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## URBAN DOTS IN AFGHANISTAN: FIGHTING TB IN KABUL AND BEYOND

### Background

Afghanistan faces a burden of tuberculosis (TB) among the highest in the world, according to the World Health Organization (WHO). An estimated 60,000 new cases arise yearly, with 110,000 Afghans now living with TB; 14,000 Afghans died from the disease in 2015. Only about two in three presumed patients are found, and the treatment success rate is only 49 percent on average in the country.

To win their fight against TB, the Ministry of Public Health's (MoPH) National Tuberculosis Program (NTP) and partners must make significant progress in Kabul, where nearly 4.5 million people live-- approximately 15 percent of the country's population. New cases of all forms of TB exceed 8,000 a year in this crowded capital city.

Yet Kabul presents particular challenges to TB control. Observers note a seeming lack of motivation among public health staff, likely related to low salaries. Infrastructure presents another barrier

to high quality care: 45 percent of Kabul's public health facilities do not own the buildings they work in, but instead rent houses, where infection control may be difficult. Private hospitals, too, lack standardized buildings and often fail to conform to ministry guidelines.

About half of all patients go to private facilities for health care: private facilities are located more conveniently and have shorter wait times, more reliable electricity, and a better reputation.

However, before 2009, private facilities did not provide TB services. That year, to respond to the growing TB epidemic, the USAID-supported project TB CAP introduced Urban DOTS in Kabul. The next USAID program, TB CARE I, continued to expand Urban DOTS to new public and private health facilities; Challenge TB (CTB) followed in 2014, and will support and expand TB control until 2019.

## CHALLENGE TB IN AFGHANISTAN

Challenge TB is USAID's flagship global mechanism for implementing the Agency's TB strategy as well as contributing to TB/HIV activities under the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). It is a five-year project designed to aid the National TB Control Programs (NTP) in reaching their objectives. In Afghanistan, these include increasing TB case notification by at least six percent a year; maintaining sputum conversion rate over 90 percent, and keeping the treatment success rate above 89 percent--through providing high-quality TB services to vulnerable communities countrywide.

Management Sciences for Health (MSH) leads implementation in Afghanistan, with KNCV Tuberculosis Foundation providing remote support. National partners include the Ministry of Public Health and NTP as well as the Ministries of Justice, Higher Education, Defense, the Interior, the National Directorate of Security, and the Afghanistan Private Hospitals Associations. Numerous NGOs also work in this broad coalition.

## Strategic Response: Urban DOTS in Kabul

Building on the prior USAID-funded programs, Challenge TB is increasing case detection, improving treatment, and strengthening the MoPH's ability to manage and direct TB activities. A major focus is to expand the application of Directly Observed Therapy, short-course (DOTS), the internationally recommended strategy for TB control, which calls for accurate diagnosis, directly observing patients taking their medication, ensuring reliable drug supply and adherence, and tracking and reporting TB efforts.

Key to making Urban DOTS work in Kabul has been the building of strong partnerships among many organizations and all levels of health workers, in public and private facilities throughout the city. A goal is that all health care providers and managers expand knowledge and skills in TB service provision, and coordinate with each other and with the NTP.

Toward that end, CTB has engaged and trained the personnel of 110 health facilities in Kabul--all the public facilities as well as at least 70 private. CTB is working toward integrating health services to the point that when any patient arrives, for any

reason, they are quickly screened for coughing and other signs of tuberculosis, then diagnosed if screening indicates it. Just as important, all health care workers who deal directly with TB are trained and supported to conduct active contact investigation for all patients, rather than waiting for presumed TB patients to visit a health facility.

## Implementation

Challenge TB began by assessing the state of TB and TB services citywide, then proceeded to build the TB capacity of frontline staff at both public and private health facilities. Key interventions include training, weekly supportive supervision, upgrading health-facility infrastructure, and organizing reliable supplies. The project has developed and disseminated national guidelines and standard operating procedures for treatment, infection control, and pediatric TB to health facilities and staff in Kabul (and 15 provinces beyond). The project has also integrated TB tracking information into the Ministry of Public Health's information system.

In addition, Challenge TB emphasizes a public-private mix: it has engaged the senior leadership of both public and private associations and facilities, so that private facilities are recognized by the government and in return follow MoPH guidelines for TB--and all share the the vision of a TB-free Afghanistan.

### Urban DOTS activities have included:

- Stakeholder and situation analyses, with assessment of health facilities;
- Introduction of the Urban DOTS approach to MoPH and other national and international stakeholders, including NTP, other government ministries, and international and local organizations;
- Training of public and private health care staff in standard operating procedures for TB;
- Regular supportive supervision for health care staff;
- All parties' implementing of standard operating procedures for TB case detection, treatment, and infection control;
- Ensuring a regular supply of TB drugs and laboratory supplies;
- Quarterly review workshops for health staff, with target-setting for the next quarter;
- An emphasis on reporting, monitoring and evaluation;
- Expansion of TB services to new public and private health facilities.

Along with the emphasis on skills and reporting, the project celebrates achievements and recognizes outstanding facilities with appreciation certificates. In addition, it organizes World TB Day celebrations at facilities, for the benefit of both providers and communities.

## Results

In July 2009, only 22 health facilities in Kabul City offered any type of TB service. By the end of August 2016, with the USAID-funded interventions, 95 health facilities provided TB control services, including 15 private facilities.

By 2015, results included (see Table 1):

- Detection of presumptive TB cases had increased over 500 percent from baseline;
- Diagnosed and treated TB cases (all forms) increased close to 200 percent;
- New sputum-smear-positive cases increased 78 percent, to 1,449;
- The treatment success rate rose from 49 percent to 73 percent.

Yet Kabul City still has far to go. For example, the case notification rate for all TB cases is still only two-thirds, and for new sputum-smear positive cases, 42 percent. This translates to an estimated 3,000 patients undetected, untreated, and contagious. The treatment success rate is still well short of the target of 89 percent.

## Expansion

In late 2015, CTB assisted the MoPH to expand the Urban DOTS program to four more cities, all with overcrowding, congestion and other attributes similar to Kabul: Mazar-I Sharif, Kandahar, Herat, and Jalalabad. These cities—to the north, south, east, and west of the country—are also key hubs for the health system and collectively host a population of approximately 5.5 million. In addition, they see major influxes of residents from neighboring provinces for work and host most of the country's

Internally Displaced Persons (IDP) camps as well as the major prisons.

CTB is now working throughout these cities, covering all the prisons and diabetes centers as well as standard health facilities. By the end of 2015, 125 of the 304 (41 percent) of public and private health facilities were providing TB DOTS services in Kabul, Mazar, Herat, Kandahar and Jalalabad.

## Next Steps

As the program expands, CTB is reaching out to a large and growing number of civic and health-related trade groups and associations to become informed and active in TB control. Project staff are facilitating the creation of associations of health care providers as well as partnering with universities and scientific institutions, patient advocacy groups, religious leaders, and civic organizations, to inform them about TB and what they can do about the epidemic. CTB enlists their action and their help in informing their members and others.

For instance, the project is helping establish a TB Technical Review Panel in each city, composed of representatives of medical associations. CTB is organizing a Gynecologist TB Association, Surgeons' TB Association, Pediatricians' TB Association, Diabetic TB Association, TB/HIV Association and so on—to have a practitioner group in each specialty with which to engage. A leader, or “champion” will guide the association's activities and spread the word to other practitioners about how to screen for, diagnose, and treat or refer, TB patients. The champion will also represent the specialty on the TB Technical Review Panel.

In addition, CTB is also actively reaching out to teaching hospitals, teaching students and staff, and helping revise standard operating procedures for case detection and management. ■

**Table 1: Urban DOTS achievements in Kabul, by indicator**

Indicator, by year	2009	2010	2011	2012	2013	2014	2015
Number of health facilities with lab services	106	111	111	112	120	131	132
Health facilities covered by DOTS	22	48	53	68	73	80	85
Potential TB patients identified/ examined	2,856	10,150	11,900	13,644	14,181	17,061	17,525
All TB cases notified	1,934	2,738	2,728	3,215	3,548	5,007	5,449
New sputum-smear positive cases notified	814	1,022	1,082	1,174	1,204	1,280	1,449
Conversion rate of sputum smear positive cases	47%	65%	68%	70%	72%	73%	73%
Treatment success rate of new sputum-smear positive cases	49%	62 %	68%	70%	72%	73%	NA
Transfer-out rate of new sputum-smear positive cases	46%	26 %	16%	18%	18%	17%	NA

Figure 1: Trend of patient identification and notification in Kabul (2009 – 2015)

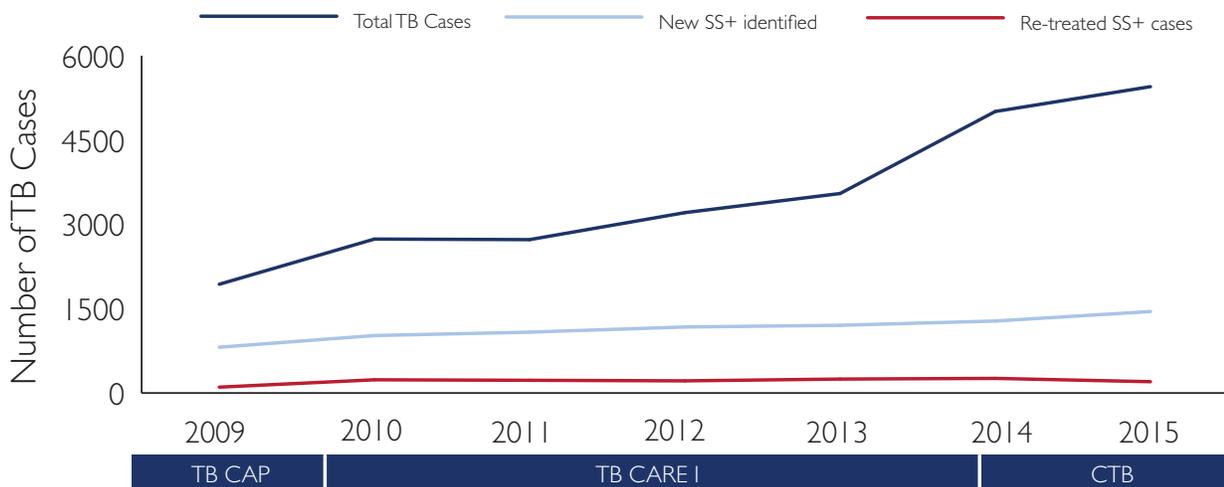
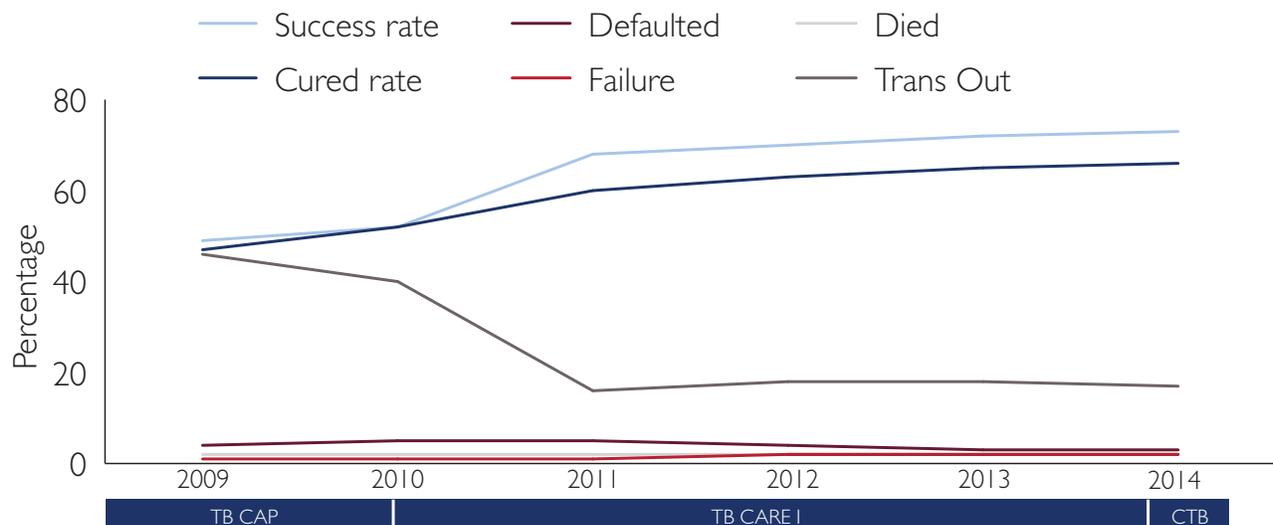


Figure 2. Trend of treatment outcomes for TB patients, Kabul (2009 – 2014)



### Lessons Learned

- The Urban DOTS approach engaging a broad coalition of both public and private sectors can contribute to a significant increase in case notifications and improvement of the treatment success rate and other indicators.
- Conscious and continuous emphasis on health workers—including training, supervision, feedback, and recognition—appear to have increased their commitment to making TB control a priority.
- Active contact screening started late in Kabul, but is bearing fruit and could profitably be strengthened in Kabul and extended as early as possible to other Afghan urban centers.

Additional information can be obtained from:

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