities.
    f) Prevention of perinatal tuberculosis.
    g) Ensuring initiation of INH chemoprophylaxis to the newborn of active TB affected pregnant mother.
    h) Strengthening contact tracing protocol.
    i) Ensuring TB infection control measures in household, community outreach activities and health-care settings where pregnant women avail health services.
    j) Section wise management: ANC, Intranatal Care (INC), and Postnatal Care (PNC) related to management of TB along with linkage to pediatric guidelines.
2) Stakeholder engagement.
3) Joint monitoring and evaluation with standardized reporting system shared between MH programme and NTEP.
4) Joint training of key programme and field staff in TB–Maternal Health collaborative activities through incorporation of content related to TB in pregnancy in training resources of both programmes.
5) Collaborative IEC development and planning awareness initiatives.
6) Operational research to strengthen implementation of TB–Maternal Health collaborative activities.

10. Management of Pregnant Women diagnosed with Tuberculosis:

Time Period	Suggested Management for Drug Sensitive TB	Suggested Management for Drug Resistant TB
During ANC Period	➢ Follow standard treatment regimen with monthly clinical follow up and laboratory follow up at end of intensive and continuation phase ➢ USG at 18-22 weeks of pregnancy to diagnose congenital anomalies. Additional USGs may be done for ruling out any complications as per the treating physician ➢ Chest x-ray may be offered, if necessary, with adequate protection with lead aprons/abdominal shield ➢ Pregnant women require an additional 350 kcal of energy and 23 g of protein making their RDA: 2250 Kcal of energy and 78 g of protein ➢ Under Nikshay Poshan Yojana, Nutritional support through Direct Benefit Transfer of 500 INR per month for all patients on TB treatment throughout duration of treatment ➢ Ensure contact tracing. This is particularly important in order to prevent transmission of TB to newborn (after delivery) from other family members ➢ It is advisable that pregnant women with TB are referred to health facilities where specialist facilities are available or else to linked referral facility ➢ Community level awareness on TB, JSSY, JSSK by ASHA in VHND	➢ In pregnant women diagnosed with DR-TB, if the duration of pregnancy is <20 weeks, the patient should be advised to opt for a Medical Termination of Pregnancy (MTP) in view of the potentialsevere risk to both mother and fetus ➢ For patients who are unwilling for MTP or have pregnancy of >20 weeks (making them ineligible for MTP), the risk to mother and fetus needs to be explained clearly and a modified all oral longer regimen to be started with monthly clinical follow up and laboratory follow up as per programme guidelines ➢ USG at 18-22 weeks of pregnancy to diagnose congenital anomalies. Additional USGs maybe done for ruling out any complications as per the treating physician ➢ Chest X-Ray may be offered, if necessary, with adequate protection with lead aprons ➢ Pregnant women require an additional 350 kcal of energy and 23 g of protein making their RDA: 2250 Kcal of energy and 78 g of protein ➢ Under Nikshay Poshan Yojana, Nutritional support through Direct Benefit Transfer of 500 INR per month for all patients on TB treatment throughout duration of treatment ➢ Ensure contact tracing. This is particularly important in order to prevent transmission of TB to newborn (after delivery) from other family members. It is advisable that pregnant women with TB are referred to health facilities where specialist facilities are available or else to linked referral facility

At the time of Delivery	➢ Delivery at District Hospital/ facility with SNCU support to ensure management of fetal/neonatal complications ➢ Special focus on infection prevention protocols if pregnant woman is microbiologically confirmed case of pulmonary TB (especially open cases) ➢ Cesarean section in pregnant womenwith TB will be done only, if there is obstetric and fetal indication	➢ Delivery at District Hospital level / facility with Sick Newborn Care Unit support to ensure management of fetal/neonatal complications ➢ Special focus on infection prevention protocols if pregnant woman is microbiologically confirmed case of pulmonary TB (especially open cases)
Post Delivery	➢ Both microbiological and histopathological examination of the placenta (using RKS funds) ➢ Rule out Neonatal TB (Refer to Updated Pediatric TB Guidelines) ➢ Ensure initiation of INH chemoprophylaxis to the newborn of active TB affected pregnant mother if Neonatal TB has been ruled out ➢ Continue treatment of mother during the breast feeding period and breast feeding should not be stopped ➢ Lactating women (0-6 months) require an additional 600 Kcal and 19 g protein making their RDA 2500 Kcal of energy and 74 g of protein. For a sedentary lactating woman suffering from TB, an addition of 10% calories increases the requirement to 2750 kcal, protein 74 gm, 300 mcg folic acid, 1200 mg calcium, 21 mg Iron and 950 mcg of Vitamin A ➢ Under Nikshay Poshan Yojana, Nutritional support through Direct Benefit Transfer of 500 INR per month for all patients on TB treatment throughout duration of treatment	➢ Both microbiological and histopathological examination of the placenta (use RKS funds to conduct these investigations if not available in the hospital) ➢ Rule out Neonatal TB ➢ Chemoprophylaxis to the newborn of active TB affected pregnant mother if Neonatal TB has been ruled out ➢ Continue treatment of mother during the breast feeding period and breastfeeding should not be stopped ➢ Lactating women (0-6 months) require an additional 600 Kcal and 19 g protein making their RDA 2500 Kcal of energy and 74 g of protein. For a sedentary lactating woman suffering from TB, an addition of 10% calories increases the requirement to 2750 kcal, protein 74 gm, 300 mcg folic acid, 1200 mg calcium, 21 mg Iron and 950 mcg of Vitamin A ➢ Under Nikshay Poshan Yojana, Nutritional support through Direct Benefit Transfer of 500 INR per month for all patients on TB treatment throughout duration of treatment

11. Coordination Mechanisms for collaboration between NTEP and MH:

A. State Level:

To ensure smooth implementation and oversee implementation of NTEP and MH Program collaborative activities, the existing State TB-Comorbidity Coordination Committee (STCC), chaired by Principal Secretary (Health), would include representation from Maternal Health Program in all State/UTs. For periodic review of implementation of the framework, existing State TB-Comorbidity Working Group would include representation from Maternal Health Program. The STCC and State TB Working Group (STWG) would meet periodically to review and streamline TB-Maternal Health activities in the state. Based on deliberations and decisions, NTEP and MH Programs in the state would send feedback to all districts.

B. District Level:

To ensure smooth implementation and regular review of TB-MH activities, existing District Coordination Committees (DCCs) and monthly TB-Comorbidity Review meeting would include representation of district official / program manager in charge of maternal health and include discussions on TB-Pregnancy framework implementation, including issues related to case management, adverse drug reactions.

C. Review of TB–Maternal Health Collaborative Activities:

NTEP and MH Programme will conduct regular joint review meetings at national, state and district level. In the meetings, joint review of TB–Maternal Health collaborative activities will be done with participation of programme managers of both the programmes. The schedule of review meetings for NTEP will be communicated to MH Program and vice versa so that cross-participation is ensured.

12. TB and Maternal Health Service delivery integration:

Procedure for Screening and Referral of Pregnant Women for TB:

NTEP and MH programmes will work together to integrate screening for TB within existing services of MH programme with a special focus on screening of pregnant women during ANC sessions.

A. Screening and Diagnosis:

All pregnant women would be screened for TB at every ANC visit. Following four symptoms complex screening in attendees of ANC clinics will be performed. Screening is expected to be carried out every time the pregnant woman visits ANC clinic in all trimesters. Following questions to be asked after confirming that patient is not on active TB treatment.

- **Four-symptom complex:**
  i. **Cough of duration > 2weeks**
  ii. **Fever of duration > 2weeks**
  iii. **Inadequate weight gain or Weight loss - body weight in last 3 months**
  iv. **Night Sweats**
- **Extra-pulmonary symptoms- localized swellings/lumps in the body (lymph node)**

  If any of above symptoms are positive, then the arrangements should be made for sputum collection /FNAC in case of localized enlarged lymph node and sample transportation from ANC clinic at all levels, preferably by sending to nearest TB molecular diagnostic center in coordination with DTO. All TB patients of reproductive age group would be screened for pregnancy.

B. Platforms for screening of pregnant women:

Screening for TB will be made an essential component of ANC services wherein service providers will actively screen all the pregnant women for TB during each ANC visit. This will be applied to community outreach activities like VHSND and fixed day ANC service provision platforms like Sub Centres, Su-Swasthya Kendras (HWCs) / PHCs / BPHCs / RHs / P. P. Units and PMSMA clinics. Both the programmes will also work together in undertaking intensified active case finding activities in this high priority population. The Prevention of Parent to Child Transmission (PPTCT) clinics under National AIDS Control Programme performing TB screening as part of the TB-HIV collaborative activities would also be leveraged.

C. Who will do the screening and referral:

The ANC provider (ANM / Community Health Officer (CHO)/Staff Nurse/MO/OBGY specialist / PHN of P. P. Units / MO of UPHCs) will do the screening using four-symptom complex for pulmonary TB and localized enlarged lymph node for extra-pulmonary TB. It is desirable that sputum samples should be collected at ANC site and transported to DMC. The presumptive TB cases will be referred to nearest DMC /PHI / NAT site with referral slip and / or NTEP Laboratory Request Form (Form no. Annexure 15A) if one or more of the symptoms of PTB are found Patients with Extra Pulmonary TB (EPTB) may be referred to the appropriate nearest health facility where necessary investigations can be done. HCWs attending the pregnant women during ANC visits and community outreach activities (VHND etc.) will enquire about the TB symptom complex and refer the patient. The concerned ANC provider would be trained by the MO In-charge to screen the TB symptom complex at PHC.

D. Referral linkages for diagnosis and treatment:

A referral and feedback mechanism need to be developed to enable timely exchange of information. The TB clinic staff as per management guidelines stipulated in NTEP would manage the patients diagnosed with TB appropriately. The DMC / NAAT site will return the results of the TB test to the referring facility/service provider through the Laboratory Request Form with the patient. The same will be presented to the MO/SN/CHO/ANM/PHN for recording the result.

E. Sample Collection and Transport:

Sputum Sample for TB diagnosis may be collected and transported by ASHA / Community Volunteer / NGO / patient attendant / TB champions / PPSA agencies / patient themselves herself / any other established mechanism in the district after training them properly in sample collection, to the nearest diagnostic center i.e. DMC / NAAT site.

F. Incentive for Sputum Collection and Transport:

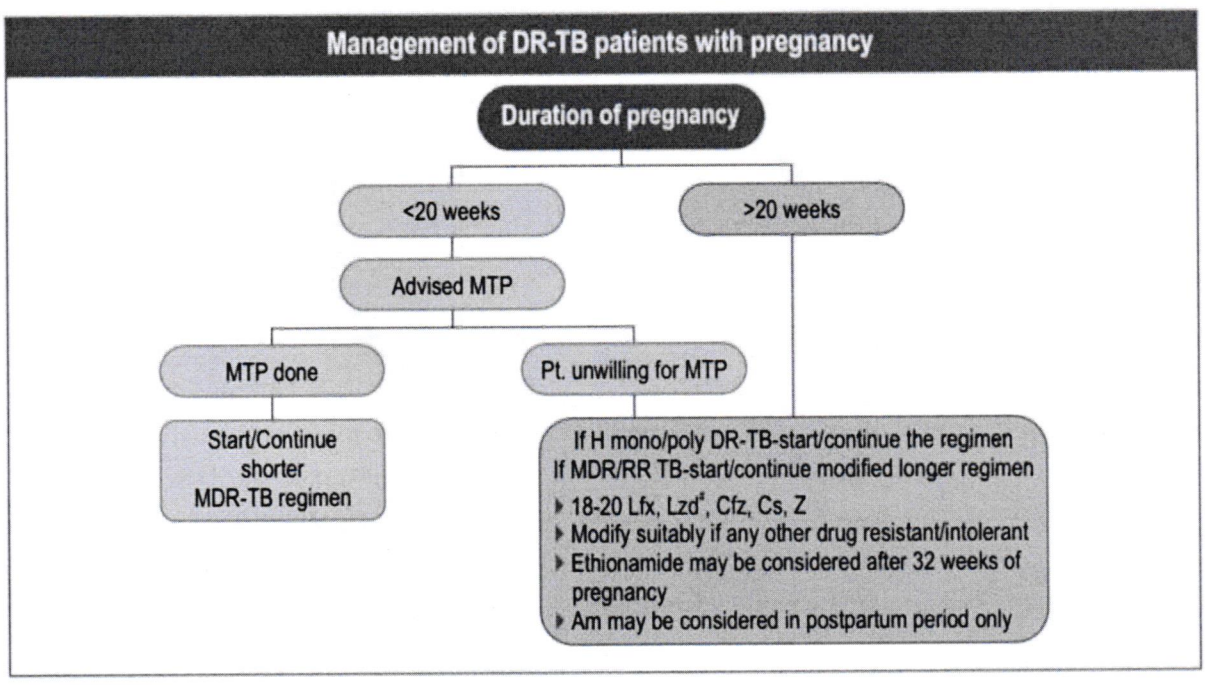
Non-salaried community volunteers including ASHAs, TB champions etc is incentivized for sample collection and transport based on state specific guidelines. If a presumptive TB case for which the sample was transported is diagnosed as positive then an additional amount of Rs. 500/- per patient is given as informant incentive through DBT.

G. Treatment and Adherence:

WHO supports the use of the standard regimen in pregnant women: Use of standard regimen for six months of which four drugs (Rifampicin, Isoniazid, Ethambutol, Pyrazinamide) to be given for first two months and three drugs for next four months (excluding Pyrazinamide). Although the drugs used in the initial treatment regimen for TB cross the placenta, they do not have harmful effects on the fetus. In breast feeding women full course of anti-TB treatment is recommended. The dosage and the duration of anti-TB therapy is not modified due to pregnancy. Tab Pyridoxine, 10 mg/day should be given with Isoniazid during pregnancy because of increased requirement in pregnant women and to prevent potential neurotoxicity in the fetus.

Pregnancy is not a contraindication for treatment of active Drug-Resistant TB but poses a great risk to both the mother and fetus. In pregnant women diagnosed with DR-TB, if the duration of pregnancy is <20 weeks, the patient should be advised to opt for MTP in view of the potential severe risk to both mother and fetus. It is desirable that pregnant women along with her husband or guardian takes a decision based on the opinion of domain experts like Obstetrician, Pulmonologist, MTP board etc. within the prevailing norms of the MTP Act. If the patient is willing, she should be referred to an Obstetrician for MTP following which a shorter MDR-TB regimen can be initiated (if the patient has not started treatment) or continued (if the patient is already on treatment) by the DR-TBC Committee.

For patients who are unwilling for MTP with pregnancy of <20 weeks or have a pregnancy of >20weeks (making them ineligible for MTP), the risk to mother and fetus of continuing pregnancy needs to be explained clearly and a modified all oral longer MDR-TB regimen to be started or in case already on TB treatment, as detailed in the diagram.



Note: Please refer to PMDT Guidelines 2021 for management of DRTB in Pregnancy

Monitoring of adherence of anti-TB Treatment needs to be done as successful outcome of TB treatment will positively affect the pregnancy. Traditionally, treatment supervision methods were limited to Direct Observation of Therapy (DOT) by a trained person other than family members. In order to give priority to patient's needs and preferences, it is necessary to adopt a patient-centric approach in view of the better adherence standards. In some patients, a family member might be able to ensure better treatment supervision and adherence as compared to an external individual visiting the home. With the advent of Information Communication Technology (ICT), there are multiple options by which patients can reliably self-report drug consumption, be monitored and supported by various levels simultaneously. The newer guideline favors the principle of adherence monitoring which has to be applied logically and judicially. These also provide options, whereby, the most appropriate modality of adherence monitoring may be used as a collective decision for the patient, treatment supporter and the Medical Officer (MO). In addition, NTEP has a call-centre mechanism, NIKSHAY Sampark (1800-11-6666) in order to reach out to patients and counsel them on co-morbidities and adherence. Digital platform – Nikshay would be leveraged to ensure tracking of pregnant women with TB. Simultaneously, our state specific "MatriMa" portal may also be used for tracking pregnant women with TB for safe delivery outcome.

ASHA, ANM and CHO will be the nodal persons for TB treatment adherence monitoring. During each ANC check-up the concerned health worker will check the treatment adherence status and counsel the patient regarding importance of complete treatment. In addition, the patient may be sensitized to contact the healthcare provider in case of any danger signs observed.

H. Incentive to providers:

- **Private Provider Incentive:** Under this scheme, Rs.500/- at Notification and Rs.500/- on reporting treatment outcome is provided to the private provider who first notified the TB case to the programme (NTEP).
- **Informant incentive:** Under this scheme, incentive of Rs.500/- is provided to informant for Notification of patients in public sector.
- **Incentive for treatment support:** Under this scheme, a treatment supporter for a new case of TB receives Rs.1,000/- at completion of treatment and for a Drug Resistant Case receives Rs.2,000/- at completion of intensive phase, Rs.3,000/- at completion of treatment.

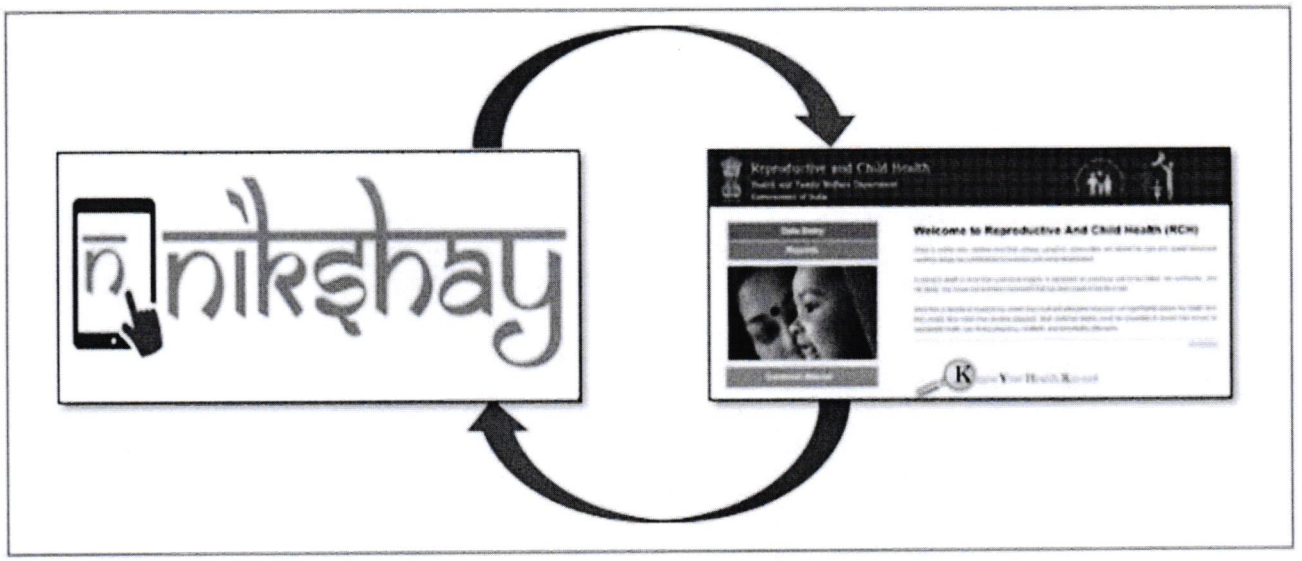
I. Contact Tracing, Vaccination and Chemoprophylaxis:

Preventive chemotherapy with isoniazid (H) is administered to all the children aged six years and below who are in contact with pulmonary TB cases. The number of such children residing in the household should be enquired during the initial home visit / ANC check-up visit. The parents are advised to bring children to the health centre for screening for evidence of TB. They are examined and investigated to rule out TB disease. If the child is found to be suffering from disease, they should be treated appropriately. Children found eligible for chemoprophylaxis after ruling out TB are to be administered preventive chemotherapy with INH 10 mg/kg body weight daily for six months, irrespective of their BCG or nutritional status. It may be noted that the levels of TB drugs excreted in breast milk is minimal. Zero dose BCG may be given along with Isoniazid Preventive Therapy (IPT) for those children born to mothers with microbiologically confirmed TB. In HIV exposed infants, BCG may be provided

along with exclusive breastfeeding. For details of neonatal care, current national guidelines on this issue should be followed. With regard to provision of TB preventive therapy, refer to the latest national guidelines.

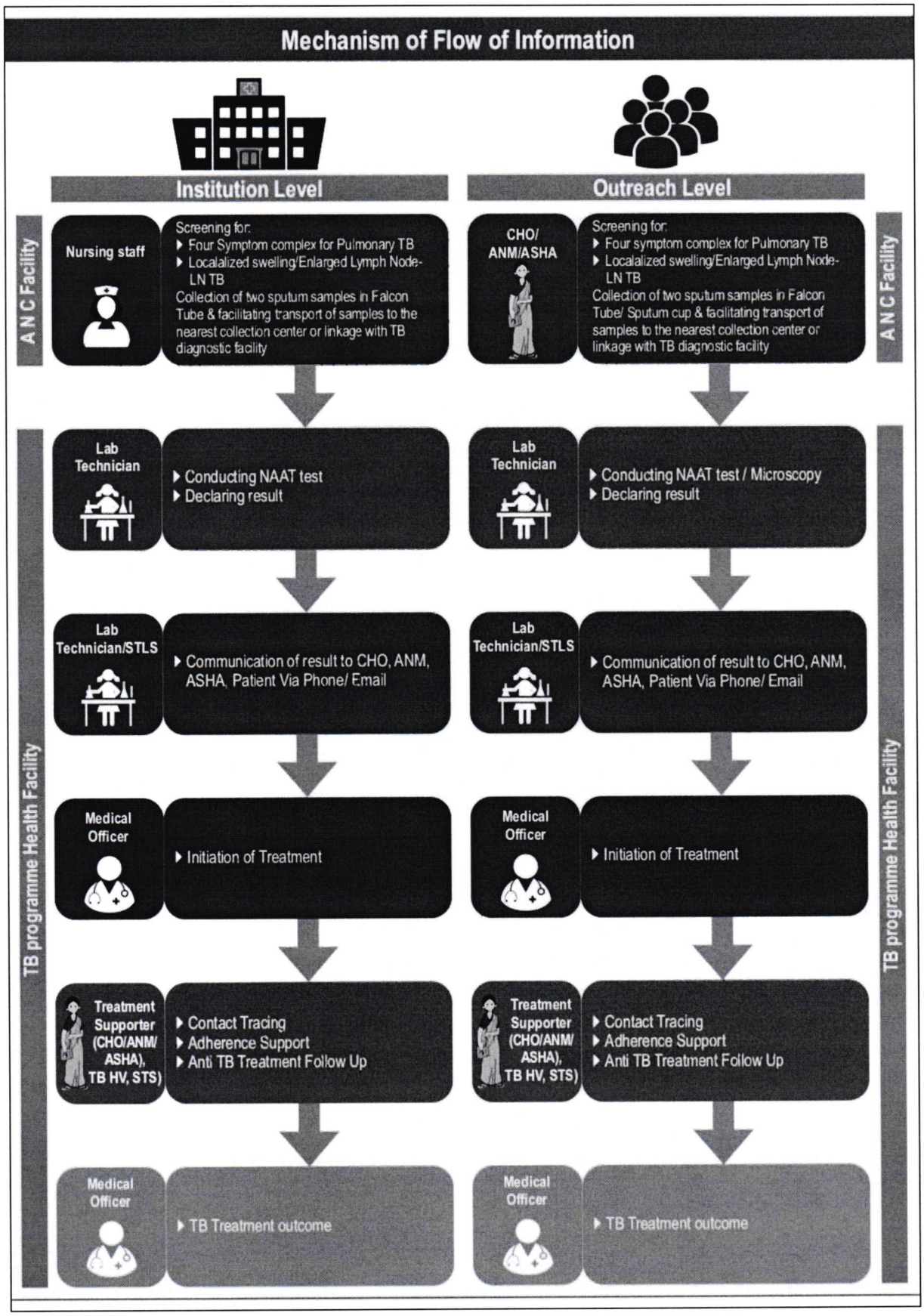
Delivery of women in the secondary and tertiary centres is recommended because of higher maternal-perinatal complications, and to enable examination of placenta and newborn for TB.

J. Recording and reporting:



- All details captured as part of the existing recording and reporting systems of both programs
- Pregnancy would be included as a 'key population' in the "laboratory form for examination of biological specimen for TB" so that the same is captured for each patient while enrolling in Nikshay. The pregnancy details would be obtained through the software linkage with RCH portal.
- Linkages developed between Nikshay and RCH portal for sharing information.

Flow of information



K. Roles and Responsibilities of NTEP:

Position	Roles & Responsibilities
State level – STO, Director, State Tuberculosis Training and Demonstration Centre (STDC), Assistant Programme Officer (APO), Data Entry Operator (DEO)	➢ Coordinate and attend the SCC TB–maternal health meetings ➢ Review districts' components of TB– maternal healthcollaborative activities on a quarterly basis ➢ Establish coordination with the Medical Colleges and MH clinics/hospitals in private sector ➢ Align the implementation of TB–maternal health collaborativeactivities ➢ Provide funds for relevant trainings pertaining to TB–maternalhealth collaborative activities ➢ Involve in the joint supervision of collaborative activities ➢ IEC activities regarding the collaborative activity
District level (DTO, District Programme Coordinator, MO-DTC, DEO)	➢ Coordinate and attend meetings of the DCC outlined forTB–Maternal Health collaborative activities ➢ Collaborate with ANC clinics for the implementation of TB–maternal health activities ➢ Establish coordination with the Medical colleges and MH clinics/hospitals in private sector ➢ Ensure submission of accurate and timely reporting of TB–maternal health formats to the state officials along with feedback about the progress of TB– maternal health collaborative activity ➢ Ensure other NTEP staff are appropriately involved in thecollaborative activity ➢ Collaborate with relevant stakeholders to strengthen TB–maternal health activity in the district ➢ IEC activities regarding the collaborative activity
TB Unit level – MO TB Control (TC)/Block Medical Officer (BMO), Senior Treatment Supervisor (STS), senior treatment laboratory supervisor (STLS)	➢ The STS will capture information in TB notification registerfrom treatment card. ➢ Maintaining TB Notification Register ➢ STS will do Nikshay entry
DMC/PHI level – MO, Laboratory Technician (LT), ANM, Staff Nurse, health worker	➢ Ensure the completeness of records ➢ The responsibility for collecting the information and updating the treatment card will rest with the institutional treatment supporter of the PHI / health worker

A. Roles and Responsibilities of MH programme:

Position	Roles & Responsibilities
Role of State Level Officials (SFWO / SNO- Maternal Health)	➢ Review screening and management of tuberculosis in pregnantwomen across districts ➢ Plan budgeting for TB in pregnancy, which would be budgeted under NTEP, in coordination with NTEP counterparts
Role of Medical Officer	➢ Assist in training of ANC clinic staff and other staff on TB screening and referral mechanism ➢ Collaborate with district TU for the implementation of TB–Maternal Health activity ➢ Ensure screening of TB symptom complex at ANC clinic and its report sharing with District TB Officer ➢ Ensure submission of accurate and timely reporting of TB– Maternal Health formats to the district along with feedback about the progress of TB– Maternal Health collaborative activity ➢ Collaborate with relevant stakeholders to strengthen TB–Maternal Health activity in the district ➢ Prepare action plan for implementation of framework
Role CHO, ANM, PHN (P P Unit), Staff Nurse	➢ Conduct screening for TB symptom complex in ANC clients attending the ANC clinic and at outreach platforms ➢ Conduct counselling on diet and lifestyle ➢ Ensure completeness of the referral card filled for the presumptive TB patient under the guidance of MO and refer using NTEP Laboratory Request Form ➢ Ensure that the presumptive TB patient attends the TB clinic after confirmation of diagnosis and treatment initiation ➢ Ensure adherence to treatment ➢ Maintain the ANC clinic register and ensure data reporting ➢ Record entries in MCP Card in relevant section for TB

B. The roles and responsibilities are summarized in below table:

Activity	Outreach / Su-Swasthya Kendra (HWC)	Institutional
Screening for TB symptoms	ASHA, ANM and CHO	Staff Nurse, PHN of P.P Unit andMedical Officer
Collection of Sputum		
Referral		
Development of sputum transportation mechanism	MO - PHI and MO-TC	I/C of Institute and DTO
Testing of Sample	Lab Technician	
Communication of Results	LT, STLS, STS	
Initiation of treatment	MO – PHI / STS / TBHV	
Counseling	ANM / CHO / Anwesha Counselor	Medical Officer / Staff Nurse / P P Unit / Counselor
Supply of Medicine and formats	STS	
Supply of Falcon Tubes and logistics for packaging	STLS	
Issue of monthly anti TB Medicineto patient / Treatment Supporter	Pharmacist / STS	Pharmacist / STS
Follow up	Treatment Supporter, ASHA, ANM and STS	
Adherence monitoring	ASHA, ANM, CHO, STS	Staff Nurse, Medical Officer
Treatment Outcome	MO-PHI and STS	MO-PHI and STS
Maintenance of TB Treatment Card	Treatment Supporter	Treatment Supporter

13. Sensitization and training of health staff for TB and Maternal Health collaborative activities:

National level sensitization workshop comprising of State Nodal Officers (SNO) has been virtually. Focal points of the states of both the programmes will conduct further sensitization training of focal points of districts. STOs, consultants and other NTEP staff will be trained on TB–Maternal Health collaborative activities during their ongoing training on NTEP Technical and Operational Guidelines. Programme Officers of MH Program will attend the TB– Maternal Health portion of training at the state and district level as per the NTEP training plan and vice versa. Community preparedness would be ensured through effective ACSM campaign and incorporating messages in existing IEC materials.

	Trainings
State level training	➢ Training of State TB Officer, DTOs, District Nodal Officers – Maternal Health (DNOs) ➢ Continuing Medical Education (CME)/workshops for Medical College faculty ➢ Other sectors
District level	➢ Training of DTO, Medical Officers, key contractual staff of both the programmes
Sub-district/CHC level	➢ Sensitization sessions for concerned staffs at ANC clinicsand TUs ➢ Sensitization of stakeholders (administrators, partners) at state/local level is the responsibility of NTEP staff at state and district level

14. Information, Education and Communication (IEC):

Information, Education and Communication (IEC) activity for awareness generation is an important in the implementation of framework. As IEC is an integral part of both NTEP and MH Programme, it is considered one of the important cross-cutting areas for the collaborative activity. The IEC strategy for TB-Maternal health will be included in both the programmes IEC and Advocacy, Communication and Social Mobilization (ACSM) plan.

Increased attention and focus will be given to primary health care workers who regularly interact with both TB patients and pregnant women. Awareness activities will be prioritized for the programme and hospital staff to make them aware about the purpose and mechanism of the collaboration. Relevant IEC and ACSM related materials will be developed and shared with the States for further adoption in the local languages. The States should prepare an IEC plan for the collaborative activity. Special emphasis will be given to generating awareness about the linkage in the marginalized and deprived communities. The plan for implementing IEC activities includes the following:

- Design content of IEC materials (posters, pamphlet, at-risk card, recipe book, banners, flyers, leaflets, AV materials) jointly by both programme divisions, in coordination with IEC Division.
- Display of IEC materials at TUs, DMCs and ANC Clinics in local language to inform about the joint collaborative activity.
    - Display materials related to hygiene and TB awareness, diet and lifestyle related do's and don'ts at the ANC clinics;
    - Display IEC material about ANC at TUs and DMCs.
- Disseminate messages through various media - electronic, multi-media and print media.
- Utilize every opportunity to increase awareness about TB and pregnancy.
- Conduct awareness activities to sensitize all stakeholders (partners, policy makers, administrators).
- Budget for IEC activities will be borne from IEC/ ACSM budget of respective programmes.

15. Implementation Plan:

1) Directives to state focal points to prepare action plan for implementation of collaborative activities.
2) Sensitization of stakeholders and capacity building of all cadres of relevant health care staff.
3) Implementation of collaborative activities and reporting of performance.
4) Joint visits by National and State level officials.

16. Supervision, Monitoring and Evaluation:

1) Proportion of pregnant women screened for TB among total ANC registered.
2) Proportion of presumptive TB symptomatic identified among pregnant women screened for TB.
3) Proportion of presumptive TB symptomatic pregnant women referred among screened for TB.
4) Proportion of women tested for TB among pregnant women referred from ANC.
5) Proportion of pregnant women diagnosed with TB among referred pregnant women who were tested for TB.
6) Proportion of pregnant women with TB assessed for nutritional status.
7) Proportion of pregnant women who were diagnosed as drug sensitive TB and were initiated on drug-sensitive TB treatment.
8) Proportion of pregnant women who were diagnosed as drug resistant TB and were initiated on drug-resistant TB treatment (excluding those who have availed MTP).
9) Proportion of pregnant TB patients who were started on Drug sensitive TB and who successfully completed Drug Sensitive TB treatment.
10) Proportion of pregnant TB patients who were started on Drug Resistant TB and who successfully completed Drug resistant TB treatment.

Indicator	Numerator	Denominator	Division responsible
1. Proportion of pregnant women screened for TB among total ANC registered.	Total Pregnant Women Screened for TB	Total Pregnant Women registered in ANC (as per HMIS / MatriMa)	MH
2. Proportion of Presumptive TB symptomatic identified among pregnant women screened for TB	Presumptive TB pregnant women identified	Total pregnant Women screened for TB (as per HMIS / MatriMa)	MH
3. Proportion of Presumptive TB symptomatic pregnant women referred for TB diagnosis among screened for TB	Presumptive TB Symptomatic referred for TB diagnosis	Presumptive TB pregnant women identified	MH
4. Proportion of women tested for TB among pregnant women referred from ANC	Pregnant women tested for TB	Presumptive TB Symptomatic referred for TB diagnosis (DMC / NAAT site)	NTEP

Indicator	Numerator	Denominator	Division responsible
5. Proportion of pregnant women diagnosed with TB among those whowere tested for TB	Pregnant Women diagnosed with TB	Pregnant women tested for TB	NTEP
6. Proportion of pregnant women withTB assessed for nutritional status	Pregnant Women with TB assessed for nutritional status	Pregnant Women diagnosed with TB	NTEP
7. Proportion of Pregnant women who were diagnosed as drug sensitive TBand were initiated on drug-sensitive TB treatment	Pregnant women initiated on Drug sensitive TB Treatment	Pregnant Women diagnosed with Drug Sensitive TB (excluding those who had MTP)	NTEP
8. Proportion of Pregnant women whowere diagnosed as drug resistant TBand were Initiated on Drug-Resistant TB treatment (excluding those who have availed MTP)	Pregnant women initiated on Drug Resistant TB Treatment	Pregnant Women diagnosed with Drug Resistant TB (excluding those who had MTP)	NTEP
9. Success Rate of Drug Sensitive Pregnant Women	Pregnant women cured + completedDS treatment	Total Pregnant women initiated on DS Treatment	NTEP
10. Success Rate of Drug ResistantPregnant Women	Pregnant women cured + completedDR treatment	Total Pregnant women initiated on DR Treatment	NTEP

Annexure-1

FAQs on TB in Pregnancy:

1. What is impact of TB on pregnancy?
   Ans: Maternal tuberculosis has been associated with an increased risk of spontaneous abortion, perinatal mortality, small for gestational age and low birth weight babies in some studies.

2. In which period (antenatal, intranatal, postpartum) TB transmission occurs commonly.
   Ans: TB transmission commonly occurs in postpartum period (air borne). However, vertical transmission can also occur through placenta in intranatal period resulting in congenital TB

3. Is X-Ray safe for diagnosis of TB in pregnancy?
   Ans: There are many sensitive and accurate diagnostic methods available in TB programme freely like TrueNAT & CBNAAT. If it is not possible to utilize these lab services (Microscopy/Molecular tests) available in TB programme, X-Ray can be done by providing adequate cover for abdominal protection to avoid foetal exposure.

4. What is the value of serodiagnosis tests for diagnosis of TB?
   Ans: Sero-diagnostic tests i.e. tests based on reaction to the blood serum of a patient, have not been found to be useful in diagnosis of any form of TB. Therefore, WHO has recommended banning their use.

5. Are the TB drugs safe in pregnancy? What are the second line drugs which can be given to patient if she refuses to terminate pregnancy?
   Ans: Make sure you tell your doctor or nurse if you are pregnant or breastfeeding, so they can check the medicine being used is safe. Standard TB medicines (Rifampicin, Ethambutol, Isoniazid and Pyrazinamide) have not been associated with harmful fetal effects. Other medicines, such as Streptomycin, Capreomycin, Kanamycin, Prothionamide and Ethionamide are not recommended for pregnant or breastfeeding women.

6. Is the treatment duration for TB different in pregnant and non pregnant women?
   Ans: No. The dosage and the duration of anti-TB therapy are not modified due to pregnancy. Additionally, Pyridoxine, 10 mg/day should be given with isoniazid during pregnancy because of increased requirement in pregnant women and to prevent potential neurotoxicity in the fetus.

7. What should be the treatment approach for drug resistance TB during pregnancy?
   Ans: Pregnancy is not a contraindication for treatment of active drug-resistant TB but poses great risk to both the mother and fetus. There is lack of experience in treating pregnant women with DR-TB. In pregnant women diagnosed with DR-TB, if the duration of pregnancy is <20 weeks, the patient should be advised to opt for MTP in view of the potential severe risk to both mother and fetus. If the patient is willing, she should be referred to a gynecologist or obstetrician for MTP following which a shorter MDR-TB regimen can be initiated (if the

patient has not started treatment) or continued (if the patient is already on treatment) by the DR-TBC Committee.

For patients who are unwilling for MTP or have a pregnancy of >20 weeks (making them ineligible for MTP), the risk to mother and fetus needs to be explained clearly and a modified conventional MDR-TB regimen started or continued.

8. Why is it important to take TB medicines regularly for the entire duration of the prescribed course?

   Ans: It is important to take TB medicines regularly for cure from the illness, better quality of life, prevention of Drug resistant TB and prevent TB transmission to the child as well as others.

9. Should pregnant women living with HIV take TB preventive treatment?

   Ans: Pregnant women living with HIV are at risk for TB so after ruling out of active TB they should be provided TB Preventive Therapy (TPT) i.e. INH 300 mg + Pyridoxine 50 mg daily for six months.

10. What are Nutritional requirements in pregnant and lactating women with TB?

    Ans: Pregnant and lactating women have additional requirements of energy, proteins, folic acid, calcium, and iron, in addition to the enhanced requirements related to active disease and nutritional recovery. Pregnant women need an additional 300 cal, 15 g protein, 400 micrograms of folic acid, 1000 mg of calcium and 38 mg of iron per day. Lactating women require about 400-550 extra calories per day, 18-25 g additional protein, additional amounts of vitamin A.

11. Can a lactating mother receiving anti-TB treatment breastfeed her baby?

    Ans: Breastfeeding should not be discouraged for women being treated with the first-line anti-TB drugs because the concentrations of these drugs in breast milk are too small to produce toxicity in the nursing newborn. For the same reason, drugs in breast milk are not an effective treatment for TB disease or latent TB infection in a nursing infant. So IPT should be given to newborn after ruling out active TB among them. BCG vaccine also should be given.

12. Please update about referral linkages for diagnosis and treatment ?

    Ans: Following the screening for TB in pregnant women by ANC provider (ANM / Community Health Officer (CHO)/Staff Nurse/MO/OBGY specialist / PHN or SN of P. P. Units / MO or SN or ANM of UPHCs), she should be referred to the nearest DMC/PHI for diagnosis of TB.

    It is desirable that sputum samples should be collected at ANC site and transported to DMC. Alternatively, the presumptive TB cases may be referred to nearest DMC /PHI / NAAT site with referral slip and / or NTEP Laboratory Request Form (Form no. - Annexure 15A) if one or more of the symptoms of PTB are found. Patients with Extra Pulmonary TB (EPTB) may be referred to the appropriate nearest health facility where necessary investigations can be done. The DMC / NAAT site will return the results of the TB test to the patient / HF/ HCW. The same will be presented to the concerned HCW for recording the result. The TB clinic staff as per management guidelines stipulated in NTEP would manage the patients diagnosed with TB appropriately.

Annexure-2

Joint Reporting Format for Collaborative Framework for Management of TB in Pregnant Women			
S No.	**Activities**	**During the quarter**	**Up to the quarter in the Financial Year**
1	No. of meetings of the State Coordination Committee Meeting with dates		
2	No. of meetings of the State Technical Working Group with dates		
3	Whether State Level Advocacy Workshops held		
4	No. of participants in the Advocacy Workshops		
5	Training of Trainers programmes held		
6	Trainings on Collaborative Framework on Management of TB in Pregnancy for Health care providers		
7	No. of Participants in the Trainings on Collaborative Framework on Management of TB in Pregnancy		
8	Types of IEC materials adapted / developed (e.g. posters / stickers / handouts / wall paintings / hoardings etc.)		
9	Examples of different IEC materials disseminated		
10	Districts where District Level Comorbidity Committees have been set up		
11	Districts where meetings of the District Comorbidity Committees have taken place		
12	Total Meetings of the District Comorbidity Committees		

Annexure-3

Financial Support Available under NHM for TB Related Activities:

A. Incentives:

Individual incentives are available under NTEP as follows:

S No.	Particulars	Amount	Eligibility
Incentives available under NTEP			
1	Informant incentive for referring presumptive TB patients to public facility	Rs. 500/- per patient detected with TB on referral to a government health facility by said informant	Available for confirmed TB patient
2	Private Provider Incentive	Rs. 500/- per TB patient notified and Rs. 500/- on reporting treatment outcome per patient	Private Providers (Private Practitioner, Hospital, Laboratory, and Chemist) whonotify/inform (refer) TB patients to NTEP on Nikshay and declare the outcome.
3	Treatment supporter incentive	Rs. 1000/- per DSTB patient & Patients on H-Monopoly and Rs. 5000/- per DRTB patientfor 'Treatment Supporter' on completion of treatment	On the update of Outcome for Drugsensitive TB patients Rs. 2,000/- on completion of Intensivephase (IP) and Rs.3,000/- on completion of continuation phase (CP)of treatment for Drug-Resistant TB patients
4	Transportation support for patients from tribal area	Rs. 750/- as one-time support	Upon notification for TB patient notified from notified Tribal areas (not applicable for WB at present)
5	Transportation support for DRTB patients	As per rates defined by State Government	All DR-TB patients
6	Injection prick charges for DRTB patients	Rs. 25/- per injection	For persons who are not supported by Government for providing injection to DRTB patient
7	Nikshay Poshan Yojana - To provide nutritional support to TB patients at the time of notification and subsequently during the course of treatment	Rs.500/- for a treatment month paid in installments of up to Rs.1000/- as an advance	All unique TB patients notified on orafter 1st April 2018 (including all existing TB patients under treatment for at least one month from this date)

B. Other financial support available for TB related activities:

Support under NTEP is available for the following activities:

- Screening, referral linkages and follow-up under Latent TB Infection Management.
- Incentives for Active TB Case Finding.
- Community meetings.
- Patient provider meetings.
- School/college-based activities.
- Sensitization of private providers, NGOs, PRIs.
- IEC activities such as folk, mela, street plays, signages, wall paintings, wall writings, hoardings, banners, miking.

Funding for the above will be as per the rates and plan approved by in the programme under NHM with due approvals of the competent authority of the Department.

Annexure-4

NTEP Request Form for examination of biological specimen for TB (Required for Diagnosis of TB, Drug susceptibility Testing and follow up)

NTEP Request Form for examination of biological specimen for TB
(Required for Diagnosis of TB, Drug susceptibility Testing and follow up)

Patient Information

Patient name		**Age (in yrs):** ____	**Gender:** ☐M ☐F ☐TG
Patient mobile no. or other contact no.		**Specimen collection date** (DD/MM/YY) _____	☐ Sputum ☐ Other (specify)_____
Aadhaar no. (if available)			
Patient address with landmark		**HIV Status:** ☐Reactive ☐Non-Reactive ☐Unknown	
		Key populations: ☐Contact of known TB Patient ☐Diabetes ☐Tobacco ☐Prison ☐Miner ☐Migrant ☐Refugee ☐ Urban slum ☐Health-care worker ☐Other(specify)	

Name and Type of referring facility (PHI/DMC/TU/ DTC/ICTC/ART/Medical College/DR-TB Centre/RBSK/Private Others, specify): _____
Type of patient: ☐ Public sector ☐ Private sector
Health Establishment ID (NIKSHAY): _ _ _ _
Episode ID: _____
State: _____ **District:** _____ **Tuberculosis Unit (TU):** _____

Reason for Testing

Diagnosis and follow up of TB

Diagnosis of TB		Follow up (Smear and culture)
H/O anti TB Rx for >1 month: ☐ Yes ☐ No		Reason: ☐ End IP ☐ End CP
☐ Presumptive TB ☐ Repeat Exam ☐ Presumptive NTM ☐ Contact of DR TB	Predominant symptom _____ Duration _____ days	Post treatment: ☐ 6m ☐ 12m ☐ 18m ☐ 24m

Diagnosis and follow up Drug-resistant TB

Diagnosis of DR TB (DRT/ DST)		Follow up (Smear & culture)
Presumptive MDR TB	☐ New ☐ Previously treated	Treatment follow up month: _____
	☐ At TB diagnosis	Type of case:
	☐ Follow up Sm+ve	☐ H mono/poly TB ☐ MDR/RR TB ☐ XDR TB
	☐ Presumptive H mono/poly	Regimen Type:
Presumptive XDR TB	☐ MDR/RR TB at Diagnosis	☐ All oral H mono/poly TB regimen
	☐ Failure of MDR/RR TB regimen	☐ Shorter MDR TB regimen
	☐ Recurrent case of second line treatment	☐ All oral longer regimen
		☐ Any other regimen _____
		Regimen composition:
		☐ Lfx ☐ Mfx[b] ☐ Bdq ☐ Lzd ☐ Cfz ☐ Cs ☐ Z ☐ E ☐ Eto ☐ Dlm ☐ Am ☐ Km ☐ Cm ☐

Test requested:

☐ Microscopy ☐TST ☐IGRA ☐Chest X-ray ☐Cytopathology ☐Histopathology ☐ CBNAAT ☐ TruNAAT
☐ Culture ☐DST ☐FL -LPA ☐SL -LPA ☐Gene Sequencing ☐Other (Please Specify) _____
Requested by (Contact No. & Designation and Signature): _____
Contact Number: _____ Email ID: _____

Results:

Microscopy (☐ ZN ☐ Florescent) Test ID: _____

	Lab Sr. No	Visual appearance	Result				
			Negative	Scanty	1+	2+	3+
Sample A		S M B					
Sample B		S M B					

Date tested: _____ **Date Reported:** _____ **Reported by:** _____
Laboratory Name: _____ **(Name and Signature)**

Date of specimen received: _____

Nucleic Acid Amplification Test (NAAT)	Lab serial _____ Test ID: _____			
Type of test	☐ CBNAAT	☐ TrueNat		
Sample	☐ A	☐ B		
M. Tuberculosis	☐ Detected	☐ Not Detected	☐ N/A	
Rif Resistance	☐ Detected	☐ Not Detected	☐ Indeterminate	☐ N/A
Test	☐ No Result ☐ Invalid	☐ Error – Error Code_____	(Please arrange for fresh sample)	

Date tested: _____ **Date Reported:** _____ **Reported by:** _____
Laboratory Name: _____ **(Name and Signature)**

Culture (☐ LJ ☐ LC) Test ID: _____

Lab Sr. No	Negative	Positive	NTM (write species)	Contamination

Date Result: _____ **Date Reported:** _____ **Reported by:** _____
Laboratory Name: _____ **(Name and Signature)**

First line LPA Lab serial _____ Test ID: _____

☐ Direct ☐ Indirect ☐ Valid ☐ Invalid ☐ MTB detected ☐MTB not detected

Drug	**Resistant detected**	**Final interpretation**	**Remark**
Rifampicin (R)	☐ Yes ☐ Inferred ☐ No	If yes or inferred, R should not be given	
Isoniazid (Kat G)	☐ Yes ☐ Inferred ☐ No	If yes or inferred, H(h) should not be given	
Isoniazid (Inh A)	☐ Yes ☐ Inferred ☐ No	If yes or inferred, H(h) can be considered & Eto should not be given	

Date Result: _____ **Date Reported:** _____ **Reported by:** _____
Laboratory Name: _____ **(Name and Signature)**

Second line LPA Lab serial _____ Test ID: _____

☐ Direct ☐ Indirect ☐ Valid ☐ Invalid ☐ MTB detected ☐MTB not detected

Drug	**Resistant detected**	**Final interpretation**	**Remark**
Levofloxacin	☐ Yes ☐ Inferred ☐ No	If yes or inferred, Lfx should not be given. Mfx (h) can be considered.	
Moxifloxacin (h)	☐ Yes ☐ No	If yes, Lfx & Mfx (h) should not be given	
Amikacin	☐ Yes ☐ Inferred ☐ No	If yes or inferred, Am should not be given	
Kanamycin	☐ Yes ☐ Inferred ☐ No	If yes or inferred, Km should not be given	
Capreomycin	☐ Yes ☐ Inferred ☐ No	If yes or inferred, Cm should not be given	

Date Result: _____ **Date Reported:** _____ **Reported by:** _____
Laboratory Name: _____ **(Name and Signature)**

Drug Susceptibility Test (DST) results Test ID: _____

Lab Sr.No	1st line drugs					SLI				FQ				Other										
	R	H (0.1)	H (0.4)	Z	E	S	Km	Cm	Am	Lfx	Mfx (0.5)	Mfx (1)	Mfx (2)	PAS	Lzd	Cfz	Cir	Azi	Bdq	Dlm	Eto	Cs		

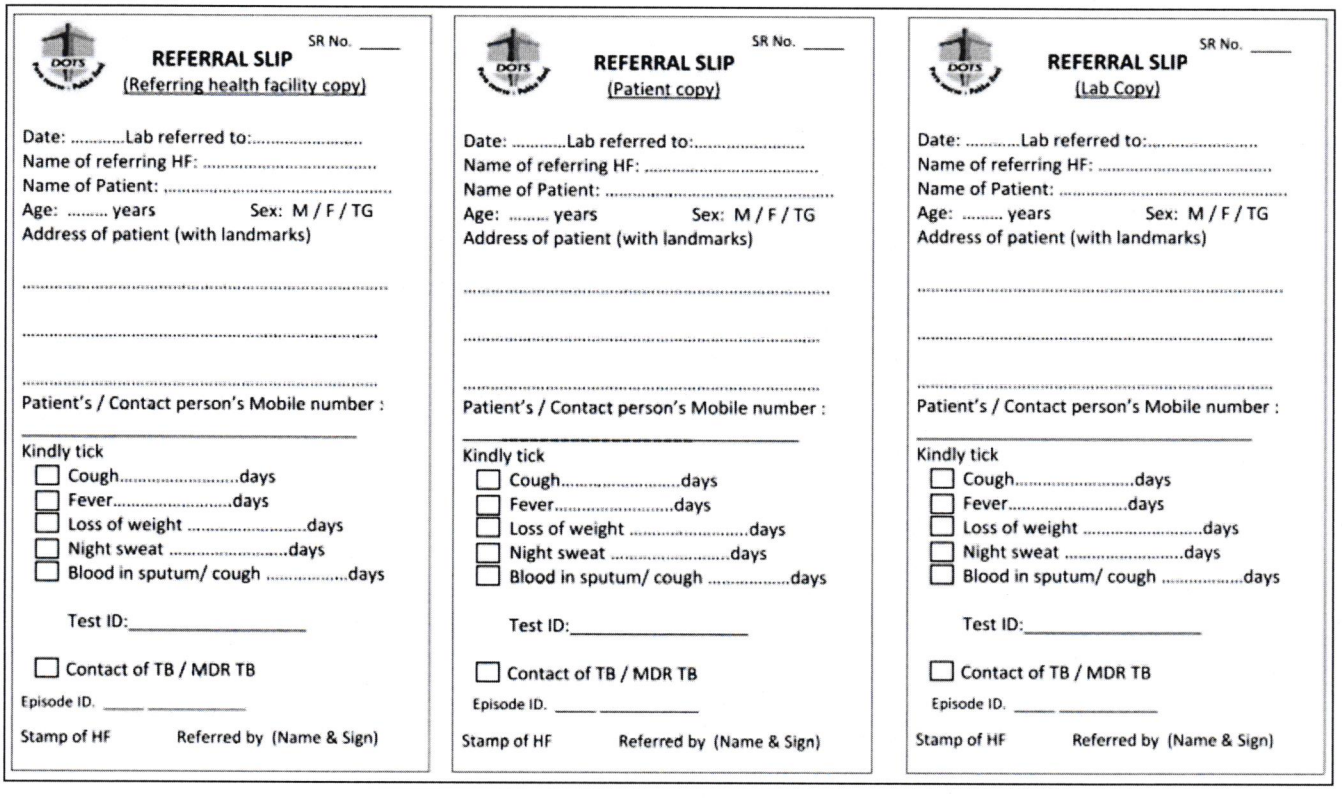
Date Result: _____ **Date Reported:** _____ **Reported by:** _____
Laboratory Name: _____ **(Name and Signature)**
R: Resistant, S: Susceptible, C: Contaminated, -- Not done

Other tests for TB diagnosis Test ID: _____

Test (Please Specify): _____
Result: _____
Date reported: _____ **Reported by:** _____
Laboratory Name: _____ **(Name and Signature)**

Annexure-5

Referral Slip for Presumptive TB cases



REFERRAL SLIP
(Referring health facility copy)

SR No. ____

Date: .....Lab referred to:.....
Name of referring HF: .....
Name of Patient: .....
Age: ..... years Sex: M / F / TG
Address of patient (with landmarks)

.....

.....

.....
Patient's / Contact person's Mobile number :

Kindly tick
- ☐ Cough.....days
- ☐ Fever.....days
- ☐ Loss of weight .....days
- ☐ Night sweat .....days
- ☐ Blood in sputum/ cough .....days

Test ID:_____

☐ Contact of TB / MDR TB

Episode ID. ____ _____

Stamp of HF Referred by (Name & Sign)

REFERRAL SLIP
(Patient copy)

SR No. ____

Date: .....Lab referred to:.....
Name of referring HF: .....
Name of Patient: .....
Age: ..... years Sex: M / F / TG
Address of patient (with landmarks)

.....

.....

.....
Patient's / Contact person's Mobile number :

Kindly tick
- ☐ Cough.....days
- ☐ Fever.....days
- ☐ Loss of weight .....days
- ☐ Night sweat .....days
- ☐ Blood in sputum/ cough .....days

Test ID:_____

☐ Contact of TB / MDR TB

Episode ID. ____ _____

Stamp of HF Referred by (Name & Sign)

REFERRAL SLIP
(Lab Copy)

SR No. ____

Date: .....Lab referred to:.....
Name of referring HF: .....
Name of Patient: .....
Age: ..... years Sex: M / F / TG
Address of patient (with landmarks)

.....

.....

.....
Patient's / Contact person's Mobile number :

Kindly tick
- ☐ Cough.....days
- ☐ Fever.....days
- ☐ Loss of weight .....days
- ☐ Night sweat .....days
- ☐ Blood in sputum/ cough .....days

Test ID:_____

☐ Contact of TB / MDR TB

Episode ID. ____ _____

Stamp of HF Referred by (Name & Sign)

Annexure-6

Infection Control Measures Guidelines:

1. **Location and design:**
   a) Ante Natal Clinics should have a well- ventilated waiting and seating area. Separate, well-ventilated waiting area for respiratory symptomatic should be made available wherever possible (larger ART Centres).
   b) Adherence to ventilation standards for airborne infection control (>12-15 ACH throughout during all hours of operation, in all seasons) should be ensured.
   c) ANC should be preferably located far away from Designated Microscopy Centre/DOT Centres.
   d) Open outdoor roofed additional waiting areas are encouraged, as are token systems to decompress crowded areas.
   e) As far as possible, use of re-circulating air conditioners in the waiting area should be avoided as these have been found to be leading to no air exchange.

2. **General Hygiene:**
   a) Hand washing facility (Universal Precaution) shall be in place for doctors, health care workers and patients.
   b) Running water, soap and alcohol hand rub solution shall be provided.
   c) Frequent wet mopping of the patient waiting area shall be undertaken.
   d) Lavatory shall be kept clean.
   e) An appropriate waste segregation and disposal system shall be in place.

3. **Cough Hygiene for persons with respiratory infection:**
   a) Cover the mouth and nose with a tissue/ handkerchief when coughing and dispose of used tissue in waste containers.
   b) Use a mask if coughing. Surgical mask may be issued to coughing patients.
   c) Perform hand hygiene (use an alcohol-based hand rub or wash hands with soap and water) after contact with respiratory secretions.
   d) Display sign boards requesting patients and family members with acute febrile respiratory illness to use respiratory hygiene/cough etiquette.
   e) Educate HCWs, patients, family members, and visitors on the importance of containing respiratory aerosols and secretions to help prevent the transmission of influenza and other respiratory infections.

4. **Training of hospital staff:**
   a) All the hospital staff should be trained in Universal Workplace Precaution, Bio Medical Waste Segregation and Disposal and Air borne Infection Control Practices, with special reference to Tuberculosis prevention.

Annexure-7

Mother and Child Protection Card (MCP Card) - TB related recording

Any Complaints					
Cough/Fever(more than 2 wks)					
No Weight Gain in last 3 months					
Night Sweat					
Localized swelling in the body					

ABDOMINAL EXAMINATION

Fundal Height Weeks in cm					
Lie/Presentation					
Fetal Movements	Normal/Reduced/ Absent	Normal/Reduced/ Absent	Normal/Reduced/ Absent	Normal/Reduced/ Absent	Normal/Reduced/ Absent
Fetal Heart Rate per Minute					
P/V if Done					

ESSENTIAL INVESTIGATIONS

Hemoglobin (Gms)					
Urine Albumin					
Urine Sugar					
HIV Screening					
Syphilis					
Ultrasonography (Y/N)					
Gestational Diabetes Mellitus					
NAAT test (if TB symptoms present)					

Blood Group & Rh Typing

Date / /

Family Planning Counselling (Y/N)				
Any other Complications and Referral Requirements (Y/N)				
Couch/Fever(more than 2 wks)				
No Weight Gain in last 3 months				
Night Sweat				
Localized swelling in the body				

Jaundice				
Condition of Umbilical Stump				
INH prophylaxis (if mother / any family member has/had active TB)				

* Three extra visits if birth weight < 2.5kg

**For Institional delivery Day 01 Home visit not applicable. ASHA will conduct home visits of the new born on 1st Day (not applicable for institutional delivery), 3rd, 7th, 14th, 21st, 28th and 42nd Day.

If baby is less than 2 kg, contact ANM for support, for continued breastfeeding and Kangaroo mother care

20/3/2023

Jt. DHS (FW) & SFWO
Dept. of Health & Family Welfare
Govt. of West Bengal

20/03/23

Jt. DHS (TB) & SPO (NTEP)
Dept. of Health & Family Welfare
Govt. of West Bengal

20/03/2023

ADHS (Maternal Health)
Dept. of Health & Family Welfare
Govt. of West Bengal

20/03/23

ADHS (TB)
Dept. of Health & Family Welfare
Govt. of West Bengal