



IMPROVING TB INFECTION CONTROL IN GEORGIA

Tuberculosis and its drug resistant forms pose a significant challenge to the Georgian health care system and create a substantial social and economic burden for the country. According to the World Health Organization's (WHO) latest Global TB Report¹ Georgia remains among 27 high MDR TB burden countries. Despite universal access to TB diagnostic and treatment services, the country's estimated prevalence rate remains nearly three times higher than that of the WHO European region.² Children with TB represent approximately 4% of all registered TB cases. The increasingly high rate of M/XDR TB among new and retreatment TB cases is a warning sign indicating that MDR-TB is intensively spreading in the community and treatment is often ineffective.

Key Activities

Improving early detection of suspected tuberculosis case: Early detection of tuberculosis is crucial for the control of the disease and important for limiting the numbers of people that are exposed and infected. In line with the WHO recommendation to sensitize all health-care workers in all relevant public and private health-care facilities about how to identify people with suspected TB, USAID Georgia TB Prevention Project (TPP) promoted TB related education through various activities countrywide, including training of primary care providers, performance appraisal, provision of job aids, clinical case discussions and e-learning. In close collaboration with the Georgia Family Medicine Association (GFMA) the project trained 2045 physicians and nurses, reaching almost 50% of all PHC providers countrywide and achieving 90% coverage in 5 target regions with the highest TB burden.

In addition to traditional training modalities, the TPP team used innovative approaches to improve coverage and ensure regular interaction with the training materials for all interested professionals. The TPP developed an



GEORGIA TB FACTS

- > 14 New TB cases a day
- > 1 TB death a day
- > 720 Drug resistant TB cases in 2013
- > \$25,936 Cost of treating one drug-resistant TB case
- > 7 out of 10 TB cases detected
- > 5 out of 10 Drug-resistant TB cases treated
- > 89% of HIV-positive people with TB on ARV

e-Learning module geared towards refreshing private providers' knowledge of the International Standards of TB Care. The module is accessible on the TPP webpage, www.tpp.ge.

The TPP team also introduced a clinical case discussion series to encourage critical thinking and strengthen problem-solving skills of village practitioners. These case studies are based on the synthesis of evidence obtained from medical records and interviews with physicians and nurses, and allow for in-depth, multi-faceted exploration of issues requiring practical action. They provide engaging, authentic cases in clinical practice found in different regions of Georgia, give valuable insight and note the common mistakes and problems that GPs can encounter.

1 http://www.who.int/tb/publications/global_report/en/

2 WHO. Country TB profiles (epidemiology, finance). <http://www.who.int/tb/country/data/profiles/en/index.html>

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eHealth system for improving data flow and patient management: At the end of 2014, a newly developed e-TB module was operationalized, in collaboration with the Global Fund TB Project. The system has components that allow providers to monitor DOT and provide cash incentives and transportation fees to eligible patients. Moreover, the system allows health care workers to target those patients who are most at risk for not completing treatment. An Android-based application allows community-based epidemiologists to better conduct TB contact tracing and track and identify patients lost to follow up. To support patient adherence and improve counselling, the application has a patient education module, which helps providers convey key messages and reminders, and is time- and geo- tagged for quality monitoring. When implemented fully, the eHealth system will allow health professionals to collect and analyze data to inform national program planning and policymaking. The real-time data will enable epidemiologists, healthcare providers, and policymakers to target resources, whereas traditional methods of data collection often lead to delays in resource provision. Additionally, policymakers will be able to develop effective communication strategies to target high-risk populations

Improving Infection Control and Reducing TB Transmissions: TPP works with local partners such as the Health Research Union to prevent healthcare associated transmission of TB, reduce TB incidence among high-risk patients, HCW and community through improved infection control and prevention practices at district hospitals. This includes strengthen the capacity of district hospital centers in TB infection control through implementation of targeted and tailored infection control interventions. The project assists hospital infection control committees in the development and implementation of TB-IC action plans and costing infection control interventions and supports implementation of TB-IC measures, including introduction and implementation of administrative, environmental and personal protective measures. The project is currently assisting the hospital administration in the development and implementation of patient pathways based on FAST and PAL principles and implement patient referral protocols,

as well as developing monitoring and evaluation system for TB IC activities, including measurable indicators and supporting the development of evidence to support nationwide implementation and follow-up.

The systemic changes to the delivery of TB and MDR TB services posed considerable challenges to managers of private facilities, health providers, and patients. Considering the need for adequate air flow to avoid nosocomial transmission of TB, TPP identified 30 clinics (which satisfied other criteria for physical infrastructure, e.g. isolated location, good working condition, and installment of new systems was technically feasible) in which exhaust ventilation equipment were installed to promote adequate infection control. The facility staff was trained in adequate utilization and maintenance of the ventilation equipment in order to meet infection control requirements.

Key Achievements

The project interventions aimed at strengthening active TB case detection capacity of community based health services resulted in threefold increase in primary care referrals of patients with presumptive tuberculosis. TPP collaborative efforts with the Georgian Orthodox Church and local NGOs led to intensified referrals from general hospitals and hard to reach communities (e.g. nunneries and monasteries, former prisoners and their families) to specialized TB services. All district level hospitals in Georgia providing both general inpatient care and outpatient TB services, thus serving a large number of individuals with presumptive TB, were sensitized about the importance of adequate IC control measures for avoiding nosocomial transmission of tuberculosis. Two general hospitals with the high patient turnover located in the highest TB prevalence regions have been selected for piloting FAST approach via introducing GeneXpert testing in eligible patients at the moment of hospitalization. This pilot will inform the country decision on further roll out of rapid diagnostic technologies for early TB detection in general health care settings.

The **Georgia TB Prevention Project (TPP)** is a four-year cooperative agreement (2011 – 2015) funded by the United States Agency for International Development (USAID) and implemented by University Research Co., LLC (URC). TPP works with the Ministry of Labor, Health, and Social Affairs (MoLHSA) in Georgia to improve clinical services and strengthen the country's capacity to address some of the current critical challenges in the treatment of TB and MDR TB, including: 1) improving early detection of TB suspected cases in general health facilities; 2) strengthening the quality of full implementation of directly observed treatment short-course (DOTS) and DOTS plus nationwide; and 3) providing limited assistance to recently established private treatment sites nationwide in updating their physical infrastructure to meet TB best practices standards and to improve infection control.