

**Annual Report 2008
National TB Control Programme Pakistan**

Table of Contents

Executive Summary	5
Introduction	11
Epidemiology	14
Key Activities in DOTS Expansion and Enhancement	19
Public-Public and Public-Private Mix	29
Advocacy, Communication and Social Mobilization.....	33
Operational Research	42
The Way Forward.....	44

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ACRONYMS

ACSM	Advocacy Communication & Social mobilization
AIDS	Acquired Immunodeficiency Syndrome
AJK	Azad Jammu & Kashmir
AKHSP	Aga Khan Health Services Pakistan
BCC	Behaviour Change Communication
BDN	Basic Development Need
CBOs	Community Based Organizations
DCO	District Coordination Officer
DFID	Department for International Development
DOTS	Directly Observed Treatment Short-Course
DTC	District TB Coordinator
EDO (H)	Executive District Officer Health
EQA	External Quality Assurance
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GLRA	German Leprosy and TB Relief Association
GS	Green Star
GTZ	Gesellschaft für Technische Zusammenarbeit
HIV	Human Immunodeficiency Virus
IACC	Inter-Agency Coordination Committee
IUATLD I	International Union Against TB and Lung Diseases
JATA	Japan Anti-Tuberculosis Association
JICA	Japan International Cooperation Agency
LHWs	Lady Health Workers
M&E	Monitoring & Evaluation
MCI	Mercy Corps International
MDGs	Millennium Development Goals
MoH	Ministry of Health

NAs	Northern Areas
NTP	National TB Control Programme
NWFP	North-West Frontier Province
PHC	Primary Health Care
PPM	Public-Private Mix
PPP	Public-Private Partnership
PR	Principal Recipient
PTP	Provincial TB Control Programme
TAF	The Asia Foundation
TB	Tuberculosis
TGF	The Global Fund
UC	Union Council
UN	United Nation
WHO	World Health Organization

EXECUTIVE SUMMARY

Tuberculosis (TB) continues to be a major public health challenge in Pakistan. Each year, an estimated 300,000 new patients add up to the country's escalating TB burden. The Government of Pakistan is committed to meeting all health-associated targets embodied in the Millennium Development Goals (MDGs) and endorsed by the STOP TB Partnership.

Pakistan reaffirmed its commitment to TB control in the Medium-Term Development Framework (MTDF) 2005-2010, a national plan guiding annual budgetary allocations for various sectors of the economy including health, and continues to mobilize additional resources to mount a coordinated response against the 100% curable disease.

One of the key milestones achieved in Pakistan's fight against TB dates back to 2005, when the National TB Control Programme (NTP), in partnership with its provincial counterparts, achieved 100% DOTS (Directly-Observed Treatment Short-Course) coverage in health facilities within the public sector health delivery system. This achievement demonstrated the country's seriousness to reach the targets enshrined in the Global Stop TB Strategy, which envisages detection of 70% of new sputum smear-positive TB cases and a treatment success rate of at least 85%.

Prior to that, the government responded to the rising burden of TB by declaring it a national public health emergency and articulated its concern by adopting the Islamabad Declaration 2001. TB control was subsequently prioritized in the National Health Policy 2001. Reflecting the same commitment, the National Strategic Plan 2005-2010 prepared by NTP also offers a roadmap for achievement of the global Stop TB targets. The plan visualizes the following explicit interventions:

1. Context-adapted staff training;
2. Functioning laboratory network;
3. Availability of quality drugs;
4. Surveillance, monitoring and evaluation;
5. Intra and inter-sectoral partnerships;
6. Programme based research and development;
7. Public-private partnership development; and
8. Behavior change communication and social mobilization.

The National TB Control Programme is pursuing a decentralized approach that integrates TB control activities with the Primary Health Care

(PHC) system through the Provincial Health Departments (PHDs). This system operates at three tiers: central, provincial, and district.

At the centre, NTP provides strategic direction to ongoing activities, spearheads new initiatives, and offers routine and emergency programme support services such as anti-TB drug procurement. At the provincial level, the PHDs budget for and manage implementation of TB services within their respective provinces. At the third tier of governance, the district authorities are the primary interlocutor with health facilities located in their respective districts.

Public-private partnership is an important component of NTP's vision for TB control. Additional efforts include administration of BCG to all infants through the Expanded Programme on Immunization (EPI) and recommending isoniazid prophylaxis (IPT) for all children of TB-infected mothers or primary caretakers. This decentralized and integrated approach has been designed to bring all healthcare providers and health systems levels into the TB control loop, thus enabling equitable distribution of quality TB services for all.

According to the Global TB Control Report 2008, Pakistan ranks 8th among the 22 high-burden countries; TB incidence is reported at 181 per 100,000 population. Yet, at the same time, the country has achieved significant gains in its fight against the disease. Sustained commitment, strengthened partnerships with the public and private sectors, and introduction of new methods have steadily contributed to improved case detection and treatment outcomes.

The overarching goal of all TB control interventions in Pakistan is to achieve a reduction in morbidity and mortality resulting from TB, to halt transmission of the disease, and to prevent the emergence of Multi-Drug Resistant (MDR) TB.

Linkages with Public Health Systems

Conscious of its expected contribution towards health systems strengthening in Pakistan, NTP has prioritized infrastructural enhancement, capacity building initiatives, and enhancing the outreach of the existing health workforce at the district and provincial levels for improved service provision. These measures notably include strengthening of diagnostic and treatment services through establishment of a network of laboratories and

DOTS centres across the country. The laboratory component utilizes External Quality Assurance (EQA) tools to maintain high-quality results; trainings and refresher courses are also organized to ensure accuracy of information and prompt service provision.

With the National and Provincial TB Control Programmes (PTPs) providing strategic direction, the health workforce (inclusive of Executive District Officers (EDOs) Health, District TB Coordinators and Officers, laboratory technicians, Medical Officers, Lady Health Workers (LHWs) and paramedical staff) is striving to make TB services accessible to the entire population.

To streamline the availability of drugs, NTP has developed national guidelines on drug management for timely procurement, supply and storage of TB drugs. Monitoring and Evaluation, alongside data collection from the district to national levels, is an inbuilt feature of the programme. Quarterly intra-district, inter-district and inter-provincial meetings are held to measure NTP's achievements in terms of both qualitative as well as quantitative outcomes.

Health in the public sector is provided through a large network of health facilities comprising 924 hospitals, 4,712 dispensaries, 5,336 Basic Health Units (BHUs), 560 Rural Health Centres (RHCs), 906 Maternal and Child Health (MCH) Centres and 288 TB Centres (TBCs).

The physical health infrastructure has continuously been expanding over the years; additions in 2005-06 included construction of 56 basic health facilities (42 BHUs and 14 RHCs) and upgrading of 59 facilities (18 RHCs and 41 BHUs). At the human resource level, there was an addition of 3,500 doctors, 1,900 nurses, and 95,000 LHWs. (Economic Survey of Pakistan 2005-2006).

The district health authorities are primarily responsible for advocating, planning, financing, implementing, and monitoring TB care services in their respective districts. The administrative, financial and capacity development support that they need, particularly at the PHC level, is provided both by NTP as well as the PTPs.

The delivery and management of TB services has been integrated with the district healthcare system so that continuing care is available to TB patients at their doorsteps. Under this arrangement, hospitals and RHCs work as Diagnostic Centres (DC), offering services for diagnosis, registration, treatment initiation, follow-up examination and cure confirmation.

The DCs are required to prepare and submit quarterly progress reports. The Basic Health Units, on the other hand, work as Treatment Centres (TCs) supplying anti-TB drugs and ensuring direct observation through appropriately selected treatment supporters.

Hospitals and TB clinics at the tertiary level offer diagnostic and referral services for complicated patients referred to them by the primary health facilities.

Linkages with other Vertical Programmes

The Federal Ministry of Health, through the institution of inter-provincial meetings, has established a coordination mechanism governing all national public health programmes. At the operational level, the national programme managers, all of who report to the same ministry, are responsible for coordinating inter-sectoral meetings.

Some noteworthy examples of coordination, both at the policy and operational levels as well as between the centre and the provinces, include arrangements with the Lady Health Workers (LHWs) Programme, the National Nutrition Programme, the National AIDS Control Programme and the National Malaria Programme.

The provinces also coordinate with districts under a properly notified devolution regime. The issue of TB/HIV Co-infection has been taken up in Round 6 of The Global Fund to Fight AIDS, TB and Malaria (GFATM; henceforth referred to as TGF), under which NTP and the coordinating board of the National AIDS Control Programme will oversee piloting of TB/HIV collaborative activities in 16 Voluntary Counselling and Testing (VCT) Centres across Pakistan. The NTP and the Malaria Control Programme are also jointly utilizing infrastructure and human resource at the PHC level.

Importantly, the LHWs Programme is working alongside NTP at the community level. The LHWs are an important resource for identification of suspected TB cases and provision of DOTS therapy at patients' doorsteps. The enhanced role of LHWs in TB control through CIDA support has successfully been piloted in 20 districts. This model will be replicated nationwide.

Likewise, the National Nutrition Programme has been supporting NTP through provision of micronutrients for TB patients. This synergistic approach is an outcome of the strong coordination mechanism that exists

between each of the national health programmes, with the Ministry of Health playing a stewardship role.

Continuity of National and International Funding for TB Control

In 2001, the Government of Pakistan declared TB a national emergency. One of the first measures taken thereafter was the development of a PC-1 focusing on numerous interventions including nationwide expansion of existing infrastructure for provision of TB services. Efforts at the national level were complemented by international assistance, enabling Pakistan to achieve 100% DOTS coverage in 2005.

Pakistan's TB control efforts are supported by numerous donors including GTZ, KfW, JICA, DFID, FIDELIS (a project of The Union), and TGF. The country succeeded in mobilizing substantial financial support during TGF Rounds 2, 3 and 6; the assistance was channelized for BCC and health education activities spearheaded by the public and private sectors. The Inter-Agency Coordination Committee (IACC), with representation from bilateral and multilateral organizations, is responsible for promoting coordination and preventing duplication of efforts.

The National TB Control Programme recently won approval for TGF Round 8, which is expected to support continuity in supply of TB drugs for the period 2009-14.

This report presents a snapshot of activities implemented in the fifth year of TGF Round 2 grant. The activities undertaken in 2008 were:

1. Expansion of programme implementation to 12 new districts.
2. Training of the DHQ Hospital staff, District TB Control Officers (DTCs) and National Programme Officers (NPOs) on guidelines.
3. PHC orientation sessions for doctors in the newly-involved districts
4. Procurement and distribution of Purified Protein Derivatives (PPDs).
5. Enhanced coordination with districts to strengthen programme activities
6. Monitoring and supervision of the Programme activities.

Involvement of 12 new Districts

The proposal for TGF Round 2 supported expansion of programme activities to 20 new districts. However, the plan was revised by Mercy Corps International (MCI), the Principal Recipient (PR) of the grant. The PR reduced the number of districts to 12 in view of limitations grounded in resource availability and project stage. The project could not be completed within its stipulated deadline of September 30, 2008 owing to delay in release of funds.

Since the planned activities could not be accomplished within the stipulated timeframe, the PR carried its work forward into the 20th quarter. The 12 new districts were selected in consultation with the PTPs and according to a predetermined criteria. Districts showing commitment to the cause of TB; having basic DOTS and indoor facilities for children and patients; a regular pediatrician, chest physician or medical specialist; and a functional laboratory, preferably with a pathologist, were selected.

The National TB Control Programme is one of the largest public health initiatives working to improve the quality of life of TB patients through provision of free diagnostic and treatment services. These services are available in 5,000 establishments located in 135 districts covering three regions of Pakistan. With DOTS in place at all the public facilities, future efforts for a TB-free Pakistan will be directed towards greater involvement of private sector healthcare facilities, which is where many TB patients initially report. Given the current level of political will, the goal is more achievable today than it ever was in the past. Together, we can and we will, improve the lives of people living with TB.



Dr. Noor Ahmad Baloch
National Manager



MEDICAL OFFICER

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File No.



Form with a table and handwritten text. The table has several columns and rows. The text is in Arabic and includes the word 'Report'.

Large form with multiple tables and handwritten text. The tables have columns and rows. The text is in Arabic and includes the word 'Report'.



Tuberculosis is the second commonest cause of death from infectious diseases in the world killing almost two million people annually. Eight million new TB cases are estimated to occur every year, more than 95% of which are in the developing countries. The global prevalence of the disease is around 1620- million. Furthermore, 80% of the cases occur amongst people in the most economically productive age group of 15-59 years, representing a major economic burden for patients and ultimately countries. Twenty-two countries referred to as High Burden Countries (HBCs) account for 80% of the total TB disease burden in the world.

Introduction



INTRODUCTION

Tuberculosis is an ancient infectious disease caused by an organism 'Mycobacterium Tuberculosis,' which was discovered by Robert Kochs in 1882. Although it can attack any part of the body, the organism mostly affects the lungs, causing pulmonary TB.

Global Situation

Tuberculosis is the second most common cause of death from infectious diseases in the world, killing almost 2 million people annually. Eight million new TB cases are estimated to occur every year, more than 95% of these in the developing countries. Global TB prevalence stands at around 1620- million. Furthermore, 80% of the cases occur amongst people in the most economically productive age group of 15-59 years, representing a major economic burden for patients and ultimately countries.

The 22 countries referred to as high-burden countries account for 80% of the world's total TB burden. Although Sub-Saharan Africa has the highest incidence rate, certain highly populous countries of Asia namely, India, China, Indonesia, Bangladesh and Pakistan, have the highest number of cases, and together account for more than half the global burden.

The HIV pandemic has resulted in a dramatic increase in the number of cases and worsening of treatment outcomes. , Multi-Drug Resistant (MDR) TB also represents a major challenge for TB control.

Situation in Pakistan

Population: Pakistan is the sixth most populous country in the world with an estimated population of 163.9 million (2007); this figure does not include the 1.2 million Afghan refugees settled here. The country has a large, mostly rural population with a high growth rate. From 1981 to 1998, population growth averaged nearly 2.7% annually.

According to the population census of 1998, the overall population density was 166.3 persons per square kilometre; provincial population density, however, ranged from 18.9 in Balochistan to 358.5 in Punjab. Furthermore, the population is clustered in the eastern provinces of Punjab and Sindh, where 78.6% of the total population lives. According to the 1998 census, 67.5% of the country's population lives in the rural areas. Only Sindh has roughly equal rural and urban populations (51.2% and 48.8%, respectively).

Administratively, Pakistan comprises four provinces namely, Balochistan, North-West Frontier Province (NWFP), Punjab and Sindh; the Federally Administered Tribal Areas and the Northern Areas; and the state of Azad Jammu and Kashmir (AJK). The country is divided into 134 districts.

Demography: Pakistan's fast-growing population has a substantial proportion of youth. According to data gathered in 2004, a dramatic 40.2% of the population falls in the age bracket of 14 or less, 55.7% in the age bracket of 15-64, and only 4.1% in the 65 years and above category.

The health system: An estimated 924 hospitals, 4,712 dispensaries, 5,336 BHUs, 560 RHCs and 906 MCH Centres are functioning in the public health sector. As many as 117,973 doctors are registered with the Pakistan Medical and Dental Council; these include many who are simultaneously practicing in the public and private sectors. The private sector comprises 42,700 registered facilities providing formal and informal medical services; 69% of these are clinics and drug shops and 550 are private hospitals.

Tuberculosis: Even though Pakistan adopted the DOTS strategy in 1995, major breakthrough was achieved only after revitalization of the dormant NTP in 2001 when the government decided to tackle TB on war footing.

The NTP consists of a well-functioning central unit, with TB coordinators installed at the provincial and district levels. TB services have been integrated into the primary healthcare system and are delivered by chest clinics in tertiary hospitals, district hospitals and BHUs. Currently, 23 public and private hospitals are linked with the National and/or Provincial TB Control programmes.

Of late, NTP has leveraged the support of the private sector in TB diagnosis and care. Efforts are also afoot to link TB services in parastatal organizations such as prisons and the police force. The NTP is a partner-friendly organization working with numerous national and international donor, implementing and assistance agencies.

As a sub-recipient of TGF Round 2 grant, NTP is pursuing the following two objectives:

1. Development and implementation of guidelines for management of difficult-to-diagnose complicated adult TB suspects/cases and children with TB
2. Development and implementation of a National BCC Strategy to increase disease awareness and promote healthy treatment-seeking and treatment-adhering behaviours.

The National Tuberculosis Control Programme completed the fifth year of TGF Round 2 grant on December 31, 2008 and plans to close out by March 31, 2009.



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Epidemiology



EPIDEMIOLOGY

Pakistan ranks 8th among the 22 high-burden countries. The incidence of TB in the country, is estimated at 181 per 100,000 population or 286,000 new cases per year (WHO Report 2008). The country achieved 100% DOTS coverage in 2005.

Effective community awareness campaigns, complemented by increased access to TB services in public and private health facilities, have led to a marked improvement in the Case Detection Rate (CDR). As indicated in Table 1, CDR for all forms of TB increased from 19% in 2002 to 80% in 2007 while CDR for new sputum smear positive cases rose from 13% in 2002 to 66% in 2007. These successes provide the context for Pakistan to further accelerate its efforts for TB control in conformity with the Stop TB Strategy.

In 2007, the notified cases of all forms of TB stood at 234,100 (143/100,000) including 88,474 (54/100,000) new sputum smear positive cases. The steepest increase in case notifications, with more than 50% of all new sputum smear positive cases, was reported from Punjab, the country's largest province with a population of 90 million.

Multi-Drug Resistant (MDR) TB is an emerging threat that cannot be measured owing to lack of valid data. Pakistan has an estimated 3.4% (9,900 per year) MDR cases among new TB patients (Primary MDR) and 36% in previously treated patients. (WHO report, 2008)

Other challenges

Having achieved countrywide DOTS coverage in 2005, NTP's focus rests on expanding the scope of its activities to include TB/HIV and MDR-TB interventions as recommended in the Stop TB Strategy.

MDR-TB is clear a priority area of NTP. A mission of the World Health Organization (WHO) has already conducted pre-assessment of MDR-TB, and based on its recommendations, health facilities have been identified for piloting of MDR guidelines. NTP will implement MDR-TB management through teaching/specialized hospitals in the public and private sectors, with the required financial cushion coming from TGF Round 6.

A joint Coordinating Board for TB/HIV and MDR-TB has been constituted under the Federal Ministry of Health for development of policy guidelines to address these challenges. Two separate Technical Working Groups

are also in place for development of national guidelines and manuals for screening and management of TB/HIV Co-infection and MDR-TB cases. These guidelines and manuals have been readied; the first draft of the guidelines will be available in April 2009 for implementation. Meanwhile, 16 sentinel sites have been strengthened through collaborative efforts of NTP, NACP and some non-government partners.

Alongside these interventions, strengthening of the public sector laboratory network in the national and provincial capitals has been initiated for provision of Culture and Drug Susceptibility Testing (DST) services. Upgrading of identified health facilities and capacity building of healthcare providers are an ongoing feature in the domains of infrastructure and human resource development, respectively.

The National TB Control Programme is also supporting a Public-Private Mix (PPM) initiative to accelerate MDR management. In this regard, a Memorandum of Understanding was signed with Indus Hospital in November 2008 for implementation of MDR plus project in Karachi. NTP has expressed its support for the project to GLC (for 600 patient courses) and has also facilitated linking TB laboratory to Supra National Reference Laboratory (SNRL) in Antwerp, Belgium, for EQA of DST services.

Partnerships:

The National TB Control Programme is a firm believer in the strength of partnerships that trickle down to the grassroots level. To ensure effective implementation, NTP has entered into numerous partnership arrangements to upscale facilities for the diagnosis and treatment of TB in Pakistan. In fact, one of the key reasons governing the establishment of Inter Agency Coordination Committee (IACC), aside from resource mobilization, was to harmonize partner support, which is a key ingredient of TB control activities. Moreover, NTP plans to launch the National Stop TB Partnership before March 2009.

One of NTP's partners in TB control is the WHO, which provides technical assistance in laboratory strengthening, research, monitoring and supervision, and capacity building. The details of WHO support have been tabulated in bulleted points:

- Project Implementation: Provision of technical assistance for implementation of DOTS and development of national guidelines (1994-95); expansion of DOTS.

Year	2001	2002	2003	2004	2005	2006	2007	2008 (Q1+Q2)
Total Population (1000's)	146,828,000	146,828,000	146,828,000	146,828,000	146,828,000	146,828,000	146,828,000	146,828,000
Population Covered by DOTS (1000's)	27,532	65,495	100,407	122,898	158,004	161,164	164,288	167,574
DOTS population Coverage %	19%	44%	66%	79%	100%	100%	100%	100%
CDR SS+ve	7%	13%	17%	25%	38%	51%	68%	79%
CDR All type	8	19	28	37	54	67	88	100
Treatment Success Rate*	77%	78%	79%	82%	84%	87%	88%	N/A

- Initiation and expansion of EQA for an efficient laboratory network.
- Monitoring and Evaluation: Central and regional field officers for technical assistance to district capacity building and Monitoring and Supervision.
 - Development and improvement of surveillance system from peripheral to central levels.
 - Holding of quarterly surveillance meetings at all levels to monitor and evaluate implementation of strategies in line with standard recording and reporting protocols.
- Financial Management: Monitoring of financial resources and estimation of resource needs and budgetary gaps.
- Human Resource Development: Provision of support for national and international trainings.
- Research: Provision of support for operational research and policy development.
- Resource Mobilization: Lending of support to national efforts in the direction of resource mobilization from various partners.
- Proposal Development: Provision of technical assistance for development of TGF Round 6 proposal, and drafting of appeal for TGF Round 6 (NTP won the appeal and got US \$56 million). The WHO

also sponsored NTP officers' visit abroad to attend GFATM proposal development workshop for Rounds 5 and 8.

Aside from WHO, NTP has been working on expansion of partnerships with national and international stakeholders that lend financial, technical and implementing assistance for different components of the Stop TB Strategy. The details of these partnerships are as follows:

1. DOTS expansion and enhancement
 - a. Political commitment, alongside increased and sustained financing; advocacy through TGF Round 6, DFID support for development of strategic plan and PC-1
 - b. Case detection through quality-assured bacteriology (TGF Round 6, with technical assistance from JICA in Punjab and GTZ in NWFP; recruitment of reference laboratory officer with USAID and WHO support); ACD
 - c. Standardized treatment with supervision and patient support (CIDA and WHO)
 - d. Effective drug supply and management system (TGF Round 8, with technical assistance from JICA, GLRA, GTZ, WHO and the Government of Japan);

- e. Monitoring and evaluation, and impact measurement (USAID, WHO and KNCV)
2. Contribution towards health systems strengthening (USAID, WHO, TGF Rounds 6 and 8)
3. Empowerment of people with TB, and communities (GFATM Round 3 ,TGF Round 6: Bridge, BDN, Health Information System)
4. Engagement of all care providers (Greenstar, TAF [GFATM Round 3], USAID, WHO, PATA and AKHSP [TGF Round 2] , ASD, Mercy Corps [TGF Round 6])
5. Promotion of research (USAID/WHO, TDR/WHO, GTZ in NWFP and JICA in Punjab)
6. Tackling of TB/HIV, MDR-TB and other specific challenges (TGF Round 6, WHO and USAID)





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Key Activities in DOTS Expansion and Enhancement



KEY ACTIVITIES IN DOTS EXPANSION AND ENHANCEMENT

Political commitment

The Government of Pakistan declared Tuberculosis a national emergency in March 2001 and ordered acceleration of efforts to control the disease on war footing.

Sound political commitment led to development of a five-year National Strategic Plan 20052010- and a PC-1 aimed at achieving universal DOTS coverage or DOTS-all-over by end-2005.

Pursuance of rapid DOTS expansion during 200005- enabled Pakistan to reach its DOTS coverage target in May 2005. This development signified availability of free diagnostic and treatment facilities for TB patients through the public sector's healthcare delivery network in all districts of the country.

The PC-1 for TB control at the federal level commenced in Fiscal Year 200607-. The government allocated Pak Rs. 1,181 billion for the following activities; staff trainings (Rs. 8 million), laboratory network (Rs. 211 million), availability of quality drugs (Rs. 102 million), surveillance and M&E (Rs. 21 million), intra-sectoral and inter-sectoral partnerships (Rs. 42 million), research and development (Rs. 35 million), Public-Private Mix (Rs. 465 million), BCC (Rs. 212 million) and strengthening of NTP (Rs. 52 million).

Following the devolution of power, both NTP as well as the PTPs have been working in close coordination with the district governments. Five to 10% of the district budget on medicines is allocated for procurement of anti-TB drugs.

Another institutional arrangement made to accelerate progress is establishment of the IACC, which is responsible for development of meaningful linkages with a wide range of technical partners, donor agencies and civil society organizations. Beyond that, the committee harmonizes DOTS implementation, minimizes duplication of efforts, and prioritizes critical activities while also identifying the roles and responsibilities of each partner.

Case detection through quality-assured TB laboratory network

The laboratory network of NTP consists of a National Reference Laboratory (NRL), and four provincial, three regional, 112 district, and 1,131 peripheral laboratories. Table 2 presents a snapshot of this network, which covers four tiers of governance.

Laboratory services have been integrated with PHC at the peripheral (locality and district) and intermediate (district) levels. Peripheral laboratories are linked with the TB Management Units and serve an estimated population of 140,000. NTP diagnoses pulmonary TB through direct smear microscopy on three sputum specimens collected over two days. Treatment monitoring is done through one smear examination at the end of the second, fifth and seventh months.

AFB MICROSCOPY NETWORK:

200105-: Prior to DOTS implementation, less than 50 laboratories in the public sector were performing sputum smear microscopy for diagnosis of Tuberculosis. With DOTS expansion, the microscopy network expanded at a tremendous pace – from less than 50 laboratories in 2001 to over 900 in 2005.

200509-: Efforts initiated during the DOTS expansion phase were primarily focused on expansion of microscopy coverage services. In the consolidation phase that followed, efforts were shifted towards improvement of quality, with expansion continuing nevertheless but at a relatively slower pace. The microscopy network consists of 1,131 peripheral laboratories across the country. Of these, 1,039 laboratories are located within the public sector and 92 in the private not-for-profit sector. Besides these, 52 commercial laboratories are also collaborating in TB control initiatives through PPM. (Annual Report 2007)

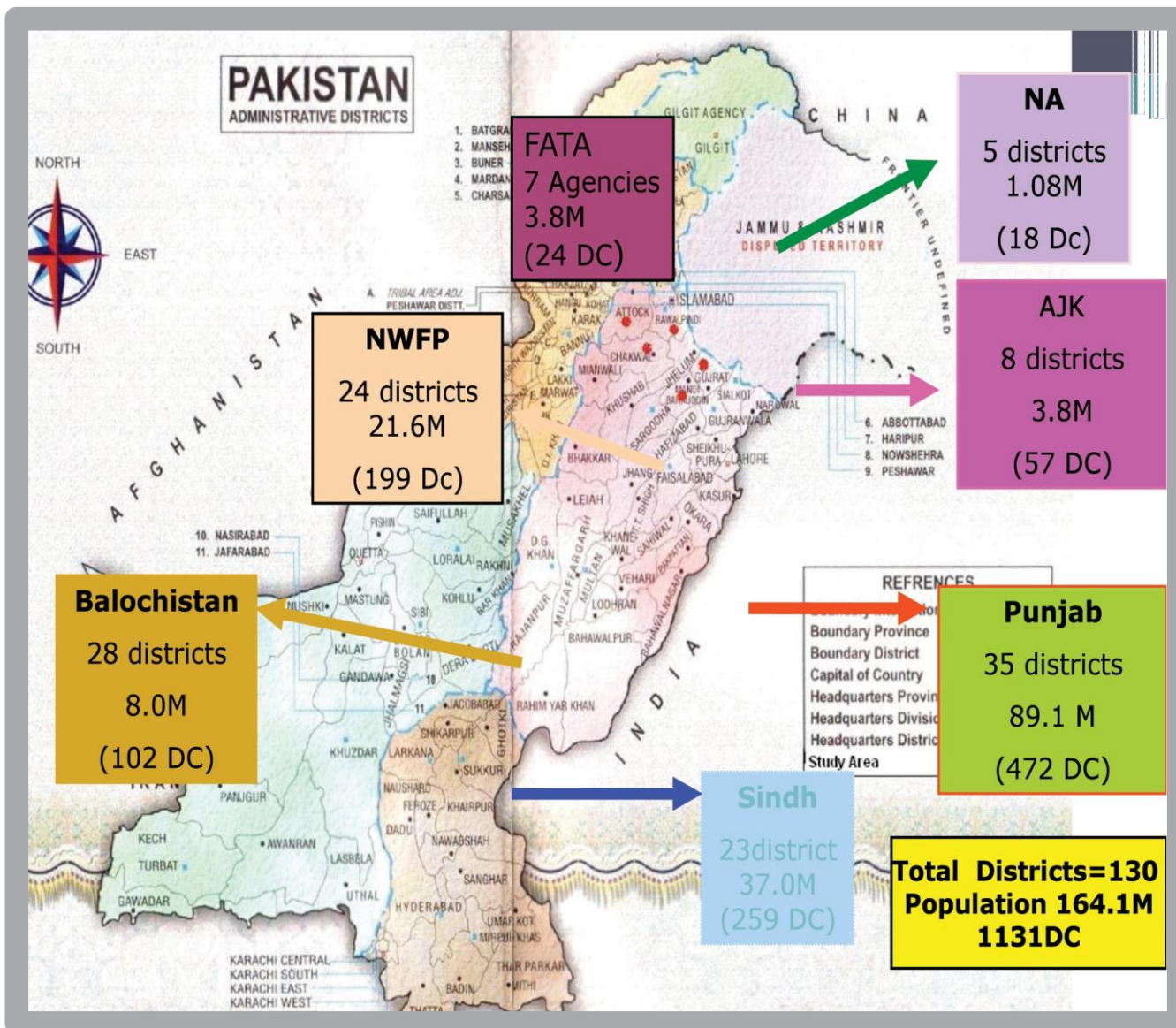
Roles and responsibilities	National Reference laboratory	Provincial Reference laboratory	District Laboratories	Peripheral laboratories
Technical	AFB by ZN staining/F staining TB culture and DST. Use of Rapid methods (as per NTP policy)	AFB by ZN staining/F staining TB culture and DST. Use of Rapid methods (NTP policy)	AFB by ZN staining Stain preparation Supervision EQA by blinded rechecking (first control reading)	AFB by ZN –Staining. Quality control
Administrative	Development/review of guidelines /SOP	Review of guidelines /manual and dissemination	Dissemination of manuals and SOP	
Managerial	TA(NTP);to Develop and review i)policies , ii)technical specification Training of Trainers QA of Microscopy, culture, DST services Supervision and monitoring of provincial lab network TA to PRL	Training of district staff Planning and implementation of QA of microscopy, culture and DST services at provincial level.	Lab supply management District Lab Data collection and consolidation.	
Research and surveillance	DRS, TB disease prevalence survey and Operational Research			

Table 2 Laboratory Network of NTP

QUALITY-ASSURED SPUTUM SMEAR MICROSCOPY:

Having achieved 100% DOTS coverage, NTP's top-most priorities revolved around strengthening of the microscopy network and implementation of EQA for quality assured diagnostic services within the framework of TB control. A series of initiatives were taken to augment quality-assured diagnosis. These included:

- Development of a laboratory manual in 2005 (JICA and WHO).
- Development of pictorial guides on SOPs (AFB Microscopy and Microscopes) in the form of posters.
- Standardization of laboratory staff training programmes through Training of Trainers (TOT) in 2004/05- (JICA and NTP).
- Revision of the laboratory training module and inclusion of sessions on quality control and EQA (NTP and WHO).
- Initiation of operational research to assess proficiency of laboratory staff in Punjab (NRL and JICA), and to study the quality of peripheral laboratory services and their impact on case detection (TDR).
- Drafting of EQA guidelines and holding of TOT sessions for capacity building of provincial laboratory staff (JICA and WHO); piloting of EQA through blinded rechecking in Gujrat in 2005 (JICA), coupled with review and revision of guidelines; implementation of EQA through blinded rechecking in 40 districts covering 308 diagnostic centres in



2006 (CIDA and WHO); finalization and printing of National Guidelines for Quality Assurance (QA) of Sputum Smear Microscopy (2007).

EQA expansion is continuing with support from TGF Round 6, WHO, and NTP. Eighty-six district and 726 diagnostic centres had been covered by October 2008; EQA coverage will be completed by June 2009.

EQA implementation and QA diagnosis at the peripheral level:

The shared aspiration of NTP and NRL regarding establishment of an optimal EQA programme through blinded rechecking of slides at regular intervals is a resource-intensive goal. Many factors such as human resource capacity of the provincial laboratories, and the availability of trained staff, quality equipment and other laboratory supply items at the peripheral level need to be considered as a prelude. Baseline assessment for identification of gaps is, therefore, a routine procedure preceding EQA expansion.

Another challenge that stood in way of effective implementation of the EQA plan was non-existence of intermediate laboratories at the district level. The NTP, by virtue of its own PC 1, as well as assistance from CIDA, WHO and TGF Round 6, supported the following activities for effective implementation of EQA and quality-assured diagnosis:

- I. **Enhanced HR capacity:** In order to strengthen the supervisory role of the national and provincial laboratories, four senior laboratory supervisors were inducted in 2006 with the support of CIDA and WHO and sustained through TGF Round 6. Moreover, the district management has appointed a senior laboratory technician to act as district laboratory supervisor.
- II. **Training:** In an effort to ensure availability of trained human resource at the Microscopy Centre, NTP has been supporting need-based initial trainings for untrained staff and refresher trainings for trained staff. To enhance the supervisory capacity, NTP, with the assistance of CIDA and WHO in 2006 and TGF Round 6 in 2008, organized TOT of senior laboratory supervisors, and training of district laboratory supervisors and district TB coordinators.
- III. **Laboratory Equipment:** The National TB Control Programme supported the following initiatives to fill identified gaps in the laboratory network:
- IV. **Peripheral laboratory network:** Replacement of over 350 old microscopes with latest ones (Supported by PSDP funds, CIDA, WHO and FIDELIS).

V. **Intermediate district laboratory network:** Supply of water distillers and top loading balances to strengthen capacity for stain preparation (Supported by PSDP, USAID, CIDA and WHO).

VI. **Laboratory supplies:** Provision of essential laboratory items for microscopy centres and district laboratories.

Laboratory coordination and surveillance meetings:

Assisted by USAID and WHO (200408-), NTP supported participation of laboratory staff in quarterly meetings held at the district level. From the third quarter of 2008 onwards, these meetings continued to be supported through TGF Round 6 grant. The NTP also convenes quarterly surveillance meetings of district laboratory supervisors and PRL staff at the provincial and national levels, respectively,

Laboratory data management:

Data reflecting laboratory performance and EQA is being generated on a quarterly basis. To simplify the process of data collection and analysis, NTP, with the support of CIDA and WHO, has developed a web-based software accessible at the NTP website (www.ntp.gov.pk)

Standardized treatment with supervision and patient support:

In view of the restricted capacity of public sector health facilities to perform TB culture and DST, NTP and NRL have planned strengthening and establishment of a TB culture and DST network through TGF Round 6 (200809-) financing. The plan envisages enhancement of infrastructure, bio-safety level and equipment; availability of additional human resource, and human resource development through trainings in TB culture and DST at the national and international levels.

In the initial phase, NTP will support establishment of a network of nine DST laboratories (one national, four provincial, two regional and two tertiary care) by virtue of TGF Round 6 and KfW support in NWFP. Besides these, four TB culture laboratories will be established at the district level, one in each province.

Once the National Reference Laboratory is able to perform TB culture and DST, it would be linked to the Supra National Reference Laboratory (SNRL), Antwerp, Belgium, and would be poised to take up the responsibility of EQA of TB culture and DST in the national TB network as well.

Unlike the public sector, there are several laboratories in the private

sector that have the capacity to perform TB culture and DST, and to diagnose MDR. These include laboratories at the Aga Khan University Hospital (AKUH) and Sindh Institute of Urology and Transplantation (SIUT) in Karachi, Shifa International Hospital in Islamabad, and the recently established BSL-III TB Laboratory at the Indus Hospital, Karachi. The laboratories of AKUH and Indus Hospital have been linked to SNRL for quality control purposes. An assessment by WHO is scheduled in March 2009 for inclusion of AKUH in SNRL.

The National TB Control Programme is also collaborating with the Microbiology Laboratory at AKUH which, as a technical partner, is providing assistance for capacity building of public sector laboratories through provision of hands-on training on TB culture and DST.

In a bid to promote early diagnosis and adherence to the standardized 8-month treatment regimen for TB patients, NTP is utilizing a variety of health education and community awareness tools. These include development of refresher modules for all cadres of health workers to ensure provision of quality services in conformity with WHO guidelines. Aside from community volunteers, the primary force utilized to ensure case holding is the LHWs network, an important component of the health system at the community level. The LHWs have a direct link with communities; they not only provide anti-TB treatment and directly supervise adherence to the drug therapy but also identify and refer TB suspects to diagnostic centres. LHWs have been involved in 20 districts by virtue of CIDA support and efforts are now underway to scale up their involvement in TB control at a national level with support of the PHC Programme.

Drug Supply and Management

The National TB Control Programme is promoting the availability of and access to quality anti-TB drugs at all levels. Uninterrupted drug supply is currently being ensured through the Global Drug Facility (GDF) as well as local purchases made through the federal and provincial budgets.

Sufficient quantities of drugs that will last till 2012 have been procured through Public Sector Development Programme (PSDP) funds, grant from the Japanese government, GDF emergency grant, and TGF Round 8 support. The NTP has also developed drug management guidelines with the assistance of JICA; strengthening of the drug management system has been planned through TGF Round 8 grant.

Monitoring and Evaluation (M&E)

A technical unit responsible for monitoring overall programme implementation through National Programme Officers (NPOs) located at the regional level has been established through WHO and USAID support. NPOs play a critical role in monitoring TB control activities and providing technical assistance to the district and provincial TB control programmes for effective implementation.

Refresher training modules for M&E have been developed and trainings for district level staff are organized on an ongoing basis to build their capacity for monitoring and supervision. At the district level, it is the responsibility of the respective PTPs to conduct supervision and monitoring of TB control activities. The District TB Coordinators (DTCs) are primarily involved in implementation and supervision of programme activities at the TB management units. Monitoring and supervision has been enhanced by facilitating the mobility of DTCs.

A marked improvement has been achieved in recording and reporting through joint efforts of NTP and WHO. Electronic recording and reporting is now in place at the central and provincial levels. Recording and reporting tools have been revised in conformity with WHO guidelines and new tools will be implemented with effect from January 2009. The Electronic Nominal Reporting System (ENRS) introduced by WHO will be piloted in 10 districts through TB-CAP support by March 2009.

Quarterly surveillance meetings are convened at the district, provincial and national levels to ensure uninterrupted and timely receipt of DOTS data from the peripheral up to the central levels. Furthermore, WHO and other partners conduct annual external reviews to measure the programme's performance; recommendations emerging from these meetings help NTP to review and revise its programme implementation strategy in line with best practices.

The PTPs are subjected to internal reviews, which are conducted with the assistance of WHO; one such review is scheduled for Punjab from December 29, 2008 to January 3, 2009. Reviews of other provinces will follow in the first quarter of 2009.

A prevalence survey funded by TB-CAP, with technical assistance from WHO, KNCV, The Union and Japan Anti-Tuberculosis Association (JATA), has been planned for 2009-2011.



Tuberculosis is the second commonest cause of death from infectious diseases in the world killing almost two million people annually. Eight million new TB cases are estimated to occur every year, more than 95% of which are in the developing countries. The global prevalence of the disease is around 1620- million. Furthermore, 80% of the cases occur amongst people in the most economically productive age group of 15-59 years, representing a major economic burden for patients and ultimately countries. Twenty-two countries referred to as High Burden Countries (HBCs) account for 80% of the total TB disease burden in the world.

Public - Public and Public-Private Mix



Public-Public and Public-Private Mix (PPM)

In order to expand the horizon of diagnostic and treatment service delivery beyond the public sector, NTP is implementing Public-Private Mix (PPM) models based on a national PPM need assessment.

Guided by local evidence and drawing lessons from existing PPM ventures, NTP and its partners are now proactively adopting innovative approaches for implementation of PPM models.

The key to ensuring 100% coverage lies in the ability to promote and nurture partnerships beyond conventional means and avenues so that TB patients attending a large and diverse private sector also have access to prompt diagnosis and appropriate treatment opportunities.

The National TB Control Programme has allocated a substantial amount of resources (39% of its total PC-1 financing for 200510-) to Public-Private Partnership (PPP) DOTS. The initiative is on the implementation path; PPM activities have been initiated in 30 districts, each of which has been resourced with a PPM coordinator and a field officer.

Some of the NGOs engaged in NTP's TB Control ventures under a collaborative arrangement include Greenstar Social Marketing (GSM), which is working in five major cities with the involvement of over 1,000 private health providers. Greenstar Social Marketing is one of NTP's partners in TGF Round 3, and provides TB services primarily in the urban area through franchise network. Other partners include the Pakistan Anti-TB Association (PATA) and AKHSP.

The private sector in Pakistan is large and diverse, with wide variations in the type and quality of care provided. It comprises not-for-profit NGOs and for-profit private practitioners, both formal and informal. The majority of for-profit private providers is exclusively involved in healthcare delivery; many of the not-for-profit NGOs, on the other hand, have a range of focal areas including provision of medical and other health services, BCC and advocacy programmes, social services and other non-health related services.

In view of the value of PPM for achievement of TB targets and capacity building of the private sector to ensure quality management for TB patients,

NTP has recently doled out a consultative agenda for PPM interventions in the country.

Expanding Public-Private Partnerships

The National TB Control Programme is developing a good mix of public and private sectors to maximize the outreach and impact of DOTS at both levels.

The following national, multilateral and bilateral agencies; international non-government organizations, and national NGOs are supporting Pakistan's TB control interventions by virtue of an expanding partnership network:

Inter Agency Coordination Committee (IACC) Member Organizations:

National TB Control Programme
Provincial TB Control Programme, NWFP
Provincial TB Control Programme, Punjab
Provincial TB Control Programme, Sindh
Provincial TB Control Programme, Balochistan
Marie Adelaide Leprosy Centre
Mercy Corps International
Association for Social Development
Canadian International Development Agency
Department for International Development
European Union
GLRA
GTZ
Japanese International Cooperation Agency
Pakistan Anti-TB Association
Pakistan Chest Society
United States Agency for International Development
World Health Organization
World Bank

Multilaterals:

European Union
The Global Fund
World Bank
World Health Organization

¹ Public Private Partnership Models, and Operational and M&E Guidelines for TB DOTS, DFID/TAMA Baloch, Noor and Mann Gillian

Bilaterals:

Department for International Development
German Development Bank (KfW)
Government of Japan
Japan International Cooperation Agency
United States Agency for International Development

International NGOs:

German TB and Leprosy Relief Association
Marie Adelaide Leprosy Centre
Mercy Corps International
Population Services International
The Asia Foundation

National NGOs:

Aga Khan Health Services Programme
Association for Community Development
Association for Social Development
Basic Development Network (BDN) Project
Bridge
Greenstar Social Marketing
Pakistan Anti-TB Association

(Refer to Annex A for a detailed trip report on Pakistan's participation in the 39th International Union Against TB and Lung Diseases (IUATLD) Conference on Lung Health, held in Paris from October 16-20, 2008).



Tuberculosis is the second commonest cause of death from infectious diseases in the world killing almost two million people annually. Eight million new TB cases are estimated to occur every year, more than 95% of which are in the developing countries. The global prevalence of the disease is around 1620- million. Furthermore, 80% of the cases occur amongst people in the most economically productive age group of 15-59 years, representing a major economic burden for patients and ultimately countries. Twenty-two countries referred to as High Burden Countries (HBCs) account for 80% of the total TB disease burden in the world.

Advocacy, Communication and Social Mobilization

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Advocacy, Communication and Social Mobilization (ACSM)

Advocacy, Communication and Social Mobilization (ACSM) is a key determinant of the outcome of Pakistan's TB control interventions. It is through the use of ACSM tools that agendas are set, public awareness on specific health issues is raised, and communities are mobilized to adopt early health-seeking behaviour and treatment adherence.

Pakistan's TB control efforts have largely focused on establishment of clinical services. Having achieved 100% DOTS coverage and provision of free drugs, the stage is now set for planning and implementation of a multi-level, integrated communication strategy supporting expanded coverage in the form of high uptake of TB services. Factors responsible for relatively low public sector clinical attendance and Case Detection Rate are:

- Low awareness about the free services available at government facilities and location of clinics;
- Poor client perception of public sector service provision;
- Poverty or low per capita income. Pakistan ranks .142 on the Human Development Index, with a GNP per capita of more than US \$800;
- Large and diverse rural population. Over 68% of the population resides in rural areas and four regional languages are spoken in the country. Forty-three percent of the population is below 15 years of age; and
- Difficult-to-reach population groups in settings such as prisons, as well as tribal and border areas.

Health Communications and Cross-Funding Linkages

The National TB Control Programme is following a strategic course of action for TB communication. With support from TGF Round 2 and PSDP, NTP conducted formative research in 2006 to guide TB messaging based on the BCC framework and implementation of Above the Line (ATL) and Below the Line (BTL) activities.

Basis of TB Communication Campaign from TGF Round 2 and PSDP:

The corporate communication sector in Pakistan offers enormous opportunities for engagement of media and public relations firms for demand creation.

During 2004-05, much of the communication work undertaken by NTP was ad hoc in nature. Subsequently, however, qualitative evidence drawn from TGF Round 2-supported research in 2006 paved the way for formulation of an evidence-based communications strategy. A media agency was then contracted to develop communication products including television commercials, radio spots, tele-dramas; Information, Education and Communication (OEC) materials; and activities designed for capacity building of media and healthcare providers. NTP has, since then, been working with a number of media agencies such as Interflow Communications, Midas and AdGroup.

The support received from TFG Round 2 enabled the development of a successful campaign based on hope and inspiration; the campaign was designed to encourage the general population to seek information about TB and informed the duration and awareness on sputum microscopy as a means of TB diagnosis.

The campaign was based on four evidence-based case studies that emerged during qualitative research, and covered the period from January to March 2008. Messages of hope were communicated through television commercials featuring role models. The campaign also helped dissolve, to some extent, gender-related stigma around TB.

The Global Fund Round 6 support introduced ACSM as a component of the DOTS Strategy. The goal of this BCC component is to support TB understanding, prevention, screening, treatment adherence and care through an ACSM component titled 'Empowering people and communities'. The component also includes formative research as an activity guiding TGF Round 6 campaign. Incidentally, the Round 2 campaign actually began in January 2008, when TGF Round 6 research, planning and implementation was underway.

In April 2008, NTP and the PR agreed to use the recently-developed TGF Round 2 television commercials and radio spots to meet the prescribed airing indicators of TGF Round 6. Moreover, TGF Round 6 support for the ongoing campaign in April and May 2008 helped generate meaningful public recalls.

The Principal Recipient (MCI) and the sub-recipient (NTP) also agreed to the need for value-added research that considers both qualitative as well

as quantitative indicators to generate the right mix of information needed for different social segments and age groups. Mercy Corps International also revised the budget for year 2 of implementation, and made several other changes in programme activities to secure more meaningful ACSM outcomes.

Performance of NTP as Sub-Recipient under TGF Rounds 2 and 6 ACSM Support

TGF Round 2:

Delivery of TGF Round 2 Contracts: The engagement of media agencies by the Ministry of Health was maximized for timely execution of activities. Institutional strengthening has been furthered through negotiations to deliver extra communication products and services not budgeted in the PSDP and TGF Rounds 2 and 6.

Quality Communication Products, Services and Information: Pakistan has globally been acknowledged as one of the best performing countries vis-à-vis its TGF Round 2 BCC interventions. Many high burden countries are yet to develop ACSM activities while others have just initiated the process.

Achievement of Targets before Project-End Time: The National TB Control Programme has achieved its training and airing targets well ahead of the project-end timeline for TGF Round 2 Objective 3 on BCC.

GFATM Round 6:

NTP's Leadership on ACSM:

The ACSM Unit has played a leadership role in designing, planning and execution of ACSM interventions and has further institutionalized health communications for TB. The vision of eliminating the discrepancies in quality of health communication products, services and information between the public and private sectors has also been realized. The ACSM Unit has further modeled Public-Public and Public-Private Partnerships with several health-related institutions. In view of these achievements, NTP is now recognized as a leader in producing high-quality ACSM products.

Restructuring and Institutionalization of ACSM within NTP:

In order to cater the overall programmatic needs of communications, NTP assigned revised roles and responsibilities to its available human resource for ACSM. The initiative was taken to institutionalize and meet the HR deficiencies of various ACSM projects. A well-functioning ACSM Unit with 24 team members placed at the federal and provincial levels is now in place.

Human resource for the project was recruited on time. The ACSM staff not only functions for TGF Round 6 project, but is also being effectively utilized for accomplishment of PSDP and TGF Round 2 operations.

ACSM Strategic Leadership and Direction for TB Communications - Public and Private Sectors:

The National TB Control Programme organized a national workshop for the public and private sectors to share its National Strategic Communication Framework, which has been designed to meet its future communication needs as well. The workshop further enhanced NTP's image as a leader in ACSM for effective TB communication.

National Strategic/Policy Documentation:

Consultants have been hired for development of National ACSM Strategy and Operational Guidelines; National M&E Framework; Quality Assurance Manual (Trainer and Trainee guides) for Inter-Personal Communication; Social Marketing Plan; ACSM Resource Centre Development Guidelines; and National Logistic and Management Information System.

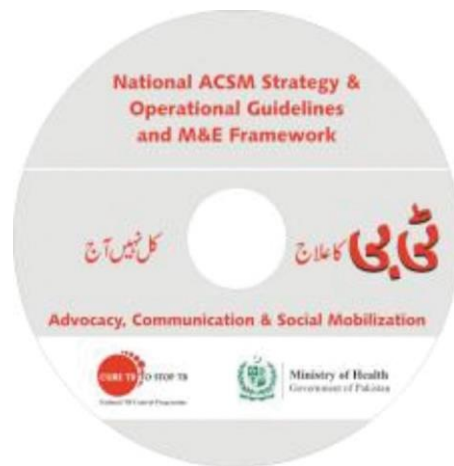
Provision of Technical Assistance to WHO Countries:

It is a matter of pride that the ACSM Unit within NTP is providing technical assistance to regional countries as well. The Unit has recently assisted Egypt in developing ACSM research protocols and instruments, and Morocco in process management and monitoring of ACSM for both public and private sectors. NTP's Technical Advisor provided technical assistance for designing a KAP survey and capacity building activities for both countries. Iraq has also requested similar assistance to gain deeper understanding of ACSM. An Iraqi delegate is set to visit Pakistan on a study tour focusing on NTP's ACSM and PPM interventions.

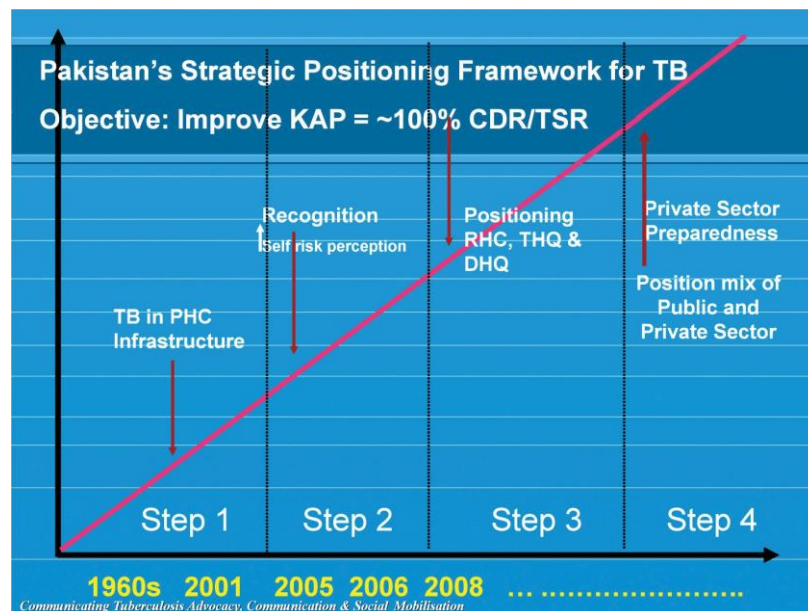


Development of Pakistan's Strategic Positioning Framework for TB

The National TB Control Programme and the ACSM Unit, in consultation with all NTP Unit Heads and private sector partners, spearheaded development of the National Communication and Positioning Framework, which provides long-term national guidance on positioning of public and private sectors



NATIONAL ACSM STRATEGY AND OPERATIONAL GUIDELINES; AND NATIONAL ACSM M&E FRAMEWORK



Pakistan's Strategic Positioning Framework for communicating TB (Tariq, M; et al)

Goal: TB Free Pakistan

A Roadmap to Engage, Inform and Activate
using Identical Messages

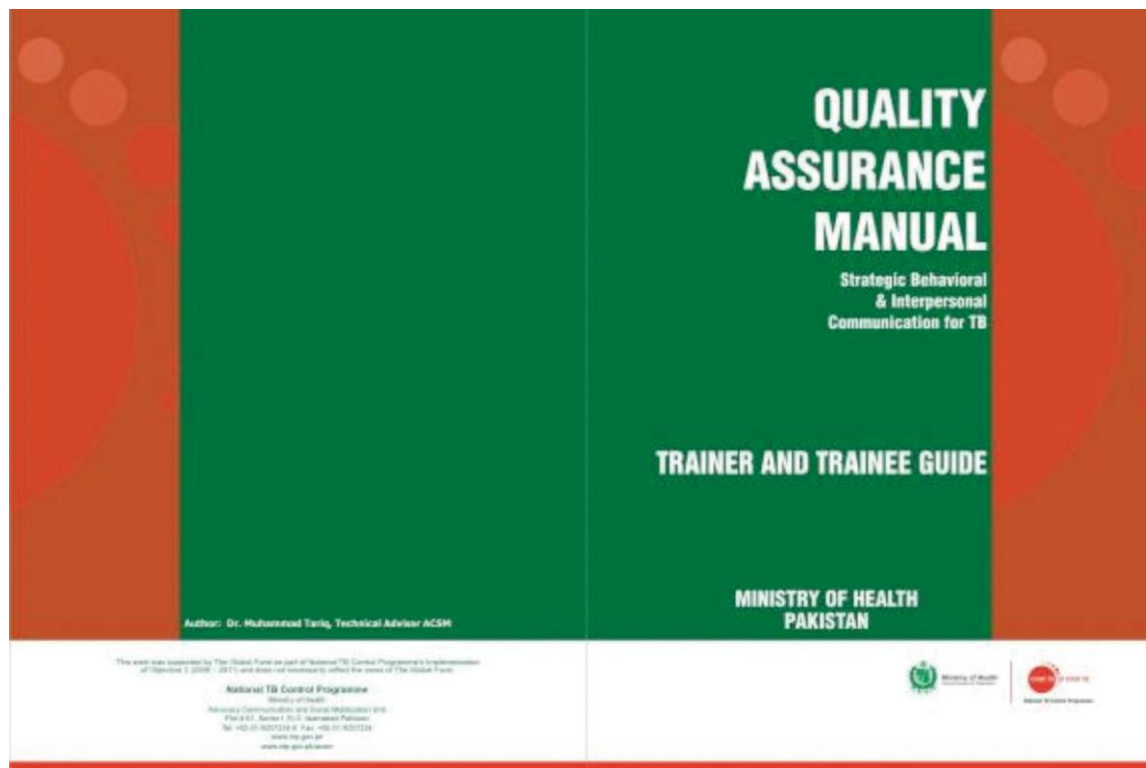
Guiding Principles	Advocacy	Communication	Social Mobilization	Result
Sensitization and involvement of all stakeholders Building integrated Programme communication Mobilizing communities and addressing myths Develop sustainable interventions	Use of Public Relations (PR) and Lobbying initiatives to influence: Parliamentarians, Provincial and Distt. Govts. Govt. Functionaries Media Corporate Sector Religious Leaders NGOs/CSOs School Teachers	Advertising (Press, Radio, TV, Cinema, Outdoor) Publicity through PR with media Promotion through day brandings, city brandings, facility branding, etc Syndicated programming like Dramas and thematic Songs TV/Radio Talk Shows	Activities like: Community Dialogues Seminars Training Workshops Local Theatre Musical Shows Sports Events Floats Brand Ambassadors/ Celebrities Walks Media's Capacity Building Incentive Plans Councilors Students/Youth Groups	More aware masses Supportive and effective stakeholders Responsive communities High detection rate Low MDR TB free future

Branding is Key to get the desired impact of TB communication

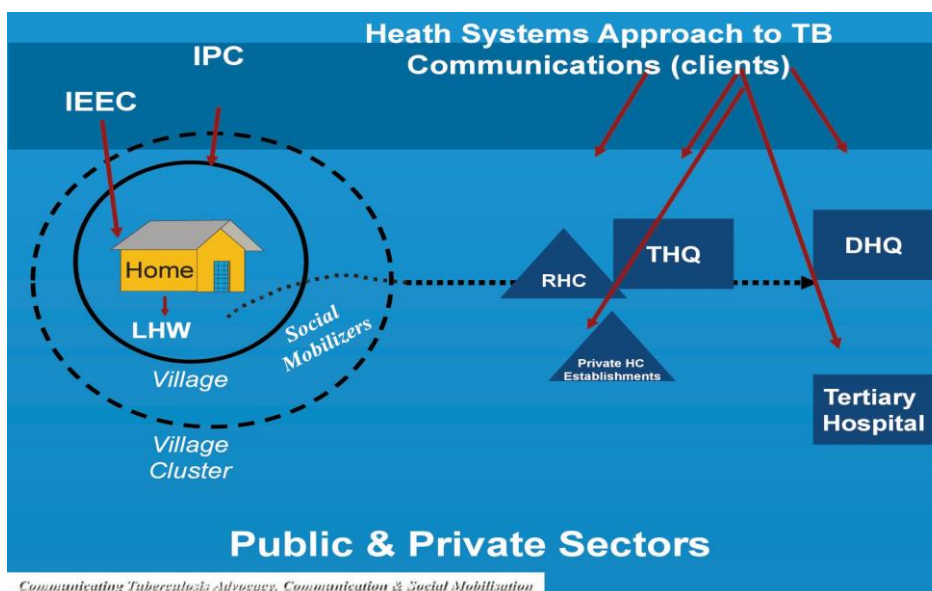
National Logistic and Management Information System

The development of a Logistic Management System was another TGF Round 3 objective on ACSM. However, NTP proposed the development of a Management Information System that could measure output indicators of communication activities at the district, national and provincial levels. Both the ideas were combined, leading to establishment of the National Logistic and Management Information System (NL&MIS) for which inputs from public and private sector partners have been solicited.

The NL&MIS is based on the National ACSM M&E Framework and will help generate progress reports at the district, provincial and national levels. Moreover, it separately reports on contributions made by the two sectors, as well as individual partner organizations.



Quality Assurance Manual – Strategic Behavioral and Interpersonal Communication for TB



Communicating Tuberculosis: Advocacy, Communication & Social Mobilization

Health Systems Approach to Communicating Tuberculosis (Tariq, M; et al)

The screenshot displays the ACSM TB Control program web interface. The top navigation bar includes 'HOME', 'HELP', and 'LOGOUT' links. Below this, there are tabs for 'ORGANIZE', 'LATS', and 'REPORTS'. A left-hand menu lists various system components: SECTORS, INDICATORS, IDENTIFIERS, USERS, PROVIDERS, and DISTRICTS. The main content area shows a table with columns for 'No. #', 'Name', and 'Action'. The table lists 15 sectors with their respective names and action dates. At the bottom of the table, there is a pagination control showing 'Page 1' and '20 Per Page'.

No. #	Name	Action
010-2	Harrison	2008-02-17
020-3	Sidney	2008-10-16
020-4	Solomon	2008-04-21
020-6	Glendon	2008-06-07
030-6	Edwin	2008-10-04
030-7	Mike	2008-03-02
030-8	Kenneth	2008-06-24
040-9	Chris	2008-04-04
040-10	Samuel	2008-07-11
040-11	Oscar	2008-11-16
050-12	Peter	2008-12-12
050-13	Benson	2008-11-16
050-14	Lance	2008-10-21
060-15	Donald	2008-03-06

ACSMTB
TB Control program

HOME HELP LOGOUT

ORGANIZE LATS REPORTS

Menu

SECTORS

Add Sectors
Review Sectors

INDICATORS

IDENTIFIERS

USERS

PROVIDERS

DISTRICTS

ACSMTB

All rights reserved National TB Control Program (ACSM)

National Logistic and Management Information System – Tracking ACSM output indicators

Expanding the Scope of ACSM Research as a Deliverable

The National TB Control Programme proposed expansion in the scope of ACSM research to capture nationally representative data (based on WHO and Social Marketing Guidelines) for segmentation and better positioning of TB messages. The revised year two, phase-I plan also called for a meaningful TB campaign. This feedback provided the impetus for a KAP survey using both qualitative as well as quantitative instruments. The results of the survey would guide targeted communication of TB messages. The chronological sequence of activities taking place with TGF Round 6 support is expected to transform TB communications from an informal to a formal and scientific response.

Direction of TGF Round 6 Television and Radio Campaigns

As indicated earlier, television commercials and radio spots prepared with TGF Round 2 and PSDP financing were utilized to meet the prescribed airing indicators of TGF Round 6 as well.

The National ACSM Strategy supported by TGF Round 6 guides branding of both public (BHU, RHC, THQ, DHQ and Tertiary Care Hospitals) as well as private (Trained General Practitioners on DOTS) sectors using a single brand to minimize duplication and clutter of TB messages. The Strategy also guides the public and private sectors on other activities for advocacy and social mobilization. Furthering the process, NTP recently developed a social marketing plan for its campaign and branding book.

Outsourcing of ACSM to Corporate Sector

NTP has decided to outsource the ACSM component to the corporate sector. In this regard, Request for Proposals (RFP) was advertised for hiring the services of a Media/BCC and a Public Relations firm; both firms are likely to be contracted in early 2009.

One of the deliverables mentioned in the Media/RFP is the branding, design, production and installation of boards on more than 5,000 TB diagnostic and treatments centres in the public and private sectors. This intervention, which is based on the National ACSM Strategy, will prove instrumental in establishing an association between TB services and DOTS centres.

Following complete and appropriate utilization of resources for Fiscal Year 200708-, the National Strategic Framework provides another Rs. 40 million (including a 10% increment from last year) for Fiscal Year 200809-. These resources are expected to further strengthen ACSM for TB control in Pakistan.

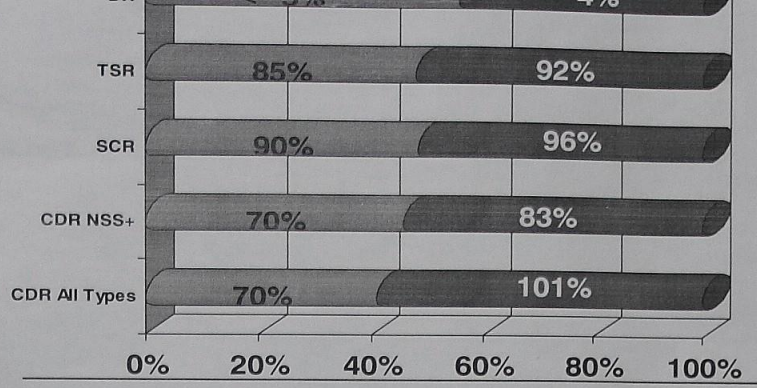
(Further information on NTP's PPM and ACSM Resource Material is accessible on the URL: www.ntp.gov.pk/acsm)



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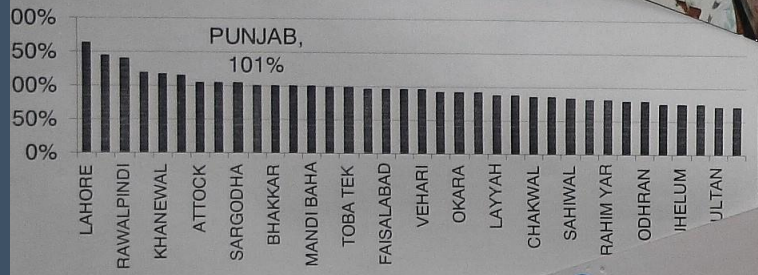
Operational Research

Year	152	0	7	151	51	361
2001	815	0	117	1666	378	2976
2002	1908	84	154	5212	842	8200
2003	4050	120	944	11665	1785	18564
2004	9716	256	893	22035	2781	35681
2005	17030	556	971	36029	5777	60363
2006	30493	845	1373	50116	8814	91641
2007	47926	1408	2036	66545	13758	131673
I & Qtr 2 2008	30132	945	1021	37992	8314	78165
TOTAL	142222	4214	7516	231411	42500	427624



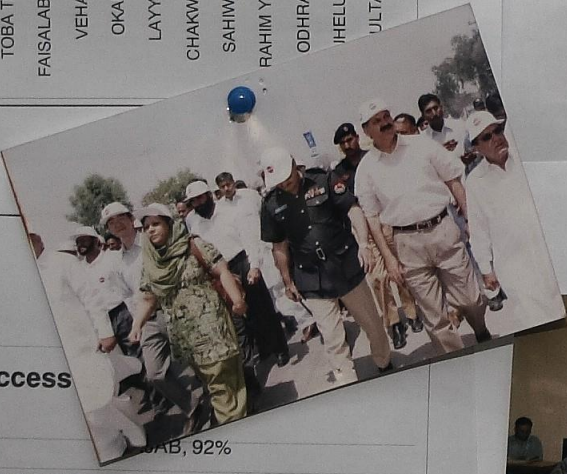
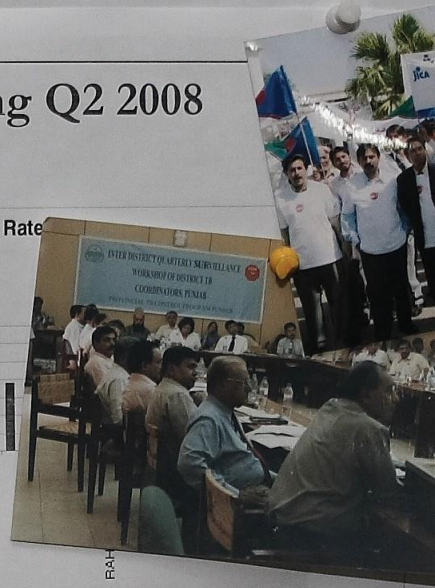
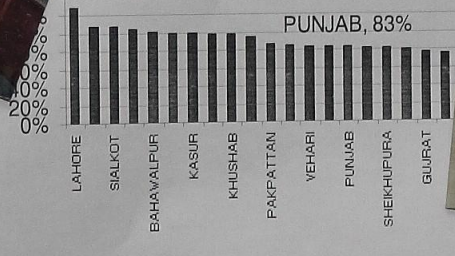
Analysis; Case Finding Q2 2008

Case Detection Rate All Types
Qtr 2 2008

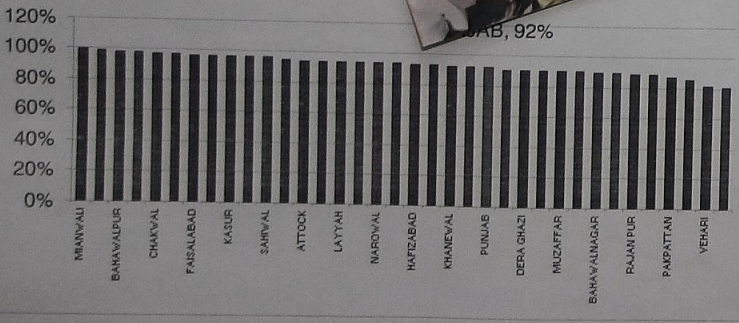


Analysis; Case Finding Q2 2008

Case Detection Rate NSS+



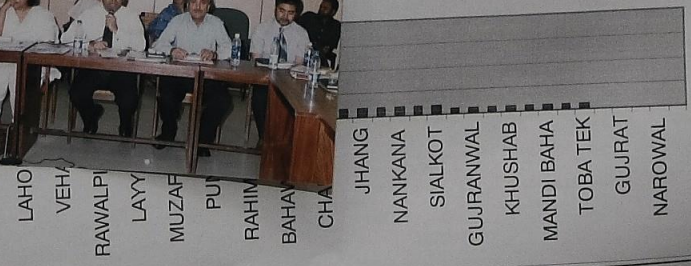
Treatment Success



Analysis; Default Rate Q2 2007



Qtr 2 2007



LODHARAN	79%	70%	96%	91%	1%	5
MANDI BAHA UD DIN	99%	71%	97%	97%	1%	5
MIANWALI	100%	71%	97%	97%	1%	5

Analysis

Operational Research

The expansion and consolidated of DOTS, along with addition of new intervention areas with the help of a continuously expanding partnership network, has unfolded new challenges in its wake, one of them being evidence-generation. All public health programmes generate evidence for decision making and test new initiatives and interventions with scientific rigor. Evidence generation remains incomplete unless feasibilities are put to test and overall programme performance subjected to appropriate monitoring and surveillance.

Operational research is a core component of the National Strategic Plan as well as the Stop TB Strategy. Locally relevant operational research can help in identifying problems, devising workable solutions, field testing interventions, and developing plans to upscale activities.

To improve its research capacity, NTP has established one national and four provincial research groups; developed partnerships with the Pakistan Medical Research Council; established linkages with international academic and research institutions, and conducted a proposal development workshop.

The National TB Control Programme has piloted two new methodologies for indirect estimation of burden of disease. The inventory method describes disease incidence at the district level. The second method, which focuses on strengthening of vital registration, helps to determine cause-specific mortality, which is then used for estimation of incidence.

The Research Unit follows a cyclical model for research, starting with problem identification and culminating with formulation of recommendations that feed into policy making or programme modification.

With assistance provided by WHO Regional Office for the Eastern Mediterranean, 20 research projects have thus far been implemented. These projects supported key activities such as DOTS expansion, default tracing, drug management, EQA, and treatment support. The Research Unit is implementing projects in collaboration with the London School of Hygiene and Tropical Medicines; Nuffield Institute of Research, Leeds; Bergen University, Norway; and Research Institute of Tuberculosis, Japan.

Other key initiatives undertaken by the Research Unit are:

- Initiation of process for impact measurement through a Prevalence Survey to be conducted in Pakistan in 2010. Protocols of the survey have been finalized with support from WHO and KNCV.
- Presentation of 15 posters at the annual IUATLD Conferences held in 2006, 2007 and 2008.
- Publication of five articles in JPMA; seven are awaiting publication in international journals; and 10 have been submitted for peer reviews.

Tuberculosis is the second commonest cause of death from infectious diseases in the world killing almost two million people annually. Eight million new TB cases are estimated to occur every year, more than 95% of which are in the developing countries. The global prevalence of the disease is around 1620- million. Furthermore, 80% of the cases occur amongst people in the most economically productive age group of 15-59 years, representing a major economic burden for patients and ultimately countries. Twenty-two countries referred to as High Burden Countries (HBCs) account for 80% of the total TB disease burden in the world.

The Way Forward



The Way Forward

Involving the private and public sector organizations outside the purview of the formal health sector in DOTS expansion is an indisputable necessity. With DOTS in place at all the public facilities, the focus needs to shift towards involvement of private sector healthcare facilities, which is where many TB patients initially report. Non-governmental organizations, social security institutions and other governmental sectors like the army and prisons also need to be involved in the process.

Although NTP has taken the initiative of involving tertiary care hospitals and teaching hospitals throughout the country by virtue of TGF Round 6 support, this needs to be guided by a clear national strategy. The province of Sindh, which achieved DOTS-all-over in November 2003, has made some headway in this direction by integrating TB control as a subject in the curriculum of Dow University of Health Sciences, Karachi.

The progress achieved over the last seven years notwithstanding, NTP needs to proactively pursue its regional and global targets including the MDGs. This would require concerted focus on the following areas:

- Up scaling of PPM initiatives
- Strengthening of the National Laboratory Network and TB culture and DST laboratory network
- Containment of MDR-TB
- Development of partnerships
- Inculcation of health seeking behaviour through intense health education
- Sensitization of rural females to arrest delay in seeking treatment and allied services
- Addressing the stigma associated with TB

Even though NTP has come a long way in terms of infrastructural development, it is still faced with formidable challenges at the national, provincial and district levels. The way forward lies in mobilizing partnerships, bringing communities on board, translating research into practice, and addressing emerging threats such as TB/HIV Co-infection and MDR-TB.





Annex A

Expanding Public-Private Partnership Pakistan's participation in the 39th IUATLD Conference on Lung Health, held in Paris from October 16-20, 2008.

Background:

The 39th International Union Against TB and Lung Diseases (IUATLD) Conference on Lung Health was held at the Palais de Congrès in Paris, France, between October, 16-20.

The Ministry of Health participated in the IUATLD conference with a three-fold objective; one, to flag Pakistan achievements in the domain of TB control; two, to mobilize the international community for an enhanced response to PPM interventions; and three, to conduct a 'Meet Friends of NTP Pakistan' meeting.

The IUATLD Conference is the largest annual gathering of professionals, researchers, policy makers, donors, bilateral and multinational partners and international NGOs working on TB, HIV, and lung health. As such, it offers a unique platform for promotion of linkages on the one hand, and leveraging of ideas and expertise on the other.

Pakistan was invited to the conference by the DOTS Expansion Working Group (DEWG) and WHO. Led by Federal Secretary Health Mr. Suleman Ghani, the Pakistani delegation included the National Programme Manager of NTP Dr. Noor Ahmad Baloch, Director General Health Punjab Dr. Aslam Chaudhry, Manager of the Sindh PTP Dr. Asmat Ara, Research Coordinator NTP Dr. Ejaz Qadeer, and Technical Advisor ACSM, Dr. Muhammad Tariq. The meeting was also attended by representatives of PTPs, and of organizations working on TB control in Pakistan.

Mr. Suleman Ghani attended the opening ceremony of the conference on October 16 as well as a session on health systems strengthening. He apprised the participants of the investments made and progress achieved in introduction of health sector reforms in Pakistan, and articulated the country's vision for improved access to quality healthcare.

NTP stall:

The National TB Control Programme set up a stall at the IUATLD Conference to promote and disseminate some of its key publications such as the

International Advocacy Kit, PPM Situation Assessment, National ACSM Strategy and M&E Guidelines. Collar pins, a promotional item prepared by NTP, was distributed among participants of the conference.

NTP Poster Presentation:

The NTP delegate made the following poster presentations at the conference:

1. Experience of Franchising DOTS Services in three Metropolitan Cities of Pakistan:
2. Qadeer E, Ahmad N, Tariq M, Baddar D, Ghaffor A, Khan M
3. Who makes the best treatment supporter for tuberculosis: outcomes from implementation of DOTS in Pakistan: Ahmad N, Qadeer E, Walley J, Shah K, Khan A, Tariq M
4. Online Electronic R&R System for Surveillance of Laboratory and EQA Data of TB Control Programme in Pakistan (www.ntp.gov.pk/nrl/login.php): Chughtai A.A., Tahseen S., Baloch N.A., Qadeer E., Sheikh U., Tahir. Z, Tariq. M

Meet Friends of NTP Pakistan:

On the sidelines of the conference, NTP hosted the 'Meet The Friends of NTP Pakistan' meeting, which was chaired by Secretary Health Mr. Suleman Ghani and attended by The Union, WHO, GFATM, USAID, DFID, WHO, JICA, GLRA, GTZ, COMDIS, Population Services International, Stop TB Partnership member states, scientists, researchers and media representatives.

(Refer to Annex B for list of participants).

Addressing the meeting, Mr. Ghani advocated in favour of meaningful public-private partnerships and strengthening of the health system. He termed such public-private partnerships as the only way forward to ensure provision of sustainable TB services across Pakistan. The Secretary Health acknowledged the support of international organizations and presented shields to friends of NTP Pakistan.

Earlier, the meeting started with welcome remarks and a presentation by Dr. Noor Ahmad Baloch, who provided a comprehensive overview of NTP's efforts for improving the quality of life of people living with TB. Components like DOTS expansion, PPP, ACSM, TB/HIV Co-infection, MDR-TB and Childhood TB were specifically highlighted. He informed the gathering that



since 2001, more than 800,000 TB patients have availed free diagnostic and treatment services from the 5,000 TB centres established across the country.

Pakistan's achievements in TB control were acknowledged by the world TB community including WHO and The Union.

Interaction with Partners:

The IUATLD Conference provided an opportunity for interaction with representatives of numerous international stakeholders. The Federal Secretary Health, Mr. Suleman Ghani, met the Executive Director of The Union Dr. Neils Billo, Professor Emeritus Dr. Don Enarson, Special Advisor to WHO Dr. Zuhair Halaj, Regional Advisor, WHO Dr. Akihiro Seita, a delegation of The Netherlands TB Foundation (KNCV) led by Mr. Peter Gondrie, and representatives of COMDIS and TB-CAP. The meetings featured discussions on matters of mutual interest.

Meeting with The Union:

On October 17, 2008, Federal Secretary Health Mr. Suleman Ghani had a pre-scheduled meeting with Executive Director of The Union Mr. Nils Billo. Mr. Ghani apprised Mr. Billo of Pakistan's accelerated community mobilization initiatives aimed at motivating clients to seek prompt diagnosis and treatment of TB.

Mr. Ghani shared details of the innovative models being developed in Pakistan to maximize the outreach of local community leaders for advocacy and sensitization. He also informed him of the measures being taken to prioritize childhood TB and strengthening of the laboratory network.

Mr. Billo assured that The Union would extend all possible assistance to Pakistan for development of human resource capacity in components such as laboratory strengthening, community participation and MDR and childhood TB. The Union appreciated NTP for having achieved WHO targets over a short span of time.

The NTP is following-up with The Union for development of a course module that will prepare a critical mass of master trainers.

Meeting with KNCV:

The Federal Secretary Health Mr. Suleman Ghani met a delegation of KNCV headed by Mr. Peter Gondrie. The meeting featured a discussion



on the mechanism and operational modalities of the USAID grant of \$3.9 million dollar available from September 2008. KNCV, a Dutch organization working on TB for the last 100 years, provides technical assistance to more than 20 countries.

The meeting agreed that cooperation to NTP would be extended through TB-CAP, a multilateral mechanism supporting the programme in Pakistan. The KNCV presented its plan for Pakistan and appreciated the efforts being made by the Government of Pakistan.

Meeting with COMDIS:

On October 18, 2008, NTP convened a meeting with the COMDIS representative based in Leads University. The following decisions were taken for improved coordination between NTP and COMDIS:

- A core group comprising representatives of NTP, ASD and the private sector will be established to oversee all development proposals for Pakistan.
- Proposals for possible support from COMDIS will be designed in view of national requirements for ACSM through a consultative process.

Both NTP and COMDIS agreed to follow-up on the decisions taken at the Paris Conference.

Meeting on Prevalence Survey:

The delegation from Pakistan also convened a meeting to prepare a preliminary plan for conducting the TB Prevalence Survey planned for 200910-. The following decisions were taken:

- The first draft of protocols will be finalized by December 2008;
- NTP will coordinate with AKUH for ethical clearance of protocols;
- A detailed workplan and TORs will be prepared in a joint meeting with the participation of WHO, KNCV and NTP;
- Specifications for X-rays and other equipment will be prepared by JATA;
- The AKUH Laboratory will provided technical support for DST;
- The National Programme Research Unit will lead the process of implementation of the project, with the NPM as the principal investigator.

Annex B

List of Participants of the 'Meet Friends of NTP Pakistan' Meeting

1.	Dr. Akihiro Seita	Regional Advisor, WHO
2.	Dr. Amal Basiri	WHO Focal Person, TDR
3.	Dr. Amman Ansari	National Programme Officer, PTP, Sindh
4.	Dr. Aslam Chaudhry	DG Health, Punjab
5.	Dr. Asmat Ara	PTP Manager, Sindh
6.	Dr. Clydette Powel	Medical Officer, USAID, Washington
7.	Dr. Don Enarson	Professor Emeritus, Former Secretary, STOP TB
8.	Mr. David Hain	General Manager, Hain Life Sciences
9.	Dr. Ejaz Qadeer	Research Coordinator, NTP
10.	Dr. Faizullah Kakar	Deputy Minister, Special Projects, Afghanistan
11.	Dr. Iqtidaar Hussian	Consultant, Karachi
12.	Professor John Walley	Co-Director, Communicable Disease Research Programme
13.	Dr. Karam Shah	Deputy Country Representative, Afghanistan Partnership
14.	Ms. Katja Lumelova	Project Officer, KNCV
15.	Dr. Khalid Sultan	Global Drug Facility
16.	Dr. Mario Raviglione	Secretary, Stop TB Partnership
17.	Mr. Masood Anwar	Press Counselor, Embassy of Pakistan, Paris
18.	Ms. Megan Elliot	Population Services International
19.	Dr. Mikio Tsukamoto	Country Advisor, JICA
20.	Dr. M. Amir Khan	Chairman, ASD
21.	Dr. Muhammad Tariq	Technical Advisor, ACSM, NTP
22.	Mr. Mukund Uplekar	PPM Focal Person, WHO, Geneva
23.	Dr. Nils Billo	Executive Director, The Union
24.	Mr. Patrick Chiu	Business Director, Diagnostic Systems, Asia
25.	Mr. Paul M Kelly	Associate Professor and Director, The Australian National University
26.	Mr. Peter Gonderie	Executive Director, The Netherlands TB Foundation, KNCV
27.	Mr. Peter J Graaff	Head of Mission, Representative, Afghanistan
28.	Dr. Rumina Hasan	Aga Khan University
29.	Ms. Stefanie Laniel	Communications Officer, Bloomberg Global Initiative to Reduce Tobacco Use
30.	Mr. Suleman Siddiqui	Scientist
31.	Ms. Suraiya Ahmed Butt	Commercial Counselor, Embassy of Pakistan, Paris
32.	Dr. Thomas Chiang	German Leprosy Relief Association
33.	Dr. Uwe Wendel	GTZ
34.	Mr. Victor Laura	Population Services International
35.	Mr. Wasiq Khan	World Health Organization
36.	Dr. Zarfishan Tahir	Provincial Reference Laboratory, PTP, Punjab
37.	Dr. Zuhair Halaj	Special Advisor to Regional Director, WHO, EMRO

Press Clippings

The Statesman

Friday, October 24, 2008

Efforts to MDGs on T

Statesman Report

PESHAWAR: Pakistan's efforts to achieve Millennium Development Goals on Tuberculosis (TB) were widely appreciated in the 39th IUATLD (International Union Against Tuberculosis and Lung Diseases) conference held in Islamabad recently.

Director General Health Punjab, Sindh Provincial TB Control Programme Manager, Research and Advocacy, Communication & Social Mobilisation Technical Advisors attended the conference.

Ghani attended the opening ceremony on 16th October and also a session on health system strengthening.

He apprised that Pakistan is

BUSINESS RECORDER ISLAMABAD FRIDAY 24 OCTOBER 2008

Pakistan's efforts to control TB appreciated

RECORDER REPORT

ISLAMABAD: Pakistan's efforts to achieve Millennium Development Goals (MDGs) set to control tuberculosis (TB) were widely appreciated in the 39th IUATLD (International Union Against Tuberculosis and Lung Diseases) conference in Paris, says a press release issued here on Thursday.

The objective of Pakistan's participation was to highlight the achievements for TB control. The conference was the largest annual gathering of professionals, researchers, policymakers, donors and different international NGOs working on TB, HIV and lung health.

Speaking on the occasion, Secretary Health, Soleman Ghani apprised the participants that Pakistan is committed to improve access to quality healthcare and held meeting with UN officials expressing Pakistan's full commitment for making National TB Control Programme, a success.

Ghani also met the delegate of KNCV headed by Peter Mortzger and discussed the mechanism and operational modalities of USAID grant of 3.9 million dollars from September 2008. KNCV is a Dutch organisation working on TB since last 100 years and provides techni-

cal assistance to more than 20 countries.

The cooperation to the TB Control Programme will be extended through the TB-CAP, a multilateral mechanism to support TB control programme in Pakistan.

National TB control programme hosted a meeting called "Meet the Friends of NTP Pakistan" which was chaired by secretary health and attended by International Union, WHO, GFATM, USAID, DFID, WHO, Jica, Stop TB Partnership member states, scientists, researchers and media representatives.

The programme supporting more than 5,000 TB diagnostic and treatment centres provided treatment to more than 800,000 patients since 2001.

A delegation led by Secretary Health Pakistan, Soleman Ghani comprising of Dr Noor Ahmad Baloch (National Manager, TB Control Programme), Director General Health Punjab, Sindh Provincial TB Control Programme Manager, Research and Advocacy, Communication & Social Mobilisation Technical Advisors participated in the conference. Secretary health acknowledged the support of international organisations and presented shields to friends of Pakistan.

The News International

Efforts to achieve MDGs on tuberculosis

Muhammad Qasim Islamabad

Pakistan's efforts to achieve the Millennium Development Goals on tuberculosis were widely appreciated at the 39th International Union Against Tuberculosis & Lung Diseases (IUATLD) Conference held in Paris recently.

A spokesman of National TB Control Programme claimed this while talking to 'The News' here Thursday, adding that a delegation led by Secretary Health Pakistan Soleman Ghani and comprising National Manager TB Control Programme Dr Noor Ahmad Baloch and other officials participated in the conference.

The spokesman said the objective of the visit was to participate and highlight Pakistan's achievements in TB control, as the Conference is the largest annual gathering of professionals, researchers, policy makers, donors, and representatives of different international NGOs working on TB/HIV/Lung Health.

Giving a briefing on the activities of the delegation, the

spokesman said that Federal Secretary Health Soleman Ghani attended the opening ceremony of the 39th conference on October 16 as well as a session on Health System Strengthening, where he informed the participants about the progress in Pakistan and Initiative of Health Sector reforms and plan, and the investment of Government of Pakistan. He apprised that Pakistan is committed to improve the access to quality healthcare in the form of both political and financial commitments and there was no room for complacency.

The Federal health secretary also met Executive Director IUATLD Dr Neil Hillis, Professor Emeritus Dr Don Enarson, Special Advisor to WHO Dr Zahair Hlag, and Regional Advisor WHO Eastern Mediterranean Regional Office (EMRO) Dr Achihiro Seita, and expressed Pakistan's full commitment along with discussing different areas of mutual interest for Pakistan's National TB Control Programme. Dr Neil Hillis assured that the Union would extend all possible assistance for developing human capacity in laboratory, com-

TB lauded

also met Dr Neil Billo, Executive Director, UNION, Dr. Don Enarson, Professor Emeritus, Dr Zuhair Halaj, Special Advisor to WHO and Dr. Akihiro Seita, Regional Advisor, WHO/EMRO and expressed full commitment and discussed different areas of mutual interest for the National TB Control Programme.

Ghani also met the delegate of KNCV headed by Peter

Pak efforts to achieve MDGs on TB appreciated

SHR JAHFERY

ISLAMABAD—Pakistan's efforts to achieve Millennium Development Goals on Tuberculosis were highly appreciated in the 39th World Tuberculosis and Lung Disease Conference held in Paris.

A delegation led by the Secretary Health Pakistan, Suleman Baloch (National Manager, TB Control Programme), Director Health Punjab, Sind Province TB Control Programme, Research and Advocacy, Communication & Social Mobilisation Technical Advisors. The objective of the visit was to participate and highlight Pakistan's achievements in TB control.

The conference is the largest gathering of Professionals, Ministers, policy makers, donor and multinational donors and International NGO TB/HIV/LUNG Health. The visit included the Opening Ceremony on 6th October and also a Health System Strengthening workshop for the participants in Pakistan and Initial Sector reforms and investment of government.

It was noted that Pakistan is

committed to improve access to quality of health care in the form of both political and financial commitments and there was no space for complacency. Pakistan's Federal Secretary Health also met Dr Neil Billo, Executive Director, UNION, Dr. Don Enarson, Professor Emeritus, Dr. Zuhair Halaj, Special Advisor to WHO and Dr. Akihiro Seita, Regional Advisor, WHO/EMRO and expressed the full commitment of Pakistan and discussed different areas of mutual interest for the National TB Control Programme, Pakistan. Dr. Neil Billo assured that Union will extend all possible assistance for developing human capacity in the Laboratory, Community Participation and Multi drug resistance and childhood TB. The International Union appreciated achievements of TB Control Program by achieving Targets set by WHO in a short time. He also met the delegate of KNCV headed by Peter Mortzger and discussed the mechanism and operational modalities of USAID grant of 3.9 Million dollar from September 2008. KNCV is a Dutch organization working on TB since last 100 years and provides technical assistance to more than 20 countries globally. The Cooperation to the TB Control Programme will be extended through the TB-CAP, a multilateral mechanism to support TB Control Program in Pakistan. The KNCV

presented their Plan to work in Pakistan and appreciated the efforts made by the Government of Pakistan. Secretary welcomed the KNCV and assured assistance and providing office at NTP office. National TB Control Program hosted a meeting called "Meet the Friends of NTP Pakistan". The meeting was chaired by Secretary Health and was attended by International Union, WHO, GFATM, USAID, DFID, WHO, JICA, Stop TB Partnership member states, scientists, researchers and media representatives. The meeting was started with the presentation of the National Manager, Dr. Noor Ahmad Baloch that provided a comprehensive overview of Programme's concerted efforts for improving the quality of life of the people living with TB.

Components like DOTS expansion, Public Private Partnership, Advocacy, Communication and Social Mobilization, TB/HIV Co-infection, Multi Drug Resistance TB, Childhood TB. The programme supporting more than 5,000 TB diagnostic and treatment centers provided treatment to more than 800,000 patients since 2001. The achievements of Pakistan in TB was acknowledged by the World TB community including WHO and Union, however, there was no room for complacency said, the Secretary Health, Pakistan.

Achieve MDGs on TB is appreciated

community participation, and multi drug resistance and childhood TB.

Ghani also met the KNCV delegation, headed by Peter Mortzger and discussed the mechanism and operational modalities of a \$3.9 million USAID grant from September 2008. KNCV is a Dutch organization working on TB since the last 100 years that provides technical assistance to more than 20 countries globally. Cooperation to the TB Control Programme will be extended through TB-CAP, a multilateral mechanism to support the Programme in Pakistan. KNCV presented its plan to work in Pakistan and appreciated the efforts made by the Pakistani government.

According to the spokesman, National TB Control Programme also hosted a meeting called 'Meet The Friends of NTP Pakistan', chaired by the health secretary, that was attended by scientists and researchers of IUATLD, WHO, GFATM, USAID, DFID, WHO, JICA, Stop TB Partnership member states and media representatives. In the meeting, National Manager TB Control Dr Noor Ahmad Baloch gave a presentation on compre-

hensive overview of the Programme's concerted efforts for improving the quality of life of people living with TB. He informed the participants about the Programme components such as DOTS expansion, Public Private Partnership, Advocacy, Communication and Social Mobilisation, TB/HIV Co-infection, Multi Drug Resistance TB, and Childhood TB. The Programme has been supporting more than 5,000 TB diagnostic and treatment centres and providing treatment to more than 800,000 patients since 2001.

The health secretary said that the World TB community (including WHO and IUATLD), acknowledged Pakistan's achievements in TB, adding that 25 per cent of Pakistani people visit public health facilities, however, the remaining need to be tapped through a meaningful public private partnership and strengthening health systems. Such partnership is the only answer to a sustainable solution to TB services in Pakistan. The health secretary also acknowledged the support of international organisations.

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