Report to the University Research Co. LLC (URC-Georgia)

USAID Georgia Tuberculosis Prevention Project

Training of Family Physicians and Nurses in TB early detection and management in primary care settings

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1. Introduction and responsibility

Based on Purchase Order (effective date April 3, 2012), the University Research Co. LLC (URC)engaged the Georgia Family Medicine Association to provide Training of 200 FPs and 200 PHC Nurses on early detection and management of TB in General Practice for (TB Integration into General Health Facilities in Georgia) undertaking the Georgia Tuberculosis Prevention Project.

All deliverables shall be reviewed for approval by the URC-Georgia Chief of Party.

2. Executive Summary

Georgia has recently undertaken a national integration of TB services into general health care facilities, and this integration is actively underway.

Integration of TB services into PHC poses some unique challenges, given the airborne spread of the disease, the stigma associated with TB, and the poor and vulnerable populations who are at increased risk for TB. Previously, TB control had been carried out through a vertical system lead by the National Center for TB and Lung Disease (NCTBLD). Under the new structure, a variety of public and private stakeholders will be involved in TB care, including the NCTBLD, the National Center for Disease Control and Public Health (NCDCPH), PHC providers, and health care facility owners and investors.

The new integrated system may offer easier access to high quality TB diagnostics for a larger population of individuals. There is great potential for increased collaboration between TB services and PHC as well. It is important, however, that the quality of TB care not decline, and that increases in case detection rates are matched by improved outcomes for all individuals within the system. Attention must be giving to improving infection control; improving the quality of DOTS; and taking a patient-centered approach to TB care. Efforts are needed to strengthen the program of LTBI screening and treatment. Close monitoring and supervision of clinical care must be provided, and there needs to be a manner of supervisory integration from both the NCTBLD and the PHC system.

Under the Global Fund Project, some PHC providers undergo an intense and very elaborate training on TB, including management of MDRTB and XDRTB cases. URC has analyzed data from a small study of PHC providers who have undergone this training. A study from Canada found that if training and guidelines are too complicated, PHC providers do not retain knowledge from trainings about TB, especially if they manage only a few TB patients in their practice. Thus the training of PHC providers will need to be concise and focus on their expected competencies (i.e. screening, referral and potentially assisting with DOT).

The NCTBLD in collaboration of FM experts should propose a list of expected competencies for PHC providers in the management of TB patients. This can be developed with the assistance of URC.

It could include the following competencies:

- a) Screening patients for signs and symptoms of TB;
- b) The process and procedure for making patient referrals to TB services;
- c) Basic clinical monitoring of patients on TB therapy, including adverse effects and "red

flags" indicating a need for immediate clinical intervention

3. Outline Proposed Scope of Work (SOW)

The consultant (Georgia Family Medicine Association) should accomplish the following activities:

- Based on the results of primary care providers training needs assessment completed in March 2012 by USAID Georgia TB Prevention Project revise/update existing training modules and materials elaborated within the Global Fund round 10 TB care project;
- Organize training programs for family physicians and nurses:
- Conduct training courses for 200 family physicians and 200 family nurses. [The length of the course for both physicians and nurses is 16 hours]

4. Consultants' Report

- i. Detailed scope of work (GFMA) is appended in annex 1.
- Announced tender (Web page: Jobs.ge) seeking for training experts to develop and conduct short-term training courses for primary care physicians and nurses in TB detection and management.

Post of announcement is appended in annex 2.

- iii. Identified training experts/trainers to develop and conduct short-term training courses for primary care physicians and nurses in TB detection and management. List of selected experts/trainers to participate in the project is appended in annex 3.
- iv. Developed plans with project consultants (activities and time scale) for the 1st phase of the contract
 Plan and activities for the 1st phase is appended in annex 4
- v. Reviewed project progress and proposed activities on a regular basis project progress is appended in annex 5
- vi. Provision of revised/updated existing training modules and materials elaborated within the Global Fund round 10 TB care project.
 Revised module/material is appended in annex 6
- vii. Next steps

Planned further activities is appended in annex 7

5. Annexes

Annex 1: Scope of Work (SOW)

The consultant (Georgia Family Medicine Association) should accomplish the following activities:

- Based on the results of primary care providers training needs assessment completed in March 2012 by USAID Georgia TB Prevention Project revise/update existing training modules and materials elaborated within the Global Fund round 10 TB care project;
- Organize training programs for family physicians and nurses:
 - Identify trainers for family physicians and nurse training programs
 - Conduct a trainers orientation session to achieve a shared understanding of the training approaches, methodology and expected outcomes
 - Establish service contracts with Family Medicine and TB specialist trainers to ensure delivery of training activities
 - Develop a detailed training schedule and submit it to the TPP training coordinator for review and approval
 - Identify and secure an adequate training environment and training equipment for small group teaching (20 participants in each group)
 - Prepare handouts and other printed media for distribution to trainees
- Conduct training courses for 200 family physicians and 200 family nurses. [The length of the course for is 16 hours]
- o Monitor and record daily attendance of trainees
- Prepare the report on implementation of the training programs

Annex 2: Post of announcement for seeking Training experts in TB management

Subject: Training experts to conduct TB management courses for family physicians and nurses

Organization: GFMA (Georgia Family Medicine Association)

Georgia Family Medicine Association is seeking for training experts to develop and conduct short-term training courses for primary care physicians and nurses in TB detection and management. The training program is funded by USAID Georgia TB Prevention Project that is implemented by University Research Co. LLC.

The training program starts in May and ends in August 2012.

Roles and responsibilities:

- 1. Revise/develop training program, materials and assessment tools taking into consideration the training need assessment findings and international experience.
- 2. Conduct training sessions for FP and nurses
- 3. Report to the training director on a regular basis

Required qualifications:

- 1. At least 5 years of training experience in Family Medicine or Tuberculosis Management
- 2. Training programs design experience
- 3. Experience of developing training materials
- 4. Good understanding of Georgia health reform strategies in relation to developing integrated TB care model
- 5. Professional affiliation with Georgia Family Medicine Association or Georgia Association of TB and Lung specialists would be an asset.
- 6. Experience with FM and tuberculosis service delivery programs preferred
- 7. Excellent communication and presentation skills, analytical and interpersonal abilities, excellent oral and written communication skills in English
- 8. Ability to work under pressure and in a team environment
- 9. Ability to travel to the regions of Georgia if necessary

Please send your CV no later than May 14, 2012 to <u>nfmtc@nilc.org.ge</u>

Annex 3: List of selected experts/trainers to develop and conduct short-term training courses for primary care physicians and nurses in TB detection and management

- 1. Zaza Dgebuadze Director Zugdidi Regional Hospital of Tuberculosis; Regional Coordinator in Tuberculosis Control Programme (NCDCPH)
- Marine Janjgava, MD., MPH National Center for Tuberculosis and Lung Diseases, Head of the TB Program Management-Coordination and Tuberculosis Control service
- Lamara Vashakidze, MD. Ph. D.National Center for Tuberculosis and Lung Diseases - Head of Scientific-Educational Department; Tbilisi State Medical University, Georgia - Head of Phthysiological Department, Full Professor
- 4. Guram Kiknadze Tbilisi State Medical University, Georgia Head of Family Medicine Department, Professor
- 5. Givi Javashvili Associate Professor, Family Medicine Department, Tbilisi State Medical University
- 6. Marina Shikhashvili GP Trainer, expert
- 7. Nana Gudavadze GP Trainer
- 8. Eteri Jajanidze GP Trainer
- 9. Marina Jimukhadze GPN trainer
- 10. Qetevan Kokiauri GPN Trainer
- 11. Irina Avalishvili GPN Trainer
- 12. Khathuna Jojua GPN Trainer

Annex 4: Plan and activities for the 1st phase

i. Meeting with experts - 15/05/2012

- o Introduce proposed scope of work and specific responsibilities within the contracts.
- Introduce special requirements with which consultants must comply in the performance of the assignment, because consultants are being compensated with A.I.D. funds.
- Explain them how to get paid, to complete a contractor employee biographical data sheet and a "Consultant Fee Voucher" for personal services on a monthly basis and further processing.

ii. Meeting with experts - 18/05/2012

- Review of training needs assessment survey for family physicians and nurses conducted by TPP team;
- Review of available training modules and materials designed in previous years with support of USAID and GF financed training programs And acquire Indonesia training modules received from the URC-Georgia office.
- The leaders of FM and TB specialist professional groups agreed that previous trainings were very comprehensive and elaborated, and that revisions and updates to the trainings are needed. Also, it was agreed that future trainings need to be concise and focus on their expected competencies such as:
 - a) Screening patients for signs and symptoms of TB;
 - b) The process and procedure for making patient referrals to TB services;
 - c) Basic clinical monitoring of patients on TB therapy, including adverse effects and "red flags" indicating a need for immediate clinical intervention.

iii. Agreed Plan:

- TB specialists plan and deliver training programs for the first training day (8 hours) for FPs and nurses;
- FM specialists plan and deliver training programs for the second training day (8 hours) for FPs and nurses;
- The revised/updated training modules and materials will be completed at the end of May, 2012

Annex 5: Project progress

The Project progress has been encouraging.

TB and PHC Experts recognize that the integrated model of TB care delivery cannot be implemented without an effective collaboration between primary care professionals and TB specialists.

Annex 6: Revised/updated modules

Training Courses for Primary Care Physicians in TB Detection and Management

The Family Medicine Physician must manage primary contacts with patients who have TB related problems. The Family Medicine Physician must have empathy and compassion with the patient, be able to negotiate a management plan with the patient and be able to coordinate care with other primary health care professionals and know when referral to a specialist service is necessary.

The overall aim is to:

- Have an appropriate knowledge-based of clinical theory and practice in dealing with TB.
- Develop analytical and diagnostic skills including evidence based medicine, the use of clinical guidelines and the development of cost- effective treatments in the treatment of TB. Also, interactive skills will be enhanced in patient examination, recording and using information.
- Use the knowledge and skills acquired to be able to treat patients including emergency treatments and effectively communicate with patient and relatives and if necessary to refer the patient to other specialists for treatment.

Learning Outcomes

After completing the professional training program the family medicine physician will:

- Have the knowledge to identify the relevant symptoms and investigations necessary to be able to make a diagnosis of common and important TB conditions and understand the principles of treatment including emergency care.
- Have the necessary skills to undertake a patient examination.
- o Use the knowledge and skills to organize a treatment regime for TB.

The knowledge- based

The Family Medicine Physician will be expected to know:

- How to identify the symptoms, signs, course and complications of TB conditions commonly encountered in primary care in different age groups and genders.
- The basis of diagnosing: advanced peculiarities of tuberculosis epidemiology, early signs of TB intoxication manifestation in children, clinical picture characteristic for primary TB complex in children and adults, clinics of respiratory system TB and mostly prevailed nonlung forms and be able to provide:
- o Modern anti-TB strategy and main requirements of the anti-TB state program;
- Etiology and pathogenesis of TB;
- Modern epidemiology of TB;
- Modern diagnostic methods of TB;
- Modern classification of TB and «case» definitions according to WHO ;
- o Clinical symptoms of pulmonary and extra pulmonary TB in children and adults;

Standard short-term controlled chemotherapy of TB and its monitoring ;

- Emergencies in TB (hemorrhage from lungs, spontaneous pneumothorax);
- Management of TB high risk groups;
- Modern TB registration and reporting system.
- Understand the principles of treatment of TB cases managed in primary care including the use of treatment protocols.

The Skills-Based

The Family Medicine Physician will be expected to be able to:

- o Take epidemiological history of TB.
- o Perform technically, evaluate and interpret results of tuberculin skin allergic test.
- Use the methods of evacuation of liquid and air from the pleural cavity.
- Perform all those procedures necessary for life threatening conditions caused by TB at primary care level.
- Fill registration and reporting forms.
- Undertake BCG vaccination technique, evaluation of test results and interpretation of immunization results.
- o Coordinate anti-epidemic measures at the sites of TB.
- Manage and monitor standard short-term chemotherapy in ambulatory setting.
- Patient education methods in TB.

The Treatment regimen

The Family Medicine Physician will be expected to be able to negotiate a treatment regime with

the patient including:

- Provision of emergency care and acute management of meningitis.
- Advice on preventive measures and health education and advice for people with TB.
- Treatment action of common TB problems in primary care and where necessary referral to secondary care management of TB problems including surgical options.

Contribution to Competencies

This module will contribute towards:

- Providing quality primary care management through understanding the causes of Tuberculosis and its possible treatments; The need for several interventions needed to address Tuberculosis and its complications.
- Adopting a person centered care approach by using the consultation process as a negotiation and recognizing that the tuberculosis presented must be seen within the patients overall circumstances. Patient must be encouraged to take charge of their own health with a long term partnership established with the Family Medicine Physician. Rapport building is particularly important with patients with Tuberculosis.
- **Using specific problem solving skills** by adopting an approach that places the presented Tuberculosis within its social context and gathering and interpreting information from history taking, physical examination and investigation in order to develop intervention strategies.
- **Taking a comprehensive approach** through understanding the range of possibilities available including prevention, cure, palliative care, rehabilitation and developing treatment modalities to reflect the patients preferences and possible impact of contacts and occupational causes.
- Developing a clear community orientation including understanding how epidemiological characteristics, poverty and ethnicity of the local population can affect the incidence of Tuberculosis and how preventive activities can be implemented with other social care agencies to have the greatest impact. And an awareness of the stigma and social exclusion often associated with tuberculosis.
- Adopting a holistic approach and appreciating the importance of the social psychological impact of Tuberculosis on patient's family, friends and dependents.
- **Operating in an appropriate Georgian context** by understanding the extent of Tuberculosis in Georgia and any specific local factors.

The outline training program follows: Duration 16 hours

The Training Program			
Curriculum Elements (modules)	Teaching method	Number of hours	Trainer
The Firs	t Training Day		
Pre Testing (Writ	ten tests) – 25 minutes	;	
Introduction, History and Epidemiology of Tuberculosis DOTS and ISTC information on the Stop TB framework	Presentations	25 minutes	TB specialist
Pathogenesis of Tuberculosis infection and Tuberculosis disease TB case definitions/classification TB Diagnostic Categories	Presentations Case study	60 minutes	TB specialist
Treatment of Tuberculosis infection and Tuberculosis disease	Case Discussion	45 minutes	TB specialist
Tuberculosis Infection Prevention and Control	Presentations Examples	25 minutes	TB specialist
Diagnosis of Tuberculosis infection and Tuberculosis disease Pulmonary TB Extra pulmonary TB disease TB in children Latent Tuberculosis	Lecture Study question	45 minutes 45 minutes 25 minutes	TB specialist
Multi-drug resistant Tuberculosis diagnosis and management	Presentation	20 minutes	TB specialist
Tuberculosis and HIV infection	Lecture	20 minutes	TB specialist
Adherence to Tuberculosis treatment Common Adverse Reactions	small group discussion	25 minutes	TB specialist
The Secor	d Training Day		
Role of Family Medicine (PHC) Team in TB Management	Small group discussions	25 minutes	FP

	Presentation				
Diagnosis of active pulmonary TB	Clinical Case 1.	45	FP		
	Case Discussion	minutes			
	small group				
	teaching				
Diagnosis of active pulmonary TB	Presentation	20	FP		
		minutes			
Diagnosis of extrapulmonary TB	Clinical Case 2.	45	FP		
	Case Discussion	minutes			
	small group				
	teaching				
Late complications of pulmonary TB	Lecture	15	FP		
		minutes			
Evaluation - Post testing includes completion of test-questionnaire					
Course evaluation – 30 minutes					

Clinical Case 1.

A 55 year old male presents to your office for assessment of a chronic cough. He complains of "coughing for the last years". The Cough has become more bothersome lately. The cough is productive of sputum that occasionally becomes purulent. He has a 35 year history of smoking two packs of cigarettes a day. He quit smoking approximately 2 years ago. Other symptoms include: Dyspnoea and general malaise. On physical examination: He wheezes while he talks. Chest auscultation reveals rales and rhonchi. His chest x-ray reveals lesions in the apical and posterior segments of the upper lobe and small nodules with fibrosis.

What is the most likely diagnosis in this patient?

What questions do you ask the patient If you Suspect presence of TB?

Describe the components of a TB medical evaluation

Explore presence of risk factors or Risk of Progression to Active TB during history taking

Small group discussions:

The patient described in clinical case 1 was treated in TB clinic 5 years ago. How do you manage the problem? Do you refer the patients immediately to TB clinic or refer him after treatment? Why?

Clinical Case 2.

A 30-year-old female patient presented with fever associated with chills and a dry,

nonproductive cough since one month. There was no history of tuberculosis, diabetes, or immunosuppression.

On examination, she was febrile, pulse rate of 86/min, blood pressure of 110/70 mm Hg, and respiratory rate of 16/min. There was no peripheral oedema, cyanosis, pallor, icterus or hepatosplenomegaly.

Laboratory investigations were normal. She was seronegative for HIV and the hepatic and renal function tests were within normal limits. ECG showed low voltage complexes with sinus tachycardia. Chest X-ray was normal.

What is the most likely diagnosis in this patient?

What questions do you ask the patient If you Suspect presence of Extra pulmonary TB?

Describe the components of a extrapulmonary TB medical evaluation Explore presence of risk factors or risk of progression to active TB during history taking

The patient was referred to the specialist investigations. An ultrasound guided pigtail catheter was inserted in cardio surgical department. Over the next few days 1000 ml of straw-colored pericardial fluid was drained.

The drained fluid was sent for microbiological examination. Culture showed rough and buff colonies suggestive of *M. tuberculosis*. Three early morning sputum samples were examined but were negative and the culture showed no growth after eight weeks of incubation.

The patient responded well to the pericardial fluid drainage with subsidence of the dyspnea. She was started on TB treatment. The fever subsided over a period of two weeks. The patient was responding well to the treatment, with no recurrence of symptoms or any signs of deterioration when last followed up, eight weeks after the start of therapy. Tuberculous pericarditis has a variable clinical presentation and should be considered in the evaluation of all cases of pericarditis without a rapidly self-limiting course. Prompt treatment of tuberculous pericarditis may be life saving. Effective treatment requires a rapid and accurate diagnosis, which is often difficult.

Chest radiograph which shows an enlarged cardiac shadow in more than 90% cases, demonstrates features of active pulmonary disease in 30% cases. The ECG is abnormal in

virtually all cases of tuberculous pericarditis as observed in the present case. Definite tuberculous pericarditis can be diagnosed by one or more of the following criteria:

- J Isolation of *M. tuberculosis* from pericardial effusion fluid or pericardial biopsy.
- *)* Demonstration of granulomatous inflammation on histological examination of pericardial biopsy sample.
-) Isolation of *M. tuberculosis* from sputum or non pericardial effusion exudates in the presence of clinical and/or radiological evidence of tuberculosis, associated with a positive response to antitubercular therapy and in the absence of any other obvious cause for pericarditis.

Training Courses for Primary Care Nurses in TB Detection and Management

The PHC team must manage primary contacts with patients who have TB related problems. They must have empathy and compassion with the patient, be able to negotiate a management plan with the patient and be able to coordinate care with other primary health care professionals and know when referral to a specialist service is necessary.

The overall aim is to:

- Have an appropriate knowledge-based of clinical theory and practice in dealing with TB.
- Develop analytical and assessment skills including evidence based medicine, the use of clinical guidelines and the development of cost- effective treatments in the treatment of TB. Also, interactive skills will be enhanced in patient examination, recording and using information.
- Use the knowledge and skills acquired to be able to treat patients including emergency treatments and effectively communicate with patient and relatives and if necessary to refer the patient to other specialists for treatment.

Learning Outcomes

After completing the professional training program the General Practice Nurse will:

- Have the knowledge to identify the relevant symptoms and investigations necessary to be able to assess of common and important TB conditions and understand the principles of treatment including emergency care.
- o Have the necessary skills to undertake a patient assessment.
- Use the knowledge and skills to organize a treatment regime for TB.

The knowledge- based

The Practice Nurse will be expected to know:

- How to identify the symptoms, signs, course and complications of TB conditions commonly encountered in primary care in different age groups and genders.
- The basis of diagnosing: advanced peculiarities of tuberculosis epidemiology, early signs of TB intoxication manifestation in children, clinical picture characteristic for primary TB complex in children and adults, clinics of respiratory system TB and mostly prevailed nonlung forms and be able to provide:

- o Modern anti-TB strategy and main requirements of the anti-TB state program;
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- Modern epidemiology of TB;
- Modern diagnostic methods of TB;
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- o Clinical symptoms of pulmonary and extra pulmonary TB in children and adults;

Standard short-term controlled chemotherapy of TB and its monitoring;

- o Emergencies in TB (hemorrhage from lungs, spontaneous pneumothorax);
- o Management of TB high risk groups;
- Modern TB registration and reporting system.
- Understand the principles of treatment of TB cases managed in primary care including the use of treatment protocols.

The Skills-Based

The Family Medicine Nurse will be expected to be able to:

- Take epidemiological history of TB.
- Perform technically, evaluate and interpret results of tuberculin skin allergic test.
- Use the methods of evacuation of liquid and air from the pleural cavity.
- Perform all those procedures necessary for life threatening conditions caused by TB at primary care level.
- Fill registration and reporting forms.
- Undertake BCG vaccination technique, evaluation of test results and interpretation of immunization results.
- o Coordinate anti-epidemic measures at the sites of TB.
- Manage and monitor standard short-term chemotherapy in ambulatory setting.
- Patient education methods in TB.

The Treatment regimen

The Family Medicine Nurse will be expected to be able to negotiate a treatment regime with the patient including:

- o Provision of emergency care and acute management of meningitis.
- Advice on preventive measures and health education and advice for people with TB.
- Treatment action of common TB problems in primary care and where necessary referral to secondary care management of TB problems including surgical options.

Contribution to Competencies

This module will contribute towards:

- Providing quality primary care management through understanding the causes of Tuberculosis and the possible treatments; The need for several interventions needed to address Tuberculosis and its complications.
- Adopting a person centered care approach by using the consultation process as a negotiation and recognizing that the tuberculosis presented must be seen within the patients overall circumstances. Patient must be encouraged to take charge of their own health with a long term partnership established with the Family Medicine Physician. Rapport building is particularly important with patients with Tuberculosis.
- **Using specific problem solving skills** by adopting an approach that places the presented Tuberculosis within its social context and gathering and interpreting information from history taking, physical examination and investigation in order to develop intervention strategies.
- Taking a comprehensive approach through understanding the range of possibilities available including prevention, cure, palliative care, rehabilitation and developing treatment modalities to reflect the patients preferences and possible impact of contacts and occupational causes.
- Developing a clear community orientation including understanding how epidemiological characteristics, poverty and ethnicity of the local population can affect the incidence of Tuberculosis and how preventive activities can be implemented with other social care agencies to have the greatest impact. And an awareness of the stigma and social exclusion often associated with tuberculosis.
- Adopting a holistic approach and appreciating the importance of the social psychological impact of Tuberculosis on patient's family, friends and dependents.
- Operating in an appropriate Georgian context by understanding the extent of Tuberculosis in Georgia and any specific local factors.

The outline training program follows: Duration 16 hours

The Training Program			
Curriculum Elements (modules)	Teaching method	Numbe r of hours	Trainer
The First	Training Day		
Pre Testing (Write	ten tests) – 25 minute	es	
Introduction, History and Epidemiology of Tuberculosis DOTS and ISTC information on the Stop TB framework	Presentations	25 minutes	TB specialist
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Treatment of Tuberculosis infection and Tuberculosis disease	Case Discussion	45 minutes	TB specialist
Tuberculosis Infection Prevention and Control	Presentations Examples	25 minutes	TB specialist
Diagnosis of Tuberculosis infection and Tuberculosis disease Pulmonary TB Extra pulmonary TB disease TB in children Latent Tuberculosis	Lecture Study questions	45 minutes 45 minutes 25 minutes	TB specialist
Multi-drug resistant Tuberculosis diagnosis and management	Presentation	20 minutes	TB specialist
Tuberculosis and HIV infection Adherence to Tuberculosis treatment	Lecture small group discussion	20 minutes 25 minutes	TB specialist

The Second Training Day			
Role of Family Medicine (PHC) Team in TB Management	Small group discussions Presentation	25 minutes	GPN
Assessment patient with active pulmonary TB	Presentation Asking questions	25 minutes	GPN
Assessment patient with Extrapulmonary TB	Presentation Asking questions	25 minutes	GPN
Late complications of pulmonary TB	Lecture	15 minutes	GPN
 Adherence to Tuberculosis treatment Understand importance of DOT in treatment adherence Understand importance of a patient centered approach 	Exercise A - B Written Exercise – Asking questions and listening Exercise C - D Role Play Exercise E Written Exercise - Problem Solving	60 minutes	GPN

Exercise A

Written Exercise – Asking questions and listening

Read the following story of a patient named Mr A.K., pretend that you are Mr A.K's health worker, and follow the directions given.

Mr Akhim is 37 years old. He came to the health center 2 weeks ago with an infected foot. At that time, he had also been coughing for about 4 weeks. You gave him an antibiotic for his foot and asked him to collect sputum for testing. Two sputum samples were positive (++, +). Mr A.K returned to the health center today. You have informed him that he has TB. You have determined that he is a new TB patient (never treated before).

1. List three questions that you would ask in order to understand Mr A.K's current knowledge about TB.

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Exercise B

Written Exercise – Asking questions and listening

Mr A.K believes that TB is caused by living in damp, unsanitary conditions and is spread by mosquitoes and flies. He tells you about an elderly uncle who died of TB in a hospital several years ago. He thinks that all TB patients must be treated in a hospital. He fears going to a hospital because people die there. He has never known anyone to recover from TB. Given Mr A.K's wrong beliefs about TB, list three important points to include when informing him about TB.

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Exercise C

Role Play – Initial patient information about TB

For this exercise, your facilitator will divide you into groups of three to enact a role play. In the role play, one person will act as the health worker, one as the patient and one as an observer. Then you will change roles and repeat the role play. By repeating the role play several times, each person will eventually have a turn in each role.

Background

In this role play, a 40-year-old patient, Mr S.A, has just been informed that he has TB. Two of his sputum samples were positive (++, +). He is a new case. He was not referred to the health center by anyone, but came because he was not feeling well and was coughing. He received an HIV test on the same day as the first sputum sample was collected. The HIV test was negative. He will come to the health center for directly-observed treatment.

Instructions for the health worker

In this role play, your goal is to use good communication skills to provide relevant information during the first meeting with the TB patient.

- Ask the patient questions about TB, its transmission, symptoms, household contacts, risk factors; listen to the patient's responses; give relevant messages.
- Explain the necessity of directly-observed treatment.
- Describe details of patient's treatment regimen.
- Explain what to expect and what to do next.
- o Review.

Exercise D

Role Play – Instructions for the patient

As the patient, you should respond realistically to the health worker. The box below provides background information such as your name, age, attitude and personal circumstances. You may make up additional information (consistent with the role) as needed.

Information for the patient – Role Play

Your name is Mr S.A.as. You are 40 years old. You are a busy man with steady employment. When you heard that you have TB, you found it hard to believe. You understand that TB is caused by a germ and usually affects the lungs. However, you believed that, as a healthy, middle-aged man, you were very unlikely to get this disease. You have an older friend who was treated for TB before and says "It did not work." Actually, the friend failed to complete the treatment because it was inconvenient. You want a better treatment than your friend, and you want to take the drugs without supervision. You live in an apartment with your wife (aged 33), and two sons,(aged 4 and 6 years). No one else in your family has been coughing, but you are worried that you may spread the disease to them.

Your apartment is on the other side of the city and not convenient to the health centre. Your place of business is a 5-minute walk from the health centre, and today you have come during the lunch break. You are not likely to move or change employment anytime soon.

Exercise E

Written Exercise - Problem Solving

For each situation listed in the left column, briefly describe what you would say or do.

What would you say or do if....? Briefly write your ideas below:

A new patient wants to take the drug sun supervised at home

The patient has missed 1 day of treatment

The patient does not want to have a sputum examination after 5 months of treatment

The patient says her husband has a bad cough but does not have time to be tested for TB

The patient is afraid to tell her family that she has TB

A family member says that the TB patient cannot stay at home because the children will catch TB

The patient questions the need to use condoms since he does not have HIV

Annex 7: Planned further activities

- Organize training programs for family physicians and nurses:
 - Establish service contracts with Family Medicine and TB specialist trainers to ensure delivery of training activities
 - Develop a detailed training schedule and submit it to the TPP training coordinator for review and approval
 - Identify and secure an adequate training environment and training equipment for small group teaching (20 participants in each group)
 - Prepare handouts and other printed media for distribution to trainees
- Conduct training courses for 200 family physicians and 200 family nurses. [The length of the course for is 16 hours]
- Monitor and record daily attendance of trainees
- Prepare the report on implementation of the training programs