ANNUAL REPORT ON OBSERVANCE AND IMPLEMENTATION OF PRINCIPLES OF 
POLICY (2011-2012) NATIONAL TB CONTROL PROGRAM.

The overall objective of National TB Control Program (NTP) is to reduce mortality, morbidity and
disease transmission so that TB is no longer a public health problem. The National targets are in
line with the millennium development goals (MDGs) i.e. to cure 85% of detected new cases of
sputum smear positive pulmonary TB and to detect 70% of estimated cases once 85% cure rate
is achieved. High government Commitment coupled with strong technical leadership in the
program resulted in clear vision, which was translated into multi-year strategic plan (2001 –
2005) to achieve 100% DOTS coverage by year 2005. The strategic plan was revised for the
period from 2005 to 2010 and then for 2010 - 2015.

A steady progress has been made during year 2011-12 to improve the case detection and
treatment success rate by emphasizing on quality assurance of smear microscopy, drug
management, community mobilization, involving tertiary care hospitals, NGOs, and inter-sectoral
organizations and above all involving private sector for service delivery. Number of TB cases
diagnosed was increased from 269290 to 270404 in 2011.

Major Initiatives / Reforms Undertaken 2011-12:

MDR-TB:
- Total 581 Drug Resistant TB patients were enrolled by 31st December 2011
- Scaling up of MDR-TB intervention is underway through Round 9 Global Fund grant
  enabling 30 hospitals to manage 12,000 patients approximately over the grant period of 5
  years. (1150 patients are to be enrolled in Phase 1 through 10 hospitals)
- A total of 13 Labs, three have been upgraded and plan for upgradation of remaining 10
  labs at Bio-safety Level 2 & 3 has been developed to perform TB Culture and Drug
  Susceptibility Testing
- AKU Lab has been engaged to provide support for Culture and DST services as interim
  arrangement
- Ten hospitals have been assessed for infection control and plan has been developed for
  up-gradation of OPDs and Wards to institute the infection control measures to reduce the
  risk of transmission
- Mechanism for Social Support has been developed and implemented to ensure treatment
  adherence and increase treatment success
- Agreement has been signed with GDF/IDA for the procurement of GLC approved Second
  Line Drugs (SLDs)

Advocacy, Communication and Social Mobilization:
- Development of National ACSM strategy
- Upgrading the ACSM Webpage
- Development of Patient Empowerment Strategy
- Circulation of Quarterly News Letter
- Printing of Reports (World TB Day Reports, Annual Reports, etc)
- Development of IPC Manuals for Health care & Service Providers
- Development of National Media Strategy
Monitoring, Supervision & Evaluation:
- Development of National M&E Framework

TB Drug Management:
- Development of Dispensing Guidelines for First-line and Second-line anti-TB drugs
- Development of Dispensing Manuals for First-line and Second-line anti-TB drugs
- Development Quality Assurance Plan for drug management
- Development of drugs distribution plan and PSM Plan
- Refurbishment of 141 district ATT drug stores

Developmental Work:
- Development of National TB Guidelines, Training Modules for Doctors & Paramedics
- Development of curricula for under graduate medical and nursing/paramedics students

Joint Coordinating Board and National Technical Working Groups:
- Constituted for TB/HIV & MDR- TB under Federal Ministry

Management of TB/HIV co-infection:
- Development of guidelines and manuals for the screening and management of TB/HIV co-infected patients in consultation with Technical Working Group.
- 16 sentinel sites are strengthened, through collaborative efforts of TB & AIDS control programs and non-government partners for screening, care and support of TB/HIV co-infected patients.

Public-Private Mix (PPM):
- Involvement of 1800 GPs clinics in private sector in 60 districts.
- 16% TB cases in national data were contributed through the PPM in 2011-12

Childhood and difficult to diagnose TB case management:
- In 30 DHQ hospitals and 27 tertiary care hospitals. Program is providing free pediatric drugs and Purified Protein Derivative (PPD).

Research:
- NTP has a functional research unit which has linkages with national and international organizations. Many researches have been published and some are currently undergoing.

Disease Prevalence Survey:
- NTP has conducted a large country-wide TB Prevalence survey from 2010 to 2011 to estimate the exact burden of TB in the country.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Targets (2011)</th>
<th>Achievements (2011)</th>
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<tbody>
<tr>
<td>Number of New Smear Positive TB patients reported to the National Health Authority</td>
<td>112,111</td>
<td>105,748</td>
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### Outcomes

<table>
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<tr>
<th>Outcome</th>
<th>Result 2011</th>
<th>Result 2012</th>
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<tbody>
<tr>
<td>Number of New Smear Positive TB cases successfully treated</td>
<td>94,863</td>
<td>94,825</td>
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<td>Number of Microscopy Centers supported for QA diagnosis.</td>
<td>782</td>
<td>742</td>
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<td>Number of labs performing culture and DST</td>
<td>6</td>
<td>3</td>
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<tr>
<td>Number of Laboratory staff trained in diagnosis of TB</td>
<td>1,745</td>
<td>1,632</td>
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<td>No. &amp; % of new TB cases (all forms) that are difficult to diagnose, detected at secondary and TCH according to developed guidelines</td>
<td>10,448</td>
<td>20,958</td>
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<tr>
<td>Number of Childhood TB cases detected at secondary and TCH according to developed guidelines</td>
<td>8,098</td>
<td>10,902</td>
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<tr>
<td>Number of registered TB patients receiving testing and counseling for HIV (after giving consent)</td>
<td>29,376</td>
<td>30,310</td>
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<td>Number and % of PLWHA receiving HIV testing and counseling or HIV treatment and care services who were screened for TB symptoms expressed as a proportion of all PLWHA attending HIV testing and counseling or HIV treatment and care services</td>
<td>501</td>
<td>636</td>
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<td>Number of Laboratory confirmed Drug Resistant TB patients enrolled for 2nd line Anti-TB treatment</td>
<td>455</td>
<td>333</td>
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<tr>
<td>Number of hospitals managing Drug Resistant TB cases</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Percentage of DR-TB patients on treatment receiving social support</td>
<td>100%</td>
<td>82%</td>
</tr>
<tr>
<td>No. of doctors &amp; Health Managers trained in management of TB</td>
<td>7,504</td>
<td>6,794</td>
</tr>
<tr>
<td>Number of Paramedics from diagnostic and treatment centers trained in patient referral</td>
<td>10,410</td>
<td>9,310</td>
</tr>
<tr>
<td>Number of percentage of diagnostic reporting centers submitting timely reports on quarterly basis according to national guidelines.</td>
<td>1196</td>
<td>1,220</td>
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### Outlook for 2012-13:

The [Global Stop TB Strategy](#), to achieve the program targets, continues to emphasize the basic components of the DOTS strategy while addressing additional constraints and challenges to TB control. The main goal of the Global Stop TB Strategy is to reduce dramatically the burden of TB by 2015 and make progress towards eliminating TB. The [Stop TB Strategy Pakistan](#) has the following six principal components.

1. Pursuing high-quality DOTS expansion and enhancement
2. Engaging all care providers
3. Addressing TB/HIV, MDR-TB, XDR-TB and other challenges
4. Empowering people with TB, and communities
5. Enabling and promoting research
6. Contributing to health system strengthening

**Major achievements underway during are:**

- Reduce, by 50 percent, the prevalence and the mortality due to tuberculosis (in relation to 1990).
- 100 percent DOTS coverage in the country
- Sustain and exceed 70 percent case detection of the estimated incident smear-positive TB cases
- Treat successfully, at least 85 percent of the registered new smear-positive TB patients
- Enhance the capacity of public and private sectors to detect and manage 80% of the estimated smear positive MDR-TB incident cases
- Strengthening of surveillance – Piloting of electronic reporting system (WEB-TBS) in 10 selected districts of Pakistan.
- Scaling up MDR TB Management
- PPM strengthening of 500 GP clinics in 60 districts, and engaging 25-50 private Labs and General Practitioners (GPs) in each districts of country
  - Installation of GeneXpert in 10 tertiary care hospitals
  - Strengthening Culture and DST services in each district.
  - Developing capacity of local manufactures to make quality assured WHO Certified First Line and Second Line drugs.
  - Initiating a Lab accreditation plan for Smear microscopy and Culture and DST Labs.
  - Establishing National Institute of Chest Diseases and Research Institute of Tuberculosis.
- Community awareness.
NEW PC-1 (2012-2015), Estimated Cost Rs. 350.544 million

In a meeting of High Powered Committee and Planning Division, it was decided that each Program should prepare a new PC-1 based on federal component with rationalized activities / strength. In compliance, the Program has submitted a new PC-1 on 25th June, 2012 to Secretary IPC for vetting and onward submission to the competent forum for approval. The proposed PC-1 with an estimated cost of Rs. 350.544 million would enable the Program to provide technical and material resources to the provinces for successful implementation disease control strategies and disease surveillance. The project will achieve to enhance the contribution of non-government partners such as Global Fund and will enable the National TB Control Program to effectively play their role in providing quality services to 21,000 TB patients per year (21,000 x 03 = 63,000), by providing 5% drugs of the total country requirement. The following areas will be addressed through new PC1.

- A. National Reference Laboratory (NRL)
- B. Project Management Unit (PMU)
- C. Trainings
- D. ATT Drugs Management
- E. Behaviour Chang Communication

A  National Reference Laboratory:

The laboratory plays a critical role in diagnosis and management of tuberculosis (TB) to the extent that strength of the laboratory network is often a direct reflection of the success of TB control programs.

- Scope of work of TB laboratory Network:
  High-quality sputum smear microscopy is the cornerstone of DOTS and remains the highest priority for case detection and TB control. At the same time it is important to implement quality assured culture and DST services to improve diagnosis of TB in smear negative, childhood and extra-pulmonary TB and ensure early diagnosis of drug resistant TB and monitor treatment in patients on DR treatment. Estimation of TB disease burden through prevalence survey and TB Drug resistance surveillance to monitor effectiveness of TB program and TB drug regimen are also important functions of laboratory functioning at national level.

- TB laboratory network and National TB reference laboratory Pakistan
  The laboratory network (LNW) for TB control program Pakistan is arranged at four tiers and is comprised of one National Reference Laboratory, 4 Provincial Reference Laboratories, 112 district laboratories and >1200 peripheral laboratories.

B  Project Management Unit (PMU)

The Project Management Unit will play its role to provide Technical and material resources to the provinces, enhance the capacity of technical and managerial staff including trainers, implement DOTS in secondary and Tertiary Care Hospitals, strengthening the functioning of National Reference Laboratory through provision of Laboratory supplies.

C  Trainings

The aim is to ensure that a critical mass of staff is knowledgeable and skilled for development, management and delivery of TB care. To achieve
this, the NTP has already developed context-sensitive guidelines and training materials. These TB materials include: planning/Implementation guidelines for managers; case management guidelines for care providers; and training modules for supervisors, doctors, paramedics, laboratory technicians and community level health workers. The regular TB training of care providers will be arranged through NTP (PMU) supplemented by partners’ inputs. The program will build the training capacity by supplementing the training materials and training the trainers.

D ATT Drugs Management
The aim is to ensure uninterrupted availability and use of quality anti-TB drugs for all registered TB patients in the annual requirement of anti-TB drugs has been increasing with the expansion of DOTS coverage. In last few years, NTP has been supplementing the provincial drug supplies (mainly through donor sources) to avoid potential shortfalls/interruptions and encourage standardization of drugs used in the program.

During the next three years, NTP will cater for 5% of national requirements of ATT drugs for contingency purposes to meet the situations as follows;

- Refugees and internally displaced persons (IDPs)
- Natural disasters victims - earthquake, floods and cross borders migrants.
- Conflict victims
  NTP will continue supplementing the drug supplies for the districts. The proposed supplement of anti-TB drugs will assist the Program to ensure uninterrupted availability of quality drugs, by addressing the expected shortfalls/delays of drug supplies in the districts.

E Behaviour Chang Communication
During the next three years 09 television and 30 radio spots will be produced. Total 150 TV and 450 radio commercial spots of 30 seconds each will be aired during the project life for repetitive and persistent messages. BCC activities will be evaluated at the end of the Project to determine the impact of strategy.