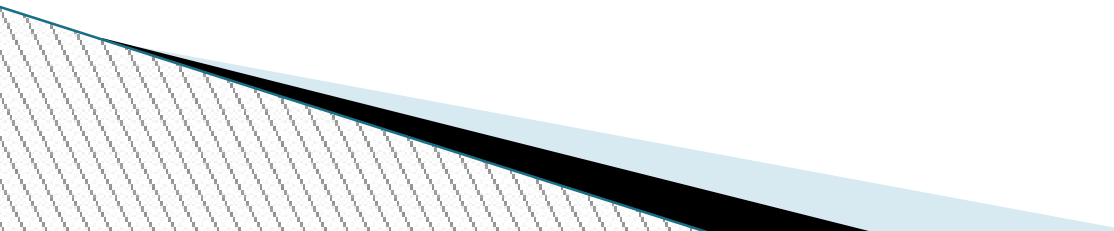


# **Innovative Approaches for Improving Detection and Ambulatory Care of TB Patients in the Republic of Tajikistan**

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# Innovative Approaches

Mobile OpenMRS cell phones application for treatment monitoring of TB patients by community volunteers:

- ▶ Registering a patient in the OpenMRS database.
  - ▶ Appointing a volunteer an account name and password to log into the system.
  - ▶ Communication of information by the volunteer to the OpenMRS database about the course of the patient's treatment using a mobile phone with installed Mobile OpenMRS application.
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# Experience of Employing Innovative Approach

GFATM Project «Community Engagement to Improve Access of the Population and Risk Groups to TB Prophylaxis, Diagnosis and Care» (2011 – 2013, rayons of Kulob, Vose and Hamadoni).

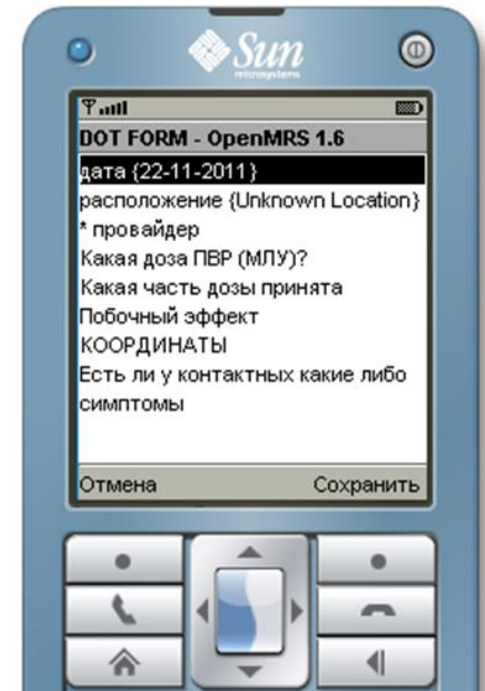
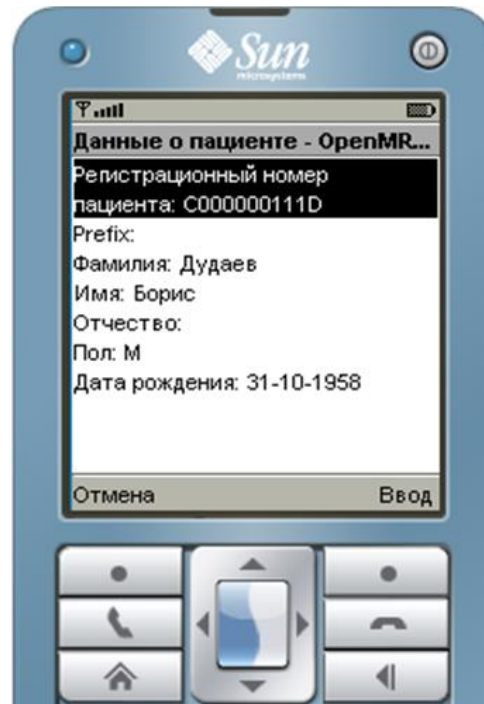
Aim: To increase detection level and improve adherence to treatment of TB patients through community engagement.

Objectives:

1. Creation of a mechanism of collaborative work in TB prevention and treatment between community administration, primary healthcare facilities, TB/DOTS centres, healthy living promotion centres, and development of volunteers network;
2. Conducting information and education activities in the field of TB prophylaxis, diagnosis and treatment;
3. Supporting primary healthcare workers and TB service in diagnosing TB cases by detecting and referring for testing of people with symptoms of TB
4. Supporting primary healthcare workers in conducting controlled treatment with participation of volunteers and family members.

# Mobile OpenMRS Software Interface

- ▶ Patient's registration number.
- ▶ Confirmation of intake of the daily medicines dose.
- ▶ Occurrence of side effects.
- ▶ Appearance of TB symptoms in contact persons.

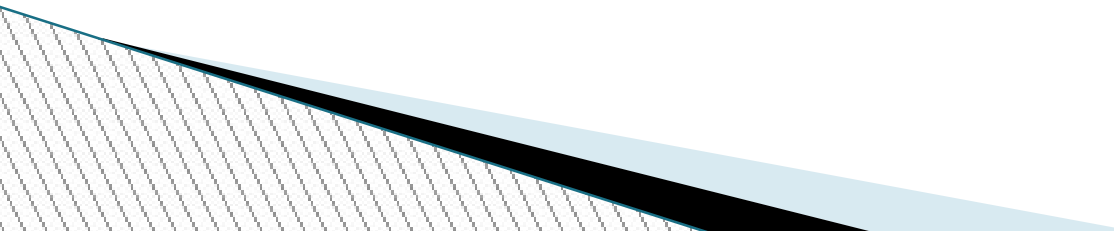


# Experience of Employing Innovative Approach

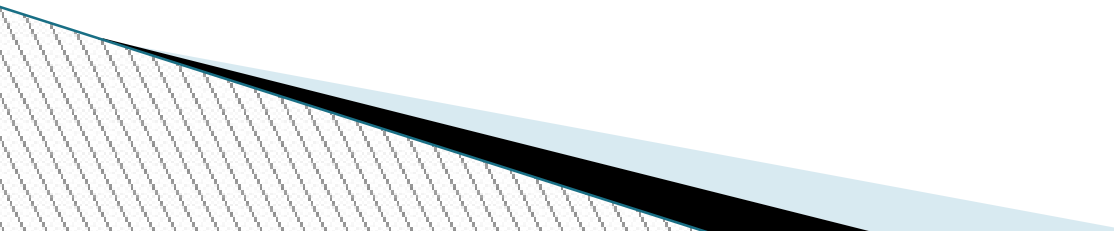
TB-REACH project «Inovative Approaches to Increase Case Detection by Means of Mass Screening and Using GeneXpert MTB/RIF» (2013-2014)

- ▶ Integration of primary healthcare (PHC) facilities and TB Control Centres in diagnosing and treatment of TB cases by means of screening on the PHC level and by establishing information exchange about patients with symptoms of TB.
- ▶ Using innovations in the course of population screening in PHC facilities for symptoms of TB (a questionnaire on the mobile phone in order to rule out subjective estimate).
- ▶ Using GeneXpert for early TB diagnosis.
- ▶ Using innovations integrated with the database (registraion of the number of the screened persons, number of TB suspects, number of lab confirmed TB/MDR cases).
- ▶ Develoment and implementation of measures to ensure appropriate treatment and positive treatment outcome.
- ▶ Collection and data analysis about TB patients among selected risk groups (pre-trial detention centres and patients of endocrinologic centres in Dushanbe).

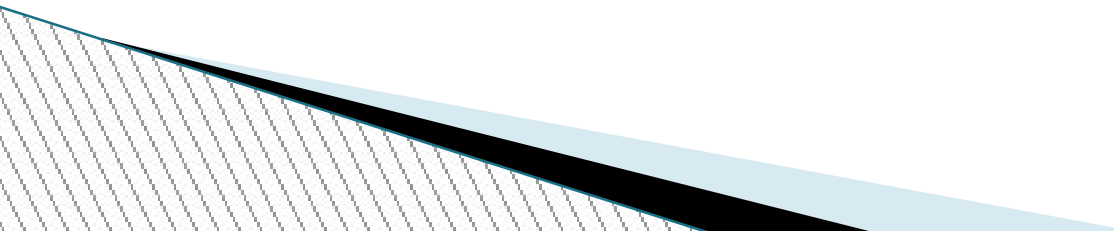
# Project Rayons and Facilities

- ▶ City of Dushanbe (14 polyclinics, 7 microscopy laboratories, 2 endocrinologic centres and pre-trial detention centres, TB Control Centre of the city of Dushanbe)
  - ▶ Rudaki rayon (1 polyclinic and 1 microscopy laboratory, TB Control Centre of the the Rudaki rayon)
  - ▶ Tursunzade rayon (2 polyclinics, 2 microscopy laboratories, TB Control Centre of Tursunzade rayon)
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# Expected Project Outcomes

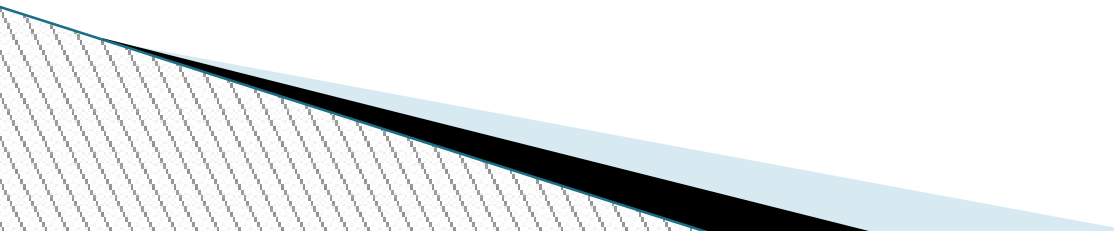
- ▶ Screening of 865,020 people
  - ▶ Persons with symptoms of TB — 17,476 people
  - ▶ Lab sputum testing — 12,412 people
  - ▶ Lab confirmed TB cases (smear-positive, GeneXpert-positive) — 1,005 people
  - ▶ All forms of TB (including smear-negative, extra-pulmonary) — 1,765 people
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# PHC Level Measures

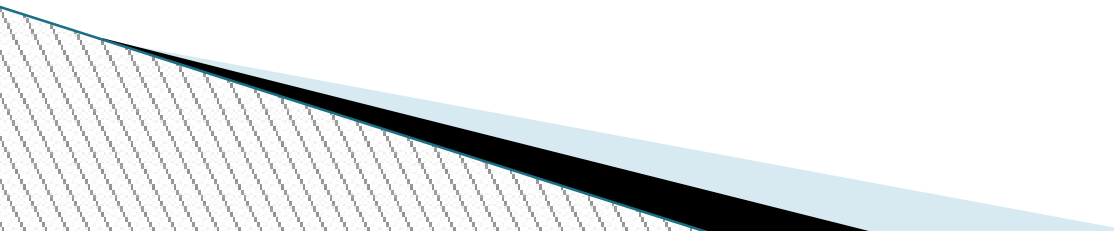
- ▶ Screening at the entrance to polyclinic
  - ▶ Appointment of personal identification number to TB suspects
  - ▶ Sputum collection point set-up and staff training
  - ▶ System of sputum transportation to a lab equipped with GeneXpert
  - ▶ Ensure using registration forms
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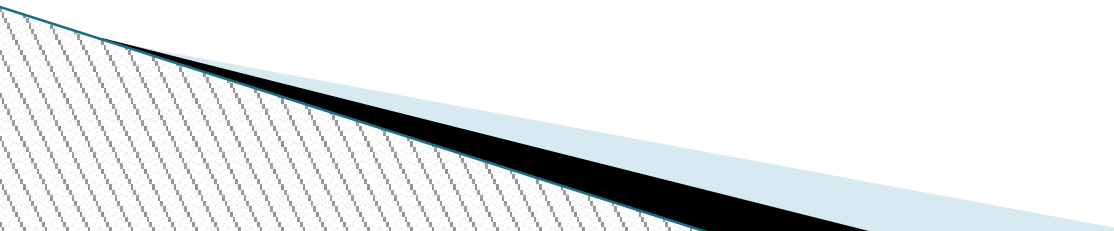
# Laboratory Level Measures

- ▶ Sputum smear microscopy in 9 project rayons labs
  - ▶ Diagnostic express-test with GeneXpert
  - ▶ Conducting External Quality Control of the labs performance
  - ▶ System of sputum transportation and system of sending back to policlinics forms with testing results
  - ▶ Using educational video to ensure quality of collected sputum
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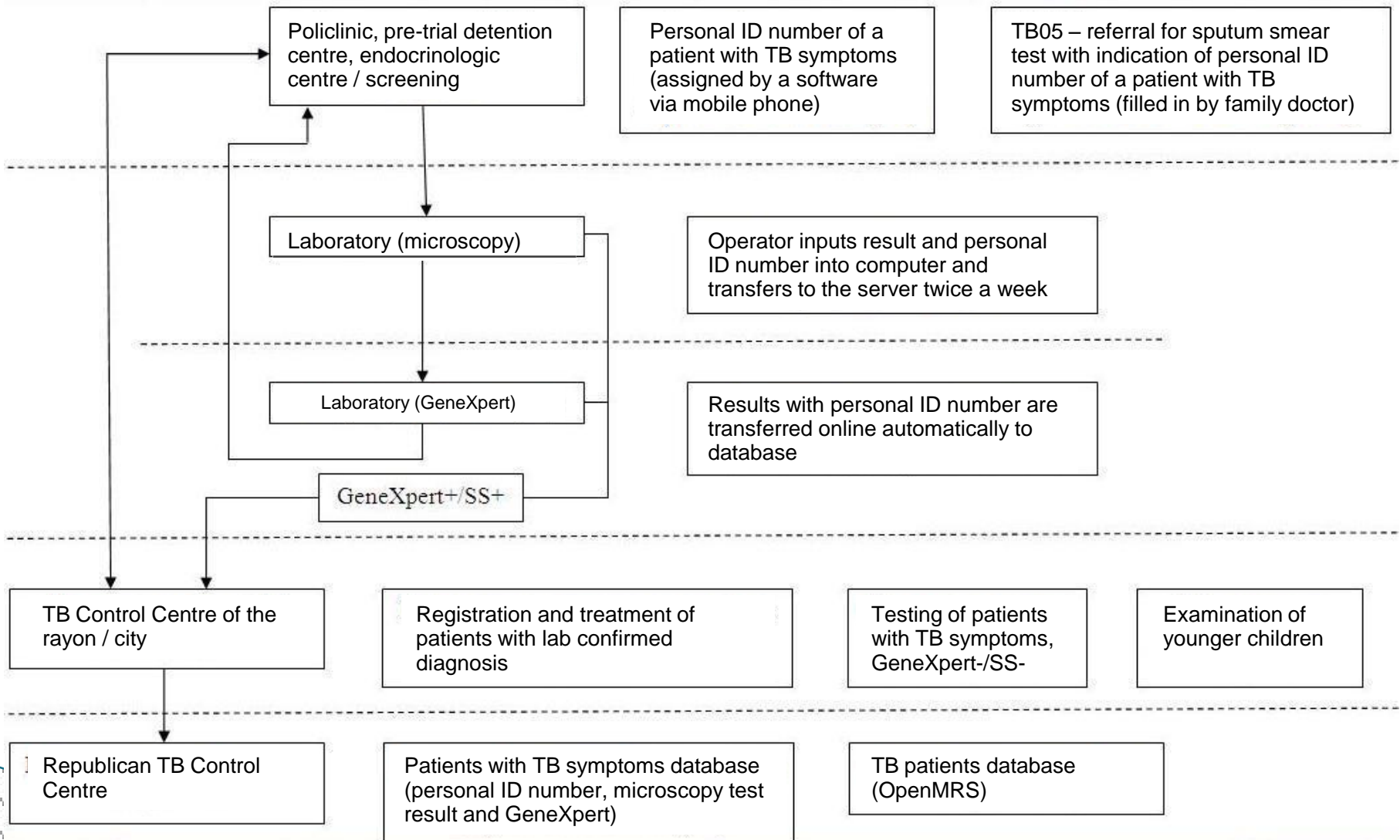
# TB Control Centre Level Measures

- ▶ Engagement of family doctors in diagnosing TB cases
  - ▶ Registration and treatment of patients with laboratory confirmed diagnosis
  - ▶ Examination of patients with symptoms of TB and negative results of lab tests
  - ▶ Examination of younger children
  - ▶ Control over treatment of the TB patients who were started on treatment
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# NGO engagement

- ▶ Conducting TB information campaigns among the population
  - ▶ Information about free diagnosis and treatment of TB
  - ▶ Supporting ambulatory care of TB patients, including by using the mobile telephone application Mobile OpenMRS
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# Programme Organigramme



# Estimated Data for Analysis

Comparative data analysis of case detection and treatment outcomes of two forms of organization of work:

- TB doctor at a DOTS corner in a PHC facility (city of Dushanbe, 14 DOTS corners, 14 sputum collection points, 7 microscopy labs affiliated with polyclinics)
- TB doctor at the TB Control Centre, located separately from a polyclinic (Tursunzade and Rudaki rayons, 3 sputum collection points, 2 microscopy labs affiliated with TB Control Centres, 1 lab affiliated with a PHC facility)

# Estimated Data for Analysis

- ▶ Analysis of WHO estimated data of TB prevalence rate in Tajikistan against the factual data after the project completion (project rayons population 1,366,200 people)

**Thank you for your attention!**

