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TB CARE I

TB CARE I - Afghanistan

Year 2

Annual Report

October 1, 2011 – September 30, 2012

October 30, 2012

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List of Abbreviations

APA2	Annual Plan of Activities for Year 2
BDN	Bakhtar Development Network
BPHS	Basic Package for Health Services
BRAC	Bangladeshian Rural Advancement Committee
CAF	Care of Afghan Family
CB-DOTS	Community Based DOTS
CHWs	Community Health Workers
DOT	Direct Observed Therapy
DOTS	Direct Observed Treatment Short course
GCMU	Grant Contract Management Unit
GF	Global Fund
HF	Health Facilities
HMIS	Health Management Information System
IC	Infection Control
IDPs	Internally Displaced person
IEC	Information Education and Communication
KNCV	Royal Netherlands Tuberculosis Foundation
M&E	Monitoring & Evaluation
MOPH	Ministry of Public Health
MOST	Management and Organizational Sustainability Tool
MSH	Management Sciences for Health
NGO	Non-Governmental Organization
NSS+	New Sputum Smear Positive
NTP	National Tuberculosis Program
OPD	Out Patients Department
OR	Operational Research
PHO	Provincial Health Office
PTC	Provincial TB Coordinator
QRM	Quarterly Review Meeting
SAF	Solidarity of Afghan Family
SOPs	Standard Operational procedures
TB	Tuberculosis
TB CAP	Tuberculosis Control Assistance Program
TB CARE I	USAID tuberculosis control project
TB IC	Tuberculosis Infection Control
TBIS	Tuberculosis Information System
TF	Task Force
TV	Television
USAID	United States Agency for International Development
USD	United States Dollar
WHO	World Health Organization

Executive Summary

TB CARE I-Afghanistan is a five-year USAID global TB project. The year two of the project started on Oct 2011 and ended on end of Sep 2012. TB CARE I-Afghanistan project is implemented by three key partners, Management Sciences for Health (MSH), KNCV and World Health Organization (WHO) with an annual ceiling of USD 2 million. TB CARE I Afghanistan assisted national TB program on the four technical areas of increasing access to TB services, tuberculosis infection control, health system strengthening and strengthening monitoring and evaluation, surveillances and operational research. In Afghanistan TB CARE I implemented the activities in 13 USAID supported provinces and in six quick impact provinces. In addition, three activities have been implemented countrywide: tuberculosis surveillance system strengthening, Dissemination of information, education and communication (IEC) materials and DOTS package (training package, treatment package and diagnostic package) dissemination. All of these factors contributed in achieving NTP's strategic objectives of increasing case notification and treatment adherence that outlined below.

First, TB CARE I's assistance to NTP was significant during year two of the project. For example, collectively, 93,000 suspected TB cases were identified and examined for sputum smear microscopy examination. Of them, 6,568 cases turned to be sputum smear positive tuberculosis.

Second, people living in the catchment area of TB CARE I had access to free TB services at their door step. The community based DOTS was expanded to nine additional provinces-contracted in four provinces with national non-governmental organization and for nine provinces with Bangladesh Rural Advancement committees (BRAC). This resulted in, identification of 21,000 suspected TB cases and 1,181 sputum smear positive TB cases by community health workers (CHWs) which is 337% ascend from baseline level of 359 in 2009. Moreover, 2,209 TB patients received their daily pills or direct observed therapy (DOT) from CHWs in these provinces that makes a 257% increase compared to baseline of 853 in 2010 (table 4). Also, treatment success rate for those TB patients who received their DOT from CHWs were turned to be 98% compared to 91% health facility based treatment provision (table 5).

Third, Urban DOTS was expanded to 12 additional public and private health facilities in densely populated city of capital Kabul. Currently, 68 urban facilities have been under DOTS in Kabul city. This resulted in identification of 13,011 suspected TB cases that is 990% increase compared to base line of 1,200 (2009), 1,180 sputum smear positive and 2,641 cases of all types of TB cases in Kabul city. Also, urban DOTS approach improved the quality of TB cases to a significant level. For example, the sputum conversion rate increased to 70% from base level of 43% (2009) and treatment success rate to 70% from base line of 43% (2009).

Fourth, the NTP surveillance system was strengthened to generate quality data and provide opportunity to managers at various levels to analyze data, provide feedback and enhance evidence based decision making. In total, 126 individuals including provincial TB coordinators (PTCs), public health offices' HMIS officers and NGO HMIS officers trained on utilization of tuberculosis information system database (TBIS) that developed during TB CAP project. This data base was expanded to 33/34 provinces and NTP was able to receive the ever first electronic reporting from 90% of the provinces.

Fifth, health system strengthening initiatives resulted in increased staff capacity not only in 13 USAID supported provinces but also in five quick impact provinces and is some extent country wide. During year two of the project TB CARE I developed the on-the-job training guide and trained 270 individuals in 13 provinces. The staff from low performed facilities was taken to module DOTS facilities in these provinces. Also, 156 female staff from five most insecure provinces was trained on standard operations procedures (SOPs) for case detection, treatment, TBIC and TB in children. In addition, 54 leaders from BPHS implementers, provincial TB coordinators and PHO teams were trained on Management Organizational Sustainability Tool (MOST) for TB in 13 USAID supported provinces. Also, the ever first electronic reporting system established in 33/34 province and 126 staff including PTCs, NGO & PHO HMIS officers trained on utilization of electronic reporting system. Moreover, communities, leaders and health care staff mobilized through world TB day celebration. For example, this day celebrated in 250 health facilities, 1,400 banners disseminated and media campaigns conducted in 13 USAID supported provinces. Collectively, 50,000 population mobilized to be advocate for TB in Afghanistan.

In short, TB CARE I has contributed significantly in achieving NTP's strategic objectives of increasing case notification and treatment success rate. For example, during 2012, only TB CARE I provided technical and financial assistance to NTP to conduct activities in 19/34 provinces. The rest of the activities were not conducted as there was delay in approvals of global fund round 8 phase II.

Introduction

Afghanistan is one of 22 high burden TB countries with annual estimated prevalence of 351 and incidence for all cases of 189 and deaths rate of 39 in 100,000 population, respectively (*Page 116, global TB report 2012, WHO*). According to national TB surveillance data for 2011, the case notification rate for all TB cases is 111 in 100,000 population that makes 46% case detection rate and treatment success rate of 90%.

TB CARE I is a USAID globally funded project, working in Afghanistan. TB CARE I/Afghanistan is a five years project effective from July 2011. TB CARE I in partnership with MSH, KNCV, WHO internationally and BRAC, NTP, WHO and BPHS implementers locally, will assist the NTP to implement its strategic plan from 2009 to 2015 and to achieve its objectives. TB CARE aims to improve DOTS coverage, case detection, and treatment, which results in reducing the number and percentage of TB patients who default from TB treatment and to improve the TB treatment success rate. TB CARE I focuses on strategic areas and challenges to assist the NTP in improving the management and technical capacities of the central and intermediate TB teams as well as expanding quality DOTS.

TB CARE I–Afghanistan will achieve the strategic goal of global TB CARE that is decrease morbidity and mortality by increasing case detection and treatment success of pulmonary TB patients in USAID priority country. Ultimately, this will assist gaining USAID global health bureau’s strategic objectives of increase use of effective interventions to reduce the threat of infectious diseases of major public health importance.

TB CARE I in Afghanistan work with ministry of public health (MoPH) and national TB control program (NTP) of Afghanistan in four technical areas:

1. Universal access to TB services
 - a. Urban DOTS implementation in Kabul city
 - b. CB-DOTS implementation in 13 provinces
2. Strengthening health system
 - a. Policy document development
 - b. Raising staff capacity at national and health facility level
3. Tuberculosis infection control
 - a. Provide safer working environment to health care staff, clients and communities
4. Strengthening M&E and operational research
 - a. Promote evidence based decision making

TB CARE I-Afghanistan assists NTP to achieve its strategic objectives of increasing case detection and treatment outcome by implementing standard operational procedures for case detection, diagnosis, treatment, TBIC, TB in children in 18 provinces (Kabul, Bamyan, Baghlan, Badakshan, Jowzjan, Faryab, Hirat, Farah, Nimorz, Helmand, Kandahar, Zabul, Maidan Wardak, Ghazni, Paktika, Pakhtyan and Khost provinces). Also, we assisted NTP on development and expansion of ever first electronic reporting system in all 34 provinces of Afghanistan. In addition, TB CARE I assisted in the dissemination of IEC materials in all 34 provinces during world TB day celebration. Moreover, the NTP was assisted to increase the access to quality TB services by more vulnerable and deprive population of Afghanistan. Therefore, we expanded community based DOTS in 13 USAID supported provinces. In four provinces the CB-DOTS was contracted with basic package of health services (BPHS) implementers and in additional nine provinces with Bangladesian Rural Advancement Committee (BRAC). Innovative approach of Urban DOTS was designed and implemented since 2009 in densely populated city of Kabul with irregular infrastructure and poor health system.

Implementation strategies:

TB CARE I has developed the clear strategies for each of technical area so as to produce maximum outcomes and results and ensure resources are wisely, effectively and efficiently utilized. Below you can find the specific strategies for each technical areas.

Health system strengthening strategy

- Developing key policy documents
- TB task forces/ STOP TB partnership
- DOTS learning centers for on-the-job training
- TB leadership using the Management and Organizational Sustainability Tool
- Decentralized trainings approach: 3,372 HFs staff trained standard operating procedures (SOPs) for case detection & treatment and TB IC
- Joint monitoring visits (NTP, NGO,s TB CARE I) to health facilities

Community Based DOTS implementation strategy

- Implementing NTP CB-DOTS SOPs
- Developing and implementing CB-DOTS strategic plan
- Establishing partnership between NTP, NGOs, and TB CARE I
- Training community health workers (CHWs) in TB care provision
 - Identifying suspected TB case
 - Referring TB patients
 - Providing DOT
 - Using information, education, and communication materials
- Conducting community awareness-raising events
- Implementing CB-DOTS through NGO partners
- Designing activities to complement the GF community-based activities

Urban DOTS implementation strategies

- Urban DOTS Strategic Plan implementation with NTP, TB CARE I, and WHO
- SOPs for TB case detection, treatment, and TB IC
- Partnership between NTP and public/private sector
- DOTS expansion to public and private health facilities in Kabul
- Awareness raising events

M&E and surveillance system strengthening strategies

- Engaging BPHS implementers in TB reporting and TBIS database implementation.
- Providing tools for NTP to improve accuracy of data
- Improving evidence based decision making culture within NTP/MOPH
- Empowering health facility staff to plan, implement and monitor their performances for TB services
- Documenting TB CARE I/MSH performances to communicate good practices with wider range of audiences

TB infection control strategies

- To Strengthen coordination mechanism for TB IC integration at national and provincial level
- To engage all health care provider in the implementation of TB IC measure
- To advocate TB IC for rising awareness and implementation

Universal Access

Expand DOTS implementation to additional public and private urban facilities in Kabul city

Kabul city is home for almost more than five million inhabitants that make 20% of country population. This city had poorest indicators for TB. For instance in 2009, only 1,200 suspected cases and 800 TB cases of all type were identified in Kabul province. In addition, case detection rate was 38%, treatment success rate of 54% and sputum conversion rate of 53%. The innovative approach of Urban DOTS was first introduced to NTP in 2009. This approach is being implemented by lead partner MSH and cooperative partner WHO.

Table 1: Outcome of urban DOTS approach in Kabul city

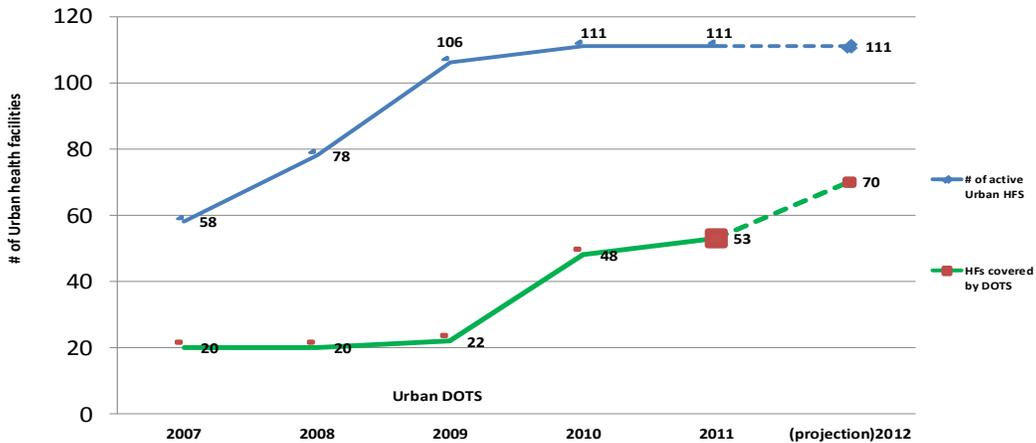
Expected Outcomes	Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target	Result	Comments
				Y2	Y2	
(#) 1.2 Increased quality of TB services delivered among all care providers (Supply)	1.2.5 Number of sputum smear positive TB cases detected under Urban DOTS in Kabul city	This indicator measures the outcome of Urban DOTS implementation in Kabul city Numerator : Number of sputum smear positive TB cases detected in Urban health facilities Denominator: NA	1022	1200	1180	Data through Oct 2011 – Jul 2012

There are 111 both public and private health facilities in Kabul providing DOTS.TB CARE I supported NTP urban DOTS program to expand DOTS in to new public and private health facilities during year two of the project (APA2). Based on Urban DOTS plan, twelve new public and three private health facilities covered by DOTS. Collectively, 68 public and private health facilities engaged in TB services delivery so far by urban DOTS program in Kabul city. In short, DOTS coverage raised form 21% (22) in 2009 to 61%(68) in 2012 (figure 1).

Also, the front line staff capacities build to provide quality DOTS services to the clients. For example, standard operation procedure (SOPs) training provided for 120 health care workers including medical doctors, nurses, lab technicians, and midwives from public and private health facilities.

Moreover, TB CARE I was committed to improve working conditions to health care staff, clients and communities by reducing risk of TB infection in working environment. For instance, small grant renovation provided for 7 health facilities, and 22 sputum collection points installed in health facilities. As a result of abovementioned activities, suspect identification rate increased, total number of new sputum smear positive (NSS+) TB cases increased, finally, sputum smear conversion rate and treatment success rate improved (figure 2 and 4).

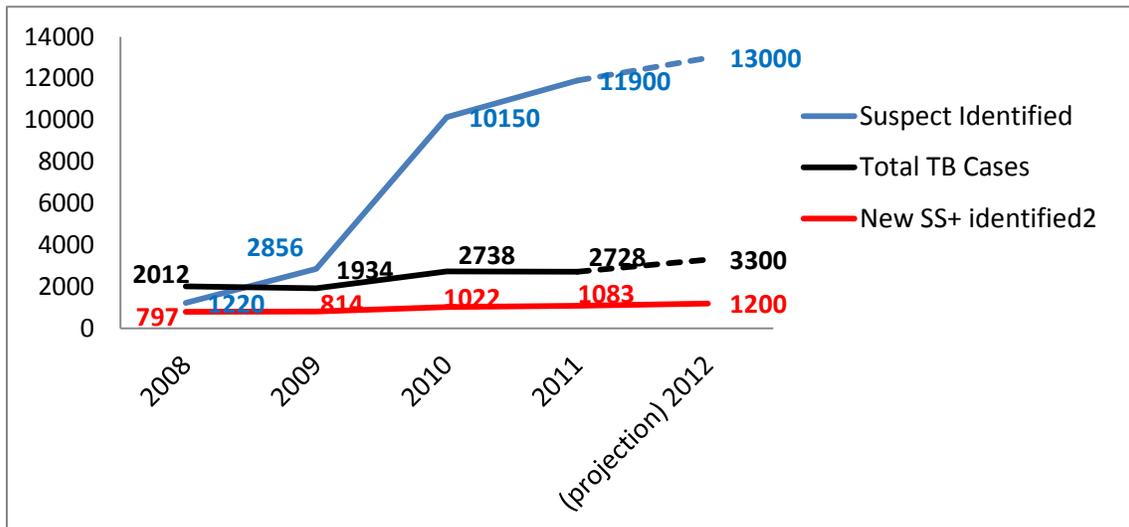
Figure 1: Trend of Urban DOTS coverage in Kabul 2007-2012



TB Suspect, all TB cases and New SS+ notified (2008 – 2012)

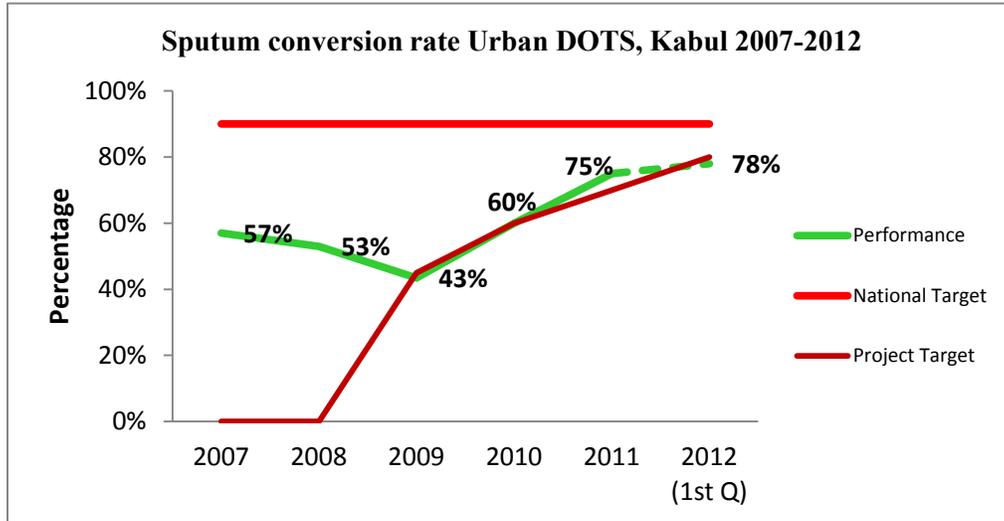
The objective is to assist NTP in early case detection and treatment of TB patients. The practical approach that assists NTP to reach this goal is implementation of SOP for case detection and treatment. Its application in Urban DOTS facilities resulted in not only improved identification of suspected TB cases but also sputum smear positive and other forms of TB cases notified. For instance, suspected Tb case identification ascended from 1220 in 2008 to 13,000 in 2012. Also, sputum smear positive TB cases rose from 797 in 2008 to 1,200 in 2012 and all types of TB cases increased from 2,012 in 2008 to 3,300 in 2012 (figure 2).

Figure 2: trend of suspected, new sputum smear positive and total number of TB cases notified, 2008-2012



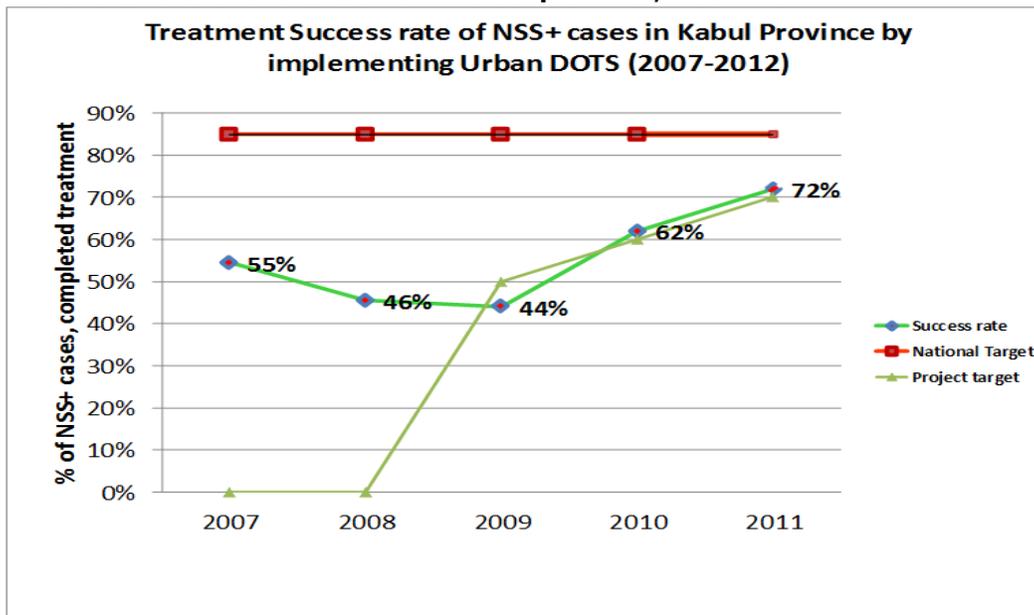
TB CARE I approaches also resulted in improved quality of care at health facilities consequently improved adherence to treatment. For instance, sputum conversion rate rose to 75% in 2012 compared to 43% in 2009 (figure 3).

Figure 3: sputum smear positive cases conversion rate, 2007-2012



Urban DOTS approach not only focused on early TB case detection but also on treatment adherence. As a result, treatment success rate raised to 72% compared to baseline of 44% in 2009 (figure 4).

Figure 4: trend of treatment outcome in Kabul province, 2007-2011



Achievements:

1. Conducting urban DOTS Task Force meeting in Kabul city

Seven Urban DOTS Task Force meetings conducted, the members influenced to follow up the decision made by TF meeting, on the other hand NTP ensured proper documentation and implementation of decisions taken during these meetings.

2. Assist NTP to conduct supervision/monitoring visits from urban DOTS health facilities in Kabul city

102 supervisory/ monitoring visits conducted from Kabul urban health facilities to supervise, monitor and evaluate the DOTS implementation in urban health facilities and provide on the job training and feedbacks to health care workers. By on time supervisory visits recording and reporting system improved, referral system improved and transfer out rate decreased.

3. Assist NTP urban team to improve coordination between public & private health sector and NTP in Kabul city

For better coordination and cooperation among public and private health sectors and running TB services smoothly in Kabul populated city, the strengthening coordination workshop conducted and more than 150 individuals from different health sectors participated in this workshop. Public and private health sectors announced their strong commitment for implementation of DOTS in Kabul city.

4. To implement community awareness events in Kabul city

To improve community awareness regarding TB and reduce the stigma against TB among community, TB CARE I urban DOTS team conducted TB orientation events for more than 2,400 students of Kabul high schools. Now, most of school student know about sign and symptoms of TB and able to refer TB suspected patient to the nearest HFs.

In summary, the urban DOTS was able to achieve its set targets for APA2. Table 2, illustrates the comparison of planned activities against achievement in during APA2 (Oct 2011-Sep 2012).

Table 2: Urban DOTS plan and achievements during APA2:

Activities	Plan	Achievements
Expansion of DOTS implementation to additional public and private urban facilities in Kabul city	20	15
Conduct urban DOTS task force meeting	8	6
Conduct refresher trainings for Kabul urban HFs	60	100
Conduct initial trainings for Kabul urban HFs	60	80
Install sputum collection points in Kabul urban HFs	15	22
Conduct supervision/monitoring visits from urban DOTS HFs	84	102
Renovate urban health facilities in Kabul	5	7

Conduct coordination meeting between public & private health sector and NTP in Kabul city	4	6
Conduct community awareness events in Kabul city	4	3
Conduct strengthening coordination workshop between public and private health sectors	1	1
Develop Urban DOTS Strategic - Operational plan	1	1
Submit Urban DOTS abstracts to the Union	1	1
Tree IC committees established	4	3
World TB Day celebrated in 53 Urban DOTS	50	53
Three QRM conducted	4	3
On the job training for Lab technicians	10	10
TVs and Radios Interviews	0	4
Inauguration of TB services by TV show	0	2
Broadcasting strengthening coordination workshop by TV	0	1
Community and school events for 1200 individual	1200	2400

Challenges:

- Poor commitment and motivation of public and private health staff (low salary scale and socio-political issues)
- Poor public health infrastructure (e.g. 85 % of Kabul PHD HFs are located in rental houses and relocation of clinics affects the DOTS implementation.
- Neglected basic health care services delivery inside Kabul city (no BPHS implementers)
- Poor coordination mechanism among public and private health sector
- Poor recording of OPD patient in private hospitals and fighting with communicable disease are not in priority.
- Highly populated city in the country (about 3-4 million/ 15% country population) with high IDPs
- TB control activities are not fully integrated in general health system in Kabul city
- Some national hospitals are not accepting TB in their daily services
- Easy availability of low quality TB drugs in the market
- Low suspect identification in public and private HFs
- Low DOTS coverage of Kabul urban setting, it is only 71%
- Low TB SS+ case notification, it is only 36%
- SOPs is not implemented properly

- Low interest of private health sector to implement TB control activities in their HF
- Poor referral system among public-private health facilities (poor feedback mechanism and patient follow up)
- Low interest of community to seek health care services through public HF
- Poor community awareness and stigma in TB

Community Based DOTS Implementation

Table 3: Technical outcome of community based DOTS implementation

Expected Outcomes	Outcome Indicators	Indicator Definition	Baseline (2011)	Target	Result	Comments
				Y2	Y2	
1,2 To increase quality of TB services delivered among all care providers and to bring TB services to door step of people	Proportion of new sputum smear positive TB cases out of suspected TB cases referred by CHWs.	Numerator: Number of new sputum smear positive TB cases identified by CHWs. Denominator: Total number of TB suspected cases referred by CHWs in 13 USAID supported provinces.	10% of suspected TB cases(1/10) (2011)	10% of suspected TB cases(1/10) (2012)	7% of suspected TB cases(0.7/10) (2012)	Delayed GF contract is reason to down the project achievements. Because CB-DOTS interventions in 9 provinces are playing complementary role to GF round 8 grant
Increased quality of TB services delivered among all care providers	To coordinate, introduce and implement Community Based DOTS at national and provincial level	Community Based DOTS management Coordinate and sign contract with NGOs, NTP and GCMU/PCH and BRAC	30% (4/13) (2011)	100% (13/13) (2012)	100% (13/13) 2012	BRAC has signed contract with 2 out of 9 provinces since the start of APA2, the reason of postponed process of contract sign in the rest provinces is delay of GF contract as well. and also Implementation of CB DOTS is ongoing due to BPHS in 4 provinces.

During 2009, TB CAP assisted NTP to pilot the community based DOTS in four provinces of Badakshan, Baghlan, Jowzjan and Herat in Afghanistan. During TB CARE I year two, this approach was expanded

to all 13 USAID supported provinces. TB CARE I has contracted the CB-DOTS in four provinces with BPHS implementers (CAF, BDN and SAF) and for nine provinces with BRAC to complement the GF community based DOTS approach. Hereby, TB CARE I reached to its target to contract with BPHS implementers.

Key Achievements

Community based DOTS was subcontracted with BPHS implementers (NGOs) in four provinces and with BRAC to complement the global fund round 8. The implementation of CB-DOTS by NGOs resulted in increased capacity and CHWs performances and sustainable TB service provision at community level. In summary, it resulted in significant level of performances and either maintained or exceed the set target for APA2. The target against performance can be found in table 4.

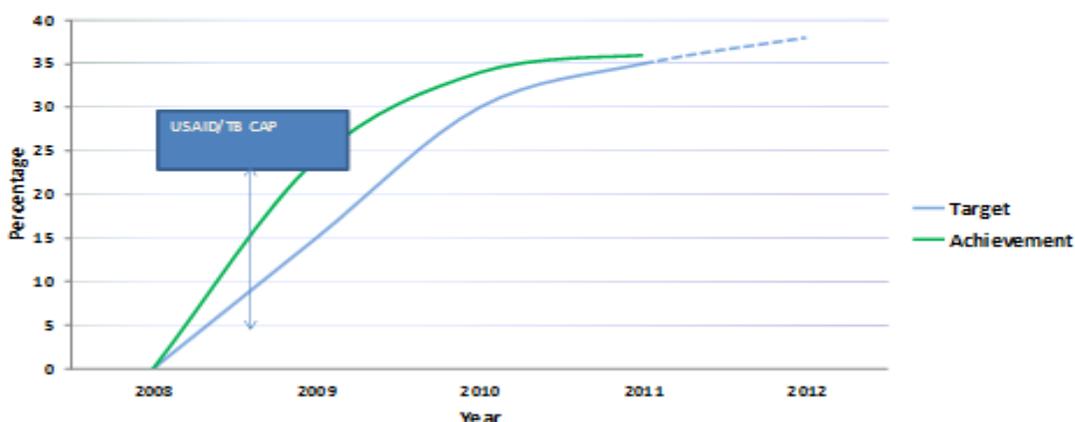
Table 4: comparison of CB-DOTS baseline indicators with achievements, 2011-2012

Indicator	Baseline/2011	APA2
Number (%) of TB Suspects referred by CHWs and community	19682 (38%)	20717 (40%)
Number (%) of TB SS+ by CHWs and community out of All TB patients	1118 (35%)	1181 (37%)
Number (%) of TB patients under DOT by CHWs and Community out of all TB patients	2209 (47%)	2209 (47%)
Number and % of new SS+ among TB suspects referred by CHWS	2400 (8%)	3000 (10%)
Success rate (percentage of success in treatment of TB patients by community and CHWs)	3915 (96%)	3915 (96%)
Number (%) of under 5 children screened for TB	3428 (18%)	3808 (20%)
Number (%) of female TB patients	4653 (66%)	4653(66%)
Number (%) of households registered to screen for TB (contact management)	50222 (60%)	51896(62%)

In addition, community based DOTS produced significant results in terms of suspected TB case identification. For instance, by end of 2011, up to 35% of all suspected TB cases identified in four provinces, were, identified by community health workers. This trend is expected to be continued and reach to 40%, in year 2012 (figure xx).

Figure 5: Role of CHWs in suspected TB case identification

CB-DOTS contribution to suspected TB cases in 4 provinces (2008 – 2012)



Moreover, TB CARE I has conducted an assessment to identify the role of community based DOTS treatment outcome of home based DOT compared to health facility based DOT. Interestingly, TB treatment success rate for those TB patients that received their DOT from CHWs were 98% compared to 91% for those received their DOT from health facilities (Table 5).

Table 5: contribution of CHWs in treatment outcome

Variable	CHW treatment outcome 2010 N=853	CHW and health facility treatment outcome (2010) N=3205	National level treatment outcome (2010) N=12797
Treatment success rate	833 (98%)	2,909 (90.7%)	11,624 (91%)
Cure rate	822 (96.4%)	2,855 (89%)	11,175 (87%)
Completion rate	12 (1.2%)	54 (1.7%)	449 (4%)
Deaths rate	10 (1.1%)	57 (1.8%)	257 (2%)
Default rate	3 (0.4%)	54 (1.7%)	244 (2%)
Treatment failure rate	3 (0.4%)	25 (0.8%)	122 (1%)
Transfer out rate	4 (0.4%)	160 (5%)	550 (4%)

Challenges and Next Steps

- Low Commitment of HFs staff on CB DOTS implementation.
- Poor supervision, on CB DOTS implementation HFs and HPs level Disregarding to give feed
- Delay in GF round 8, phase II approvals
- NGOs were not involved in CB-DOTSS in nine provinces

- Insecurity caused limitation to health facilities

Next Steps

- Sub contract with lead NGOs in six provinces (Badakhshan, Baghlan, Jowzjan, Takhar and Faryab and Herat)
- To complement the GF Round 8 CB-DOTS components and sub contract with BRAC in seven provinces
- Sub contract with lead NGOs in tow new provinces (Takhar and Faryab).

Success story

Access to TB diagnostic services by private Laboratory in Kabul city

Afghanistan is one of the 22 high burden tuberculosis (TB) countries in the world with poor indicators for health especially in big cities such as Kabul. Interestingly, more TB patients are female than male (female/male ratio is 2.13) and it is a unique phenomenon in the world. According to NTP reports in 2011, 68% of all TB cases diagnosed among female attendees.

Kabul has five million inhabitants and suffers from overcrowding; population density, poor sanitary facilities that resulted in poor TB indicators. In 2009, 106 public and private HFs existed in Kabul, only 22 implemented DOTS without a system for public health interventions. Case- notification rate was 26%, conversion-rate 43% and success-rate was 46%. Nonetheless, private lab and private HFs were neglected to be trained on the TB case detection, diagnosis and treatment

In 2009, USAID/ TB CAP followed on TB CARE I, urban DOTS approach designed, public - private sectors engaged in DOTS implementation, 272 staff trained on DOTS, DOTS package disseminated to 62 health facilities, community awareness raising activities conducted, 172 supervisory visits conducted, Public-Private Mix task force meeting conducted, thus improving TB reporting-recording system and motivating staff-members.

USAID TB control program (TB CARE I) trained 56 private health workers in 2010 and 2011 in Kabul city and they were trained on TB suspect identification, referral to DOTS room and Lab room for sputum smear collection, examination, treatment initiation, and counseling.

Mohammad Idress Karimi has been working as a Laboratory Technician for a private Laboratory in Khair Khana of Kabul city since five years. He trained by USAID/TB CARE I project and gained sufficient knowledge on TB diagnosis. Mohammad Idress applied new knowledge and was able to diagnose TB easily.



Since his engagement in TB service delivery he identified 362 TB suspect cases and examined all of them. Among them, 77 had active lung disease. This is a higher positivity rate of 21%.

He said" I am happy with USAID/TB CARE I project that enabled me to diagnose TB and assist me people. I gained new knowledge and practicing it during my day-to-day interaction with TB suspect and identified cases".

Infection Control

Tuberculosis infection control is a new technical area that first introduced to NTP Afghanistan during TB CAP and was followed by TB CARE I project. So for, SOP for TBIC and IEC materials, developed and disseminated to all health facilities country wide. The leading partner for this technical are is MSH with sufficient support from KNCV.

Table 6: Technical Outcomes for TB infection control

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target Y2	Result Y2	Comments
(#)	3.2 Scaled up implementation of TB IC strategies	3.2.3 Key facilities with IC focal person, implementation plan, budget, and monitoring system	Numerator: The number of selected categories of health facilities with all three (a+b+c) interventions in place. Denominator: Total number of health facilities in 13 provinces of the selected categories	20 (3%) (20/700)	60 (9%) (60/700)	60 (9%) (60/700)	During APA1 20 health facilities upgraded (covered with TB I C) and in APA2 40 health facilities. From October 2011-September 2012 a total of 60 health facilities upgraded with TB IC measures.

Key Achievements

During year two of the TB CARE I project, 60 health facilities upgraded with TB IC measures: staff orientation and training to raise staff knowledge, establishment of TBIC committees to monitor the implementation of TBIC plan at health facilities, identify the focal person at each health facility, to conduct monthly meetings TBIC committees meetings, provision of financial assistance of approximately USD 250 to renovate health facilities for TBIC, and conduct quarterly IC assessment at health facility. TB IC measures planned and implemented through the TB IC focal person/Committee and TB IC assessment tool being implemented on quarterly base to monitor the progress and set target for the coming quarter. Also, 25 health Facilities renovated in 13 provinces based on the TB IC assessment tool implementation finding

During APA2, TB CARE I supported the follow up of TBIC measure application at health facilities. Thus, 888 TB IC committees meetings conducted in 60 upgraded health facilities to discuss progress toward targets and make action plan for challenges that the health facility encountered.

Moreover, 90 health care worker including provincial NTP's staff and NGOs TB Focal point trained on assessment tool and Gap prioritization table in five USAID supported provinces.

In addition, 220 health care workers from health facilities trained on TB IC SOP in 19 provinces (13 USAID and 6 Quick impacts). Also, NTP was assisted to monitor the TBIC implementation at health facilities. Therefore, 14 supervisory visits conducted from 60 health facilities to supervise the TB IC measures implementation and implement TB IC assessment tool and provide feedback both oral and written to health facilities staff, provincial NTPs and NGOs sub offices.

Challenges and Next Steps

1. Low knowledge/capacity of health facilities staff on TB IC measures
2. Low knowledge and skills of master trainers who teaches TB IC measures
3. Design of the clinics/hospital, air born infection control hadn't been considered in 90% of the health facilities mainly in hospitals.
4. TB IC measures not considered in the planning phase/in the designing phase of the clinics by the MoPH, and Donors who construct the clinic buildings.
5. Staff turn over
6. Insecurity

Health System Strengthening (HSS)

Health system strengthening is one of the technical area that MSH is working in since the initiation of USAID's TB project since 2005. This essential area was improved significantly in year two of TB CARE I project. During APA2, on-the-job training guide was developed and disseminated to health care staff. Also, the IEC materials for TBIC were developed and disseminated to all health facilities in the country. Moreover, the TBIS guideline was finalized, TBIS electronic reporting system expanded to 33/34 provinces. In total, 600 individuals were trained using TB CARE I fund.

Table 7: Technical Outcomes for health system strengthening

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target	Result	Comments
					Y2	Y2	
(#)	6.1 Ensured that TB control is embedded as a priority within the national health strategies and plans, with commensurate domestic financing and supported by the engagement of partners	"6.1.1 TB care and control strategic plan embedded within national health strategies, including quantifiable indicators and budget allocations Indicator Value: Yes/No"	Yes= if TB care and control strategic plan embedded within national health strategies, including quantifiable indicators and budget allocations NO= if TB care and control strategic plan DOES NOT embedded within national health strategies, including quantifiable indicators and budget allocations	Yes(2011)	Yes(2012)	Yes(2012)	
	6.2 TB control components (drug supply and management, laboratories, community care, HRD and M&E) formed integral part of national plans, strategies and service delivery of these components	"6.2.1 Supervisory visits conducted according to country supervisory standards Indicator	Value: Percent Numerator: Number of annual supervisory visits conducted disaggregated by three levels. Denominator: Number of annual supervisory visits planned disaggregated by three levels in 13 USAID supported provinces."	80%	85% (29/34)	100% (34/34)	
		"6.2.2 Status of HRD strategic plans implemented Indicator Value: Score (1-3) based on definition. "		2	3	3	

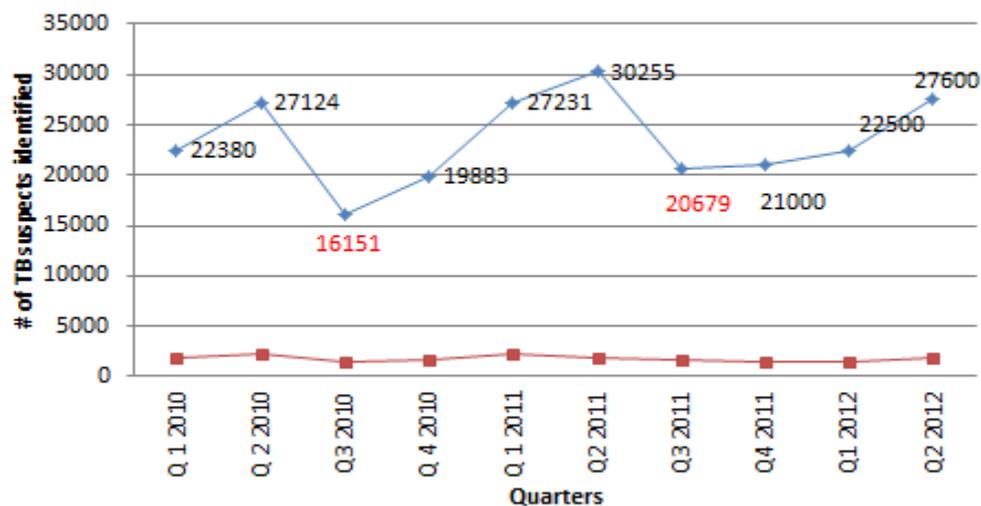
		"6.2.3 People trained using TB CARE funds Indicator	Value: Number of people Numerator: Number of people trained disaggregated by gender and type of training in 5 provinces."	1072	1172	1498	Reallocation of budget from other budget line, thus, we were able to train more people.
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Key Achievements

During year two of the TB CARE I project we emphasized on SOPs implementation for case detection, TBIC and TB in children. During this period, collectively, 606 individuals from various disciplines trained on leadership/managements, on-the-job training and female staff training on SOP for case detection, treatment and TBIC and in TBIS electronic reporting. This resulted in increased access to TB services in USAID supported 13 provinces. For instance, number of outpatients attendees screened for TB increased from 85,553 in 2010 to approximately 93,000 in 2012 (figure 6).

Figure 6: Trend of suspected TB cases identified Q12010-Q22012

Trend of TB suspect identification in 13 USAID provinces, 2010-2011



Also, SOPs implementation has resulted in increased access to TB services. For instance, during APA2 approximately 93,000 suspected TB cases identified and of them 6,568 sputum smear positive TB cases identified. Table below, identifies the trend of sputum smear positive TB cases in 13 USAID supported provinces from 2007-2011. Also, TB CARE I intervention resulted in improved quality of care e.g. treatment success rate increased to 87% from 83%.

In summary, TB CARE I intervention led to increased case notification both for all type of cases and sputum smear positive TB cases. For example, there is 19% (2,338) increase in all types of TB cases- it increased from 12,454 to 14,792. Also, there was 15% (912) increase in notification of new sputum smear positive TB cases e.g. it ascended from 6,139 in 2009 to 7,051 in 2011. Moreover, the treatment success rate raised by 6%, from 83% in 2009 to 89% in 2011. (table 8). Uninterestingly, this trend in non-USAID supported provinces (21) was a down ward trend for these TB indicators (figure 6).

Table 8: Comparison of performance between USAID and Non-USAID provinces. 2009-2011

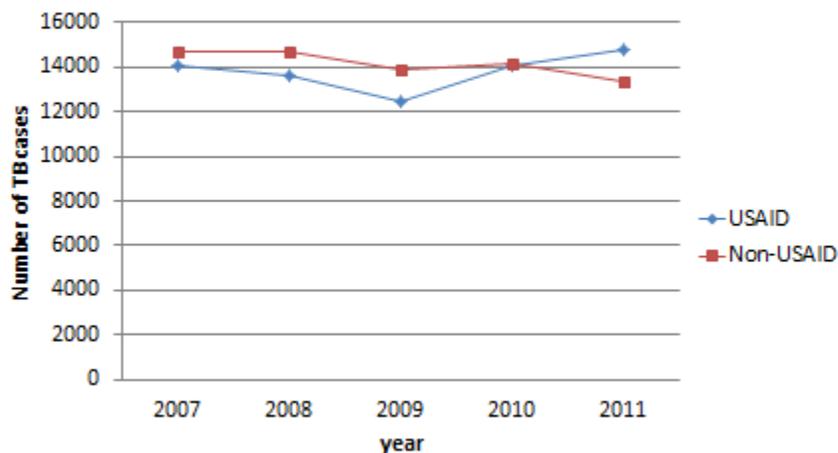
TB Outcomes in USAID-supported Provinces (2009-2011)

Indicator	USAID-supported Provinces			Non-USAID supported provinces		
	2009	2011	% change	2009	2011	% change
TB suspected cases identified	49,630	99,272	100% increase	45,812	93,730	100% Increase
TB SS+ cases notified	6,139	7,051	15% increase	6,358	6,750	6% increase
TB cases notified, all forms	12,454	14,792	19% increase	13,904	13,372	4% decline
Treatment success rate	83%	89%	6% increase	89%	92%	3% increase

Additionally, TB CARE I intervention resulted in change in trend of TB case notification in Afghanistan. For example, historical data shows the fewer case notification in USAID provinces, but since UASAIID/TB CARE I and previous project of TB CAP change this trend and, now, more TB cases notified in USAID supported 13 provinces compared to non-USAID supported 21 provinces (figure 7).

Figure 7: Trend of TB case notification 2007-2011

Trend of all TB cases detected in USAID vs non-USAID: 2007-2011



Challenges and Next Steps

High staff turnover at the provincial level: during 2011, NTP Afghanistan was faced with a challenge of delayed approval of global fund phase II, round 8. Thus, NTP was not able to train newly hired staff on time. However, fewer staff were trained on SOPs for case detection and treatment in TB CARE I intervention area. In addition, there was further delay in payment to frontline health facility staff in the quarter two of 2012. This resulted in higher staff turnover in remote and hard to reach provinces.

Low MOPH commitment: Currently, the government share in TB control is approximately 1% of total expenditure in TB. NTP is currently faced with challenge of paying incentive to its staff at national level. The government payment to NTP staff on average is less than USD 200 per month per person. This caused higher demotivation of NTP staff at central and provincial levels and resulted in delayed implementation.

Low central and provincial NTP coordination: NTP as vertical program is faced with higher challenge of integration at central and provincial levels. This, require high level of coordination and collaboration at various levels. TB CARE I strategy is to accelerate the integration process at various levels of NTP and in fewer cases we faced with challenge of miss coordination at provincial and central levels.

Insecurity: The deteriorating security in many of provinces caused delayed activity implementation. However, TB CARE I was able to implement all the activities in all insecure provinces through provision of USAID airlifting to and from these provinces.

Monitoring & Evaluation, Surveillance and OR

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target Y2	Result Y2	Comments
(#)	7.1 Strengthened TB surveillance	7.1.1 An electronic recording and reporting system for routine surveillance exists at national and/or sub-national levels Indicator Value: Yes/No	Yes= An electronic recording and reporting system for routine surveillance exists at national and/or sub-national levels No= An electronic recording and reporting system for routine surveillance DOES NOT exist at national and/or sub-national levels	Yes (4/34) (2011)	Yes (34/34) (2012)	Yes (33/34) (2012)	Electronic reporting system is in place in 33/34 provinces
	7.2 Improved capacity of NTPs to analyze and use quality data for management of the TB program	7.2.1 National M&E plan is up-to-date Indicator Value: Yes/No	Yes= If National M&E plan is up-to-date No= If national M&E plan is NOT up-to-date	No (2011)	Yes (2012)	Yes (2012)	
		7.2.2 NTP provides regular feedback from central to lower level	Value: Percent per quarter Numerator: Number of quarterly feedback reports prepared and disseminated disaggregated by three levels. Denominator: Total number of recipient units/facilities at each level in 13 USAID	40% (4/10) (2011)	60% (81/139) 2012	70% (90/139)	The feedback was provided to 100% of facilities for TBIS reporting and for 50% of health facilities during QRW

			supported provinces"				
		7.2.3 A data quality audit at central level has been conducted within the last 6 months Indicator Value: Yes/No	Yes= A data quality audit at central level has been conducted within the last 6 months No= A data quality audit at central level has NOT been conducted within the last 6 months	NO	Yes	NO	TB CARE I has developed the protocol for data accuracy assessment and will be completed in Oct-Nov 2012
	7.3 Improved capacity of NTPs to perform operational research	"7.3.1 OR studies completed and results incorporated into national policy/guidelines	Indicator Value: Number (of OR studies and instances reported separately)"	1	2	1	TB CARE I will assist NTP on conduction of data accuracy assessment.

Key Achievements

During year two of TB CARE I project the ever first electronic reporting system was established in 33/34 provinces country wide. TB CARE I assisted NTP to train 126 staffs including provincial TB coordinators, NGO HMIS officers and PHO HMIS officers. In addition, NTP was assisted with submission of 35 computers for proper running of electronic reporting system. Also, the TBIS electronic reporting guide and TB information system procedure manual developed. This electronic reporting system can assist NTP to improve the quality of data to a great extent. Furthermore, it provides tool to NTP at all levels to conduct analysis of data, identify gap and provide feedback and take immediate action. Ultimately, overt NTP's leadership and stewardship role and achieving its strategic objective of increased case detection and treatment adherence.

Moreover, NTP provided feedback on TB reporting to 100% of provinces (33 provinces). This feedback included completeness and quality of data entry at provincial levels. Also, supervisory/monitoring visits conducted to 27/33 provinces to ensure proper implementation of TBIS electronic reporting system.

Also, NTP was assisted to provide feedback to health facility staffs in 13 USAID supported provinces by quarterly meeting conduction. During year two TB CARE I, five subnational review workshops and 12 provincial review workshops conducted in 13 USAID supported provinces. During these workshops, health facility staffs received feedback on their performances of previous quarter. They also, set target for next quarter and developed action plan to achieve the target during next quarter.

In addition, TB CARE I provided assistance to NTP to conduct research and develop staff capacity in documenting the experience and practices from Afghanistan. For example, TB CARE I conducted one day workshop for senior NTP staff on abstract writing where 16 individuals attended. As a result, NTP in collaboration with TB CARE I developed and submitted eight abstract to The Union conference. Of them, two accepted for oral presentation and three for poster presentations. Also, data accuracy assessment protocol developed and field work will be completed till end of 2012.

Challenges and Next Steps

Monitoring and maintenance of TBIS reporting in 34 provinces

Insecurity that usually resulted in delayed implementation

First-Ever Computerized Information System Improves TB Reporting in Afghanistan

Afghanistan is one of the 22 high burden tuberculosis (TB) countries. According to the WHO's 2011 Global Tuberculosis Control report, the estimated incidence and prevalence rates for TB are 189 and 352 per 100,000 population, respectively. In 2010, the notification rate for all TB cases was 115. For new sputum smear positive TB cases, the rate was 53 per 100,000 population. The sputum conversion rate was 89%, and the treatment success rate was 86%.

The recording and reporting mechanism for the National TB Program (NTP) was a paper-based system which was subject to manipulation and plagued by problems with quality, including, completeness, timeliness, and feedback. According to a 2008 operations research study which looked at the accuracy of data in the system, the rate of discrepancy between data recorded by health facilities and that reported to the NTP was 24%.

To address these challenges, the Afghanistan office of TB CARE I, with assistance from Management Sciences for Health, developed the first-ever computerized information system for the NTP. Prepared over a period of two years, it was available for use at the end of December 2011. A procedures manual was also prepared. During January-February 2012, TB CARE I trained 111 people, including provincial TB coordinators, TB focus persons from non-governmental organizations (NGOs), and provincial health management information system (HMIS) officers of the Ministry of Public Health (MOPH) on the use of the system and data analysis techniques. TB CARE I also provided 32 desktop computers to 32 (out of 34) MOPH provincial offices.

Within ten days of the training, the NTP received the first electronic reports from provinces. A preliminary assessment indicates that there has been improvement in the quality of data, such as completeness and timeliness. TB reporting has been integrated into the national HMIS reporting calendar. Moreover, its use has been integrated into the general health system, for example, NGOs are using the TB reporting process.

Moninullah Zafari, a surveillance officer with the NTP said: "This database has made our life easy. Now we can easily collect data from the provinces. It has assisted us with data analysis and increasing data accuracy. To have such a system was our dream for many years."

Add/Edit TB Suspect Management Report										
TB Suspect Management Report - TB13a										
15/10/1390	port Submission Date	1390	: Year	PCH-04-BGLN-C1-BDN-BPHS	Grant ID	4609032	: Data Set Report ID			
19/11/1390	: Updated On	3	: Quarter	Comprehensive Health Center	Facility type	TBSM	: Data Set			
▼ Baghlan	Updated By	Quarterly	: Period Type	460 - Baghlani Qadim Clinic			: Facility			
Primary defaulter rate (c)-(e)/(c)*100	# of positive registered for treatment (e)	Average slide per suspect	% with positive results (d)	number with positive results (c)	# of respiratory symptomatic individuals examined (b)	# of respiratory symptomatic individuals registered (a)	: Referred by			
0.00	6	2.0	15.38	6	39	42	1 : self			
0.00	0	0.0	0.00	0	0	0	2 : community			
0.00	0	0.0	0.00	0	0	0	3 : Public			
0.00	0	0.0	0.00	0	0	0	4 : Private			
0.00	0	0.0	0.00	0	0	0	5 : HH contacts			
0.00	0	0.0	0.00	0	0	0	6 : others			
0.00	2	3.0	12.50	2	16	16	7 : CHW			
							8 : Pharmacist			
0.00	8	0.7	3.98	8	55	58	: Total			

Menu				
By Province				
Province	Parwan			
Year	1390			
Frequency	(All)			
		Quarter	Values	
			1	
SorOrder	Indicator	Num	Den	Percent
3	New Pulmonary TB cases with no smear result	2	40	5
4	New adult smear positive cases	9	42	21
5	Retreatment TB cases	14	54	26
6	New extra pulmonary TB cases	0	40	0
20	Smear-negative cases properly diagnosed	5	5	100

Menu				
Order	(All)			
Year	1389			
Quarter	4			
Frequency	(All)			
Indicator	Num	Den	Percentage	
Cure rate	77	78	99	
Death rate	1	78	1	
Default rate	0	78	0	
Transfer out rate	0	72	0	
Treatment Completion rate	0	78	0	
Treatment failure rate	0	78	0	
Treatment success rate	77	78	99	