SA Military Health Services	Prevent spread of infection through implementation of infection control measures in barracks and hospitals
	Ensure early detection of TB and contact tracing
	Appropriate treatment and referral of personnel with TB
	Increase awareness about TB disease
	Reporting of all TB cases
	Provision of care to civilians where SAMHS facilities are more accessible to communities than DOH facilities
Department of Science and Technology	Scientific research and development on new drugs, diagnostics and vaccines
Department of Transport	Awareness programmes – long distance travel
	Development and implementation of Airline travel guidelines
Department of Labour	Workplace health policies to include TB
	Ensuring employers provide a safe working environment in terms of infection control to prevent spread of infection for employees

6.8.4 For Profit Private Medical Sector

To increase access to treatment, care and support for TB patients the private sector health care providers will be engaged. The Department of Health will explore possible areas of collaboration together with the relevant professional and hospital organisations. The role this sector can play is outlined in the table below:

Activities	NDOH	Specialist Physicians	General Practitioners	Laboratories	Pharmacists
Identify TB suspects	X	X	X		X
Microscopy, microscopy and DST	X			X	
Diagnose	X	X	X		
Prescribe treatment	X	X	X		
Supervise treatment	X		X		X
Defaulter tracing	X		X		X
Record keeping	X		X	X	
Case notification Drugs and supplies	X X	X	X	X	
Training	X	X		X	
Surveillance	X			X	
Quality assurance	X			X	
Evaluation Contact tracing	X X	X	X		

The inclusion of TB as part of the minimum benefits for insured TB patients will be discussed with the Board of Health Care Funders.

Key activities

- Develop and pilot models for Public-Private-Mix DOTS (PPM) with the private medical sector
- Document best practise on PPM-DOTS strategies
- Develop guidelines for PPM-DOTS in TB control
- Engage medical professional associations in different aspects of TB control
- Conduct training on PPM-DOTS strategies for private and public sector staff

6.8.5 Correctional Services

Despite the fact that tuberculosis is a curable disease, it remains one of the unavoidable consequences of incarceration. Overcrowded correctional environments remain a major contributory factor in the transmission of communicable diseases. Some of the factors contributing to the spread and inadequate management of tuberculosis include the high turnover of awaiting trial detainees between the courts and Correctional facilities, poor ventilation and light, poor compliance with infection control policies and inadequate nutrition.

For the Department to be able to manage tuberculosis adequately, there must be an understanding of the extent of the disease, what needs to be done and the availability of adequately trained health professionals in order to mitigate the impact of tuberculosis.

Key activities

- The Departments of Health and of Correctional Services need to commit to a joint strategy with directives and monitoring of implementation.
- Ensure provision of adequate resources for the management of tuberculosis.
- Ensure availability of adequately trained and competent health professionals.
- Conduct research to determine the extent of tuberculosis in correctional services
- Conduct a situation analysis in the correctional services on TB control activities
- Develop a comprehensive plan of action for strengthening TB control in correctional services
- Ensure monitoring and evaluation of TB in correctional services
- Conduct joint meetings to review progress with the implementation of the plan at all levels

6.8.6 Mining Sector

The mining sector is responsible for more respiratory illnesses than all other industries with 90% of reported occupational lung diseases arising from mining industry. It has been found that the

TB incidence in miners has been increasing exponentially with HIV every year. In addition the South African Gold Mining Industry probably has the highest incidence of TB in the world (3000-7000/100000 population /year). The key risk factors for TB in the mining industry include duration of employment in dusty environments, age; silicosis and being HIV positive.

The Mining Industry Health Services should implement policies and treatment guidelines that are in line with the S A National TB Control Program; and the Department of Minerals and Energy Guidelines for TB Control in the mining Industry. In addition the industry must

comply with the Occupational Diseases in Mines and Works Act, Mine Health and Safety Act and the Compensation for Occupational Injuries and Diseases Act.
For effective TB Control in the mines the following strategies should be implemented to reduce the burden of disease, health and compensation costs:

- Increasing case detection
- Wide scale use of TB preventive therapy
- HIV prevention
- Silica dust control
- Infection control
- TB and HIV collaboration

Key activities

- Conduct a situation analysis of TB control in the mines
- Develop a comprehensive plan to strengthen the TB programme in the mines
- Develop a memorandum of understanding with the mining industry
- Ensure monitoring and evaluation of TB control in the mines
- Conduct joint meetings to review progress with the implementation of the plan at all levels.
- Ensure notification to relevant authorities, Provincial, ODMWA, COIDA, Rand Mutual Association (RMA)

6.9 Engage people with, and affected by TB

6.9.1 Advocacy, Communication and Social Mobilisation (ACSM)

Critical to the success of any efforts to control TB is the development and the implementation of a comprehensive Advocacy, Communication and Social Mobilization (ACSM) plan to support the national TB programme. The ACSM plan aims not only to ensure that every citizen knows the basic facts about TB but to address current challenges in TB control namely; low case detection, poor treatment adherence, stigma and discrimination associated with TB, lack of awareness by patients and communities and insufficient resources for TB programme activities.

The ACSM plan should include the following components:

- Capacity building at all levels
- Fostering inclusion of TB patients and affected communities
- Ensure accountability at all levels
- Forge partnerships
- Documenting lessons and building on best practises

For effective implementation of the ACSM plan

- The national and provincial departments should develop and implement comprehensive ACSM plans with relevant stakeholders
- National and provincial ACSM committees should be established with clear terms of reference including mobilisation of resources for ACSM; oversight of production of communication materials; support for provinces around ACSM; monitoring and evaluation of all ACSM activities.

- Each province should have a specific focal point person for ACSM, who will be responsible for the development of ACSM provincial implementation plans, implementation of ACSM activities, production of communication materials in local languages, support to districts on social mobilisation and monitoring and evaluation of ACSM activities.

Key activities
- Develop and implement an ACSM workplan for the 2007/8 financial year
- Conduct KAP studies to monitor impact of ACSM activities
- Develop and distribute TB IEC materials targeting patients, family members, communities and people living with HIV and AIDS
- Conduct targeted awareness campaigns in "hotspot" areas
- Conduct training sessions on TB for journalists
- Conduct briefing sessions for political and traditional leaders at all levels
- Develop and implement a communication strategy for implementation at national level
- Conduct Imbizos on TB in communities
- Develop and disseminate advocacy materials for opinion makers, political, traditional and business leaders
- Mobilise business sector, employer organisations, employee organisations government departments and other non-governmental organisations in TB control.
- Conduct training of staff at all levels on ACSM
- Develop and distribute ACSM guidelines
- Conduct quarterly press conferences
- Develop and distribute advocacy IEC materials
- Ensure monitoring and evaluation of ACSM activities
- Conduct educational programmes in schools, churches, workplace to destigmatise TB
- Conduct annual activities to commemorate World TB Day.

6.9.2 Patient's Charter for TB care

The Patient's Charter (Appendix A) outlines the rights and responsibilities of people with tuberculosis (TB) and empowers people with TB, their families and communities through knowledge of the disease. Patients are encouraged to demand quality care and to be treated with dignity and respect. The Charter sets out the ways in which patients, communities, private and public sector health-care providers, and the government can work together as partners in a positive and open relationship to improve standards of TB care.

Key activities
- Develop and disseminate information, education and communication materials on the patient's charter

6.10 Enable and promote research

The TB programme in conjunction with the Research Coordination Unit will determine the TB research priorities annually and this will be shared with the research community in the country. A data base of all research including scientific research, clinical trials, diagnostic tool evaluation and health systems research conducted in the country will be compiled by the Research Unit. This information will be made accessible to all stakeholders through a website still to be established. Health care workers and programme coordinators will be

trained on conducting operational research to empower them to conduct research that may improve service delivery at local level and enable them to share experiences with other districts and provinces. Every two years a national TB conference will be held to create a platform for networking for the research community as well as dissemination of research findings, planned and on going research.

Key activities

- Conduct workshops to identify national TB research priorities annually
- Conduct TB prevalence surveys
- Conduct drug resistance surveys
- Participate in clinical trials on new TB drugs
- Participate in evaluation of new diagnostic tools
- Pilot models for engagement of private medical sector in care for TB patients
- Pilot models for community care of TB patients
- Establish and update a database on all TB research conducted in the country

6.11 Infection control

The provincial Departments of Health are responsible for ensuring that surveillance, prevention, management and control of Tuberculosis is included in the annual report on the health status of the province. The responsibilities of the provincial outbreak response teams should include drug resistant TB.

Health facility managers, in both the private and public sectors are responsible for the appointment of infection control officers. Every health facility should have an infection control plan, which should include TB, and the implementation of this plan should be monitored regularly.

Health care providers must ensure that:

- all TB suspects and contacts are examined and investigated
- any person with confirmed TB is started on treatment and those who may be a risk to the community are hospitalised for treatment
- all confirmed TB patients are notified
- they are familiar with infection control policies and adhere to these policies.

Heads of institutions such as educational institutions, correctional facilities, residential facilities and barracks must ensure adherence to infection control policies. Any person suspected to have TB should be examined and investigated as well treated and isolation if appropriate.

Key activities

- Appointment of infection control officers in all facilities
- Training of infection control officers on infection prevention and control
- Ensure that risk assessments are conducted in all facilities prioritising TB hospitals
- Ensure infection control plans in all laboratories performing culture and DST
- Ensure that all facilities have infection control plans
- Conduct educational and awareness campaigns in communities on cough hygiene and other measures to prevent spread of TB infection in places of congregation, homes, workplaces and in public transport.

- Engage training institutions to develop formal training courses on infection control as well as short courses.
- Ensure structural renovation of old hospitals to improve ventilation
- Development and dissemination of IEC materials on infection control in all relevant languages
- Development of minimum standards for all clinics and hospitals

7 OVERCOMING THE EFFECTS OF POVERTY ON TB

An overarching strategic objective is to prevent people from contracting TB and in those with latent TB to prevent the dormant disease from becoming active. This requires improving the nutritional status of people and improving the general socio-economic conditions in which people live and work, including improved housing. This mission should be undertaken in conjunction with the social sector cluster as a whole. The TB programme should contribute to poverty reduction through:

- Identifying the poor and vulnerable groups, migrant populations, the homeless and isolated ethnic minorities in the country, determine the barriers they face to accessing services and develop interventions to address these.
- Establishing the basis for impact evaluation by setting specific targets for TB control in poor and vulnerable populations, assessing the distribution of TB in the population
- Monitoring of poverty-related inequalities and the impact of pro-poor interventions.

Key activities

- Ensure that TB prevention is part of the agenda of the Social Cluster at provincial and national levels
- Ensure inclusion of socio-economic questions in TB prevalence surveys
- Conduct periodic studies of health seeking behaviour and use of TB services
- Assess the profile of people in the community who benefit from the TB services
- Engage non governmental organisations involved in poverty alleviation and skills development projects to assist TB patients

8 SUPERVISION, REPORTING, MONITORING AND EVALUATION

Effective supervision at all levels is crucial for the successful implementation of the plan and the TB programme. Clear roles and responsibilities of respective staff at each level in relation to supervisory activities should be outlined.

The role of the national level includes supervision of the implementation, monitoring and evaluation of overall performance of the TB programme throughout the country and regular reporting on NTCP performance. Regular supervisory visits will be conducted to poor performing provinces and districts and to provide the necessary technical and policy guidance.

Provinces are responsible for the planning, supervision, monitoring and evaluation of all TB control activities in the province. The provincial staff is expected to make supervisory visits to all districts every month. Provincial TB programme review meetings will be held

quarterly and chaired by the provincial TB manager. Representatives of the other health institutions and stakeholders will be invited to attend these review meetings.

Districts and partners will submit reports to the province quarterly prior to the provincial review meetings. The district TB coordinator is responsible for the submission of these reports signed off by the district manager. The provincial manager will then be responsible for consolidating the quarterly report and submission to the national level signed off by the Head of Health as well as providing feedback to the districts on their quarterly reports within 30 days of the end of the quarter.

District coordinators will in turn conduct supervisory visits to all sub districts once per month per sub district. These visits must include visits to poorly performing facilities (clinics, community health centers, hospitals and laboratories, including private health facilities and correctional facilities that treat TB patients). The coordinator will compile a report on the visit outlining the relevant findings and recommendations for improvement which will be circulated to the district and sub-district management, facility managers.

At sub district level the coordinator and primary health care supervisors are responsible for undertaking supervisory visits to all the peripheral health facilities, laboratories, and NGOs. These visits will be conducted bimonthly with reports compiled and circulated to all people in the team and the management at district and sub district level.

8.1 Prioritization of district, sub-district and facilities to be supervised

The districts, sub-districts and health facilities to be supervised will be based on the following criteria:

- Low proportion of patients receiving directly observed treatment
- Sputum conversion rate for new sputum smear positive patients at 2 months is less than 75%
- Cure rate for new sputum smear positive patients is less than 70%
- High proportion of sputum negative and extra-pulmonary cases
- Low case detection of new sputum smear positive cases
- High default, death or failure rate

8.2 Monitoring

The implementation of the plan and TB programme performance will be monitored on a quarterly basis from reports, which include the case finding, sputum conversion, treatment outcomes and programme management. Other initiatives will include:

- Internal evaluation of the programme, with the aim of:
    - validating the treatment outcomes of the districts for the last reported quarter
    - assessing the programme performance as well as human, financial as well as logistics management
    - making recommendations for improving data quality and reporting
    - making recommendations for improving the performance
- Provincial evaluation of the districts
  The provinces will conduct the reviews in poor performing districts. The aim is to improve the programme performance of the districts, to identify strengths,

weaknesses, and barriers to service delivery, challenges and make recommendations for improvement. This will also conducted in best performing districts mainly to validate the correctness and quality of data and document good practice for sharing with other districts.

8.3 National Review of the implementation of the plan

A national review of the implementation of this plan and programme performance of the provinces will be conducted annually. This review will identify national level problems and make recommendations for remedial actions.

8.4 External review of the implementation of the plan

The NDOH will also conduct external reviews of the implementation of the plan and programme performance every two years in conjunction with international agencies and partners, in order to enhance the quality of services provided and overall progress towards the attainment of the set targets.

8.5 Impact assessment

The impact of the TB programme interventions on the TB epidemiology in the community will determine whether TB will be controlled in the country therefore has to be assessed at intervals. Due to the epidemiology of TB disease the impact can be assessed every five years but we need to keep in mind that the impact would not only be a direct result of programme activities but also due to improved socio economic factors such as housing, poverty and addressing the HIV epidemic.

The indicators that need to be measured in order to assess the impact of the programme interventions in line with the MDGs are:

- incidence rate
- prevalence of TB
- mortality rate due to TB.
- levels of drug resistance.

9. BUDGETARY REQUIREMENTS

The budgeting for this plan has been done using the WHO Planning and Budgeting tool and covers the five-year period. Funding for the plan will be from the provincial equitable share health allocation. A budget bid will be presented to national treasury for funding of the plan for 2007/8 financial year and over the Medium Term Expenditure Framework (MTEF) 2008-2011 to ensure sustained financing. On an annual basis provinces will develop business plans based on the disease burden and where there are funding gaps donor agencies will be requested for financial assistance. Additional financial and technical support will be provided to under resourced provinces where this is necessary. The budget shown in the table below is based on an assumption of 10% annual increase in notified patients as a result of case detection interventions that will be implemented and population growth over the period of five years.

	2007/8	2008/9	2009/10	2010/11	2011/12
First-line drugs	104,930,068	109,489,285	113,935,660	118,211,874	118,383,790
TB Human resources	59,847,600	31,828,013	32,786,924	34,252,397	35,485,376
Management and supervision	30,863,476	31,828,013	32,786,924	34,252,397	335,485,376
Training (general)	6,550,000	34,313,624	14,139,079	2,567,726	274,559
Laboratory supplies and equipment	327,536,752	315,330,241	331,260,321	347,228,056	356,396,312
Patient support	53,260,402	58,392,715	64,107,308	70,454,986	76,173,291
Public private Partnerships in TB	1,650,000	6,910,200	14,469,959	16,665,052	19,193,140
Practical Approach to Lung Health	5,764,017	12,393,549	16,516,360	7,630,677	986,942
ACSM (including community involvement in care)	19,524,800	38,347,987	44,394,211	50,655,526	58,568,425
Monitoring and Evaluation	15,450,000	7,590,750	274,052	8,321,048	300,419
Operational Research	10,000,000	15,705,000	21,924,180	28,693,271	36,050,225
MDR-TB	1,760,352,375	1,513,054,338	1,700,901,477	1,903,063,911	2,120,472,321
Infection control	88,997,438	176,725,329	192,756,291	90,640,109	103,034,100
TB&HIV activities	74,783,026	196,686,968	289,584,173	368,871,509	373,541,044
Hospitalization	1,463,099,580	1,531,865,260	1,603,862,927	1,679,244,485	1,758,168,976
Outpatient visits	234,165,389	246,954,517	259,763,047	272,459,503	275,872,357
Total	4,256,774,923	4,380,380,948	4,789,454,417	5,091,911,117	5,430,221,011

10 ANNEXURES

ANNEXURE A

The Patients' Charter for Tuberculosis Care (the Charter) outlines the rights and responsibilities of people with tuberculosis (TB). It empowers people with the disease and their communities through knowledge of the disease. Initiated and developed by patients from around the world, the Charter makes the relationship with health-care providers a mutually beneficial one.

The Charter sets out the ways in which patients, communities, health-care providers, both private and public, and governments can work together as partners in a positive and open relationship, to improve standards of TB care and enhance the effectiveness of the health-care process. It allows all parties to be held more accountable to each other, fostering mutual interaction and a "positive partnership".

Developed in tandem with the International Standards for Tuberculosis Care (1) to promote a "patient-centred" approach, the Charter adheres to the principles on health and human rights of the United Nations, UNESCO, WHO and the Council of Europe, as well as other local and national charters and conventions (2).

The Charter embodies the principle of Greater Involvement of People with TB (GIPT). This affirms that the empowerment of people with the disease is the catalyst for effective collaboration with health-care providers and authorities and is essential to victory in the fight to stop TB. The Charter, the first global "patient-powered" standard for care, is a cooperative tool, forged from a common cause, for the entire TB community.

THE PATIENTS' CHARTER FOR TUBERCULOSIS CARE

PATIENTS' RIGHTS

1. **Care**
   a. The right to free and equitable access to TB care, from diagnosis to completion of treatment, regardless of resources, race, gender, age, language, legal status, religious beliefs, sexual orientation, culture or health status.
   b. The right to receive medical advice and treatment that fully meets the new International Standards for Tuberculosis Care, centring on patient needs, including those of patients with MDR-TB or TB-HIV co infection, and preventive treatment for young children and others considered to be at high risk.
   c. The right to benefit from proactive health sector community outreach, education and prevention campaigns as part of comprehensive health-care programmes.

2. Dignity

a. The right to be treated with respect and dignity, including the delivery of services, without stigma, prejudice of discrimination by health-care providers and authorities.

b. The right to high-quality health care in a dignified environment, with moral support from family, friends and the community.

3. Information

a. The right to information about the availability of health-care services for TB, and the responsibilities, engagements and direct or indirect costs involved.

b. The right to receive a timely, concise and clean description of the medical condition, with diagnosis, prognosis (an opinion as to the likely future course of the illness) and treatment proposed, with communication of common risks and appropriate alternatives.

c. The right to know the names and dosages of any medications or interventions to be prescribed, its normal actions and potential side-effects and its possible impact on other conditions or treatments.

d. The right of access to medical information relating to the patient's condition and treatment and to a copy of the medical records if requested by the patient or a person authorized by the patient.

e. The right to meet, share experiences with peers and other patients and to voluntary counselling at any time from diagnosis to completion of treatment.

4. Choice

a. The right to a second medical opinion, with access to past medical records.

b. The right to accept or refuse surgical interventions if chemotherapy is possible and to be informed of the likely medical and statutory consequences within the context of a communicable disease.

c. The right to choose whether or not to take part in research programmes without compromising care.

5. Confidence

a. The right to respect for personal privacy, dignity, religious beliefs and culture.

b. The right to confidentiality relating to the medical condition, with information released to other authorities contingent upon the patient's consent.

6. Justice

a. The right to make a complaint through channels provided for this purpose by the health authority and to have any complaint dealt with promptly and fairly.

b. The right to appeal to a higher authority if the above is not respected and to be informed in writing of the outcome.

7. Organization

a. The right to join, or to establish, organizations of people with or affected by TB, and to seek support for the development of these clubs and community-based associations through health-care providers, authorities and civil society.

b. The right to participate as "stakeholders" in the development, implementation, monitoring and evaluation of TB policies and programmes with local, national and international health authorities.

8. Security

a. The right to job security after diagnosis or appropriate rehabilitation upon completion of treatment.

b. The right to nutritional security or food supplements if needed to meet treatment requirements.

PATIENTS' RESPONSIBILITIES

1. **Share Information**

a. The responsibility to provide as much information as possible to health-care providers about present health, past illnesses, any allergies and any other relevant details.

b. The responsibility to provide information to health-care providers about contacts with immediate family, friends and others who may be vulnerable to TB or who may have been infected.

2. **Follow treatment**

a. The responsibility to follow the prescribed and agreed treatment regimen and to conscientiously comply with the instructions given to protect the patient's health and that of others.

b. The responsibility to inform health-care providers of any difficulties or problems in following treatment, or if any part of the treatment is not clearly understood.

3. **Contribute to community health**

a. The responsibility to contribute to community well-being by encouraging others to seek medical advice if they exhibit symptoms of TB.

b. The responsibility to show consideration for the rights of other patients and health-care providers, understanding that this is the dignified basis and respectful foundation of the TB community.

4. **Solidarity**

a. The moral responsibility to show solidarity with other patients, marching together towards cure.

b. The moral responsibility to share information and knowledge gained during treatment, and to share this expertise with others in the community, making empowerment contagious.
c. The moral responsibility to join in efforts to make the community free of TB.

In common cause, with mutual respect, together we can raise the standards of TB care.

ANNEXURE B

INTERNATIONAL STANDARDS OF CARE FOR TB PATIENTS

Standards for Diagnosis

Standard 1. All persons with otherwise unexplained productive cough lasting two–three weeks or more should be evaluated for tuberculosis.

Standard 2. All patients (adults, adolescents, and children who are capable of producing sputum) suspected of having pulmonary tuberculosis should have at least two, and preferably three, sputum specimens obtained for microscopic examination. When possible, at least one early morning specimen should be obtained.

Standard 3. For all patients (adults, adolescents, and children) suspected of having extra-pulmonary tuberculosis, appropriate specimens from the suspected sites of involvement should be obtained for microscopy and, where facilities and resources are available, for culture and histo-pathological examination.

Standard 4. All persons with chest radiographic findings suggestive of tuberculosis should have sputum specimens submitted for microbiological examination.

Standard 5. The diagnosis of sputum smear-negative pulmonary tuberculosis should be based on the following criteria: at least three negative sputum smears (including at least one early morning specimen); chest radiography findings consistent with tuberculosis; and lack of response to a trial of broad spectrum antimicrobial agents. (NOTE: Because the fluoroquinolones are active against *M. tuberculosis complex* and, thus, may cause transient improvement.in persons with tuberculosis, they should be avoided.) For such patients, if in facilities for culture are available, sputum cultures should be obtained in persons with known or suspected HIV infection, the diagnostic evaluation should be expedited.

Standard 6. The diagnosis of intra-thoracic (i.e., pulmonary, pleural, and mediastinal Or hilar lymph node) tuberculosis in symptomatic children with negative sputum smears should be based on the finding of chest radiographic abnormalities consistent with tuberculosis and either a history of exposure to an infectious case or evidence of tuberculosis infection (positive tuberculin skin test or interferon gamma release assay). For such patients, if facilities for culture are available, sputum specimens should be obtained (by expectoration, gastric washings, or induced sputum) for culture.

Standards for Treatment

Standard 7. Any practitioner treating a patient for tuberculosis is assuming an important public health responsibility. To fulfil this responsibility the practitioner must not only prescribe an appropriate regimen but, also, be capable of assessing the adherence of the patient to the regimen and

addressing poor adherence when it occurs. By so doing, the provider will be able to ensure adherence to the regimen until treatment is completed.

Standard 8. All patients (including those with HIV infection) who have not been treated previously should receive an internationally accepted first-line treatment regimen using drugs of known bioavailability. The initial phase should consist of two months of isoniazid, rifampicin, pyrazinamide and ethambutol. The preferred continuation phase consists of isoniazid and rifampicin given for four months. Isoniazid and ethambutol given for six months is an alternative continuation phase regimen that may be used when adherence cannot be assessed, but it is associated with a higher rate of failure and relapse, especially in patients with HIV infection. The doses of antituberculosis drugs used should conform to international recommendations. Fixed-dose combinations of two (isoniazid and rifampicin, three (isoniazid, rifampicin, and pyrazinamide), and four (isoniazid, rifampicin, pyrazinamide, and ethambutol) drugs are highly recommended, especially when medication ingestion is not observed.

Standard 9. To foster and assess adherence, a patient-centered approach to administration of drug treatment, based on the patient's needs and mutual respect between the patient and the provider, should be developed for all patients. Supervision and support should be gender-sensitive and age-specific and should draw on the full range of recommended interventions and available support services, including patient counseling and education. A central element of the patient-centered strategy is the use of measures to assess and promote adherence to the treatment regimen and to address poor adherence when it occurs. These measures should be tailored to the individual patient's circumstances and be mutually acceptable to the patient and the provider. Such measures may include direct observation of medication ingestion (directly observed therapy - DOT) by a treatment supporter who is acceptable and accountable to the patient and to the health system.

Standard 10. All patients should be monitored for response to therapy, best judged in patients with pulmonary tuberculosis by follow-up sputum microscopy (two specimens) at least at the time of completion of the initial phase of treatment (two months), at five months, and at the end of treatment. Patients who have positive smears during the fifth month of treatment should be considered as treatment failures and have therapy modified appropriately (See Standards 14 and 15.) In patients with extra-pulmonary tuberculosis and in children, the response to treatment is best assessed clinically. Follow-up radiographic examinations are usually unnecessary and may be misleading.

Standard 11. A written record of all medications given, bacteriologic response, and adverse reactions should be maintained for all patients.

Standard 12. In areas with a high prevalence of HIV infection in the general population and where tuberculosis and HIV infection are likely to co-exist, HIV counseling and testing is indicated for all tuberculosis patients as part of their routine management. In areas with lower prevalence rates of HIV,