Integrating delivery of tuberculosis services in primary care in Tajikistan

Overview

With one of the highest tuberculosis (TB) incidence rates in the WHO European Region and increasing concern over multidrug-resistant TB (MDR-TB), strengthening TB services is high on the government agenda in Tajikistan. The first national TB programme, launched in 1996, was followed by efforts to introduce Directly Observed Treatment, Short-Course (DOTS) in the late 2000s. The National TB programme 2010–2015 aims to systematically address remaining gaps in services delivery, working to provide primary care-led TB services. Reorganizing services delivery has allowed more than 70% of TB patients to now receive services in outpatient facilities. Over 3000 health workers have been trained on providing TB care in primary settings and annual accredited trainings are now in place. The Ministry of Health and Social Protection and Ministry of Education have also worked to adapt formal education of health workers for optimal TB services provision. Other cross-ministry partnerships have formed and a National Coordination Committee on TB, HIV/AIDS and Malaria brings together government officials from each ministry to collaborate on TB reduction. Nongovernmental organizations (NGOs), through roles in both policy-development and decision-making, partner with the government to enable services delivery transformations, with the majority of TB programme funds sourced internationally.

Problem definition

In 1996, with a TB prevalence rate of 376 per 100 000 population, Tajikistan had one of the highest rates of TB in the WHO European Region (Box 1).[1] Since then, rates of TB have continued to fluctuate above the Regional average with a prevalence rate of 154 per 100 000 population in 2012 compared to the Regional average of 53 per 100 000 population that same year.[2] Poor TB outcomes have been attributed to the suboptimal delivery of TB services, including concentration of TB treatment in hospital settings, poor coordination with primary care and weak monitoring systems. Furthermore, the continued rise of multidrug-resistant TB (MDR-TB) poses additional challenges. At present, estimated rates of MDR-TB are reported as 8% of all new cases and 52% of retreatment cases, ranking Tajikistan among the WHO European Region's highest MDR-TB burdened countries.[3]

Box 1
What problems did the initiative seek to address?

- Incidence rate of TB in Tajikistan among the highest in the WHO European Region.
- Rising rates of MDR-TB.
- Concentration of TB treatment in hospital settings with limited role for primary care.

Health services delivery transformations

Timeline of transformations

Responding to high rates of TB, the Government of Tajikistan developed and approved the first National TB Programme 1996–2000, followed by the Concept of Public Health Reform and second National TB Programme 2003–2010 (Table 1). During this time the role of the primary care sector in TB services delivery was strengthened and full coverage of DOTS was achieved. To continue successes already accomplished and address persisting weaknesses in TB services delivery, the third National TB Programme 2010–2015 was approved by the government in 2010. A midway assessment of the latest programme was conducted in 2012 and a final evaluation is planned for 2015.

Description of transformations

Selecting services. TB treatment is provided according to DOTS across the country. Patients now have greater access to outpatient services, putting focus on increasing the number of TB services available in primary care. Expansion of available TB drug treatments and nutrition services is planned using funds redirected from hospitals.

Designing care. Under the National TB Programme 2010–2015, the majority of TB patients (and almost half of MDR-TB patients) are

Table 1
What were the chronological milestones for the initiative?

1996	First National TB Programme 1996–2000 affirmed by the government to address concerning TB statistics.
2002	Government signs Concept of Public Health Reform with the aim of developing the role of primary care.
2003	National TB Programme 2003–2010 launched.
2004	Piloting and scaling up of DOTS; grant from The Global Fund accelerates DOTS uptake.
2007	Full national coverage of DOTS achieved.
2010	National TB Programme 2010–2015 launched, including elements of DOTS Plus which covers MDR-TB.
2012	Midway assessment of the National TB Programme 2010–2015 conducted.
Present	Continued implementation of the National TB Programme 2010–2015 with a final evaluation planned for 2015; National TB Programme 2016–2020 approved by the National Coordination Committee on HIV/AIDS, TB and Malaria.

treated as outpatients. A national TB treatment manual based on DOTS supports the development of outpatient treatment. Treatment begins after a patient receives three positive saliva smear tests. The decision to start and finish treatment for a patient is made by the National TB Medical Council. Patients who meet an initial set of criteria are required to receive intensive treatment in hospital and later transition to supportive outpatient treatment.

Organizing providers. Providers are organized across four levels of care. One National TB Centre acts as the main body responsible for coordination of services delivery for the four subordinate regional TB centres and 28 district hospitals. Coverage of TB providers has increased in outpatient settings as a result of directing resources away from hospitals and training primary care providers to manage TB patients. Patients can access outpatient care in their own districts and, if requiring hospital admission, will be transferred back to local outpatient facilities upon discharge. All information transfers are coordinated through the National TB Centre; the National TB Medical Council meets biweekly to discuss patient transfers and arrange for patient records to be sent where needed.

Managing services. Every district has a family medicine manager who oversees primary care providers. Both family medicine and TB managers oversee TB care at the district level and are responsible for responding to performance feedback. Resources are being redirected from hospitals to primary care and clear targets have been set to reduce the number of TB hospitals from 33 to 24 and TB beds from 2550 to 1800 by 2015. NGOs are instrumental for supporting the delivery of TB services to marginalized populations and more challenging cases.

Improving performance. Training in DOTS has been provided to 3000 health providers across all care levels, including outpatient providers and laboratory technicians. The National TB Programme 2010–2015 emphasizes the importance of monitoring and evaluation. The work of health providers delivering TB services is constantly monitored at the national level. Primary care facilities are required to report on four TB indicators: case detection, successful treatment, contact investigation and preventive services coverage. A midway assessment of the National TB Programme 2010–2015 was conducted in 2012 to evaluate progress achieved so far and to help plan future activities. A final assessment for the programme is planned for 2015.

Engaging and empowering people, families and communities

The government has solicited public support in working to strengthen TB services through recruiting and training of volunteers – such as active citizens, religious leaders and people who have been treated for TB – to help raise public awareness and reduce stigma surrounding the disease. TB education has also been incorporated into the school education system to increase population health literacy regarding TB.

Health system enabling factors

All national TB programmes implemented since 1996 were officiated through government decree, ensuring a strong legislative framework for reforms and sustaining prioritization of efforts to strengthen TB services (Table 3). Current activities are guided by the National TB Programme 2010–2015; the Programme aims to build on previous TB programmes and address weaknesses identified by the comprehensive system analysis that was jointly conducted by the government and WHO.

Table 2
How was the delivery of health services transformed through the initiative?

Before	After
Selecting services	
National coverage with DOTS but gaps in TB services exist for high-risk groups; lack of preventive services; TB services overly specialized.	DOTS introduced into primary care; targeted TB screenings carried out in high-risk groups; available drug therapies and nutrition services expanded.
Designing care	
TB care delivered according to DOTS in inpatient settings; no guidelines for provision of TB services in primary care.	National TB Control Guideline informs care delivery in primary settings; National TB Medical Council oversees care initiation and termination decisions; most patients begin treatment in outpatient settings; patients requiring intensive treatment initially admitted as inpatients and later transitioned to outpatient care.
Organizing providers	
TB providers concentrated in secondary and tertiary settings; coverage of TB providers is low; no coordination with primary care exists.	National TB Centre coordinates and directs patient care; shift of TB providers to outpatient settings has increased coverage and access; patient records follow patients between facilities.
Managing services	
Resources concentrated in secondary and tertiary settings; TB services predominantly funded through international grants; NGOs play a large role in TB services delivery.	Reduction targets set for TB hospitals and beds; resources shifting to primary care; family medicine and TB district level managers work to meet performance targets and respond to central feedback.
Improving performance	
Limited TB training opportunities available in primary care.	DOTS training provided to 3000 health providers across all care levels; monitoring of key TB indicators regularly conducted.

Table 3
How has the health system supported transformations in health services delivery?

System enablers	Example
Accountability	• National TB programmes officialized through government decree; National TB Programme 2010–2015 is the current strategy in place. • Concept of Public Health Reform committed the government to strengthening primary care.
Incentives	• Beginning to redirect funds away from inpatient centres; absence of clear mechanism to redirect funds towards primary care at present. • Decreased funding for inpatient services has incentivized providers to relocate to lower-level care settings.
Competencies	• Ministry of Health and Social Protection approves annual TB training plan; national training team, regional training team and national training coordinator are the responsible authorities overseeing accredited trainings.
Information	• Primary care facilities required to report on TB indicators; monitoring of indicators led nationally with quarterly evaluations.

Decreasing funds for highly-specialized TB services has incentivized the delivery of TB treatment in primary care and outpatient settings. Formalizing annual training programmes through accreditation has helped ensure primary care providers continually develop and improve clinical competencies. A national training team, regional training team and national training coordinator are the three authorities responsible for overseeing accredited trainings.

Outcomes

Positive outcomes have been reported as a result of the current National TB Programme, in addition to the compounded effects of improvements achieved with previous programmes (Box 2). TB care has shifted into lower-level settings, making TB treatment easier and more accessible for patients. Positively, data indicate declines in the number of newly detected TB cases since 2010.

Box 2

What were the main outcomes of the initiative?

- Government statistics and WHO data indicate a steady decrease in the number of newly detected TB cases between 2010 and 2014.
- TB hospital beds declined from 920 per 100 000 population in 1990 to 444 per 100 000 in 2011; 35% of the proposed target cuts have been achieved at present.[4]
- TB care is increasingly provided on an outpatient basis and 70% of all new patients are treated as outpatients from day one of treatment; 48% of new patients with MDR-TB are treated as outpatients.[4]
- MDR-TB treatment coverage among diagnosed patients increased from 63% in 2011 to 89% in 2014.[3]

Change management

Key actors

TB reduction efforts are being directed by the national government with oversight and leadership from the Ministry of Health and Social Protection along with the support of international development agencies and NGOs (Box 3).

Box 3

Who were the key actors and what were their defining roles?

- **National government and National Coordination Committee on HIV/AIDS, TB and Malaria.** Developed and introduced national TB programmes; led health system reforms to strengthen primary care; gradually increasing allocated government funds for TB activities; works with development partners to achieve National TB Programme 2010–2015 goals.
- **Ministry of Health and Social Protection.** Responsible for overseeing national TB programme.
- **The Global Fund.** Primary funder for the National TB Programme 2003–2010 and 2010–2015.
- **WHO.** Supported scale up of DOTS in Tajikistan; conducted research on the effectiveness of outpatient TB treatment; provides ongoing technical and evaluation support for activities.
- **NGOs and development agencies.** Provide financial and technical support to National TB Programme 2010–2015; offer TB services in districts where coverage is poor.
- **National TB Medical Council.** Centrally coordinates and directs delivery of TB services.

Initiating change

The government led the development of the first national TB programme in 1996 in response to rising incidence of TB. While there was strong national commitment behind the programme, limited funding hindered its effectiveness. The second national TB programme aimed to introduce DOTS and received strong support from international development agencies and NGOs, including a grant from The Global Fund, which accelerated national rollout of DOTS. Building upon previous efforts, the third national TB programme was designed as a stronger approach to address remaining weaknesses in TB care. The national government and the National Coordination Committee on HIV/AIDS, TB and Malaria led development of the National TB Programme 2010–2015, supported by international organizations. Research jointly conducted by the government and WHO was essential in convincing the government to increase outpatient TB services under the Programme.

Implementation

Recent activities have been guided by the aims, objectives and targets outlined in the National TB Programme 2010–2015. A holistic view to addressing the TB burden has been taken with the Programme extending its reach beyond the health sector to involve other government ministries. Ministries work together in cross-ministry partnerships coordinated through the National Coordination Committee, which includes representatives from each ministry, as well as United Nations agencies, local and international NGOs and members of the affected population. The Ministry of Health and Social Protection is currently working on establishing the Agency of Population TB Protection whose main aim will be to influence other ministries to participate in the fight against TB.

Partnerships with NGOs and international development agencies have been crucial to the

implementation of the National TB Programme 2010–2015. These organizations have provided technical guidance and expertise, supported training of health providers, provided necessary resource investments and filled gaps in TB services delivery. While implementation of the National TB Programme 2010–2015 has depended heavily on collaborative partnerships between government officials and international organizations, public support has also been crucial and volunteers recruited and trained by the government have played an important role in raising awareness of TB, reaching target populations and helping to reduce stigma.

Moving forward

The final assessment of the National TB Programme 2010–2015 will provide insight for the future direction of subsequent national TB programmes. The government is gradually taking on increasing financial responsibility for TB services delivery and has the goal of becoming independent from external funding to ensure the sustainability of TB care.

Highlights

- Aligning to previous efforts and learning from previous experiences enabled a stronger approach moving forward.
- Developing a cross-ministry approach ensured united government support and greater stability for the initiative.
- Strong partnerships between the government, international organizations, NGOs and members of the affected population contributed to an infusion of technical and personal expertise, in addition to providing resources to support activities.
- Shifting resource allocation was a mechanism to drive organizational shifts in services delivery.

1 World Health Organization. (2014). *TB burden estimates.*
2 World Health Organization. (2015). *European health for all database.* Retrieved from http://data.euro.who.int/hfadb
3 World Health Organization. (2014). *Tuberculosis country profiles: Tajikistan.*
4 World Health Organization Regional Office for Europe. (2013). *Extensive review to tuberculosis prevention, control and care in Tajikistan.* Dushanbe: Author.