



### Government of Islamic Republic of Afghanistan Ministry of Public Health

General Directorate of Preventive Medicine
CDC Directorate

# National Strategic Plan for Tuberculosis Control 2013 — 2017

Transforming the fight towards elimination of tuberculosis in Afghanistan



Islamic Republic of Afghanistan Ministry of Public Health General Directorate of Preventive Medicine CDC Directorate

National Tuberculosis Control Program

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## **Preface**

I am pleased to present the Afghanistan TB Control Program's National Strategic Plan (NSP) for the years 2013-2017. The plan is the result of a collaborative effort amongst National TB Control Program (NTP) team, national and international partners including WHO Afghanistan & EMRO, JICA, USAID/TB CARE I, BRAC, GFATM, NGOs, and private sector.

The NSP 2013-2017 is developed based on current situation of National TB control Program in line with MoPH NSP 2011-2015, National Health and Nutrition policy 2012-2020 and Stop TB Global Plan 2011-2015 and has addressed the key components of the Global Stop TB Strategy. The current situation of TB control program was analyzed and various gaps are identified and strategic areas are designed accordingly. The plan identifies nine strategic areas which include DOTS expansion, Human Resource Development, Surveillance, Monitoring & Evaluation, Drug Supply and Management System, Strengthening Laboratory Network, TB/HIV, MDR-TB, Childhood TB, IDPs, Prisoner, PPM, ACSM, and Research.

On behalf of the MoPH, I would like to thank all those who participated in the development of this strategic plan. I would like to acknowledge Dr. Mohammad Taufiq Mashal, General Director of Preventive Medicine, Dr. Mohammad Khalid seddiq, NTP manager and his team (NTP national and provincial team), Dr Isono, JICA Chief Advisor, WHO Stop TB team under leadership of Dr. Syed Karam Shah and Dr. Mohammad Khakerah Rashidi Country Project Director, TB CARE I, for their hard work and contributions.

With best regards,

Suraya Dalil, MD, MPH Minister of Public Health

Kabul, Afghanistan

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I hope that the NSP 2013-2017 will provide guidance and direction to the NTP and stakeholders to move together in one direction.

The National TB Program is committed to working collaboratively with all partners to build a TB free country.

Best regards,

**Dr Mohammad Khalid Seddiq**National TB control Program Director

# Glossary of Key Terms

**Supportive Supervision:** An effective approach to supervise health service delivery in which the supervisor provides on the job support to the employee in order that they can better perform.

**Surveillance:** Surveillance is the continual analysis, interpretation, and feedback of systematically collected data, generally using methods distinguished by their practicality, uniformity, and rapidity rather than by accuracy or completeness.

**Sputum Transport System:** The mechanism of transport of patients' sputum samples from community or health facility to nearest microscopy center for examination.

**External quality assurance:** A method that allows for comparison of a laboratory's testing to a source outside the laboratory.

**International Standards for Tuberculosis Care:** Describes widely accepted level of care that all practitioners, public and private, should follow in dealing with people who have, or are suspected of having, tuberculosis.

**Operational research:** Discipline of applying advanced analytical methods to help make better decisions.

**Cured:** A patient registered as smear-positive, has completed the duration of treatment, and becomes sputum smear negative in the last month of treatment and on at least one previous occasion.

**Completed:** A smear positive patient who has completed the duration of treatment and have follow up smear negative results but none at the end of treatment due to any reason OR Smear negative and extra pulmonary cases complete six months of treatment successfully

**Failure:** A sputum smear positive patient who remains or becomes sputum smear positive at five months or later OR Also a patient who was initially smear negative before starting treatment and became smear positive after completing the initial phase of treatment

**Defaulted:** A patient whose treatment was interrupted for two consecutive months or more after registration

**Transferred out:** A patient who has been transferred to another TBMU (TB Management Unit) and for whom the treatment outcome is not known

Died: A patient who dies for any reason during the course of treatment

**Multi drug Resistance:** MDR-TB is a form of DR-TB in which the strain of M. tuberculosis is found to be resistant to at least the two most effective anti-TB drugs – isoniazid and rifampicin – with or without resistance to the other anti-TB drugs.

**Proficiency testing:** A proficiency testing program allows participating laboratories to assess their capabilities by comparing their results with those obtained by other laboratories in the network for the same specimens.

**Blinded rechecking:** refers to the process of collecting a random selection of slides from the routine workload at a peripheral laboratory and reexamining them at an intermediate or reference laboratory. This is to allow a statistically valid assessment of the peripheral laboratory's proficiency.

# Acronyms

ACSM Advocacy, Communication and Social Mobilization

AHS Afghanistan Health Strategy

AIDS Acquired immune deficiency syndrome

ARTI Annual Risk of TB infection

BCC Behaviour Change and Communications

BHC Basic Health Center

BPHS Basic Package of Health Services

DR Case Detection Rate

CHC Comprehensive Health Centres
CHS Community Health Supporter
CHW Community Health Worker

CIDA Canadian International Development Agency
DOTS Directly Observed Treatment Short Course

DRS Drug Resistance Surveillance
DST Drug Susceptibility Test
ENT Ear/Nose/Throat

EPHS Essential Packages for Hospital Service

EQA External Quality Assurance

GDF Global Drug Facility

GFATM Global Fund to Fight AIDS, Tuberculosis and Malaria
GoIRA Government of Islamic Republic of Afghanistan

HEFD Health Economy Finance Department
HIV Human immunodeficiency virus

HMIS Heath Management Information System

HP Health Post

HRD Human Resource Development

HSI Health Science Institute

NTP National Tuberculosis Control Program
PAL Practical Approach to Lung Health

PPM Public Private Mix

RRL Regional Reference Laboratory
SOPs Standard Operating Procedures

TB Tuberculosis

TB SS - Pulmonary tuberculosis sputum smear negative
TB SS+ Pulmonary tuberculosis sputum smear positive

TOT Trainings of Trainers

USAID United States Agency for International Development

VCT Voluntary Counselling and Testing Center

WHO World Health Organization

## **Executive Summary**

The National TB Program (NTP) has made significant progress and achievements since 2002. There are 1,197 public and private DOTS centers which can provide TB services and care according to the International Standards for Tuberculosis Care, at the end of 2012. In close coordination and support of the partners, the National Program has developed standard operating procedures for almost all its operational technical areas. Further, it is comprehensively collecting routine surveillance data, monitoring and evaluation addressing provincial challenges and compile and use it for program planning. The initiatives like PPM, TB/HIV have been expanded in big cities. Laboratory network expanded and TB culture started in National Reference Laboratory (NRL) and Regional Reference Laboratory (RRL) in Herat. The National Program with support of the all concerned stakeholders has also started implementing new Global Stop TB strategy components such as IC (infection control) and the treatment and management of DR-TB (drug resistant tuberculosis) cases in 2011.

As a result, the case notification has significantly increased during the period 1997-2011 from 7 to 112 per 100,000 populations per year for all TB cases respectively. Treatment success a rate is also increased from 84% (2001) to 90% (2010).

However, there was a slight decline in TB case notification in 2008 and 2009, followed by slight increase in 2010 and 2011. TB case detection rate is less than global target and it is around 46 % (TB Global Report 2012) and TB care needs significant improvement. There are three prioritized aspects of TB Care and Control. One is to improve accessibility to TB control service as DOTS services are still not universally accessible particularly in remote, hard-toaccess areas, resulting in hampering to provide service to people living in these areas. This issue should be approached through various activities, including expansion of health facilities, improving access to diagnosis, promoting community approach, strengthening advocacy, communication & social mobilization (ACSM) etc. The second point is to improve quality of TB care and control service, including strengthening

supervision/monitoring, laboratory system including EQA, culture and DST and surveillance system. Also, enhancing capacity of human resource development and management is crucial to improve quality of TB control services. The third point is full implementation of Stop TB Strategy by components and sub-components identified as country specific priorities, addressing vulnerable groups such as nomads, prisoners, internally displaced populations (IDPs) and returnees. To reduce burden of TB among female this has also remained as challenges.

In addition to those technical issues which are specific to TB care and control, it is crucial to establish concepts for medical ethics and human rights.

The NSP 2013-2017 was developed in close coordination and support of the partners to cope with above mentioned weakness and challenges of Afghanistan NTP while maintain current achievement. Strategic direction, interventions and relevant activities were defined by detailed situation analysis on each area of TB control program.

The plan identifies nine strategic directions which include as below:

**Strategic Direction 1:** Enhancing Political commitment and DOTS expansion

**Strategic Direction 2:** Strengthen Human Resource Development

**Strategic Direction 3:** Strengthening surveillance, Monitoring & Evaluation

**Strategic Direction 4:** Drug Supply and Management System

**Strategic Direction 5:** Strengthening Laboratory Network **Strategic Direction 6:** Address TB/HIV, MDR-TB, Child TB and the needs of poor and vulnerable populations (IDPs, Prisoner, refugee....etc)

Strategic Direction 7: Engage all care providers

**Strategic Direction 8:** Empower people with TB, and communities through partnership

**Strategic Direction 9:** Enable and promote Research

## 1. Introduction

## 1.1: Overview of Health Care Services in Afghanistan

The Ministry of Public Health (MoPH) is one of the leading Ministries in the Government of the Islamic Republic of Afghanistan (GoIRA). Building on recent achievements, including the Health and Nutrition Sector Strategy (HNSS) 2008-2013, and based on the identified need for an overall organizing framework for the MoPH and to identify strategic priorities, the Ministry has developed a National Health Strategic Plan for 2011-2015. It will assist movement toward an anticipated Sector Wide Approach for the health and nutrition sector. Yet, in spite of major achievements in the health sector in recent years, Afghanistan still lags behind to many countries in the region with respect to many key health outcomes including tuberculosis (TB).

In 2003, the MoPH made the decision with the support of donors, to change its role to a stewardship role. That decision resulted in the development and implementation of a Basic Package of Health Services (BPHS). Provision primary health care services based on this package has been contracted out to nongovernmental organizations (NGOs). "The goal in developing the BPHS was to provide a standardized package of basic services that would form the core of service delivery in all health care facilities" (A Basic Package of Health Services for Afghanistan, 2005). In 2005, the BPHS was revised based on positive impacts on a number of health indicators (including maternal mortality, infant and under 5 mortality, increased access to services, increased immunization coverage and increased TB DOTS coverage). The BPHS was further revised in 2010. Currently, contracting out by NGOs to deliver health services has been implemented in 31 provinces, with the support of the European Union (EU), United Stated

Agency for International Development (USAID) and World Bank (WB). Three provinces are "contracting in"; where MoPH staffs are contracted, similar to NGOs, to deliver the services. For secondary and tertiary care services, An Essential Package of Hospital Services (EPHS) was later added, focusing on hospitals, improving their facilities and equipment, staff training and development and enhancing the referrals between different levels of the health system.

Contracting out to NGOs has worked well in Afghanistan and has proven to be enormously successful in expanding service coverage and improving quality of care. Currently 85% of the entire population lives in districts where primary health care services are being provided by NGOs either under contract with the MoPH or through direct grants from donors and through the MoPH Strengthening Mechanism ("contracting in"). The MoPH has used the contracts with NGOs to ensure that all providers are implementing the BPHS and EPHS in accordance with technical guidelines and that all providers are clearly responsible and held accountable for defined geographical areas and populations. Resultantly, health indicators for Afghanistan have dramatically improved since the introduction of the BPHS and EPHS.

The standardized classifications of health facilities that provide the basic health services now include the following:

- Health Posts (HPs)
- Health Sub-centers (HSCs)
- Basic Health Centers (BHCs)
- Mobile Health Teams (MHTs)
- Comprehensive Health Centers (CHCs)
- District Hospitals (Dhs)

Table1: Type of health facilities for BPHS

Health Facility	Population Coverage	Staffing	Services
Health Post	1,000 to 1,500	Community health workers (1 male and 1 female),	<ul> <li>Diagnosis and treatment for malaria, diarrhoea, acute respiratory infection</li> <li>Distribution of condoms &amp; contraceptives</li> <li>Health education and awareness</li> <li>Referral of TB suspects&amp; DOTS delivery</li> <li>Growth promotion nutrition counselling and micronutrient supplementation</li> </ul>
Health Sub- centers	3,000 – 7,000	1 Nurse, 1 community midwife, 1 Cleaner/Guard	- Health education, - immunization, antenatal care, - family planning, - TB case detection and referral, and follow up - Treat infectious disease ( diarrhea and Pneumonia) - Referral of complicated cases
Basic Health Center (BHC)	15,000 – 30,000	1 Nurse, 1 Midwife or auxiliary midwife 2 Vaccinators 1 Community Health Supervisor 2 Cleaner/Guards	- Preventive health care - Promotion of health services - Antenatal, delivery & postpartum care - Family planning - EPI - Growth monitoring - Management of childhood illnesses - Treatment of common diseases & TB, including DOTS - Distribution of essential drugs
Mobile Health Team (MHT)	NA	1 MD doctor 1 Community midwife 1 Driver, 1 Vaccinator	- In most cases same as services at BHC
Comprehensive Health Center (CHC)	30,000 - 60,000	2 Medical doctors, 2 Nurses, 2 Midwives 1 Lab technicians 1 Pharmacy technician 2 Vaccinators 1 Community Health Supervisor 4 Cleaner/Guard 1 Administrator,1 Driver	- Serious cases of childhood diseases - Treat complicated malaria cases - Inpatient & outpatient - Microscopic diagnosis and treatment of TB cases - Physiotherapy - Inpatient care - Laboratory services - Disability services - Mental health services
District Hospital (DH)	100,000 – 300,000 in up to 4 districts	4 Medical doctors 1 Female	As comprehensive health centres plus: - Major surgery - X-rays

obstetrician/gynaecologist	- Emergency obstetric care and Caesarean
1 Surgeon	section - Maternity services
Taugeon	- Disability services
1 Anaesthetist,1 Paediatrician	- Mental health services
10 Nurses ,4 Midwives	
2 Laboratory technicians	
1 X-ray technicians	
1 Pharmacist, 1 driver,1	
Dentist	
2 vaccinator	
1 Community Health	
Supervisor	
2 Physiotherapist	
6 Cleaner ,1 Admin	

Hospitals are classified into three groups (District Hospitals, Provincial Hospitals and Regional Hospitals) according to size of the referral population, number of beds, workload and complexity of patient services offered:

- District hospitals (part of the BPHS)
- Provincial hospitals
- Regional hospitals

	Clinical & Diagnostic Services							
District Hospital	<ul> <li>Inpatient (medicine, surgery, pediatrics, obstetrics/gynecology)</li> <li>Outpatient (includes immunization, mental health, dental)</li> <li>Basic laboratory (including sputum tests) and blood transfusion</li> <li>Hospital pharmacy</li> <li>Physiotherapy</li> </ul>							
Provincial Hospital	<ul> <li>Inpatient (medicine, surgery, pediatrics, obstetrics/gynecology)</li> <li>Outpatient (includes immunization, mental health, dental, basic ear/nose/throat(ENT))</li> <li>24-hour emergency department</li> <li>Hospital pharmacy</li> <li>Physiotherapy</li> <li>Basic laboratory (includes sputum tests)</li> <li>Blood transfusion and blood bank</li> <li>Basic ultrasonography and X-rays</li> </ul>							

#### Regional Hospital

- Inpatient (medicine, surgery, pediatrics, obstetrics/gynecology, ophthalmology, ENT, mental health/psychiatry, forensic medicine)
- Outpatient (includes immunization, mental health, dental)
- 24-hour emergency department
- Hospital pharmacy
- Physiotherapy
- Laboratory (includes sputum tests, culture & sensitivity tests)
- Blood transfusion and blood bank
- Ultrasonography, X-ray, endoscopy, CT-scan

Another group of hospitals, specialty hospitals are referral centers for tertiary medical care, are located primarily in Kabul. They provide education and training for health workers and act as referral hospitals for the provincial and regional hospitals. This group of hospitals is being directly managed by MoPH or Ministry of Higher Education (MoHE). A

separate category of specialty hospitals was not created for the EPHS because each of these hospitals is unique, and it would be difficult to characterize in one group the unique services, staffing, equipment, and drugs required at each of these hospitals.

Table 3: Type and number of health facilities in Afghanistan 2012 (National HMIS 2012)

Facility Type	Number
Basic Health Center (BHC)	813
Comprehensive Health Center (CHC)	381
District Hospital (H3)	70
Drug Addicted Treatment Center	21
Malaria Center (MC)	1
Mobile Clinic (MOB)	83
Other	86
Other(FTU)	3
Private Hospitals	140
Provincial hospital (H2)	28
Regional/National hospital (H1)	5
Special Hospital	24
Sub Health Center	485
TB Control Center (TBC)	2

### **1.1.1:** Epidemiological profile of general populations

According to Central Statistic Organization, CSO (2012), Afghanistan population has been estimated 25.5 Million living within a total geographical area of 647,500 sq. Km. The country is administratively

divided into 34 provinces and 395 districts. Approximately 76% of the population lives in rural areas. Male to Female ratio is the country's population is 51:49.

There has been certain exodus to urban areas during these years, including an increase in the

number of internally displaced persons due to the security situation. This affects the broader determinants of health, including living and working conditions, such as hygiene and crowding in urban areas, especially in Kabul, the capital city, resulting in an increasing risk of the spread of TB.

The overall health status of Afghanistan demonstrates slow, but steady improvement of the health care system. The key health indicators summarized in Table 4.

**Table 4.Summary of key health indicators** 

Sn	Indicators	Value	Year	Source
1.	Life Expectancy at Birth, males (year)	62-64	2010	AMS
2.	Total Fertility Rate	5.1	2010	AMS
3.	Infant Mortality Rate (per 1,000 live births)	74	2010/11	MICS
4.	Under - 5 Mortality Rate (per 1,000 live births)	102	2010/11	MICS
5.	Maternal Mortality Ratio (per 100,000 live births)	327	201.0	AMS
6.	Contraceptive Prevalence Rate (%)	21	2010/11	MICS
7.	Skilled Antenatal Care (at least 1 visit) (%)	48	2010/11	MICS
8.	Pregnant Women Receiving at least 2 Doses of Tetanus Toxoid (%)	23.8	2006	AHS
9.	Skilled Birth Attendance (%)	39	2010/11	MICS
10.	Exclusive Breastfeeding (%)	54	2010/11	MICS
11.	Under weight prevalence under five (Moderately or Severe) (%)	31	2010/11	MICS
12.	DPT3 coverage (%)	35	2010/11	MICS
13.	Measles Vaccination Rate (12-23 Months)(%)	44	2010/11	MICS
14.	Fully Immunized (12-23 months) (%)	18	2010/11	MICS
15.	Vitamin A Receipt in Last 6 Months (6-59 months) (%)	79.5	2006	AHS
16.	ITN utilization rate among under-five children (%)	5,7	2006	AHS
17.	HIV Prevalence, Adult (%)	<0.1	2007	UNAIDS
18.	Population with sustainable access to improved water source (%)	57	2010/11	MICS
19.	Household using improved sanitation facilities (%)	31	2010/11	MICS
20.	Proportion of Population within one hour walking distance from a public health facility	57.4	2008	NRVA

### 1.2: OVERVIEW OF TUBERCULOSIS CONTROL IN AFGHANISTAN

#### 1.2.1: National TB Control Program

The National Tuberculosis Control Program (NTP) was established in 1954 by MoPH, with technical and financial supports of World Health Organisation (WHO). The twenty—three years of civil war, which started in 1979, had resulted in the steady collapse and decline of the public health system, including TB control programme. In 1997

NTP, in collaboration with World Health Organization (WHO) and other TB partners, adopted the Directly Observed Treatment Short course (DOTS) strategy. But actual implementation of DOTS initiated only in 2002 when, the formation of a new Afghan government, Transitional Government of Afghanistan came to power. Thereafter, TB control program services have been integrated into BPHS for primary health care and EPHS for secondary health care which were the priority public health services in this country. TB care services are delivered free of charge to the

population as covered by the BPHS and EPHS. The role of each health facility on TB control program services are defined in Table 5.

In early 2003, the first National Strategic Plan for TB Control (2002-2005) was drafted and the global targets of 70% case detection of new sputum smear positive cases and 85% treatment success were adopted by the MoPH as the national goals of the 3-year DOTS strategy by 2005. Then, NTP by help of WHO developed national strategic plan for 2006-2010 and in 2008 it has been revised in line with MDGs and Global Stop TB Partnership Strategy as NSP 2009-2013.

The mission of the NTP is to reduce the impact of TB as a public health problem in the country. Since 2002, under the new Afghan government, the NTP has taken major steps to improve its managerial and technical capacity as well as in securing external technical assistance and resources in order to implement the DOTS strategy.

To achieve the strategic objectives, currently NTP

has a network of 13 health professional at central, and 68 at provincial level. The NTP staffs at different levels of the program are responsible for proper implementation of TB control activities, based on the scope of their work, all over the country.

NTP is responsible for the regular supply of anti-TB medicine, reagents for laboratories, recording and reporting forms, ACSM material and training of health workers (doctors, nurses, laboratory technician and community health workers (CHW)) on DOTS. NTP field officers are responsible for supervision of TB Control activities at facilities and coordination between NTP and the BPHS/EPHS implementers.

The NTP strategy for prevention of tuberculosis is early detection and treatment of all TB cases. TB sputum smear microscopy is the main tool for detection of infectious cases. NTP has been using the 8 months TB treatment regimen till 2012 and has planned to gradually shifting to the 6 months regimen which will be implemented in all provinces after April 2013.

Table 5: TB services provided by different type of health facilities

Type of Health Facilities	Information, education, and communication on TB	Detection	Microscopic diagnosis	Treatment	Referral for complicated cases	Management of MDR cases	Management TB/HIV cases
TB hospital	¥	1	1	1	-	1	~
National hospital	V	1		<b>✓</b>	V	·	~
Regional hospital	¥:	1	·	~	*	<b>~</b>	~
Provincial hospital	¥	*	*	<b>✓</b>	<b>V</b>		
District hospital	¥	¥		1	V		
CHC	·	*	*	1			
ВНС	¥	4		<b>*</b>			
Sub-health center	¥	1		1			
Health post	1	1		1			

#### 1.2.2: General profile of TB control program in Afghanistan

#### 1.2.2.1: Incidence, Prevalence and Mortality

WHO estimates that approximately 61,000 all types of TB cases occur every year with incidence of 189/100,000 pop/ per year. The prevalence of TB is around 110,000 cases (351/100,000 pop per year) and

mortality is 13,000 (39/100,000). For the incidence of Multi-Drug Resistant (MDR) TB, the sub national drug resistance survey has been conducted in six provinces of Afghanistan during 2010 and this survey revealed incidence of MDR-TB as 6.3% among both new and re-treated cases. In this survey, there were totally 17 cases of MDR-TB and 64 cases were notified as MDR-TB by end of 2012.

Table 6: Estimates of TB burden, TB Case notification, detection and success rate

Estimated of TB Burden 2011,TB Case notification, detection and Treatment success rate	Number (thousands)	Rate per (100,000 pop)
Mortality (excluding HIV)	13 (5.3-23)	39 (16-71)
Prevalence (including HIV)	110 (55-190)	351 (169-597)
Incidence (including HIV)	61(51-73)	189 (156-225)
Incidence (TB+ HIV)	0.30(0.18-0.45)	0.93(0.56-1.4)
TB case notification for all forms	28167	112
TB case notification for NSS+	13789	55
Case detection, all forms (%)	46 (38-55)	
Treatment success rate new smear positive (%)	90%	
% of women affect by TB (NSS+)	66%	
% of women affect by TB (all forms)	61%	
% of combined TB cases (New and retreatment ) with MDR -TB	6.3%	

Source: WHO TB global report and NTP annual report 2011

#### 1.2.2.2: Trend on TB Case notification

The number of notified TB cases has significantly increased during the period of 2001-2011 from 9,581 to 28,167 TB cases. However, there was a slight decline in notified numbers in 2008 and 2009, followed by slight increase in 2010 and 2011. Total of 242,389 TB patients have been notified in Afghanistan starting from 2001 to 2011

During 2011, 28,167 all type of TB cases and 13,789 of NNS+ TB cases have been notified. New Smear positive pulmonary TB cases constituted 49% of pulmonary TB cases. Extra-pulmonary TB cases constituted 22% a, new smear negative constituted 15%, other previously treated 2%, new pulmonary SS not done 7% and 5 % were re-treatment of all cases.

#### 1.2.2.3: TB notification by gender and age

Continuously, there have been variations in TB distribution by age and gender. There exists high incidence among people aged 15 to 44, with the highest incidence among the most productive age group of 25-34 years old. While Children under 15 make 40% of total population, notified TB cases less than 15 years consists of about 10 % of all TB cases in 2011.

More female cases (particularly, aged 15 to 45 years old) compared to males are seen for any form of TB infection (female to male ratio ranges from 1.5:1 to

2.1:1). 2011 data of NTP (distributed by age and gender) shows female predominance is extremely prominent in reproductive ages.

### 1.2.2.4: Suspect and contact management including TB/HIV

As the national average, rate of TB suspect among total OPD aged 15 years and over was 3% in 2011 and 90% of suspects examined for diagnosis by sputum smear microscopy. Finally, 8%of suspects were diagnosed as TB.

However, these figures only represent data from TB diagnostic centers which have laboratories within same facilities and do not include data from TB treatment centers which do not have laboratories. Thus, data regarding referred cases from TB treatment centers to TB diagnostic centers are unknown.

Totally 6,475 all type of TB cases tested for HIV and as a result 5 TB/HIV Co-infected cases have been notified Table 7.

During 2011, total of 44259 (21665 males and 22594 females) were registered as house hold (HH) contacts. 16,145 (7554 males and 8591 females) household contacts screened for TB and 822 (340 males and 482 females) all TB form TB case and 606 (222 males and 384 females) sputum smear positive cases diagnosed Table 8.

Table 7: Suspect management including TB /HIV activities during 2011

Quarters	No. of Total outpatients aged 15 years and over	No. of TB suspects identified	No. of TB suspects examined for diagnosis by sputum smear microscopy	No. of TB suspects with positive sputum smear microscopy result	NSS+ TB cases tested for HIV	All Type of TB cases tested for HIV	HIV postive among tested	% of TB suspect identified	% of TB suspect examined	% of TB suspect with positive result
Q1	1771793	53296	50666	3676	1152	1670	1	3	95	7
Q2	2120272	64510	53157	4587	1235	1737	0	3	82	9
Q3	1689541	42777	38722	3372	1086	1384	1	3	91	9
Q4	1553922	38538	36028	2794	1011	1684	3	2	93	8
TOTAL	7135528	199121	178573	14429	4484	6475	5	3	90	8

Table 8: Contact management 2011

	househol	umber of d contacts gistered	respii sympt indivi am registe	per of ratory omatic iduals ong red HH tacts	regis HH co screen	ber of stered ontacts sed for	for diagr amor cont	ber of (all ms) nosed ng HH tacts uated	TB ( amor con	ber of (ss+) ng HH tacts uated	HH co	ber of ontacts 5 years age	HH co under of age starte preve	ber of entacts 5 years e who d INH entive by (IPT)	HH co under age co preve	Number of HH contacts under 5 years age complete preventive therapy	
Quarters	М	F	М	F	М	F	М	F	М	F	M	F	М	F	М	F	
Q1	6404	6734	2266	2379	2177	2475	113	126	50	71	1000	1082	698	729	169	203	
Q2	5542	6019	1366	1790	1915	2329	49	99	44	93	1227	1155	855	818	328	396	
Q3	5234	5311	1218	1378	1767	1998	112	163	80	141	1101	1122	779	822	393	398	
Q4	4485	4530	1267	1358	1695	1789	66	94	48	79	868	979	706	792	424	512	
Total	21665	22594	6117	6905	755 4	859 1	34 0	48 2	22	38 4	419 6	433 8	3038	3161	131	150 9	

#### 1.2.2.5: Treatment outcomes in DOTS Program

As per results of treatment outcome of cohort 2010, 12782 new smear positive TB cases were detected (registered for treatment). 11,621 cases were successfully treated, reporting a treatment success

rate of 90%. The death, failure, default and transfer out rates were low (2%, 1%, 2% and 4%, respectively). Trend data shows that treatment success rate increased from 84% (2001) to 90% (2010).

# 2: General Situation Analysis of Tuberculosis Control Program

The Afghanistan NTP has made significant progress and got many achievements since 2002. There are 1,197 public and private DOTS centers which can provide TB services and care according to the International Standards for Tuberculosis Care at the end of 2012. In close coordination and support of the partners, NTP has developed standard operating procedures for almost all its operational/technical areas. Moreover, NTP is comprehensively collecting routine surveillance data for monitoring and evaluation to address national and provincial challenges and uses it for program planning. The initiatives like Private Public Mixed (PPM) DOTS, TB/HIV have been expanded in major cities. The laboratory network for sputum smear examinations expanded with quality control system and National reference Laboratory (NRL) and 2 Regional Reference Laboratories (RLL) started culture examinations. The National Program with support of the all involved stakeholders has also initiated work related to new stop TB strategy components such as infection control and the management of DR-TB since 2011.

As a result, the case notification has significantly increased during the period 1997-2011 from 7 to 112 per 100,000 populations per year for all TB cases respectively. Treatment success a rate is also increased from 84% (2001) to 90% (2010).TB case detection rate is less than global target and it is around 46 % so TB care needs significant improvement. There are three prioritized aspects of TB Care and Control. One is to improve accessibility to TB care and control service. DOTS services are not universally accessible particularly in remote, hard-

to-access areas, resulting in hampering to provide service to people living in these areas. NTP achieved 96% of DOTS coverage, but this is a generous estimate of population coverage, as it is based on assumption that entire population of a district is physically covered even if only one health facility in a district is providing DOTS, regardless of the actual number of people having access to that facility. BPHS covered 87% of general population by the end of 2011, but only 66% of whole population had real access to health facilities (within 2 hours of walk, AHS 2006) indicating that access to health facilities is severely limited for significant fraction of population.

In NRVA 2008, the Access of BPHS is reported as "access to any public health facility within one hour walking is possible for 57 percent of the population. This issue should be approached through various activities, including expansion of health facilities, improving access to diagnosis, promoting community approach, and strengthening ACSM etc. The second point is to improve quality of TB care and control service, including strengthening supervision/monitoring, laboratory system including EQA, culture and DST and surveillance system. Also, enhancing capacity of human resource development and management is crucial to improve quality of TB control services.

The third point is full implementation of Stop TB Strategy by components and sub-components identified as country specific priorities. Still TB control program is to be addressed to vulnerable groups such as nomads, prisoners, IDPs and

returnees. Also, to reduce burden of TB among female has also remained as challenges.

In addition to those technical issues which are specific TB control, it is crucial to establish concepts for medical ethics and human rights. Although this is a challenge in general health system, but still NTP should start to step up the ladder for a long way. Thus, several important interventions should be

incorporated into related areas of TB control.

This strategic plan was developed to cope with above mentioned weaknesses and challenges of Afghanistan NTP while maintain current achievements. Strategic interventions and relevant activities were defined by detailed situation analysis on each area of TB control program.

## 3: NTP Vision, Goal, Objectives, Strategic **Directions and Interventions**

Vision: A TB-free country, with elimination of the disease as a public health problem by

Goal: To reduce TB mortality by 5% at the end of 2017 compared to 2012

Objectives: • To increase the case notification of all TB cases at least 2% by year one & at least 5% per year from year 2-5 of the strategic plan and to at least maintain treatment success rate 90% by 2017

To detect and treat at least 50% of estimated MDR-TB cases by 2017

Strategic Directions:

Strategic Direction 1: Enhancing Political commitment and DOTS expansion

Strategic Direction 2: Strengthen Human Resource Development

Strategic Direction 3: Strengthening Surveillance, Monitoring & Evaluation

Strategic Direction 4: Drug Supply and Management System

Strategic Direction 5: Strengthening Laboratory Network

Strategic Direction 6: Address TB/HIV, MDR-TB, Child TB and the needs of poor and vulnerable populations (IDPs, Prisoner, refugee...etc)

Strategic Direction 7: Engage all care providers

Strategic Direction 8: Empower people with TB, and communities through partnership

Strategic Direction 9: Enable and promote Research

#### 3.1: Strategic Direction 1: Enhancing Political Commitment and DOTS expansion (situation analysis, strategic interventions and activities)

#### Situation analysis

Government of Afghanistan/Ministry of Public Health has put the TB control program as one of the top priorities. Strong commitment to the program by support of MoPH, NTP has improved collaboration mechanisms with other departments among the MoPH. These included crucial mechanism such as the collaboration and

coordination with National HMIS Department, which resulted in development of TBIS database and integration of it with HMIS database. Also, NTP has enhanced the collaboration mechanism with Afghanistan Public Health Institute (APHI) of MoPH to conduct necessary surveys and operational researches. This mechanism has brought significant progress in capacity development of NTP for conducting researches. In addition to these achievements, NTP extended the involvement of other ministries to advocate and cooperate for TB through establishment and expansion of STOP TB PARTNERSHIP forums in various provinces.

Despite strong commitment of GoIRA/MoPH, the total government expenditure on TB control program were less than 1% of total amount of the necessary budget and the budget for TB control heavily relies on partners such as Global Fund to fight against AIDS, Tuberculosis and Malaria (GFATM), USAID, JICA, WHO, CIDA and Italian cooperation. This is same for the government staff salaries as well. Also staff salaries are based at the old salary scale and thus very low, and mostly the support comes from the donors to top up salaries and incentives. Thus, financial basis is extremely weak if we consider sustainability. Monetary incentives for staffs from external sources are decreasing gradually. Also, NTP/MoPH has weak capacity for financial management, resulting in outsourcing financial management as principal recipient of GFATM funding which is the major source of budget for TB control. Thus, NTP/MoPH is still dependent on others for its key financial management and by this reason NTP has not been able to manage and control necessary interventions for the program. For this purpose, JICA has provided technical and managerial assistance through PR ship for GFATM R10 program and NTP is required to replace the role of PR in 2 years.

Also, while there has been certain progress in improving collaboration mechanisms with other departments within MoPH, but NTP still needs to enhance those mechanisms, especially with Health Finance and Economy Department and HMIS department to expand DOTS to health facilities newly incorporated into BPHS timely.

#### Strategic interventions and activities

## 3.1.1: Sustain political commitment for TB control at all levels

3.1.1.1: Advocate and facilitate increase of government budgetary allocation for NTP

3.1.1.2: Contribute to ensure continued financial support to NTP

3.1.1.3: Establish a finance department within NTP/MOPH

## 3.1.2: Strengthen collaboration mechanisms with different departments in MOPH

3.1.2.1: Conduct regular coordination meetings with HEFD, HMIS department and APHI ....etc.

3.1.2.2: Expand DOTS timely to health facilities

newly incorporated to BPHS/EPHS 3.1.2.3: Scale-up measures to ensure appropriate infection control

# 3.2: Strategic Direction 2: Strengthen Human Resource Development (situation analysis, strategic interventions and activities)

#### Situation analysis

NTP has conducted capacity assessment for HRD and developed the strategic plan based on this assessment. For this purpose NTP introduced the method of competency assessment. Also, to develop capacity for HRD, NTP has trained more than 50 staff on leadership and management skills. NTP has continuously conducted initial and refresher trainings for health care staffs (doctors, nurses, laboratory technicians, community health workers and their supervisors). For those trainings, NTP developed the decentralized training system and training curricula has been updated based on the demand.

To enhance quality of trainings, NTP has developed the system to train master trainers with training curricula which include training skills and methodology. By this system, NTP has already trained around 200 master trainers since 2006. Also, NTP developed the evaluation system of trainings which include evaluation of trainers by trainees and piloted it in selected provinces with favorable results.

Despite tremendous achievements in recent years described above, there are challenges in certain areas by NTP. As NTP has developed the HRD strategic plan, so related staffs (staff in HRD unit of NTP) should further develop their capacity to implement human resource management (HRM) plan. Since HRM has been the direct responsibility of MoPH so NTP was unable to secure necessary HRM staff based on the real needs of the program. For this purpose, NTP including field staffs should strengthen their leadership to be fully responsible for HRM. Also, competency assessment of the staff based on the necessary needs for HRM is required. While NTP conducted huge number of training courses, but most of those trainings were not designed based on the exact needs assessment

exercise. Thus, the decentralized mechanisms to conduct training courses based on the needs assessment should be developed.

For quality of trainings, despite effort of NTP, still there are important areas to be addressed. The evaluation system for trainings is in place, but not fully implemented. Also, post-training monitoring has been planned but never implemented. Also, training data base is important to manage HRM, but recently NTP has only started planning for it.

Another important issue is contents of in-service training. It is required to revise pre-service trainings in medical faculties and related schools, because current curricula of pre-service trainings do not contain TB control service delivery through DOTS strategy. This eventually can reduce the needs of initial trainings.

#### Strategic intervention and activities

# 3.2.1: To render NTP leaders more capable and enable them for day to day HRM and HRD to address all TB related HR needs for implementation of the strategic plan at all levels in the health system

3.2.1.1: Revise the TOR of staff at HRD department based on the needs assessment for implementation of the HRD strategy.

3.2.1.2: Identify the learning needs for the NTP staffs provide necessary trainings based on 3.2.1.1

# 3.2.2: Update curricula for all pre-service training in medical faculties and HSIs, according to the NTP national guideline and train lecturers for implementation

3.2.2.1: To develops effective coordination between the NTP and MoHE and HSIs by synergising their activities.

3.2.2.2: Provide and monitor training for training institutions' lecturers on the revised curricula based on the NTP guideline

# 3.2.3: To provide needs-based quality in-service training and continuing education for all staff (technical and non-technical) involved in TB control activities at all levels.

3.2.3.1: Assess the competency and skills of staff involved in TB control at all levels of the system respective to their job descriptions in relation to the TB control program.

3.2.3.2: Develop and plan a comprehensive multi-

year training/learning trajectory in line with the NTP Strategic Plan for TB Control 2013–2017 for all staff working in TB control.

3.2.3.3: Organize training; including refresher training, based on needs assessment.

3.2.3.4: Developing system for monitoring the conduction of training course, including post-training monitoring to improve the quality of training courses.

3.2.3.5 Establish a mechanism to enable the central and provincial teams to monitor the effect of training on service delivery.

3.2.3.6: Developing an online training data base

# 3.3: Strategic Direction 3: Strengthening surveillance, Monitoring Evaluation (situation analysis, strategic interventions and activities)

#### Situation analysis

NTP, with the support of partners, has developed several important mechanisms in the field of surveillance and M&E. NTP has developed the quidelines for conduction of quarterly review meetings at all levels and have started conducting meetings based on these guidelines. In these meetings, quarterly data were double checked, verified and analysed. Also technical feedback to each health facilities provided. These measures resulted in improved accuracy of data and ensuring the availability of inputs on time at health facility level. For data accuracy, NTP, with the support of partners, has started introducing electric information system (TBIS). NTP completed introduction of this system in all provinces.NTP has also conducted annual evaluation workshop to review annual performance in each province and set the targets. This has improved the mechanisms for internal evaluation. At the field level, NTP has revised the check lists for supervisory visits and have started conducting joint supervisory visits to all health facilities regularly. These measures also contributed to improve program performance.

While there has been progress as described above, certain important issues remained challenging. The most important issue is insufficient written feedback mechanisms which are common to all interventions for surveillance and M&E system. Thus, it is crucial to develop solid mechanisms for written feedback for quarterly meetings, annual

evaluation workshops and joint supervisory visits. To enhance quality of supervisory visits is also crucial. NTP has conducted supervisory visits, as described above, but there has been no systematic mechanism to conduct visits. To enhancing effect of supervisory visits, the framework for joint supervisory visits at national and provincial levels is necessary. Also, introduction of electric system for supervisory check lists are crucial to improve quality of supervisory visits.

Another challenge, although related to all strategic directions put included here as particularly threatening this one, is that Afghanistan has gone through more than 30 years of war, political conflicts and subsequent instability. As a result, almost all the infrastructure and public services collapsed and approximately 4 million people migrated while security remains extremely volatile. This situation has impacted on TB control services leading to poor access to TB diagnosis and treatment for populations and fuelling TB transmission. Significant actions have been taken, with the help of the international community, to improve the TB situation in Afghanistan. TB care services were included in the basic package of health services, staff recruited, communities were sensitized, approaches to identify TB cases were defined and carried out, and appropriate monitoring and evaluation system has been implemented. Tools and documents to improve the quality of TB services are regularly updated. External quality control of TB laboratory activities is expanding. The focus of TB control in circumstances of complex emergency, i.e. flaring up of any latent or sub-acute conflict and instability, must be on maintaining reasonable surveillance, monitoring and evaluation, and keeping patients on TB treatment in order to prevent secondary drug resistance.

#### Strategic interventions and activities

# 3.3.1: Strengthen surveillance system through introducing new electronic surveillance system TBIS (TB information system).

3.3.1.1: Developing of guidelines for new electronic surveillance system.

3.3.1.2: Training of NTP team, BPHS/EPHS TB focal points and HMIS officers on NTP new electronic Surveillance system.

### 3.3.2: Ensure regular supervision and monitoring at all levels.

3.3.2.1: Revision of NTP monitoring and supervision guideline including chapter on complex emergency 3.3.2.2: Developing electronic system for supervisory checklists.

3.3.2.3: Formulation of joint supervisory framework at national and provincial level.

3.3.2.4: Training of NTP team, BPHS TB focal point on revised monitoring and supervision guideline and new electronic system including adapted actions in case of complex emergency

3.3.2.5: Conducting regular supervision and monitoring of DOTS facilities at all level by NTP team and BPHS TB focal points.

# 3.3.3: Enhance internal or self-evaluation mechanism through quarterly review meetings and annual evaluation workshop.

3.3.3.1: Conducting national evaluation workshop.

3.3.3.2: Conducting quarterly review meeting in provincial level.

3.3.3.3: Conducting sub-national quarterly review meeting

3.3.3.4: Conducting quarterly review meeting in national level.

# 3.4: Strategic Direction 4: Drug Supply and Management System (situation analysis, strategic interventions and activities)

#### Situation analysis

NTP, with the support of partners including GDF, has continuously supplied anti-TB medicine and laboratory chemicals without stock-outs. NTP has developed the guideline and works on drug management with 2 staff members at central level, along with technical support of partners.

Although NTP tried to provide uninterrupted supply of medicine and reagents, but still there were few occasions to face with stock-out of supplies. These were due to administrative procedures both inside and outside NTP's capacity of procurement and supply management. So NTPs capacity for drug procurement and supply should be enhanced. Currently procurement and supply management has been done manually and developing electric management system is crucial

to enhance quality of drug management which include forecasting and inventory management.

Although NTP developed the guideline for drug management, the guideline has not yet been fully utilized. For effective implementation of the guideline, related staffs did not receive trainings on these guideline and especially staffs at provincial and district levels need to be trained as soon as possible. Also, some warehouses are not properly equipped according to the guideline and need renovation procedures.

#### Strategic interventions and activities:

## 3.4.1: Ensure effective uninterrupted drug supply and management system at all level.

3.4.1.1: Procurement and supply of quality assured anti TB drugs of fixed dose combination according to NTP guidelines for all patients (including pediatric formulations).

3.4.1.2: Procurement and supply of quality assured second line drugs for MDR patients according to the treatment protocol.

3.4.1.3: Procurement and supply of TB diagnostic kits

3.4.1.4: Conducting trainings for central, provincial, district and (facility) level staff including private sector on drug management guidelines.

3.4.1.5: Developing computerized drug and logistics management information system (DMIS) and expanding it nationwide

3.4.1.6: Conducting training for central, provincial, district and facility level staff on DMIS.

3.4.1.7: Renovating the structure of the existing warehouses with proper equipment according to the drug management guideline.

#### 3.5: Strategic Direction 5: Strengthening Laboratory Network (situation analysis, strategic interventions and activities)

#### **Situation Analysis**

Laboratory network for sputum smear examinations: The laboratory network for sputum smear examinations for TB has been expanded to all provinces and as of the mid 2012, there are total 600 laboratories. Although TB laboratory system has been integrated into BPHS and EPHS, but there is

vertical reporting system to NTP and quality control and supervisory system which are specific for TB diagnosis are in place. To develop human resources for laboratory network, NTP/NRL developed training system and conducted huge number of both initial and refresher training courses in 8 regional training centres with adequate materials and equipment.

For strengthening laboratory network, especially to improve accessibility in remote areas, NTP has initiated slide sending system/sputum transportation system in which trained staffs in health facilities without laboratory either make slides for smear examination and these slides are transported to TB laboratories for examination and diagnosis or send sputum sample itself to TB laboratories. Pilots for this system have been done in 4 provinces with favourable results and NTP has started expansion of this system to all 34 provinces. Quality Control for sputum smears examinations: Regular supervisory visits by provincial laboratory supervisors to peripheral laboratories have been conducted. Internal quality control measures for smear microscopy are present and around 600 health facilities are implementing internal quality assurance measures based on Quality assurance guideline.

Based on the guideline by NTP, external quality assurance (EQA) has been implemented countrywide through blinded cross-checking and subsequent supervision and trainings based on the results of EQA. Quarterly review meetings in provinces have been conducted regularly and utilized for slide collection and feedback for EQA besides routine data collection. Panel testing has been conducted in 2007 countrywide, but thereafter has not been implemented.

Table 9.Performance of blinded cross checking in 2010

	Number of TB Lab detected # TB Lab									
Quarters	part	HFP	HFN	LFP	LFN	QE	Major Err	Minor Err	Poor Lab	% Poor Lab
Q1	426 5	87	2	13	7	64	130	84	76	18
Q2	458	34	45	14	15	49	79	78	79	17
Q3	468	36	62	9	6	76	98	91	92	19.6
Q4	500 4	8	61	15	13	70	109	98	68	14
Total	1852	176	240 5	1	41	259	416	351	315	17

**Culture examinations and drug susceptibility testing (DST):** NTP has initiated culture examinations by using solid medium in NRL. NTP/NRL equipped a generator and water supply system which are independent for NRL and has started to conduct culture examinations from 2010 and thereafter 2 regional reference laboratory (Eastern; Nangarhar, Western; Heart) has joined. For drug susceptibility testing (DST), NRL finished preparation and started trial implementation.

For human resources for culture and DST, NTP/NRL has trained 4 staffs in NRL for culture examinations. Subsequently, NTP/NRL has conducted training for culture examinations for 4 staffs in regional reference laboratories.

For quality control of culture and DST, NTP/NRL has signed MoU as Supra-National Reference laboratory with Aga Khan University (AKU), Karachi, Pakistan. NRL's key staffs have received training on quality control in AKU. The Plans for proficiency test on culture examinations in NRL has been developed by NRL and AKU.

As described above, NTP/NRL has made significant progress in developing laboratory network for TB diagnosis, but still many key issues exist and need to be resolved.

NTP is still trying to improve accessibility for diagnosis of TB in hard-to-reach areas. For this purpose, numbers of existing laboratories need improvement regarding quality of diagnosis, and many new laboratories need to be developed. Thus, NTP/NRL needs to strengthen sputum transportation system as defined in SOPs and expanding slide sending system nationwide.

To maintain established network for sputum smear examinations, continuous effort on human resource development is crucial, as there has been high turn-over rate in laboratory technicians, especially in remote areas. Thus, NTP/NRL should continue to provide both initial and refresher training based on needs. To improve efficacy and quality of training, now NTP/NRL plans to reduce training centres for sputum smear examinations from existing 8 to 4. Also, the current training manuals should be revised to adopt recent conditions of TB control program such as shifting to 6 month regime from 8 months regime.

To improve quality of sputum smear examinations, there are certain issues to be addressed. For blinded cross-checking for EQA, participation rate still remained around 70%. Although percentages of poor laboratories has tended to decline down to 15% in 2008, thereafter again tended to increase in 2009 - 2011 and reached up to around 20%. There still exists predominant HFN among major errors. Thus, it is crucial to improve performance of blind cross-checking. To scale-up EQA, NTP/NRL plans to conduct blind cross-checking at province levels. It is conducted at regional levels at this moment. For this purpose, identifying cross-checkers in each province and building their capacity is required. Maintaining quality of existing cross-checkers is another challenge for NTP/NRL.

Also, there have been problems in quality of microscopes in certain health facilities including lack of proper provision of electricity. For those, BPHS/EPHS implementers should have responsibilities and NTP/NRL needs to enhance coordination mechanism among those implementers.

While NTP/NRL should continue to enhance quality of current laboratory networks on sputum smear examinations, there has been little effort to introduce new innovative techniques for quality of diagnosis such as fluorescence microscopes or molecular diagnosis systems. There are 10 fluorescence microscopes in NRL supplied by different partners, but still not in use.

For culture examinations and DST, NTP/NRL still needs to expand to other 2 RRLs as planned to cope with expansion of MDR-TB control program nationwide. Also, developing quality control system on culture and DST is required.

#### Strategic intervention and activities

#### 3.5.1: To improve accessibility for TB diagnosis.

3.5.1.1: Expansion of sample sending system (SSS) nation wide

3.5.1.2: Ensuring sputum transportation system

# 3.5.2: To maintain laboratory network and improve quality control for sputum smear examinations

3.5.2.1: To revise the manual and training materials of the sputum smear examinations to adapt to current situation of TB control program 3.5.2.2: To conduct initial and refresher trainings based on needs.

3.5.2.3: To provide adequate equipment for sputum smear examinations to all health facilities. 3.5.2.4: To conduct operational research for reforming EQA system to shift to provincial levels 3.5.2.5: To revise the EQA guideline based on the results of 3.5.2.4

3.5.2.6: To shift EQA system to provincial levels based on the results of 3.5.2.5

### 3.5.3: To improve access to laboratory diagnosis by culture and DST for MDR-TB diagnosis

3.5.3.1: To establish sample transportation system for culture and DST

3.5.3.2: To expand laboratory network for culture and to 2 other RRLS (Kandahar and Balkh)

3.5.3.3: To develop QA system for culture and DST in collaboration with SNRL

3.5.3.4: To take preparation for NRL's accreditation process

### 3.5.4: To introduce innovative approach to enhance quality of TB diagnosis

3.5.4.1: To introduce LED fluorescence microscopy into selected laboratories with high work load 3.5.4.2: To develop QA system for LED/ fluorescence

microscopes

3.5.4.3: To introduce molecular and liquid diagnosis system as a trial

## 3.5.5 To ensure bio-safety and TB IC for TB diagnostic laboratory services.

3.5.5.1: Developing, disseminating and /or implementing bio-safety guidelines for TB diagnostic AFB microscopy, culture and DST laboratories.

3.5.5.2: Renovation the laboratory wherever it necessary

3.5.5.3: Providing Bio-safety training and necessary protection equipments for TB lab workers

3.5.5.4: Annual and/ or need based Health screening Surveillance program for lab staffs

3.5.5.5: Implementing periodic lab bio-safety assessments and ensuring prompt preventive measures, if needed.

3.5.5.6: Providing compensation, paid leave, free treatment for the infected lab staffs, and also ensuring duty flexibility for the vulnerable lab staffs.

3.6: Strategic Direction 6: Address TB/HIV, MDR-TB, Child TB and the needs of poor and vulnerable populations (IDPs, Prisoner, refuges.....etc) - (situation analysis, strategic interventions and activities)

#### Situation analysis on TB-HIV

Although prevalence of HIV (<0.1 % in adult population) is low in Afghanistan, the HIV prevalence among TB patients is 0.2%, but around 1,250 HIV positive cases have been diagnosed in the country till date. NTP in collaboration with National AIDS Control Program (NACP) has started interventions to cope with TB/HIV co-infection. NTP and NACP developed collaboration mechanism through conducting working group meetings. National policy, strategy and operational guideline on TB/HIV have been developed. Also, the training curriculum was finalized based on the guideline and 74 VCT staffs and TB center staffs were trained. Referral system between TB center and VCCT centers was developed and 10,033 TB cases in the high risk groups were screened for HIV and 227 HIV cases were screened for TB, resulting in reporting of 12 TB/HIV co-infected cases.

Despite progress in recent years described above, there are challenges in certain areas from NTP side which need to be addressed in collaboration with stake holders. Although HIV prevalence rate is still low, there are certain risks on spread of HIV infection due to significantly increasing numbers of intravenous drug users. Thus enhanced collaboration mechanism among all stakeholders is required. All TB cases, particularly those who fall in high risk groups, to be screened for HIV. Thus, it is required to ensure through screening mechanism for target cases and also screenings of people living with HIV for TB are not enough and should be enhanced, including provision of IPT for those cases.

#### Strategic interventions and activities

### 3.6.1: Strengthening collaboration mechanism among NTP, NACP and partners

3.6.1.1: Conduct regular monthly TB/HIV collaboration meeting

3.6.1.2: Referral system between TB and HIV centers. 3.6.1.3: Establish referral system to other VCCT center to be established by NACP

3.6.1.4: Conducting regular joint supervision and monitoring visits.

3.6.1.5: Develop Annual Joint TB/HIV Activities Action plan (for example, ensuring CPT)

### 3.6.2: Scaling up of HIV testing among TB patients.

3.6.2.1: Update/revise national policy for HIV testing in TB patients and TB suspects

3.6.2.2: Conducting initial and refresher training for VCT Staff and DOTS staff

### 3.6.3: Scaling up TB screening and providing prophylaxis for people living with HIV

3.6.3.1: Ensuring provision of - IPT to people living with HIV

3.6.3.2: Strengthening contact screening of TB/HIV positive patients for TB

#### Situation analysis on Pediatric TB

NTP has already developed SOPs for the management of pediatric TB. As per these SOPs it is defined that all pediatric suspects, including contacts especially less than 5 years old, should be diagnosed either at district or provincial hospitals where Tuberculin Skin Test (TST) and X-ray are available.

Thereafter, NTP conducted pilots to utilize X-ray diagnosis and TST in 3 districts hospitals in Nangarhar, and regional children hospitals in Herat

province. Now, NTP plans to expand pediatric TB control program to all provincial and district hospitals in all provinces. Budget support is partially available in GFATM R10. The interventions include training of health facility staffs on SOPs and introduction of TST.

Before enhancing the program in all provinces, NTP has conducted situation analysis on paediatric TB control program in selected provinces. The survey revealed significant weakness in this area. Main weaknesses are followings:

- Low performance of suspect management (only 68.5% of suspect received further examinations) and high early defaulter rate (14%) even within the hospitals
- Low utilization of recommended combined diagnostic methods (symptom, X-ray and TST)
- Insufficient coverage of contact management (74%) while good performance in implementation of IPT

#### Strategic intervention and activities

### **3.6.4: To enhance pediatric TB control program** in all provinces

3.6.4.1: Conducting initial and refresher training on paediatric TB control measures/approaches

3.6.4.2: Developing referral and back referral system between primary health care facilities and designated hospitals

3.6.4.3: Ensuring supply of TST to all target hospitals (DH, PH, RH, National Hospital and child hospital), 3.6.4.4: Enhancing contact management among children including preventive therapy based on general approach to TB contact management.

#### Situation analysis on Drug resistance TB

NTP, with support of partners, has significant progress in Drug-Resistant TB (DR-TB) control. NTP conducted the drug resistance survey in the central region and the results indicated that the prevalence of MDR-TB in both new cases and previously treated cases was 6.3%.

At the same time, NTP finished preparations to start treatment for DR-TB cases. Preparations included; developing the guidelines, getting approval from GLC for second line medicine for 20 patients, renovation of 4 beds ward to cope with adverse effects, developing and implementation of the policy of infection control and utilization of ENRS

system. Also key staffs received training abroad on DR-TB management.

From June 2011, NTP has started DR-TB treatment at Darulaman Polyclinic Kabul and 64 DR-TB cases has been enrolled. For management of treatment, NTP established the review panel for DR-TB and have regular meeting to resolve technical and managerial issues.

The achievement by NTP on DR-TB control is still a kind of pilot and NTP needs to expand the program gradually to major provinces and subsequently to nationwide. For this purpose, NTP needs to enhance capacity of diagnosis and management of DR-TB. These include enhance capacity of laboratories for diagnosis, including adequate sample collection from targets and transfer system of samples. Also, developing human resources for DR-TB management is crucial.

Presently there is a weak collaboration mechanism between DR-TB program and related hospitals especially to cope with adverse effects and DR-TB cases who cannot receive necessary medical services from other Hospitals. Enhancing infection control mechanisms and ensuring patient support are also crucial to expand DR-TB control program.

#### Strategic intervention and activities

# 3.6.5: Scale up case detection and access to effective treatment for Drug resistance TB at the national and provincial levels.

3.6.5.1: Developing referral system between diagnostic health facilities and RRL for sample collection from targets health facilities.(included in Lab section ref)

3.6.5.2: Conducting renovation of selected/main provincial hospital wards – according to needs- for management of DR-TB

3.6.5.3: Developing mechanism for regular monitoring and supervision of DR-TB management (included in M&E section)

3.6.5.4: Implement hospital based DR TB management

3.6.5.5: Ensuring provision of patient social support for DR-TB

# 3.6.6: Strengthen coordination and collaboration among DR-TB team , Public hospital and MoPH

3.6.6.1: Conduct regular DR-TB review panel meeting

3.6.6.2: Conduct regular coordination meeting between NTP and public hospitals

3.6.6.3: Conduct bi-annual DR-TB review meeting at central level

### 3.6.7: Scale up TB infection control in MDR-TB hospital wards and outpatient clinics

3.6.7.1: Assess infection control measures in DR-TB services through IC assessment tool

3.6.7.2: Training of health care workers on TB IC measures

3.6.7.3: Establishment of TB IC Committee to plan and implement TB IC measures

3.6.7.4: Development and distribution of IEC material for Infection control

## Situation analysis on Prisoners, IDPs, TB Contacts and Returnees:

Through TB REACH project, NTP along with ATA-AP has initiated active TB case finding also among prisoners at their cells in 8 provinces (Kabul, Herat, Nangarhar, Paktia, Kandahar, Kunar, Faryab, Laghman). Since October 2010, a total of 3,000 prisoners were screened during 1st round screening campaign and 1,307 among the 3,000 prisoners were rescreened during the 2nd round. Among the screened prisoners, 233 (8% of the screened prisoners) TB suspects were identified and after microscopy examination, 5 (1% of the total prisoners) were diagnosed as SS+.

Internally displaced populations (IDPs), like prisoners, are at high risk of developing TB with poor access to TB care services in Afghanistan. Under TB REACH wave 1, NTP Afghanistan and ATA-AP jointly initiated active case finding among IDPs by designated mobile teams in 8 provinces namely Kabul, Nangarhar, Herat, Kunduz, Kandahar, Paktia, Laghman, Kunar and Faryab from December 2010. The project resulted in to screen 155,897 IDPs/returnees in 1st round and 64,772 of the same population screened in a 2nd round. Among them 5,139 suspects and among suspects 358 SS+ cases were identified. This intervention identified a 2 times higher TB case notification among this group of population than general population.

During 2011, 16145 household contacts screened for TB and 822 all TB form TB case and 606 sputum smear positive cases diagnosed.

Population movement across the border is at very large scale between Pakistan, Iran and Afghanistan.

Many reasons include security situation, employment opportunities and trade. Approximately 30,000 to 40,000 people move across the Pakistan-Afghanistan border every day. Furthermore these cross border movements are largely informal in nature and are therefore poorly documented. In addition to these cross border movement, as a result of soviet invasion and later internal conflict, millions of Afghan population moved to Pakistan and Iran as refugees. According to the UNHCR, there are still some 2.1 million registered Afghans in Pakistan and there has been a flow of returnees after 2002 and 2005

Those massive movements bring thriving conditions for the spread of communicable diseases. Thus, NTP along with partners initiated cross border activities between NTP Afghanistan, Pakistan and Iran.

For cross border TB control, NTP has established referral system between Afghanistan and Pakistan. A preliminary survey to screen TB among returnees was also conducted by NTP which revealed higher incidence of sputum positive pulmonary TB among returnees.

For refugees in Iran, NTP also has just started to screen returnees and deportees for TB using molecular diagnosis equipment. These activities should be further strengthened and enhanced.

#### **Strategic Intervention and activities:**

# 3.6.8: Enhance TB case finding in selected high risk groups like IDPs, Prisons, Refugees, TB contacts.

3.6.8.1: Sustain and expand of DOTS services in prisons

3.6.8.2: Developing SOPs for TB case management in high risk groups.

3.6.8.3: Introduce active case finding through new diagnostic tools (i.e./such as: gene xpert, LAMs, and mobile Xrays) in IDP, Prisons, Nomads, Drug addicts 3.6.8.4: To ensure implementation of TB contact management

nanagement

3.6.8.5: Expand DOTS in IDPs camps

### 3.6.9: Developing cross border mechanisms on TB control for returnees

3.6.9.1: Establish joint cross border taskforce committee

3.6.9.2: Update SOPs and M&E tools for cross border activities based on pilot results

3.6.9.3: Develop referral mechanism for returnees between neighboring countries

3.6.9.4: Conduct orientation/training for cross border activities

3.6.9.5: Monitoring cross border activities among NTP Afghanistan and NTPs of neighboring countries through conducting biannual review meeting..

3.6.9.6: Introduce active case finding through new diagnostic tools in borders for returnees

#### Situation analysis on TB and Gender

In Afghanistan, women in reproductive age (15-44 years) have the highest incidence of Tuberculosis (TB) to compare with men and other age groups. This is significantly difference from other countries. The reasons for this high incidence among reproductive aged women in Afghanistan are poorly understood. It remains an unsettled question 'What risk factors of TB are specific to reproductive aged women'. The NTP conducted the study 'Correlation between women's high incidence of TB and reproductive health factors' in the year 2011.

The study revealed that there are significant risk factors of reproductive health to susceptible of developing TB. Especially, early aged marriage, early aged pregnancy, high fertility and short birth intervals are correlated to susceptibility of developing TB among 15 to 49 years old women in Afghanistan. Although further elaboration of real cause of predominance of female among TB cases is still required, but the results of this study indicate that certain interventions need to be designed and implemented to address reproductive health related factors, including behavior change communication.

#### Strategic intervention and activities

### 3.6.10: Early detection of TB female patients during pregnancy and post-partum

3.6.10.1: Training of midwives and gynecologists in both public and private health facilities for reproductive health factors as risk factors of developing TB

3.6.10.2: Establishment of a coordination mechanism between TB control program and Reproductive Health directorate of MOPH to initiate the referral system between DOTs room and MCH department of each health facility level

### 3.6.11: Expanding contact management of TB among women

3.6.11.1: Conducting operational research of existing contact management to collect exact data of ratio of male/female contact.

3.6.11.2: Expanding contact management of TB in school and occupational place such as carpet factories where high density of women.

# 3.6.12: Advocacy and Increasing community awareness reproductive health factors as risk factors of TB

3.6.12.1: Mass media campaign for broadcasting the TB information to general population regarding reproductive health factors as risk factors of developing TB

3.6.12.2: Develop IEC material of describing reproductive health factors as risk factors of TB

3.6.12.3: Community awareness intervention for targeting Religious leaders, Shurra (Community Development Council and Teachers

# 3.7: Strategic Direction 7: Engage all care providers (situation analysis, strategic interventions and activities)

#### Situation analysis

NTP, with support by partners including GF, has initiated and expanded PPM DOTS to 9 provinces based on the operational guideline (detailed achievements are in the Table 10).

Table 10: Private health care providers' PPM-DOTS involvement description in 9 provinces.

Province Name	General Practitioners	Private Labs.	Private Pharmacies
Kabul	70	8	15
Nangarhar	110	3	10
Laghman	30	0	0
Paktia	60	0	0
Khost	60	0	0
Ghazni	60	0	0
Balkh	58	2	10
Jawzjan	30	0	0
Hirat	75	3	10
Total	553	16	45

For Kabul city, NTP has started urban DOTS project by support of TB CAP/TBCARE-I, Urban DOTS strategy for 5 years (2011- 2015) was developed by NTP/Urban DOTs team and supporting partners. In this strategy, new indicators for main areas of TB control program were set according to the current situation.NTP achieved to involve hospitals into TB control program and 22 private hospitals and 36 public hospitals managed by MOPH and other Ministries such as Ministry of Defence etc.

Although NTP has expanded PPM to certain number of major cities, those expansions was not done based on the strategy and policy. As the preliminary strategy, 5 major provinces (Kabul, Herat, Balkh, Nangarhar and Kandahar) were prioritized provinces. NTP expanded PPM into 4 of 5 those provinces, but for expansion to other provinces were not systematically planned. Thus, a policy for expansion based on prioritization is required.

For participation of private practitioners or laboratories in expanded areas, only parts of targets were involved at this moment. Thus, in addition to geographical expansion, increasing participant rate in target areas is crucial.

M&E mechanism on the PPM program is still weak and proper monitoring has been done only in few provinces. Data collection has been regularly done only in 6 provinces. Thus, it is crucial to develop M&E mechanism for PPM, including assignment of focal points, in line with that of general TB control program before further expansion.

#### Strategic intervention and activities

# 3.7.1: To continue PPM-DOTS expansion to Public and Private Health care Facilities nation wide

3.7.1.1: To develop the policy of expansion to cover additional provinces

3.7.1.2: To conduct introductory workshop and trainings in selected provinces

3.7.1.3: Scale up PPM in 9 provinces where PPM has already been initiated.

#### 3.7.2: To develop M&E mechanism for PPM

3.7.2.1: To recruit focal person for PPM at each target provinces.

3.7.2.2: To develop checklists for monitoring and supervision on PPM

3.7.2.3: To conduct regular supervision by NTP central and provincial staffs

3.7.2.4: To conduct quarterly review meetings in target provinces

3.7.2.5: To conduct periodic PPM evaluation

### 3.7.3: To involve private health care providers in TB awareness rising

3.7.3.1: To distribute TB ACSM material in GPs private clinics

3.7.3.2: To conduct community gatherings

3.7.3.3: To conduct a mass media campaign for dissemination of TB messages.

# 3.8: Strategic Direction 8: Empower people with TB, and communities through partnership (situation analysis, strategic interventions and activities)

#### Situation analysis

NTP, with strong commitment and interest of partners, has made significant achievement in the areas mentioned in the strategic direction 8.

Stop TB partnership Afghanistan has been launched and managed well with involving other ministries and civil societies. This partnership works as the key mechanism on ACSM activities and 3 sub national partnerships have been established in 3 provinces (Herat, Kandahar, Balkh). Also, in 2011, NTP and partners established the TB patients Association.

NTP developed the important documents such as the guideline for ACSM and the M&E tool kit on ACSM. IEC materials for general population and advocacy kits for key staffs at the central level have been developed and in use. By utilizing those materials, NTP has conducted ACSM activities at various levels. NTP has developed media approach through TV and radio. Also, for targeting general population, NTP has started to involve religious leaders, health Shura and teachers through conducting workshops for advocacy in several

provinces.

For community empowerment, NTP has developed the SOPs for community DOTS and trained 415 Community Health Supervisors (CHS) and 8860 community health workers (CHW). At this moment, community DOTS is available in 13 provinces.

Despite significant achievements, there are still certain important actions to be enhanced or improved. Although NTP has conducted various ACSM activities at various levels, only limited activities have been evaluated and effectiveness of those activities remained unclear. Also, there has been an only unified approach to general population and no target-based activity has been done. Although NTP conducted base-line KAP survey in 2010, but NTP has not yet developed evidence based strategies to approach all kinds of targets.

Although NTP conducted ACSM related activities involving religious leaders etc., those activities were limited in few provinces and NTP needs to expand these approaches to nationwide. Also, the concept of the Patient Charter has not been incorporated into health services at health facilities.

Community DOTS is available only in limited provinces and NTP needs to expand to nationwide with unified implementation process in collaboration with BPHS implementers.

#### Strategic interventions and activities

#### 3.8.1: Expanding partnership for ACSM

3.8.1.1: Expanding sub-national STOP TB partnership to 10 additional key provinces 3.8.1.2: Establishing TB patients associations at all 34 provinces.

### 3.8.2: Introducing the concept of the Patient Charter into health care services

3.8.2.1: Developing training manual for the Patient Charter

3.8.2.2: Conducting training for BPHS implementers and health care providers at Patients' Charter

### 3.8.3: Pursue advocacy, communication and social mobilization at all levels

3.8.3.1: Revision and printing of ACSM materials including TB Educational Campaign (TV and Radio Advertisement, Billboard) based on NTP baseline KAP study

3.8.3.2: Develop SOPs for usage of ACSM material 3.8.3.3: Organize TB advocacy annual conference at national level

3.8.3.4: Conducing ACSM activities at national, provincial and community levels

3.8.3.5: Evaluate all ACSM activities annually

### 3.8.4: Strengthen community participation in TB care, prevention and health promotion

3.8.4.1: Revision of the SOPs of Community DOTS 3.8.4.2: Conducting TB orientation workshop for community member including CHSs and CHWs. 3.8.4.3: Incentives for CHWs

# 3.9: Strategic Direction 9: Enable and promote Research (situation analysis, strategic interventions and activities)

#### Situation analysis

Since 2009, NTP has developed its capacity for conducting researches and surveys and conducted several operational researches which include:

- Impact of active case findings among household contacts of TB patients (results was presented in the Union Conference in 2010)
- Characteristics and outcomes of patients with Tuberculosis who transfer out from the National Tuberculosis Institute, Kabul

In addition to these, NTP has conducted nationwide or regional surveys in important areas like:

- KAP survey (Nationwide)
- Drug resistance survey in the central region
- Management of pediatric TB in provincial and district hospitals of Afghanistan (Nationwide)
- Correlation between Women's reproductive health factors and High prevalence of Tuberculosis (Nationwide)

Through these experiences, NTP has developed its capacity for conducting researches and surveys and there are several strengths such as good inter and intra department coordination and strong commitment to conduct researches by some of partners. However, NTP still needs to develop its capacity for conducting researches and external technical support still remained crucial. Also, only limited staffs have been involved into conducting researches, resulting in hampering conduction of enough number of researches to improve programs. Thus, NTP needs to enhance capacity of field staffs for conducting operational researches.

Another important weakness is lack of proper needs

assessment of researches to improve case detection or other important program areas to improve.

Security conditions hamper conduction of surveys which requires exact nationwide sampling and due to this reason, there has been no national prevalence survey, resulting in no reliable data regarding real incidence of TB. Thus, the national prevalence survey is most-needed survey, but this will continue to remain challenging issue for NTP unless security situation improve.

#### **Strategic interventions and Activities**

# 3.9.1: To strength capacity of research team to conduct operational research at national and provincial levels.

3.9.1.1: Formulation of research core groups at national and provincial levels

3.9.1.2: Arrange training on research proposal development, data analysis and report writing for the research team.

3.9.1.3: Conduct basic training courses on research methodology for field staffs.

3.9.1.4: Establish linkages between national TB control programme and research institutions to channel research to address programme priorities

# 3.9.2: To asses research needs and conduct operational researches to enhance case finding and to improve service delivery and health services

3.9.2.1: Conducting annual workshop on research needs assessment to prioritize research area for improving program.

3.9.2.2: Carry out operational researches for enhancing case finding, improving service delivery and health services prioritized in workshops in 3.9.2.1

3.9.2.3: Conduct end-line KAP survey in 2013 to evaluate the intervention implemented according to baseline survey in 2010.

3.9.2.4: Conduct national prevalence survey.

# 4. Budget Summary

National TB Control Program (NTP) Afghanistan is dependent mainly on donor resources. Less than 1% is being contributed from government budget. Total budget required to implement NSP 2013-17 is (64,148,910 million USD). Available money till

dates from different sources is (16,384,379 million USD). Budgetary gap is (47,764,531 million USD). Strategic Direction wise breakdown of budgetary needs, availability of funds and budgetary gap is summarized below.

#### Summary budget NSP 2013-2017

Sn	Strategic Direction	2013	2014	2015	2016	2017	Total
1	Strategic Direction 1	1,245,272	889,936	895,696	889,936	889,936	4,810,776
2	Strategic Direction 2	719,460	625,680	646,680	625,815	686,180	3,303,815
3	Strategic Direction 3	653,022	569,566	599,272	609,566	605,672	3,037,098
4	Strategic Direction 4	2,348,696	3,149,055	3,710,590	4,471,579	5,263,179	18,943,099
5	Strategic Direction 5	2,350,822	1,800,434	1,984,962	1,519,498	1,530,598	9,186,314
6	Strategic Direction 6	2,629,576	2,689,572	2,753,624	3,957,414	3,024,282	15,054,468
7	Strategic Direction 7	234,456	236,456	229,456	229,456	236,456	1,166,280
8	Strategic Direction 8	1,098,720	994,380	994,580	1,058,300	996,380	5,142,360
9	Strategic Direction 9	104,420	128,220	83,820	104,420	3,083,820	3,504,700
10	Total Budgetary needs	11,384,444	11,083,299	11,898,680	13,465,984	16,316,503	64,148,910
11	Budget available	8,694,023	7,690,356	0	0	0	16,384,379
12	Budgetary Gap	2,690,421	3,392,943	11,898,680	13,465,984	16,316,503	47,764,531

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