Integrating Tuberculosis Prevention and Treatment into Focused Antenatal Care in Eastern Province, Kenya: A Pilot Project

Period of Report: February 2007 - January 2008

Implementing Partner: Jhpiego

Other Collaborating Partner: Ministry of Health, Kenya

Funding Source: USAID East Africa

Background

In partnership with the Ministry of Health's Division of Leprosy, Tuberculosis and Lung Diseases (DLTLD) and the Division of Reproductive Health (DRH), Jhpiego, with funding from USAID East Africa, implemented a pilot project to strengthen and integrate Tuberculosis (TB) screening, referral, diagnosis and treatment for pregnant women into focused antenatal care (ANC) services. To build on prior DRH efforts to scale-up focused ANC service delivery, the objectives of this project were to:

1. Improve service delivery for ANC clients;
2. Improve service provider knowledge and skills to effectively screen, refer, diagnose, and treat TB-ANC patients; and
3. Strengthen linkages between national TB division and DRH. Results include:

This project was implemented in Eastern Province, where Jhpiego is leading a USAID-funded partnership on AIDS, Population, and Health Integrated Assistance Program (APHIA II). By targeting Eastern Province, economies of scale were realized between APHIA II and this program. In consultations with the Ministry of Health, four health facilities were selected for the pilot Mbeere district: Mbeere District Hospital, Siakago Sub-District Hospital, Gategi Health Center and Kiritiri Health Center.

The Intervention

Baseline Survey

A baseline survey was conducted in May 2007 in Meru District Hospital, which was to be included as one of the pilot sites for this project. However, following consultations with the Provincial Medical Officer of Health, Mbeere District Hospital was selected instead.

The survey revealed that very few health workers at the hospital had been trained on FANC. No ANC clients were being screened for TB (see table below). Clients who were

suspected to have TB were referred to the TB clinic. No records were kept for these referrals.

Table: Number of Clients who attended Meru District Hospital ANC (March to May 07)

Date	**Number**
New ANC clients	731
Revisits	2113
Number counseled on HIV	753
Number tested for HIV	753
Number screened for TB	All sick patients including those suspected to have TB at the ANC are referred to OPD or maternity. They are not seen at the ANC hence TB cases are not captured
Number on TB treatment	
Number referred to TB clinic	
Number referred from TB clinic	
Number referred to CCC	34
Number on ARV's	34

FANC Training Package

Training materials development was conducted between February and May 2007. In collaboration with Population Council and DRH, the focused antenatal care (FANC) training package was updated to include sections on TB screening, referral, diagnosis and treatment. The raining package comprises an Orientation Package on FANC and three job aids (FANC, MIP and TB Diagnostic flow chart/TB treatment regimen). The training package integrated key information on TB, malaria in pregnancy (MIP), and prevention of mother to child transmission of HIV (PMTCT). The revised training materials were pre-tested before finalization. These materials are simple, user-friendly and adapted to the country context including the flow of patients in most public health clinics.

Training of Health Workers

The orientations for health workers took place in July 2007. Jhpiego used adult learning techniques including role plays, case studies and practice sessions during orientation sessions to ensure that those orientated gained the knowledge and skills required to implement this project. As part of the project, trainers were developed on the integrated FANC approach and utilized to train other health workers. Health workers who were trained on FANC were assisted to train their colleagues using the cascade approach, which is a cost-effective approach for transferring knowledge and skills to other health workers at facility level. Supportive supervision and clinical mentoring strategies were used to strengthen acquired knowledge and skills.

Program Evaluation

This evaluation was conducted in the period September to November 2007. The aim of the evaluation was to determine whether the intervention had any effects on TB screening, diagnosis and referral for ANC clinic attendees. Further information was gathered during support supervision carried out in December 07.

Program Achievements

- Development of FANC/TB training package (FANC Orientation Package and three Job aids – FANC, MIP, TB Diagnostics Flow Chart) which was approved by the Ministry of Health and has since been reproduced by WHO, Population council, APHIA II, among others partners

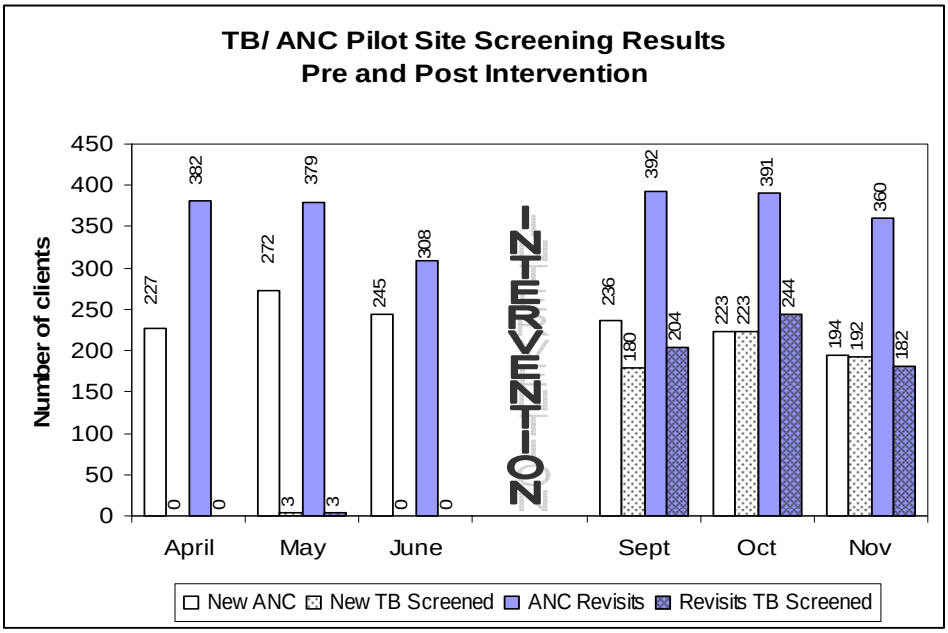
- 30 Provincial and district trainers and supervisors have been developed and they providing FANC trainings through the APHIA II Eastern

- 50 service providers from Mbeere district were orientated to FANC/TB. It is estimated that an additional 300 service providers were updated by their colleagues.

- Enhanced collaboration between three key Ministry of Health's divisions: Division of Reproductive Health (DRH), Division of Malaria Control (DOMC), and Division of Leprosy, TB and Lung Disease (DLTLD).

- As figure below illustrates, there has been an increase in the number of ANC mothers screened for TB following the intervention. Routine TB screening for mothers attending ANC clinics was not the practice in the three months preceding the intervention i.e. April, May and June 07.

Figure: TB Screening at ANC Clinics in Mbeere District (Apr to Nov 07)



Approximately 1,796 antenatal visits were screened for TB over three months (September to November 2007) in the four pilot health facilities following the intervention. 595 of 653 (91%) new ANC visits were screened for TB. About 55% ANC re-visits were screened for TB in the same period in the pilot sites. However, despite this level of screening, only three patients were referred to the TB clinic. All of them sputum negative smears but one was confirmed with TB on chest X-ray.

Challenges

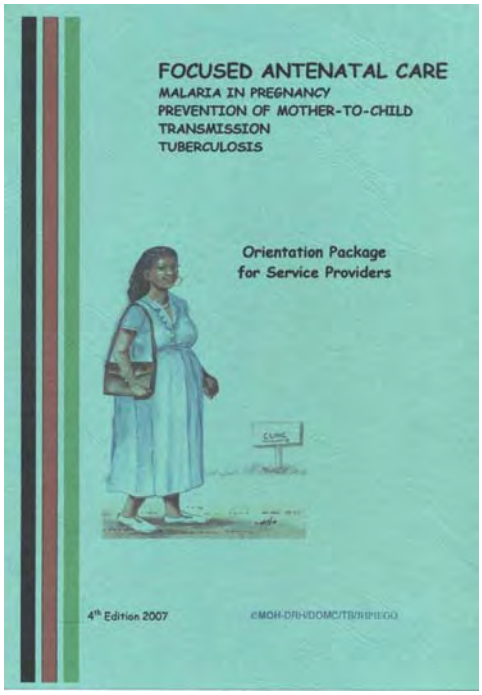
- Staff shortages and frequent transfers of trained and experienced staff
- Documentation for referrals within the facility was often lacking especially referral between ANC and laboratory.

Lessons Learned

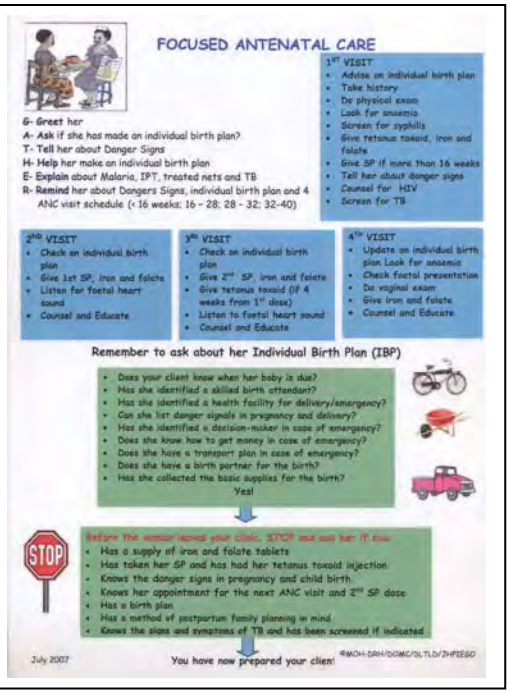
- TB screening during pregnancy is a relatively new program in Kenya. Therefore, buy-in and support from stakeholders at all levels of the health care system was critical
- There was need to orientate all staff within the facility because of frequent staff re-assignment to different units within the facility
- A check list for TB screening is required to remind staff of the key questions to ask during screening and the actions to take
- Health facilities need referral slips to help track referrals between different units
- Due to frequent staff transfers, orientations of new staff should be planned on a continuing basis.

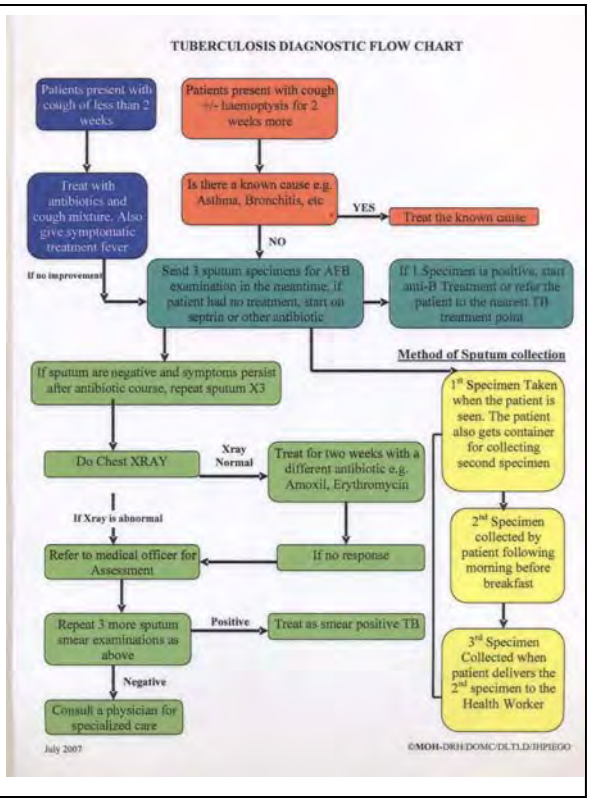
Next steps

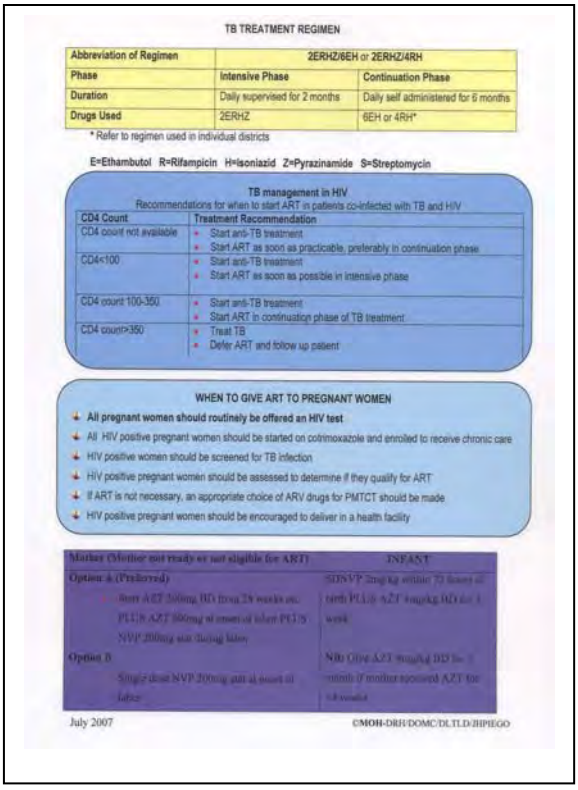
- Develop a core of FANC trainers at central MOH and provincial level in order to roll out trainings at district level
- Scale-up training of health workers at district level through the APHIAs
- Strengthen referral linkages between TB and the ANC programs (referral slips, ensuring availability of ANC registers, etc)



"…Clients now come earlier for antenatal care services" (Nurse Ishiara







TB TREATMENT REGIMEN

Abbreviation of Regimen	2ERHZ/6EH or 2ERHZ/4RH	
Phase	Intensive Phase	Continuation Phase
Duration	Daily supervised for 2 months	Daily self administered for 6 months
Drugs Used	2ERHZ	6EH or 4RH*

* Refer to regimen used in individual districts

E=Ethambutol R=Rifampicin H=Isoniazid Z=Pyrazinamide S=Streptomycin

TB management in HIV

Recommendations for when to start ART in patients co-infected with TB and HIV

CD4 Count	Treatment Recommendation
CD4 count not available	• Start anti-TB treatment • Start ART as soon as practicable, preferably in continuation phase
CD4<100	• Start anti-TB treatment • Start ART as soon as possible in intensive phase
CD4 count 100-350	• Start anti-TB treatment • Start ART in continuation phase of TB treatment
CD4 count>350	• Treat TB • Defer ART and follow up patient

WHEN TO GIVE ART TO PREGNANT WOMEN

- All pregnant women should routinely be offered an HIV test
- All HIV positive pregnant women should be started on cotrimoxazole and enrolled to receive chronic care
- HIV positive women should be screened for TB infection
- HIV positive pregnant women should be assessed to determine if they qualify for ART
- If ART is not necessary, an appropriate choice of ARV drugs for PMTCT should be made
- HIV positive pregnant women should be encouraged to deliver in a health facility

Mother (Mother not ready or not eligible for ART)	INFANT
Option A (Preferred) Start AZT 300mg BD from 28 weeks etc PLUS AZT 300mg at onset of labor PLUS NVP 200mg stat during labor	SDNVP 2mg/kg within 72 hours of birth PLUS AZT 4mg/kg BD for 1 week
Option B Single dose NVP 200mg stat at onset of labor	NB: Give AZT 4mg/kg BD for 1 month if mother received AZT for 4 weeks

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