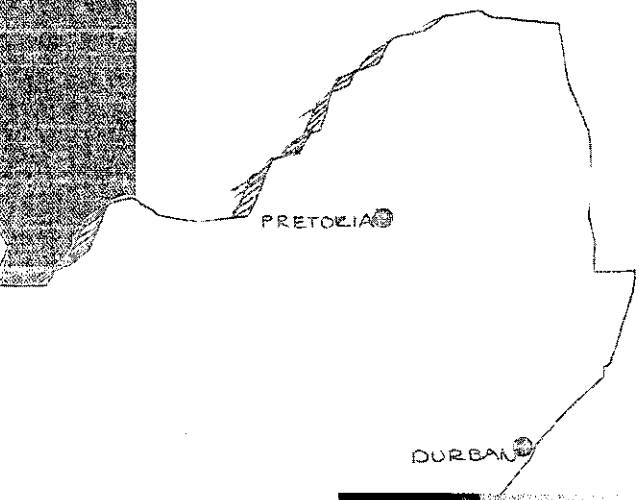
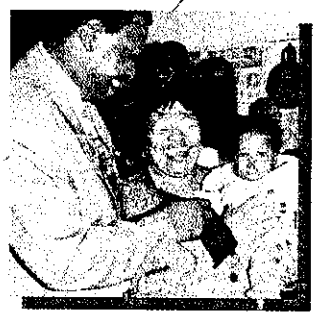
MOBILISING AGAINST TUBERCULOSIS

South African Plan for TB Control

FOR 2002 TO 2005





This document contains the Medium Term Development Plan 2002-2005 of the NTCP of South Africa. It will provide a template for mobilisation of human and financial resources needed to expand tuberculosis control as part of the national health system in order to achieve the targets the country committed itself to.

MESSAGE FROM THE NATIONAL MINISTER OF HEALTH: DR MANTO TSHABALALA-MSIMANG

Dear Reader

It is an honour to present to you, our National TB Control Programme's Medium Term Development Plan for 2002 – 2005.

The scourge of TB is ravaging our country, destroying the lives of our people, both young and old. While it physically drains the health of our people, it also attacks our nation on a personal level through the stigma borne from ignorance and lack of information on the curability of the disease. TB's assault does not stop there – it also poses a threat *to* our country's economic development if not controlled.

This Medium Term Development Plan affirms government's commitment to improving all aspects of our people's health. In order to reach the targets we have set as *a* country, we require the combined efforts of all South Africans.

For us to manage and eliminate this disease, we need a committed partnership between National, Provincial and local government, between the public and private sectors, and between communities and leaders.

This plan provides a framework for each province to develop its own strategy to tackle the burden of TB, taking into account the peculiarities of each province.

I believe. with this plan, we can effectively manage, and eventually eliminate TB.

Join the fight against TB now. Together we can make the difference.

Dr Manto Tshabalala-Msimang
Minister of Health

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INTRODUCTION

In March 2000. Ministers of the 22 high burden countries (countries that together count for 80% of the burden of tuberculosis in the world) called for accelerated expansion of control measures and for increased political commitment and financial resources to reach the targets for global TB control by 2005 The Government of South Africa was one of the signatories of this Declaration

The National Tuberculosis Control Programme (NTCP) Manager of South Africa agreed in a meeting a Cairo in November 2000, together with the programme managers of the other 21 high burden countries, to develop a Global DOTS Expansion Plan This Plan has two pillars

- Development of national Medium Term Development Plans (MTDP], and
- The building of partnerships

The present document contains the Medium Term Development Plan 2002-2005 of the NTCP of South Africa. It will provide a template for mobilisation of human and financial resources needed to expand tuberculosis control as part of the national health system in order to achieve the targets the country committed itself to towards its own community and to the international community.

The plan was drafted in 2001. In the process of writing this plan all principal stakeholders of Tuberculosis Control in South Africa have been involved. In April, the time frame and process for developing the Plan was decided upon. In June, visits were paid to almost all Provincial Health Departments to obtain support for the Plan. From 17- 20 July, a Workshop was organised in Kopanong with representatives from all major actors (see Annex 10 for list of invitees) to define the basic contents of the Plan. After this a First Draft version was written that was discussed in a Workshop in Pretoria on 12-13 September with a number of selected participants (see Annex 11). Based upon the recommendations a Final Draft version was prepared that was presented to the national authorities for approval. The Royal Netherlands Tuberculosis Association (KNCV) provided technical assistance during this process to the NTCP, with financial support from USAID Washington and USAID-South Africa.

The MTDP comprises the period 2002-2005. This does not correspond with the normal period of 5 years for a MTDP It was decided to formulate the Plan for the shorter period in view of the commitment of the National Government to achieve the international targets for Tuberculosis control in 2005.

Another critical issue is that the MTDP does not run parallel to the Medium Term Expenditure Framework (MTEF) 2000-2003. It is therefore proposed that in the beginning of 2003 a Mid term Evaluation will take place to assess whether the MTDP needs adaptation in view of the development of the NTCP and the new Medium Term Expenditure Framework. It can be considered to extend the MTDP after this evaluation to 2006 in order to let it coincide with the Medium Term Expenditure Framework 2003-2006.

Guided by this strategic framework, Provincial Implementation Plans will be developed in the first quarter of 2002.

1. COUNTRY, PEOPLE AND HEALTH

1.1 GENERAL CHARACTERISTICS

The Republic of South Africa is located at the southern tip of the continent of Africa and covers an area of 1,219,912 km². It has common boundaries with the Republics of Namibia. Botswana and Zimbabwe, while the Republic of Mozambique and the Kingdom of Swaziland lie to the north-east. Completely enclosed by South African territory in the south-east is the mountain Kingdom of Lesotho.

1.1.1 POLITICAL AND ADMINISTRATIVE STRUCTURE

On 10 December 1996 former President Mandela signed a new constitution that brought an official end to the apartheid policy Initiatives and actions undertaken since the nineties in the fields of governance and administration have deepened and consolidated South Africa's democracy. This includes improvements to intergovernmental relations and co-operative governance and efforts to strengthen the provincial and local spheres *of* government.

Administratively South Africa is divided into nine provinces, each with its own Legislature. Premier and Provincial Members of Executive Councils (MECs). The provinces are Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Mpurnalanga. Northern Cape. Northern Province. North-West and Western Cape

The executive branch of the country consists of a President who is at the same time Chief of State and Head of Government The National Assembly elects the President The President appoints the Cabinet
The iegislative branch consists of the National Assembly (400 seats. elected by popular vote for five-years terms; last election held on 2 June 1999, next election to be held in 2004) and the Nationai Council of Provinces (10 members elected by each *of* the nine provincial legisiatures).

1.1.2 SOCIAL-ECONOMIC PROFILE

The GDP per capita is R18,203 (US$ 6.900 purchasing parity power) with a yearly real growth rate of 0.6%. The South African economy includes a modern financial and industrial Sector, supported by a well-developed infrastructure, operating alongside *a* subsistence informal sector

Agriculture (5%). industry (35%) and services (60%) compose the GDP. The labour force by occupation is agriculture 30%. industry 25% and services 45%. The mining sector played an important role in the development of the South African economy. but its importance has declined in the last decade and currently accounts for about 6% of GDP The manufacturing sector accounts for approximately one-fifth of South Africa's GDP The contribution of financial services and business increased from about 12% to nearly 18% during the nineties and given the high level of banking and commercial activities in South Africa, this share is expected to expand even further. Tourism activity is also expanding its relative size and further increases in the contribution of the tertiary sector to GDP are expected.

The unemployment rate is 30%. Some 40% of all South Africans live in poverty, and 75% of these stay in rural areas where they are deprived of access to health services. The main core of the Government's health policy is eventually to provide health care that is affordable and accessible to all.

There are 11 official languages and literacy rate in people age 15 and over is 81.1% (male 81.9 and female 81.7%).

Some 40% of all South Africans live in poverty and 75% of these are deprived of access to health services

1.1.3 DEMOGRAPHIC PROFILE

The estimated population was 43,685,699 (July 2000). with 32.5% 0-14 years, 62.8% 15-64 years and 4.8% 65 years and over.
There are 4 race groups: Black (75.2%), White (13.6%), Coloured (8.6%) and Indian (2.6%)

Population growth rate is 1.47%. Birth rate is estimated to be 24.56 births/1,000 population, death rate 14.69 deaths/1,000 population and net migration rate –1.9 migrants/1,000 population.
Total fertility rate is 2.47 children born/woman and Infant Mortality Rate is 58.9/1,000 live births.
Life expectancy at birth is 50.4 years for males and 51.8 years for females.

1.2 HEALTH SERVICES

The health service inherited in 1994 was a reflection of a system that focused on supporting the Apartheid State. It had been fragmented into National, Coloured. Indian and White "own affairs". four Provincial and 10 Homeland Health Departments. Resources were distributed along racial lines with a focus on hospital care and an underdeveloped Primary Health Care System.

1.2.1 THE HEALTH SYSTEM

In the period 1994-1999 much progress was made in overcoming this legacy Achievements obtained among others were:

- The establishment of a single National Department of Health and nine Provincial Health Departments
- Upgrading of clinics and health centres and building of 500 new Ones
- Introduction of *free* primary health care
- The establishment of a District Health System
- The launch of various programmes to tackle priority health problems such as Integrated Management of Childhood Illnesses, DOTS and Maternal Mortality Programme.

Critical elements were:

- A worsening HIV/AIDS epidemic:
- A reduction of the health budget in real terms; and
- Problems in addressing inequities and in efficiency of Staff.

For the period 1999-2004 a Health Sector Strategic Framework has been defined with a ten-point plan to strengthen implementation of efficient, effective and high quality health services:

- Decreasing morbidity and mortality rates through strategic intervention;
- Revitalisation of public hospital services;
- Accelerating delivery of an essential package of PHC services through the DHS:
- Improving resource mobilisation and management and equity in allocation:
- Improving human resource development and management:
- Improving quality of care;
- Enhancing communication and consultation in the health system and with communities:
- Legislative reform;
- Re-organisation of certain supportive services; and
- Strengthening co-operation with international partners.

The private for-proht sector is responsible for more than half of the expenditures in health. It consists mainly of general practitioners and medical specialists working in private hospitals. They are estimated to cover 20% of the population.

The private not-for-profit sector (mainly non-governmental organisations) plays a vital role in health issues at the community level (especially in relation to cancer. tuberculosis, HIV-AIDS. mental health and disability)

A private company, LifeCare, who is funded by Government. offers hospital care for TB patients. The NGO SANTA also provides hospital care for TB patients with governmental funds. From October to December 2000 a review was conducted of these services by the NTCP with technical and financial support of DFID. The expected outcome will be a restructured contract between Government and these organizations for provision of care consistent with nationally agreed standards.

A new single parastatal body, the National Health Laboratories Services (NHLS), has recently been created This body incorporates provincial laboratories with those run by the South African Institute of Medical Research (SAIMRJ

1.2.2 THE HEALTH PROGRAMMES

The interventions aimed at reducing morbidity and mortality (point 1 of the Strategic Framework) are:

- Targeting children, youth and women
- HIV-AIDS. tuberculosis, malaria and diseases preventable by immunisation as priority communicable diseases
- Improving nutrition and food security
- Non-communicable diseases such as chronic diseases, substance abuse, cancer and mental health
- Improved emergency medical services.

Programmes should be offered within a comprehensive primary health care package, while still ensuring that they have the necessary focussed attention and skilled support.
There is some doubt whether the allocated financial resources of R200-2501 per capita are sufficient to finance the proposed package. However. additional resources will not easily come from reallocations within the health budget. Additionally, the implementation of the Health Sector Strategic framework is, however. confounded by the slow unfolding of the new municipal boundaries and structures. This causes lack of clarity of definition of "municipal health services". delays in transfer of staff from provinces to local authorities. delayed service arrangements between provinces and local authorities, and problems in assuring adequate infrastructure and the developments of effective referral and support systems. Also quality issues such as opening hours, waiting time, clinical skills and availability *of* medicines are yet insufficiently addressed.

1.2.3 HEALTH FINANCING

According to data provided by WHO, health expenditure constitutes 7 1% of the GDP This corresponds to [1] US$ *396* per capita *of* which US$ 184 as public health expenditure and US$ 183

[1] $1 = R8

as private health expenditure per capita comprehensive public health budget was R 932 (1996-97). R 971 (1997-98) and R942 (1998-99) in 1999 Rand, according to The South African Health Review 2000 Report.

Sources of funding of the Comprehensive Public Health Sector in 1998/99 are:
General Taxation: R 30,908 million (94.5%); Local Authority Revenue: R 996 million (3.0%); User fees: R 340 million (1.0%); Provincial Government-own revenue: R 384 million (1.2%), and Donors: R 68 million (0.2%), for a total of R 32695 million (100%).

1.2 4 HEALTH PROFILE

South Africa is undergoing a demographic transition with declining fertility. The health status is still poor despite all efforts made. This is due to a triple burden of disease from a combination of poverty-related diseases, emerging chronic diseases and injuries. The HIV-AIDS epidemic has already led to increased child and young adult mortality and reduced life expectancy
There also exist extensive inequalities in health status by population group, urban/rural area and provinces

Major causes of death during infancy include conditions that occur during the perinatal period (22%). iow birth weight (20%) and diarrhoea (16%). In the case of children aged 1-4 years, the most common cause of death is igury (24%), followed by diarrhoea (20%), malnutrition (13%) and lower respiratory infections (9%). In 1995, AIDS accounted for 3.2% and TB for 3.1% of the deaths of children aged 1-4 years.
Injuries are the most common cause of death for adolescents aged 10-19 years. in the 10-14 year age

groups, infectious diseases including lower respiratory tract infections. meningitis, diarrhoea. septicaemia and TB are the major causes of death, following injuries. In the 15-19 year age group, TB is the most common disease that causes death and is, in the case of women, followed by AIDS. Deaths among men are dominated by injuries. TB is the most important infec tious disease causing death in all ages and stroke, ischaemic heart disease, diabetes and cancers play an important role in the 45-59 year age group.

TB, HIV, STDs, and maiaria are the dominating infectious diseases. Impacting are also cancer. hypertension, obesity, work-related illness and injuries, smoking related diseases, alcohol and substance abuse and disabilities.

2. THE TUBERCULOSIS PROBLEM

2.1 THE TUBERCULOSIS EPIDEMIC

In 1999 South Africa ranked 9th among the 22 high burden countries accounting for 80% of all new cases of tuberculosis, worldwide. The estimated incidence of all TB cases for 1999 was 360 per 100,000 population all cases and 165 per 100.000 population new smear positive cases. In terms of cases notified, this translates to more than 151,000 total TB cases of which more than 79,000 were new smear positive (infectious/.

The total numbers of cases are predicted to increase up to 2005 because of the impact of the HIV epidemic (10%/year) and the population growth (1.46%/year). In 1997 an estimated 72,000 people died in South Africa from tuberculosis.

2.2 TUBERCULOSIS AND HIV/AIDS

HIV/AIDS represents one of the most serious challenges to health and society in general in South Africa. Since the first reported case was documented in South Africa, the prevalence has escalated at alarming rates. Estimates of the burden of disease attributable to HIV/AIDS are derived from annual unlinked, anonymous HIV surveys conducted each year by the Department of Health among antenatal clinic attendees in public health facilities.

On the basis of the 1999 and 2000 surveys, the HIV prevalence rate is estimated at 22.4% of women attending antenatal clinics being HIV positive by the end of 1999 and 24.5% by the end of 2000.

Table 1: HIV prevalence among women attending antenatal clinics in 1999-2000 and estimated among tuberculosis patients 1999.

Province	%HIV+		Est % HIV+ amongst TB cases - 1999[1]
	1999	2000	
KwaZulu/Natal	32.5	36.2	35.1
Free State	27.9	27.9	46.8
Mpumalanga	27.3	29.7	39.9
Gauteng	23.9	29.4	59.7
North West	23.0	22.9	54.2
Eastern Cape	18.0	20.2	28.3
Northern Province	11.4	13.2	31.4
Northern Cape	10.1	11.2	40.6
Western Cape	7.1	8.3	26.7
National	22.4	24.5	42.7

Source: SA Medical Research Council, 1999

In general, the HIV prevalence among adult TB patients is usually 2-3 times higher than among the general population.

HIV is now the greatest individual risk factor for tuberculosis disease. HIV infection in a person who is already infected with TB increases the risk to develop tuberculosis disease from 10% in a lifetime to 7-8% per year. The HIV/AIDS epidemic and the tuberculosis epidemics occur in the same age groups of the general population, the young productive age-groups of males and females. Increased tuberculosis morbidity is therefore particularly seen in the age groups where HIV has its highest prevalence. This explains why in South-Africa HIV prevention is one of the major factors for tuberculosis control. Without effective HIV/AIDS prevention, tuberculosis will continue to increase, following the trend of the HIV epidemic.

The association of tuberculosis with HIV/AIDS has not gone unnoticed in the community South Africa is no exception to many other countries in sub-Sahara Africa where AIDS and tuberculosis have become synonymous. As both tuberculosis and HIV/AIDS often affect the same person, health workers must address both problems at the same time, by offering VCT to all tuberculosis patients, tuberculosis screening for all clients with HIV/AIDS, and a continuum of care and prevention during all stages of HIV/AIDS for all other opportunistic infections.

2.3 MULTI-DRUG RESISTANT TUBERCULOSIS

In 2000, the NTCP and MRC published Guidelines for the Management of MDR-TB in South Africa

Recent studies by the MRC National Tuberculosis Research Programme in three provinces indicate a rate of approximately 1% MDR in new tuberculosis cases and 4% in previously treated cases. This translates into about 2 000 new cases of MDR tuberculosis in South Africa each year. MDR tuberculosis is difficult and expensive to treat, while current cure rates range from 30-50%. Two-year case fatality rates are around 30% to 50%. being higher in HIV positive patients. The cost of treating a case of MDR tuberculosis in South Africa is 10 to 20 times the cost of treating an uncomplicated drug-susceptible case but is probably much higher when factoring in the cost of prolonged hospitalisation, cultures, and drug susceptibility testing. To better understand the magnitude of drug resistance in South Africa, a nationwide surveillance project is underway and will be completed in 2002. The survey results will form the benchmark for informing future direction of policy with regard to MDR-TB.

Although HIV in itself is not a biological risk factor for resistance, MDR-TB explosions have been seen in places where many HIV positive people may be concentrated such as hospitals, prisons and shelters for homeless people, because any tuberculosis infection progresses very fast to overt tuberculosis disease among persons living with HIV due to impaired immunity Good infection control measures, in such settings are thus important to stop the spread of (MDR-) TB.

2.4 TUBERCULOSIS IN SPECIAL POPULATIONS

Tuberculosis can affect all people in society. However. there are people that are especially vulnerable because of their health status and/or the conditions under which they are living and working. The particular vulnerability of persons infected with the Human Immunodeficiency Virus (HIV) has been mentioned. Other high-risk groups include those that need special attention in the National Tuberculosis Control Programme are:

- Incarcerated persons (including individuals awaiting trial and sentenced] due to overcrowded circumstances, high rates of HIV and poor nutritional status;
- Miners, as they are generally poor, and subject to occupational hazards such as silicosis;
- Military personnel;
- Migrant Labourers;
- Small children exposed to infectious TB patients; and
- Health Care personnel.

2.5 CASE DETECTION

Tuberculosis case notifications reflect only a proportion of the true number of cases in South Africa. This is due to incomplete coverage of health services and problems with the registration and notification systems. Districts that have implemented the DOTS Strategy are reorganising their recording and reporting system. resulting in more complete and reliable reporting.

Table 2: Case notifications New smear positive patients and All forms. ***1997-2000***

YEAR	NEW SMEAR POSITIVE PATIENTS			PATIENTS ALL		IS
	DOTS	NON-DOTS	TOTAL	DOTS	NON-DOTS1	TOTAI
2000	62399	14992	79391	111916	39323	151239
1999	54075	18023	72098	103714	44450	148164
1998	16246	49801	66047	25610	116671	142281
1997	4146	49925	54073	7608	118305	125913

Figure 1: Case Notification rates All cases and New smear positive cases 1980-2000.
Data on new smear positive patients available for 1995 onwards.

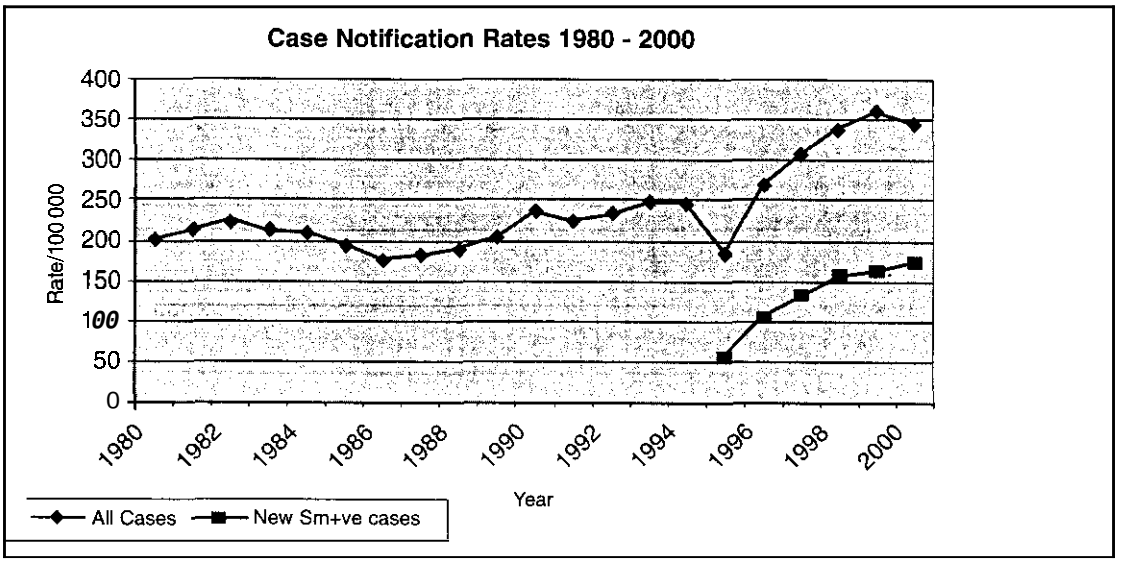
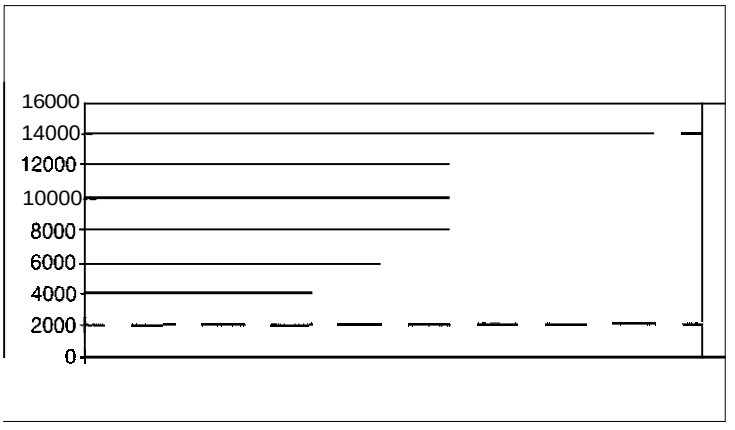


Table 3: Notified cases of PTB, by province, South Africa, 1996 - 2000

*** Reporting rate compares the number of facility reports received as a percentage of all expected reports.**

Province	Cases 1996	Cases 1997	Cases 1998	Cases 1999	Cases 2000	Rate/100,000 2000
Eastern Cape	22646	24253	26405	25381	24057	351
Free State	8958	8726	9084	7779	7773	279
Gauteng	10235	10183	14925	12868	18207	231
KwaZulu Natal	15376	23646	22658	27465	22319	248
Mpumalanga	2483	3174	3594	4880	4944	163
Northern Cape	3400	4431	2690	4175	3491	400
Northern	4023	4738	4833	4957	3872	70
North West	5568	6288	9328	8199	10703	300
Western Cape	19691	18702	21305	22983	24709	590
South Africa	92380	104141	114822	118687	120075	274
Reporting rate *	68%	70%	79%	78%	78%	83%

Data reflect the start of the Revised NTCP Programme in 1996, when the DOTS strategy was gradually introduced, resulting in improving notification rates and case finding. This period also reflects the period of the escalating HIV/TB epidemic.



73% of all new smear positive cases are reported in just 4 provinces where 64% of the population of South Africa is living

2.6 TREATMENT OUTCOME

All tuberculosis patients are treated with a short-course rifampicin-containingregimen for the full six-month treatment period Treatment outcome of new smear positive patients treated in DOTS areas and in Non-DOTS areas and of re-treatment patients under DOTS for patients diagnosed in 1996-1999, are presented in Tables 3 a-c

Table 3a: Treatment outcome (%) *of* new smear positive patients in DOTS areas, *1996-1999*

YEAR	Cured	Completed	Died	Failed	Interrupted	Transferred	Not evaluated	Success
1999	52	8	7	1	13	18	2	60
1998	68	7	6	2	7	12	0	74
1997	68	5	5	3	11	7	1	73
1996	65	5	4	1	12	9	5	69

Table *3b:* Treatment outcome (%) *of* new smear positive patients In Non-DOTS areas, *1996-1999*

YEAR	Cured	Completed	Died	Failed	Interrupted	Transferred	Not evaluated	Success
1999	33	16	6	1	19	23	1	49
1998	30	17	5	1	13	34	0	47
1997	56	12	7	2	17	3	4	67
1996	45	15	5	3	15	17	0	60

Table 3c: Treatment outcome (%) *of* re-treatment patients in DOTS areas, *1996-1999*

YEAR	Cured	Completed	Died	Failed	Interrupted	Transferred	Not evaluated	Success
1999	40	7	8	4	20	20	1	47
1998	57	13	12	3	10	5	0	71
1997	63	5	6	3	11	8	4	68
1996	62	4	5	2	12	3	11	67

The main conclusions to be drawn from this data are:

Cure rates for new smear positive patients and re-treatment patients under DOTS are improving year by year but are not reaching WHO targets (85% cure rate) that were adopted by South Africa in Amsterdam.

High fates of treatment interruption and transfers are main problems to be soived.

- Cure rates in DOTS areas are consistently better than in Non-DOTS areas for new smear positive patients.

3. THE NATIONAL TUBERCULOSIS CONTROL PROGRAMME

South Africa's apartheid health policies prior to 1994 resulted in wide variances in tubercuiosis incidence, depending on race Incidence raged from less than 20/100,000 in the white community to 400-6001100.000 in black and coloured communities

3.1 HISTORY OF TUBERCULOSIS CONTROL IN SOUTH AFRICA

In 1995 a revised National Tuberculosis Control Programme (NTCP)was established. based on the Directly Observed Therapy Short-course strategy (DOTS| of WHO. Its aim was to gradually replace the non-standardised short-course chemotherapy that had been applied throughout the country for several years.

In June 1996 the South African Department of Health and WHO carried out ajoint review of the NTCP. They identified four key factors reflecting the seriousness of the tuberculosis epidemic in South Africa:

- High tuberculosis notification rates:
- Increasing HIV prevalence among TB patients;
- Emergence of multi-drug resistance: and
- Failure to control the epidemic despite yearly expenditures of R 500 million.

The Government committed itself to control tuberculosis and determined that diagnosis and treatment should be free of charge to the patients. WHO and the IUATLD agreed to send monitoring missions every 6 months to provide technical guidance.

In March 2000 the Government of South Africa signed the declaration of Amsterdam to STOP TB as one of the 22 high burden countries. The Declaration called for accelerated expansion of control measures for TB and for increased political commitment and financial resources to reach targets for global TB control by 2005. In May 2000 a World Health Assembly resolution restated this call for all WHO member states.

In November 2000 at a meeting in Cairo, NTP managers of the 22 high burden countries. technical and financial partners and the global TB network of the WHO agreed to develop a Global DOTS Expansion Plan. A pillar of the Global DOTS Expansion Plan is the development of a national Medium Term Development Planin each country.

The WHO/IUATLD monitoring mission of July 2000 recommended that the Director of the NTCP to initiate the elaboration of this Medium Term Development Plan as soon as feasible.

3.2 STRUCTURE AND ORGANISATION OF THE NTCP

The NTCP has four ievels: national ievel. provincial level. district level and health facility level. all within the general heaith services. The national tuberculosis unit plays the role of co-ordination, facilitation and evaluation of tuberculosis services for the whole country. The provincial level is responsible for implementation and budgeting. The district ievei is the key level for the management of primary health care and is the most peripheral unit of the health services administration. The health facility level is within a district. it is the level of primary care and includes district hospitais. health centres, dispensaries and clinics within a district.

This structure may vary to some extent, In some provinces, a regional level has been established between the provincial and district levels.

3.2.1 CENTRAL LEVEL

The central unit is at the National Department of Health. Its key levels of activity and functions are to:

- In general facilitate, enhance and support communication, co-ordination and collaboration between all stakeholders in tuberculosis control, involving all appropriate sectors and all provinces.
- Establish and update consensus-based national technical policies and guidelines on TB case detection and treatment for health facilities and laboratories.
- Conduct hi-annual supervision visits to all provinces to advise and build capacity on planning, monitoring and evaluation of TB control activities.
- Produce and update training materials on case management, programme monitoring and supervision, and bacterial laboratory techniques.
- Organise workshops to introduce TB control guidelines into the teaching curricula of medical schools, schools for laboratory technicians and other educational institutions that train health professionals.
- Advise the corresponding DOH directorates

(dealing, for example, with essential drugs, procurement of supplies, laboratories] and the provinces in defining drug and laboratory material and equipment needs, facilitate their procurement, and advise on rational distribution and accountable drug management, guaranteeing an uninterrupted drug supply

- Organise and co-ordinate activities for improving access to quality assured bacteriological diagnosis of tuberculosis and surveillance of anti-tuberculosis drug resistance.
- Develop, implement and support the establishment of a standardised Recording and Reporting System with quarterly reporting of data on case notifications and treatment outcomes from the peripheral, district and regional to the central levels.
- Assess the progress of the NTCP towards achieving its programme and activity targets, by analysing relevant data [for example, on indicators such as case

notification. treatment outcomes, number and quality of microscopes) and by carrying out regular supervision and audits to each of the 9 provinces to advise these how best to improve their performance further.

- Promote co-operation with national academic institutions and internationai agencies in support of research and development projects, to advise on solutions to problems encountered during implementation of control activities.
- Establish and update national technical policies and guidelines on TB case detection and treatment for health facilities and laboratories.
- Maintain links with national NGOs to ensure optimai collaboration in providing high quality TB control in the community. .
- Initiate, develop and support a long-term IEC strategy at national and provincial levels aimed at patients and the community
- Produce a national annual report analysing programme achievements and constraints, and support the same for each province.
- Initiate and support a long-term advocacy strategy for the national and prince-levels.
- Promote. co-ordinate and support operational and epidemiological research activities.
- Communicate and collaborate closely with the HIV/AIDS/STI unit in the national DOH and promote the same in the provinces.

The organogram of the Department of Health and the Central Unit NTCP are attached as Annexes 1 and 2 respectively

3.2.2 PROVINCIAL LEVEL

Key functions at provincial level are:

- Co-ordinate with district managers and CDC/TB co-ordinators;
- Conduct regular visits to all districts to advise and build capacity on planning, monitoring, and evaluation of TB control activities including the use of data as are routinely collected in the recording and reporting system;
- Facilitate and provide access to adequate and appropriate training courses for the districts;
- Ensure that supervisory and support visits are conducted in each district;
- Facilitate procurement of anti-TB medications and advise on rational distribution and accountable drug management, guaranteeing an uninterrupted drug supply across the province;
- Supervise the record keeping of the TB registers and the TB laboratory registers:
- Review all periodic reports submitted by the districts for accuracy and completeness, and provide feedback to the district officers: and
- Collaborate with other agencies and NGOs as well as private doctors, who provide care for TB patients in the district.

A full-time Provincial TB Co-ordinator should be appointed. Due to the high TB caseload, there

is a need to establish TB Provincial teams to assist the provincial co-ordinators Details will be provided in Chapter 4

3.2.3 DISTRICT LEVEL

The district is the key level for primary health care management. The district level initiates the implementation of the DOTS strategy in district heaith facilities. such as district hospitals. health centres and health posts, and monitors its application in these facilities.

The district level's main functions are to:

- Co-ordinate training of doctors, nurses, laboratory technicians and other staff;
- Register each notified case in the District TB Register. and record results of the follow-up sputum examinations and treatment outcome for each registered patient;
- Submit quarterly reports on case detection, sputum conversion and treatment outcomes by cohorts of patients and programme management to the provincial level;
- Conduct quarterly supervisory visits to the health facilities to ensure that TB activities are performed efficiently and effectively, and recorded;
- Use the recording and reporting system for programme performance monitoring and to foster the use of data at facility level;
- Order drugs and forms for TB control activities and oversee distribution of supplies to the health facilities:
- Co-ordinate with the laboratory supervisor to ensure that sputum-smear examinations are performed correctly. the TB Laboratory Register is correctly maintained and laboratory reagents and slides are available;
- To develop, monitor, supervise and evaluate the DOT modality/ies used in the district; **and**
- Assist health facilities to trace treatment interrupters.

There is a need to appoint District TB teams with a District TB Co-ordinator. Details will be provided in chapter 4. In districts that have a high caseload, subdivision should be considered in order to keep the programme manageable.

3.3 OBJECTIVES

The objectives of the Medium Term Development Plan are taken from the objectives of the NTCP, adapted to the time frame of 2005 and take into account internationally agreed objectives

3.3.1 OVERALL OBJECTIVES

The overall objectives of the National Tuberculosis Control Programme are:

- To reduce mortality, morbidity and transmission of the disease.
- To reduce human suffering and the social and economic burden families. communities and the country bear as a consequence of the disease,

- To establish optimal co-ordination and co-ordinated action with the HIV/AIDS&STD Programme, and
- To prevent the development of drug resistance

3.3.2 SHORT-TERM OBJECTIVES

The short time objectives of the National Tuberculosis Control Programme, to be reached in 2005, are:

- To achieve a cure rate of 80 - 85% among sputum smear-positive TB cases detected and to reduce the interrupter rate to < 10% and the transfer rate to < 5%;
- To detect 70% of the estimated new smear-positive tuberculosis TB cases: and
- To achieve DOTS coverage to all Districts.

In Chapter 4 a more extensive list of indicators for monitoring and evaluation will be presented

3.4 STRATEGIES

The following strategies are guiding the implementation of all control activities:

- Integral application of the revised DOTS Strategic Framework of WHO:
  a. Sustained political commitment expressed by availing sufficient human and financial resources for achieving the international targets for TB control in the context of the national health system;
  b. Good access to quality-assured tuberculosis sputum microscopy for case detection among persons presenting with symptoms of tuberculosis, screening of individuals with prolonged cough and special attention to case detection among high-risk groups including HIV infected and institutionalised persons;
  c. Standardised short-course chemotherapy to all cases of tuberculosis under proper case-management conditions including direct observation of treatment (DOT)– proper case management conditions imply technically sound and socially supportive treatment services;
  d. Uninterrupted supply of quality-assured drugs with reliable drug procurement and distribution systems; and
  e. Recording and reporting system enabling outcome assessment of each patient and assessment of the overall programme performance.
- Partnership building

In the multi-facetted and decentralised health sector, partnerships will be established and/or strengthened at the national level among the various departments, institutions and organisations relevant to the NTCP: HIV/AIDS&STD, strategic health programmes, laboratory, health service delivery, academic institutions. private for profit health organisations. NGOs, police, correctional services, military services, mines, etc. At the international level partnerships will be strengthened/build with a/o Belgian Government, CDC. DFID, IUATLD, KNCV, SADC, SATCI, USAID and WHO (South Africa, AFRO and Geneva).

4. PROGRAMME ACTIVITIES

All activities of the Programme are listed with a short summary description, strengths and weaknesses, proposed solutions and priority.

The first priority of the Programme is to get the basics right throughout the whole country by countrywide implementation of an NTCP "core package." However, it is recognised that, in view of the diversity of development of the Programme in the different provinces. a whole spectrum of additional activities will be implemented according to a process of prioritisation in the provinces. These additional activities are described in the following sections as well.

Technical assistance by the central level (training, supervision and monitoring visits] will focus on strengthening the core package until they are well established without excluding assistance related to additional activities. If provinces request assistance to conduct additional activities, such assistance will be provided under the condition that activities are considered to be reasonable and feasible in relation to the development of the Programme in that province.

CORE PACKAGE

The NTCP core package includes the following interventions:

- A well accessible and efficient laboratory network functioning with a quality control system in place, providing early passive case finding;
- Uninterrupted drug supply:
- Adequate supply of laboratory materials;
- Well-accessible treatment services utilising DOT for at least the initial two months of treatment;
- Regular high-quality support and supervision by provincial and district staff:
- Presence of sufficient well-trained Staff;
- District based TB register in use;
- A reliable MIS using quarterly reports complete, coherent, correct. timely, cohort-based and analysed;
- Referral system in place;
- Simple, basic infection control measures in place in relevant institutions:
- Availability of appropriate IEC for each patient with TB:
- A reliable drug resistance surveillance system;
- Adequate and reliable funding of the essential programme elements mentioned

above; and

- Development and implementation of sector and area specific DOTS programmes in special populations (mines. prisons, major industries, migrant workers, etc).

ADDITIONAL PACKAGE

With the core package well implemented, the following interventions can increase the effectiveness of the TB control programme:

- High quality, easily accessible VCT for all tubercuiosis patients and people wanting to know their HIV status, combined with appropriate HIV/AIDS care and prevention and screening for active TB among PLWH:
- Enhanced passive case finding in high-risk groups ("active finding of symptomatic patients") such as miners, prisoners, PLWH/AIDS, contacts of infectious TB cases, etc;
- Tuberculosis preventive treatment of close contacts of infectious cases (particularly small children) in whom active tuberculosis is excluded, and people living with Hlv; and
- Second line treatment for cases with MDR-TB.

Keys element of the additional package include, on top of other key elements:

- Co-ordination/collaboration with HIV/AIDS/STD program in training, IEC, operational research, surveillance, home-based care programmes, VCT and care for people with HIV/AIDS;
- Implementation and monitoring of a standardised and evidence-based policy on MDR-TB management; and
- Co-ordination, collaboration, consensus building and implementation with key stake holders: mines, industry private sector. prisons etc.

One guiding principle of the impiementation of the NTCP is a patient-centred approach at the service delivery level. Details are provided in Annex 3.

Priority steps are listed in each paragraph, wherever feasible

4.1 CASE FINDING AND DIAGNOSIS

The objective of case finding is to detect cases as early as possible in order to reduce transmis sion in the community maintain health and prevent disability among the patients

The basis of diagnosis of tuberculosis is direct sputum-smear examination which is cheap, reliable and fast in identifying the infectious sources of tuberculosis in the community. Sputum smear microscopy needs to be undertaken in all tuberculosis suspects who have a productive cough of >3 weeks. Sputum microscopy services must e of high proficiency have turn-around time of 24-48 hours and be well accessible to the community.

Case finding is primarily focussed on "TB suspects", patients presenting themselves to a health facility with symptoms of cough with a duration of 3 weeks or more that designate them as

"tuberculosis suspects". High-risk groups especially people living with HIV/AIDS, need particular attention.
For diagnosis of tuberculosis among these suspects the diagnostic pathways are described in the Practical Guidelines.

The NHLS. NTCP and provinces must determine optimal standards for access to bacteriological services.

In principle sputum smear microscopy must be:

- Of reliable quality, confirmed by regular external and internal quality control systems:
- Available in each primary health care unit, on a daily basis and with a maximum turn-around time of 24-48 hours; and
- Be offered free of charge.

WHO recommends on average one diagnostic centre per 100,000 population [range 50,000/150,000 population). 'Care must be taken that each microscopist involved in sputum smear examination reads at least 2-3 smears per day/10-15 per week, to maintain proficiency On the other hand, 20 smears per day per reader is considered a maximum when using a regular light microscope, as otherwise visual fatigue leads to deterioration of reading quality Decentralisation of microscopy services must therefore strike a balance between maximum accessibility minimum burden to maintain proficiency, and feasibility of regular laboratory supervision and external quality assurance.

Monitoring the yield of diagnostic sputum smear examinations?is a useful tool for identifying locations where special attention needs to be paid to the diagnostic services may be substandard. High yield of examination [>20%] might indicate, among others. poor lack of access to services, a high risk of the particular population or late lack of identification of suspects among those presenting to the health service.

Detailed situational analysis of the current services performance and the remedial steps required to arrive at sufficient service provision are required. For provinces not already undertaking this analysis, it should be commenced within 6 months of adoption of the Medium Term Development Plan. The National Tuberculosis Programme shall outline the framework and tools for the analysis and support the process.

Annex 4 provides more details about the role of the laboratory services.

4.2 CHEMOTHERAPY AND CASE-HOLDING

Patients identified as suffering from tuberculosis start treatment with anti-TB drugs according to the Practical Guidelines established by the Programme. During treatment, patients are moni-

[2] *Laboratory services in tuberculosis control. Part I, Organisation and management. WHO/TB/98.258. Page 15*
[3] *The proportion of positive smears among all tuberculosis suspects examined, normal range 5-20%.*

tored by sputum smear microscopy. Direct Observation of Treatment (DOT]is provided to the patient as a support mechanism in order to ensure adherence with treatment and to prevent the development of drug-resistance.
Procedures are established for referral of patients from inpatient to outpatient treatment within a district as well as for movement of patients from one district to another. Active follow-up of referral and transfer must be implemented to ensure that referred patients are actually registered at their stated destination. Patients who interrupt are timeously identified and traced. Procedures for tracing defaulting patients are developed, implemented and monitored.

Different options exist for providing DOT to the patient Seiection depends on the preferences of the patients and availability of DOTS supporter networks Impact of the different options should be evaluated, taking treatment outcome results as the basic parameter

The management of MDR-TB patients in South Africa is a part of NTCP responsibility Drug resistant tuberculosis. especially muiti-drug resistant tuberculosis (MDR-TB),forms a serious threat because MDR-TB is not only extremely expensive but also very difficult to treat. Recailing that MDR-TB is the result of inappropriate prescription of drugs, failing drug management (bad quaiity of drugs, interruption of stock], or inappropriate taking *of* drugs (lack *of* DOT], the first priority of any programme is to identify the causal factors for the emergence of drug resistance in that setting and to prevent further development of drug resistance.
As far as treatment *of* MDR-TB is concerned the protection of second line drugs has the highest priority. Faiiure to adequately use the few second-line drugs available will destroy the last tools available to combat drug-resistant tuberculosis and will eventually result in super-resistant strains and thus in an uncontrollabletuberculosis situation which will affect ail levels of the South African society. Therefore the use of second line drugs must be strictly supervised during both intensive and continuation phase *of* treatment.
A rationai stepwise approach to controi of MDR-TB includes surveiiiance of drug-resistance, prevention of the development and spread of drug resistant tuberculosis, assessment and strengthening of the quality of {MDRTB}-treatment in South Africa and systematic implementation of infection controi measures in MDRTB-treatment centres.

Priorities:
Given that *still a significant* proportion *of* patients receive self-administered treatment or incomplete DOT *and* that the interruption-rateis high, the programme must focus *on:*

1. Strengthening, expansion and evaiuation of the *different DOT* modalities currently used;
2. Reducing the interruption-rate, and
3. Strengthening *of* the recording and *reporting of* transferred patients.

Consequently, *supervision* and training of *all* levels of the NTCP *must* be intensified. *In addition,* steps should *be* undertaken to link the *laboratory* register and the *TB* register *in* order to be able to *monitor* whether diagnosedpatients are put on treatment.
As far *as MDR* is concernedthe first *priority is* to review the current MDR-treatment programme and to *finalise* and analyse the drug resistance *surveillance* data [see annex *5).*

4.3 SUPPORTIVE ACTIVITIES

4.3.1 TRAINING

Pre- and in-service training of staff in tuberculosis control is an essential part of the NTCP responsibility Training activities are implemented at all levels of the system: national, provincial, district. clinic and community Training content must be related to job descriptions / responsibilities of the staff to be trained. This may focus on. for example, programme management, supervisory, budgeling, case management and other such skills. as appropriate. Training methods must be (inter)active and participatory. Pre and post training assessment tools should be developed to measure the outcome of training. Staff turnover and staff rotation have to be considered carefully when planning training needs.

National and provincial staff can also be trained in international courses or courses organised by international organisations in South Africa A national heallh intelligence strategy has lo be developed to inform health workers and communities of international and national developments

Training is implemented in a graded manner meaning that e.g. the provincial staff (assisred by the nationai level staff if required) are responsible for the training of the district management team. The district management team is responsible for training those providing services in the facilities and in the community

Training is provided to the staff of organisations collaborating with the Programme.

Specific emphasis should be placed on integrating training for HIV / STI with TB.
Details related lo such training are:

- Ensure that guidelines of TB, for HIV and for STI are included in medical and nursing school curricula;
- Conduct joint in-service TB/HIV/STI training of doctors and nurses including TB and HIV/AIDS case management rapid HIV testing, prevention and management of opportunistic infections and management of STI;
- Train DOT supporters on HIV prevention, promotion *of* voluntary HIV counselling and testing (VCT) and condom distribution:

- Train HIV home based carers on DOT, and
- Training for district management teams to ensure maximum efficiency in the use of resources

Priorities:

Within the context of accelerated DOTS expansion, and in face of burgeoning morbidity related to HIV/AIDS and the need to adopt integrated approaches, the NTCP should:

1. Conduct a needs assessment that takes into account the training needs at all programme levels and sectors;
2. Develop prioritised training framework with role clarification for each level; and
3. Evaluate existing training material; develop, produce **and** implement revised material according to results of needs assessment.

4.3.2 SUPERVISION

Supervision is the process of visiting health staff to help them to improve their performance. Correct performance can be observed and reinforced. Inadequate performance can be identified and corrected before it becomes a major problem.
Supervision entails continuous evaluation, guidance. support and on-the–job training.

A clear. written policy is necessary at national, provinciai and district level. Speciai emphasis is given to maximising efficiency by co-ordinating the activities with those of other programmes in the district. To ensure that supervision is carried out effectively supervisors will receive specific training in supervisory techniques.

Speciai emphasis of supervision training includes:

- Using information for guiding implementation:
- Proper application of policies: and
- Identifying sustainable solutions to key problems (referrai. interruption. etc]

Supervision is implemented in a stepwise manner, National level staff visit all provinces with a minimum frequency of twice yearly for at least 2-3 days and support provinces to achieve the Provincial Implementation Plans.
Provinces visit all districts at least quarterly. District staff visit the health facilities in their jurisdictions 1-2 times per quarter, depending upon the performance of the facility. Staff of the health facilities should pay supervision visits to volunteers performing DOT on a regular basis.

Checklists are used and adequate feed back provided to the staff supervised
Reliable transport is indispensable for performing supervision and is the responsibility of the relevant provincial or district management teams

4.3.3 RECORDING AND REPORTING

A reliable TB Information System is an essential component to monitor programme perform-

ance and to identify and correct problems It provides the basis for evaluating progress in achieving programme targets Elements of the TB information system inciude reporting and recording, collection of epidemiological information from other sources and analysis)

For recording the most important documents are the Patient Record, the Laboratory Register and the TB Register Accurate patient records are the prerequisite for compierion of all other documents and represents legal requirements for care of patients

In response to WHO recommendations, a simplified, district-based register has been devised. An additional tool, the electronic TB register, was successfully piloted in 2 provinces since 2000. This system will be expanded to the remaining provinces, together with the revised stationery.

For reporting (adapted) IUATLD/WHO forms are being used.
Reported data wili be analysed at all levels and proper feedback will be given to those who collect the data.

4.3.4 QUALITY ASSURANCE

Quality assurance is essential to providing high quality care at all levels. It includes all activities, such as, the diagnostic service, treatment and monitoring. Description of the quality assurance system for diagnostic services is included in Annex 4, which addresses laboratory services. Quality assurance procedures for each activity need to he specified and written. Routine monitoring of certain indicators is an example of a quality assurance procedure, such as:

- Bacteriological coverage:
- Smear conversion: and
- Treatment outcome.

Routine evaluation of completeness and accuracy of records, comparison of tuberculosis and laboratory records, etc, are important as well.

4.3.5 ADVOCACY

Advocacy aims to win the support of key constituencies in order to influence policies and funding for tuberculosis control.
Advocacy will be a key issue at all levels in the decentralised health system *of* South Africa to obtain continuous support for TB control activities. Advocacy messages need to be targeted to different audiences, an important one being politicians. Various influential groups can be used to transmit the messages. An action plan is required to guide advocacy activities. These activities should contribute to national campaigns (e.g. World TB Day) but always need to be adapted to the local situation and local cultural settings and sensitivities. Advocacy should he done in co-ordination / collaboration with key partners, especially the HIV/AIS/STD programme. A TB-HIV advocacy document wili be developed in year 1 of the MTDP
Advocacy must have a dedicated budget and the impact of advocacy activities must he evaluated.
One advocacy officer in the NTCP will support national and provincial advocacy activities.

4.3.6 INFORMATION, EDUCATION AND COMMUNICATION (IEC)

IEC activities need to be intensified. Proper IEC contributes to tuberculosis control by improving health-seeking and adherence behaviour The outcome *of* these activities is to improve the knowledge of the population about tuberculosis, promote behaviours and life styles beneficial to TB prevention and controi. strengthen the involvement of patients and the entire society in TB control.

IEC activities will be developed, as part of the patient centred approach. based upon the KAP studies done. IEC activities must be developed in co-ordination with the Health Promotion Unit at national and provincial level. IEC must be targeted to solve problems identified at district. facility and community level. IEC activities require a dedicated budget based on actual need.

4.4 PROGRAMME MANAGEMENT

Programme management is required at ail levels *of* the NTCP (facility district, province and national) and involves both technical and organisational activities. Adequate programme management ensures that the complete package of TB control activities can be delivered. Key management activities include: co-ordination, evidence based planning, costing and budgeting, adequate staffing and action orientated monitoring of programme performance. Intra- and inter-level supervision and co-ordination is crucial for sustainable programme development.

4.4.1 STAFFING

There is a need to strengthen human resource allocations in support of the NTCP

In order to ensure that the minimum core package of activities is delivered ar all levels of the health system, the quantity and quality of dedicated staff must be adequate to implement the required activities. Staff allocations are based on detailed task-descriptions describing all core activities at different levels of the programme. Furthermore, local conditions (travel time, population served) must be taken into account. This approach guarantees sufficient time for the delivery of the minimal TB package, but allows provinces and (sub) districts to adopt location-specific soiutions.

At national level the NTCP team is strengthened to meet increasing demands in the fields of co-ordination, technical consuitation, supervision, training, in-patient management including MDR, surveillance and monitoring programme performance. Co-ordination with the HIV Directorate requires speciai attention, especially in the field of advocacy, IEC, and home based care. Although the proposed expansion of staff at National level with 4 additional posts is probably sufficient to deliver the minimal package of supportive activities. the adequacy of nationai staffing has to be closely monitored.

Staffing at provincial and district level needs to be expanded Clear job descriptions must be deveioped At all levels and adequate staff aliocation ensured

In view of the assigned responsibilities at provincial level (see paragraph 3.2.2) besides a full-time TB co-ordinator, additional staff must be present for supervision, training and data management. Co-ordination with relevant Programmes like HIV/AIDS Directorate. NGOs, academic institutions, correctional institutes and mines must be strengthened. Given the increasing number *of* actors involved the establishment of a 'Provincial Co-ordinating Committee for TB control' (PICC-TB) should be considered. The PICC would facilitate and co-ordinate joint ventures and new initiatives within the framework of TB Control set by the Department and based on the National guidelines.

According to WHO guideiines. the optimal district size (management unit) serve a population of 500,000 inhabitants. In larger districts, it is advised to subdivide it into TB operational units, each with appropriate staffing. It must be remembered that this calculation is based upon an estimated incidence of 50 new smear positive cases per *100,000* population. All provinces will critically assess this issue and decide whether a subdivision of their district(s) is indicated, taking into account the above guiding principles

At the district level there must be a TB co-ordinator, possibly with a combined responsibility for the TB and the HIV/AIDS/STD programmes. However, although combination of different responsibilities has been proven feasible and useful in some settings, other observations show that combined responsibilities often result in district co-ordinators being overwheimed by competing demands. In order to prevent the TB pro-

gramme to collapse and to allow for further strengthening and expansion of the DOTS programme, dedicated (sub) district TB co-ordinators must be appointed with protected time for delivery of the core package of co-ordinating and supervisory activities as described in paragraph 3.1.3. Time allocation must be based on the more detailed task descriptions to be developed by the NTCP and taking into account district-specific problems - such as geographical extension and travel time.

Depending on the local situation, supportive staff for supervision and data management should be appointed

The need for a stricter implementation of Directly Observed Therapy (DOT) may require extra involvement of personnel at facility (clinic) and community level (community health care work-

ers). This will be carefully assessed by the district management and will largely depend on the local situation.

In reiation to staffing it is also important to analyse carefully the predicted increasing turn over of staff. due to the HIV epidemic. Also support and mentorship programmes must be set up for health care workers and counsellors to help staff cope and to prevent burn out.

Priorities

- The weaknesses *of* the *NTCP (high* defaulter rates. low *DOT* coverage, lack *of* use *of* programme data for *policymaking)* require *a major strengthening of* the implementing and *supervisory* activities.
- *Therefore, first priority is* to appoint, train and mentor sufficient qualified staff at national, provincial and *(sub)* district-level with focus *on (sub) district co-ordinators.*
- The national team, in close collaboration with the provincial *co-ordinators,* should develop detailed *task-descriptions* to facilitate *the* process *of* adequate staffing *(before* March *2002).*

4.4.2 PRACTICAL GUIDELINES

In 2000 the NTCP/DOH issued the Practical Guidelines 2000 *of* the South African Tuberculosis programme. It will be important to upgrade these Guidelines into National Guidelines, taking into account the agreed policies and strategies *of* this MTDP The participatory process used to deveiop this MTDP guarantees the input of the major stakeholders. It will, however. also be important to ensure that policy guidelines are implemented in all health services: provincial and municipal, military, correctional services, mines and private health care institutions.

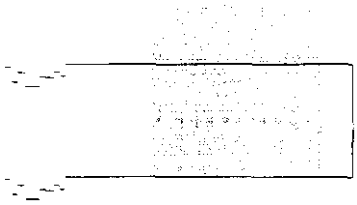
In relation to the required co-ordination with the HIV/AIDS/STD programme, guidelines must be written on how to establish TB/HIV Training Districts including a clear description of who should take responsibility *of* each activity. These guidelines must be based upon experiences acquired from TB/HIV Pilot Districts and Demonstration and Training Districts (DTDs).

Priority

To upgrade the technical guidelines and develop a draft National Manual /including *TB/HIV care)* by June 2002 and to *organise* a workshop *with* relevant stakeholders to review and *finalise* the manual.

4.4.3 DRUG SUPPLY

A regular uninterrupted supply of drugs forms an essential element of the NTCP it requires an effective process of drug ordering, distribution, stock keeping and quality assurance procedures at different levels of the NTCP Based upon the predicted number *of* TB patients and the available supplies, required amounts are calculated for all patient categories, including MDR patients and budgeted for. Also drugs are programmed for preventive therapy as provided for in the National Guidelines. Drug management guidelines will be issued and usage/stock



reporring will be included in the regular reporting system (form 3) Training will be provided on proper drug management to staff responsible

Priorities

- The *NTCP must* focus on strengthening of drug-management *at provincial* ievei, *involving all* relevant Directorates.
- The *possibility* of 'protected funds for *TB* drugs' or ring fencing *must* be explored.
- *In* addition, drug-shortages or worse – treatment interruption - and interruption *of* stock *must* be *systematically* reported *to the* next higher *level*.

4.4.4 LABORATORY SUPPLIES

Based upon the predicted number of TB patients and the guidelines for diagnostic procedures, the amounts of laboratory reagents and equipment will be calculated and budgeted for in order to ensure the continuity of the diagnostic process
Usage/stock reporting will be included in the regular reporting system (form 3)

Priority
introduce *a* systematic monitoring system *for* incidents invoiving shortage *of laboratory* supplies.

4.4.5 LOGISTICS

STATIONARY
Sufficient amounts of registers, recording and reporting forms, technical guidelines. manuals etc. will be calculated and budgeted for by the NTCP.

TRANSPORT
An important issue is the availability of transport for supervision and diagnostic services (transport of sputum-samples] Transport need to be guaranteed: Without transport supervision is impossible. National, provincial and district authorities must tackle this issue in a creative way. There are various alternatives worked out over the years in a lot of countries (refunding of *use* own transport, public transport, joint transport/supervision). However. one must budget as well for acquisition, running and maintenance of own transport for places where the above alternatives are not feasible and/or advisable.

COMMUNICATION
Facilities, laboratories and other relevant institutions and individuals must be equipped with adequate means of communications (phone, fax, computer. e-mail) depending on local needs and procedures.

Priorities

- Lack *of* transport *is seriously jeopardising* case finding activities *(long* smear *turn* around *times)* and supervision throughout the *country*. This problem *must* be

addressed without *further* delay

- Secondly. *the introduction of* the electronic register needs to be facilitated by the *provision of* adequate *hard/software* ***and*** *supporting* materials

4.4.6 PROTECTION OF HEALTH CARE STAFF

The NTCP has developed 'Guidelines for the prevention of transmission of tuberculosis in health care facilities in South Africa' These guidelines will be implemented throughout the NTCP

Special attention should be given to implementing policies to prevendreduce HIV infected staff being exposed to MDR patients

4.4.7 MONITORING AND EVALUATION

Monitoring programme performance is an essential activity in every tuberculosis programme at all levels, from nationai to facility level. It allows programme staff and policymakers to assess base line performance, to monitor progress and to detect system failures leading to potential programme collapse.

A systematic approach to programme performance monitoring and supporting (PPM&S) involves four major activities:

i) Regular supervision;

ii) A systematic and complete collection of data. using the uniform NTCP recording-reporting system;

iii) Operational research focusing on specific programmatic issues. including drug-resistance surveys: and

iv) Aggregation, interpretation and action-oriented use *of* the collected information at the appropriate levels of the NTCP

Supervision comprises regular personal semi-structured visits, which allow for facility/region specific approaches and tailored supportive acrivities. In contrast, the quality assurance and interpretation of routinely recorded programme data (cohort data, drug stock, expenditures/ allow for a more generic approach, following (inter) national guidelines. Research activities are not part of the programme management routine but may be initiated (depending on available funding and technical capacity) to provide a scientific basis for new programme strategies and to evaluate these strategies.

The different levels of the NTCP (national. province and district) have different PPM&S responsibilities.

In the current situation there are widely variable approaches to PPM&S greatly depending on the technical skills, human capacity and local infrastructure.

However. a systematic approach to PPM&S is urgently required and therefore a minimal PPM package for the different NTCP levels must be introduced.

Stepwise approach to implementing uniform minimal PPM&S package in the South frican NTCP

1. Development of a minimal PPM&S package for national, provincial and district levels, describing i) supervisory activities (frequency, content and reporting), ii) quality control and use of routinely collected cohort/patient data, iii) collection and use of operational information (drugs, lab reagents, smear TAT etc).

2. Development d an accessible targeted PPM&S manual for *the national, provincial, district andfacility levels (in the form of a checklist).*

3. *Appointment of a technical skilled PPM&S co-ordinator at national level.*

4. A 'train the trainer course' aiming for high quality PPM&S capacity building at national and provincial level (district level to be trained by provincial level).

5. *Simultaneous introduction and implementation of the PPM&S package at all levels of the NTPP.*

6. Evaluation of the PPM package as a tool for *programme management under routine conditions*

In Annex 6 a minimal set of monitoring indicators is listed for case finding, case holding and programme management. In addition suggestions are done for additional indicators, which may be relevant and feasible in certain settings.

The results of the PHC Review 2000 (component of Health Sector Review 2000) gave a picture that corresponds well with the opinion of the NTCP on the process of NTCP implementation in the provinces. It can therefore serve as a baseline assessment in comparison with the future systematic and continuous PPM&S approach.

In the districts and at the provinces quarterly meetings will be organised to discuss and analyse the quarterly reports and the general progress of the programme.
At national level, such evaluation meetings will be planned twice yearly

Priorities

The development *of* the *minimal PPM&S* pdckdge and the subsequent *translation in manuals* should have *the* highest *priority on* the list *of* National activities.

- Input *of* both *TB* control experts with ample programmatic experience and experts *in* the field *of* trdinlng *is* required.

4.4.8 EXTERNAL MONITORING AND EVALUATION

External monitoring visits in consultation with Stop TB partners will take place on request of the NTCP and terms of reference will be available before the visit. Preferably. these missions should coincide with the half yearly national evaluation meetings.
Provinces can request externai technical assistance if they feel there is a need.

4.4.9 MID-TERM EVALUATION

The MTDP has been written for the years *2001-2005.* The year *2005* has been chosen as end-point because it is the date that rhe South African Government has committed itself to reach the global targets of WHO.
It is realised that this period covers *2* years of the existing Medium Term Expenditure Framework *2000-2003* and 2 years of the new Medium Term Expenditure Framework *2003-2006.* Therefore a Mid Term Evaiuation will take place at the beginning of *2003* to see whether the MTDP needs adaptation in view of the development of the programme and in view of the new Medium Term Expenditure Framework. It could be considered to extend the MTDP at that time to *2006,* in order to let it run parallel with the Medium Term Expenditure Framework *2003-2006.*

4.5 OPERATIONAL RESEARCH

Operational research (OR) is defined as the systematic collection of information linked to the improvement in service provision An outline of this component and a first set of priority issues to be investigated are attached in Annex 7

4.6 GO-ORDINATION AND COLLABORATION

Health services alone cannot manage to reduce the TB incidence Experience throughout the world has shown thatjoint planning and resource sharing among different stakeholders is beneficial for patients and programme

4.6.1 HIV/AIDS & STD PROGRAMME

South Africa is facing one of the worst dual epidemics of tuberculosis (TB) and HIV in the world. TB is the most common opportunistic infection and the biggest killer of people living with HIV in South Africa. Recognising the strong interaction of these diseases, one of the major recommendations of the national reviews of the TB Control Programme in *1996* and the HIV/AIDS&STD Programme in *1997* was to improve collaboration between the HIV/AIDS&STD and the TB Programmes at all levels. Annex 8 gives a detailed description of the proposed collaboration between the two programmes.

4.6.2 MINES AND PRISONS

Mines and prisons are breeding places of tuberculosis due to favourable conditions for transmission of infection, and high prevalence of tuberculosis infection among the population, in Combination with HIV and silicosis. Opportunities for improved TB control comprise strict application of DOT. targeted active case finding and IEC to the community and patients. Inadequate TB control in these settings has the potential of a rapid deterioration of the tuberculosis epidemic, especially given the interaction with the HIV epidemic and in the presence of MDR-TB

Interventions must focus on early diagnosis, adequate treatment and infection control in order to brake the chain of transmission and to prevent the emergence and spread *of* drug-resistant tuberculosis. Referral systems between these institutions and civilian public health services must be strengthened. Although promising initiatives are taking place in some parts of the country, a uniform approach to TB control in these settings is still lacking.

Priorities

- *In* order *to* address the tuberculosis problem *in* prisons and mines, improved communication and collaboration *between* all public and private partners are needed
- A more thorough assessment *of the* actual situation is warranted
- A *stepwise* approach *to TB* control in *prisons* and mines is described in Annex *9*

4.6.3 OTHER KEY PARTNERS

The actions to be taken in the MTDP related to the most relevant partner organisarions. SAPS. NGOs, Universities and private health care organisations, are detailed in Annex *9*.

5. PROGRAMME BUDGET

From the calculations of Dr Styblo, the godfather of the DOTS strategy, it can be inferred that from a cure rate of 75% and higher one can expect a substantial reduction in the prevalence of sources of infection in the population concerned. Even with the onslaught of HIV transmission and its negative effect on the incidence of tuberculosis cases, Styblo demonstrated in Tanzania that with a result oriented application *of* DOTS under routine programme conditions. the great majority of infectious cases can be effectively cured, and the failure rate reduced. Before the HIV epidemic, cure rates of 85% under routine programme conditions would accelerate the decline in the risk of infection with an estimated %% per year. thus halving the rate of infection in about 15 years.

Now, with the tremendous increase of sources of infection in places where HIV infection is widespread, the most important target is to contain the present rate of transmission by effective treatment delivery to all diagnosed infectious cases and keep the tuberculosis problem within manageable proportions until the rate of HIV transmission levels off. After levelling off of HIV infection. a decrease in the rate of tuberculosis infection can then be expected which will be followed by a decrease in tuberculosis incidence. Till that rime. we must prevent the situation that tuberculosis becomes managerially and epidemiologically out of control.

In the following paragraphs a first step is taken to define the financial resources needed for tuberculosis control in South Africa in the coming years. By March 2002 the provincial TB coordinators, in collaboration with their national and financial colleagues will present a more detailed budget and a funding strategy. This strategy shouid include partnerships between financial agencies and the provincial offices.

5.1 OVERALL BUDGET

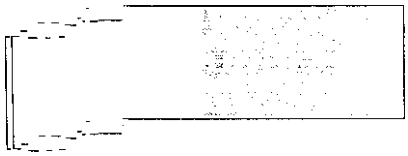
Table 4 presents a calculation of the number of TB patients to be expected over the years 2001-2005.

Table 4: Estimation no. T6 patients, 2000-2005

YEAR	POPULATION	TB ALL CASES		TB N+	
		Incidence/100,000	Number	Incidence/100,000	Number
2000	43685700	544.5	237869	221.3	96685
2001	44327900	599.0	265502	243.5	107917
2002	44979500	658.8	296345	267.8	120454
2003	45640700	724.7	330772	294.6	134447
2004	46311600	797.2	369197	324.0	150066
2005	46992400	876.9	412087	356.4	167499

1999	43054300	495/100,000	201 2/100,000
	1 47% increase	10% increase	10% increase

These estimations are based upon an annual population increase of 1 47% and an additional increase in tuberculosis incidence of 10% yearly The latter is the average increase as calculated by WHO for the Sub-Saharan African countries and is due to the HIV epidemic



According to the data avaiiabie to the NICP the current overall budget for TB control is R 500 million This amount has been used to make an estimation of overall costs of the NICP in the coming years The data are in table 5

YEAR	PATIENTS		COSTS	
	Incidence	Notification	Incidence	Notification
2000	237869	160178	742627018	500075716
2001	265502	181441	828897244	566458802
2002	296345	205482	925189090	641514804
2003	330772	232661	1032670184	726367642
2005	369197	263381	1152633034	822275482
2005	412087	298099	1286535614	930665078

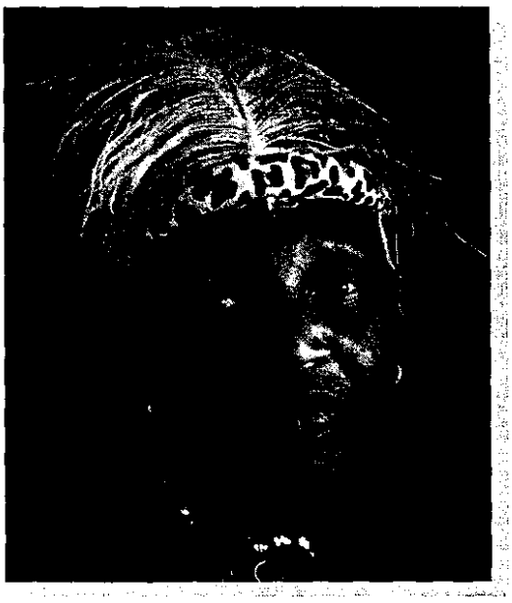
5.2 FINANCING SOURCES

After having agreed upon the activities, it needs to be determined which part of the budget will be funded by central and which part by provincial budgets Afterwards it must be analysed where gaps exist and whether external funding should be looked for to fill these gaps
Peer audits on expenditures versus outcome should be introduced

5.3 SUSTAINABILITY

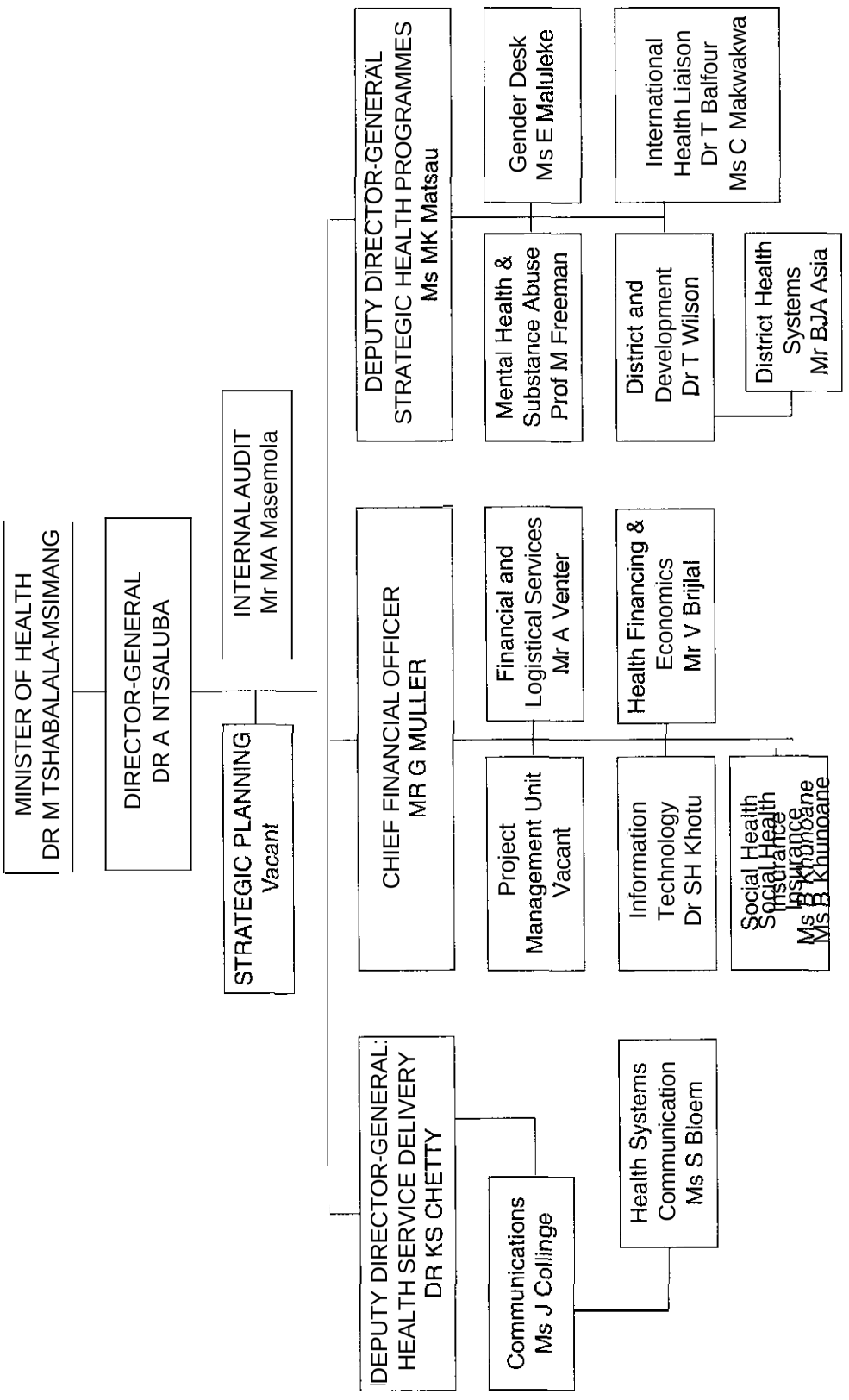
Sustainability is defined as the continuation of adequate funding and allocation of human resources for TB control until TB has ceased to be a public health problem in South Africa. it is clear that controiiing the Tuberculosis epidemic in South Ahica wiil require a long-term funding commitment of the national and provincial authorities, at least for the next two generations.

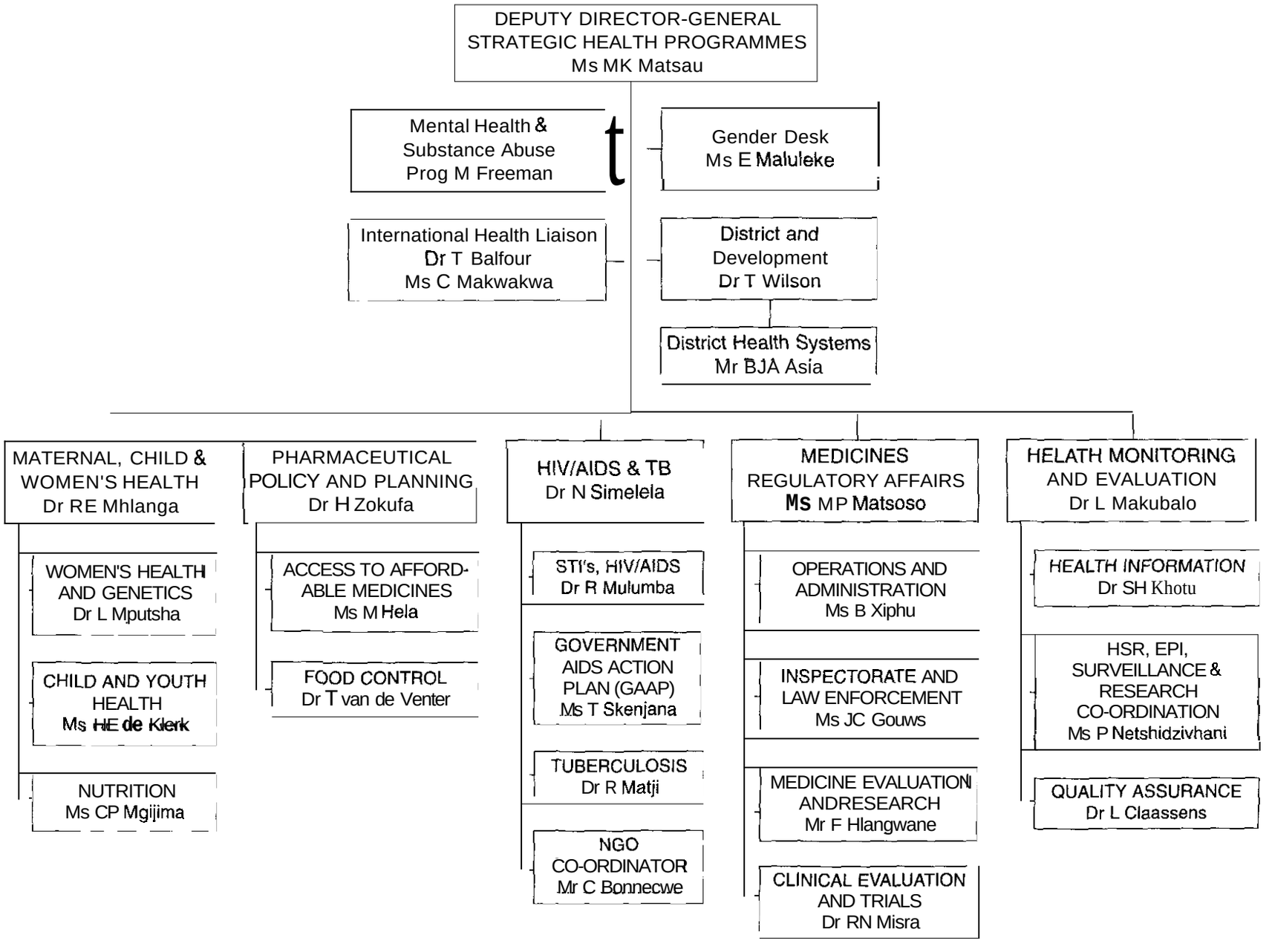
From experiences in other high burden countries like Peru and Vietnam, it is known thal one requires a full-scale DOTS implementation of 8 lo 10 years before an impact on the epidemic becomes visible. However. even at that stage the funding requirements must continue for a long time as the experience in western countries is showing: decreasing incidence in countries that maintained their programme and enormous costs in countries (New York. USA) where that programme was terminated prematurely One way of guaranteeing sustainability is assigning tuberculosis control activities a dedicated part of the regular budget. This should be achieved in the Medium Term Expenditure Framework 2003-2006



ANNEX 1 A

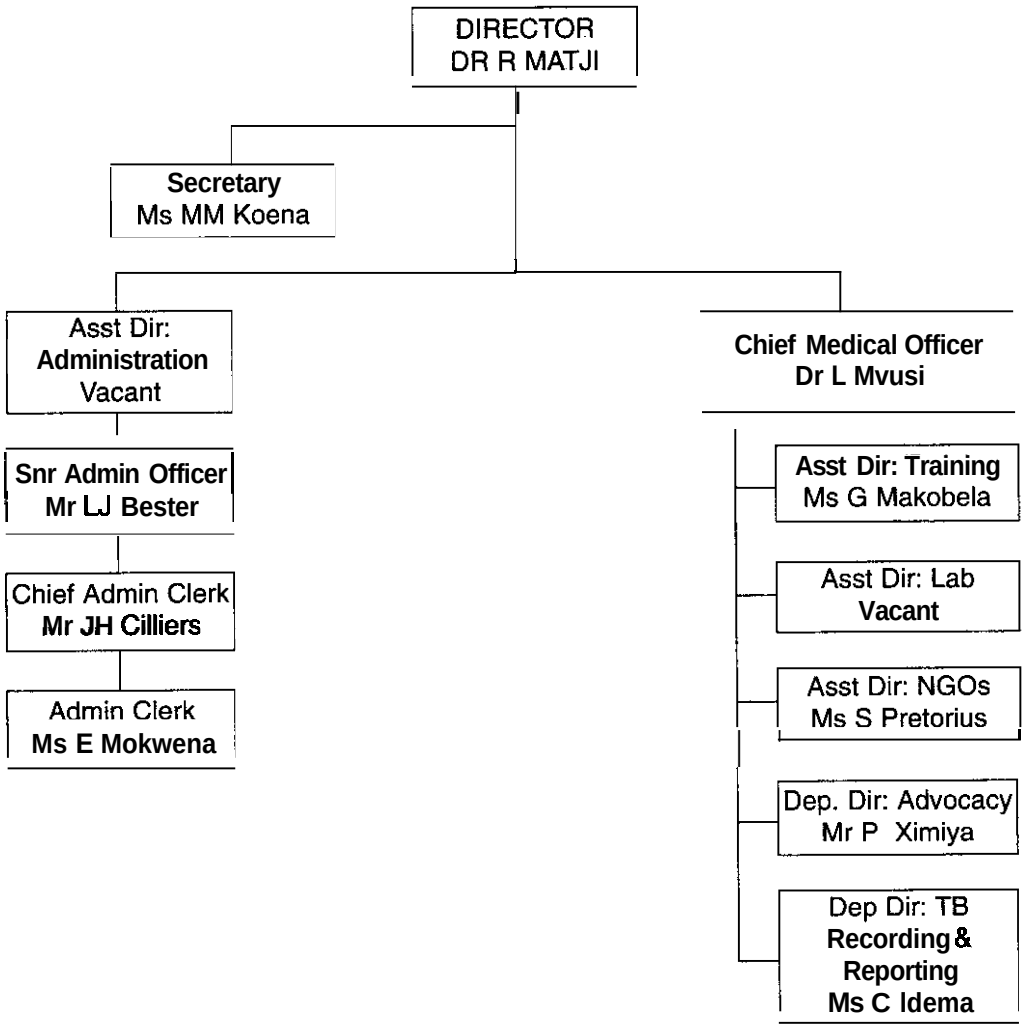
ORGANOGRAM DEPARTMENT O■ HEALTH




DEPUTY DIRECTOR-GENERAL
STRATEGIC HEALTH PROGRAMMES
Ms MK Matsau
Mental Health & Substance Abuse
Prog M Freeman
Gender Desk
Ms E Maluleke
International Health Liaison
Dr T Balfour
Ms C Makwakwa
District and Development
Dr T Wilson
District Health Systems
Mr BJA Asia
MATERNAL, CHILD & WOMEN'S HEALTH
Dr RE Mhlanga
PHARMACEUTICAL POLICY AND PLANNING
Dr H Zokufa
HIV/AIDS & TB
Dr N Simelela
MEDICINES REGULATORY AFFAIRS
Ms MP Matsoso
HELATH MONITORING AND EVALUATION
Dr L Makubalo
WOMEN'S HEALTH AND GENETICS
Dr L Mputsha
CHILD AND YOUTH HEALTH
Ms HE de Klerk
NUTRITION
Ms CP Mgijima
ACCESS TO AFFORD-ABLE MEDICINES
Ms M Hela
FOOD CONTROL
Dr T van de Venter
STI's, HIV/AIDS
Dr R Mulumba
GOVERNMENT AIDS ACTION PLAN (GAAP)
Ms T Skenjana
TUBERCULOSIS
Dr R Matji
NGO CO-ORDINATOR
Mr C Bonnecwe
OPERATIONS AND ADMINISTRATION
Ms B Xiphu
INSPECTORATE AND LAW ENFORCEMENT
Ms JC Gouws
MEDICINE EVALUATION ANDRESEARCH
Mr F Hlangwane
CLINICAL EVALUATION AND TRIALS
Dr RN Misra
HEALTH INFORMATION
Dr SH Khotu
HSR, EPI, SURVEILLANCE & RESEARCH CO-ORDINATION
Ms P Netshidzivhani
QUALITY ASSURANCE
Dr L Claassens

ANNEX 2

ORGANOGRAM CENTRAL UNIT NTCP



ANNEX 3

PATIENT CENTRED APPROACH

This section deals with the health provider and patient factors that have the potential to have a negative effect on patient access to care. It focused on the current 'style' of communication between health providers and patients and staff development. The aim is to persuade health providers to move from the normative authoritative, 'cop-down' pattern of communication to a more patient centred approach. Focus is on developing a partnership with the patient and to facilitate the TB patient assuming responsibility for his/her own recovery. The discussion also touches issues related to staff support and supervision.

Constraints

- Staff has nor enough time for an in-depth interview
- Health providers lack the interviewing skills for a patient-centred approach,
- Nurses perceive their role as providing clinical case management rather than psycho-social care,

- Health providers attempt to avoid dealing with painful issues caused by the patient's poverty, such as malnutrition;
- Health providers tend to have a checklist mentality that encourages a task-orientated approach to patient management;
- The patient feels stigmatised by the diagnosis and does not wish disclosure to their employers or significant 'others':
- The health unit teams are not receiving the degree of support and supervision that they require from middle management:
- The staff is overwhelmed by the expectations of the managers of the PHC;
- The management style is perceived to be authoritarian and non supportive; and
- Health Unit staff are often perceived as being disorganised and manage their time very poorly

Priorities

i) KAP studies needed to better understand the health seeking behaviour (for Western and traditional health care) and related perceived stigmatisation.

ii) Clinics to offer more patient centred services including adequate infrastructure, friendly opening hours, minimal waiting time at diagnosis and during rreatment. logistics (laboratory and drugs) well at place and supportive DOT /if feasible at working place as well).

iii) IEC materials to be adapted to the social and cultural environment in which they are going to be used.

iv) Incentives for patients (travel reimbursements. food/ to be studied, piloted and evaluated.

v) Health providers to be trained in communication and interviewing skills, rime management interpersonal relationships and attitudes. These skills will be appraised routinely and be part of thejob description.

vi) Supervisors to be trained in giving supportive supervision, including systematic feedback and problem solving processes.

vii) Management Io assist health unit staff develop a system of prioritisation according to the specific settings in which they work.

viii) District management to identify all factors in the community that may be can be utilised as a resource.

ix) Incentives for volunteers to be developed in co-ordination with other programmes.

ANNEX 4

LABORATORY SERVICES

THE NETWORK

The National Health Laboratory Services (NHLS) will be implemented through out South Africa and it is hoped that the implementation phase will be completed within rhreeyears. NHLS branches will be seven and they will address the deficiencies that were existing before restructuring. All provinces will have access to cuiture and drug susceptibility testing facilities and at least one tertiary institute laboratory for research purposes. The NTCP will ensure that all 278 laboratories [previously State run and SAIMR) have basic laboratory facilities to render smear microscopy services.

However, there are also a number of academic, local authorities and private pathology laboratories used by General Practitioners The use of these laboratories in diagnosing tuberculosis is still very limited and if so, the standardised laboratory protocol is frequently not being followed

Priority

- The NTCP should communicate with *these* laboratories *to* include *them* in the national network Training on NTCP general guidelines and *on AFB TB* culture and *laboratory* management should be offered

LOGISTICS. QUALITY ASSURANCE AND SUPERVISION

At this moment the supply and payments of laboratory commodities is rather fragmented:
Sputum containers are currently supplied to the clinics, hospitals from different sources e.g. Regional hospitals. District management, Local hospitals, and SAIMR laboratories.
Microscopes are supplied by the institution where the laboratory is situated. NTCP supplied the TB laboratories in all nine Provinces with 58 light microscopes and eight Fluorescence microscopes in the passed two years.
The individual laboratories purchase stains and chemicals and payment is made by the hospital, the institution or the district.
Culture and susceptibility testing – This is done by 12 iaboratories through out the country. Provinces without culture facilities refer their work to neighbouring laboratories with the facilities.
In some situations. the Provinces failure to pay SAIMR for the services rendered lead to SAIMR terminating its laboratory services in that particular Province.

Priorities

i) Procurement of reagents and equipment *will* be *centrally* controlled.

ii) *National support* to *NHLS and to* provinces will be provided.

iii) There *is a* clear need for dedicated and guaranteed budgets for *laboratory activities.*

iv) Service ford fee may nor lead to districts to cut on the usage of the laboratory for diagnosis

The National TB Control Programme is utilising SAIMR central laboratory to supply all regional TB laboratories with quality control materials in the form of slides or sputum sample. This is done three times a year. Each regional laboratory is preparing quality control material for its local or district laboratories. This process is still at its infancy and the main problem encountered is lack of transport for laboratory services that cause a delay for sample to reach the laboratories. All laboratories doing smear microscopy service are using these known smear positive sputum and negative sample with every batch of specimen they process. Quality control samples are read first and resuits are recorded in the register.

Priorities

i) TB Quality control will be centrally controlled
ii) Dedicated transport for specimen collection will be in place
iii) Regular laboratory supervisory visits will be conducted

SMEAR MICROSCOPY EXAMINATIONS AND CULTURE

Two sputum specimen are taken on three separate occasions during the course of diagnosis and treatment of patients with PTB:

- For diagnosis;
- During treatment (at two months for new cases and at three for re-treatment patients); and
- At end of treatment (at months or 6 months for new cases and after 7 months in re-treatment cases).

Though the sputum result Turn Around Time has been reduced considerably over the past years, there is still room for improvement both in communicating the result to the clinic staff (responsibilitylaboratory staff] as tracing/informing the patient after reception of the result (responsibilityclinic staff]

According to the diagnostic pathway sputum culture is performed for the diagnosis of smear negative patients and retreatment patients The increase of HIV positive smear negative *sus*-pects is overburdening the culture facilities at the laboratories Critical issue is as well tracing the smear negative culture positive patients since the long time period between collecting the sputum and getting the result

Priorities

i) Turn Around Time of sputum results to be further reduced by improving communication between laboratory and clink 2nd by improving tracing system of examined suspects.
ii) A situational analysis to be conducted to review the laboratory network, including smear microscopy and to establish the optimal capacity for culture facilities and recommended actions to be implemented,

LABORATORY REGISTERS

All laboratories use laboratory registers, while in some provinces electronic registers are in use. Unfortunately the laboratory register does not follow the WHO/IUATLD recommended format, making proper analysis and relation with the District TB Register practically impossible. The latter is also complicated by the lack of communication/co-ordination between the staff of laboratory and clinics/TB co-ordinacors.

Priorities

i) NTCP and NHLS *to* adapt the NHLS *laboratory* register *to* the needs of the NTCP. Agreement *to* be reached and corrective action *to* be implemented during the *first year of* the *MTDP*.

ii) Communication and co-ordination between NHLS and NTCP *staff to* be improved at all levels. Joint supervision visits *to* be considered and NHLS *staff* to participate *in* all co-ordination and evaluation meetings.

TRAINING OF LABORATORY STAFF

Training of laboratory staff in tuberculosis control is an essential part of the NTCP activities at all levels. All provincial TB laboratory co-ordinators have been crained on standardised smear microscopy services. TB culture procedures, completion and the use of TB laboratory register and quality control. Discricc staff is trained on sputum collection, direct microscopy of AFB and the use of laboratory register. Follow up training is needed as well as assessment of the impact of chis training.

A standardised training manual on AFB, TB culture and management is available while a training manual on management on TB laboratory networking is being developed.
A critical point is that the Health Professional Council of South Africa policies prevent the use of non-laboratory trained personnei to conduct tests i.e. only technologists and technicians can be [rained to do laboratory tests. Another constraint is the absence of a dedicated and adequate provincial budget for TB laboratory training.

Priorities

i) Support *from* National and Provincial government to be obtained *on capacity* building *of* laboratory *staff*

ii) Training *on* planning and management *of* tuberculosis laboratory network skills *to* be programmed for provincial, regional and *district* levels. Courses will be organised *for* the provinces, followed *by* exchange of experience *between* colleagues and support during the field visits.

iii) Effectiveness *of* the training conducted *to* be assessed by developing indicators *on* knowledge, skills and attitudes of *staff*

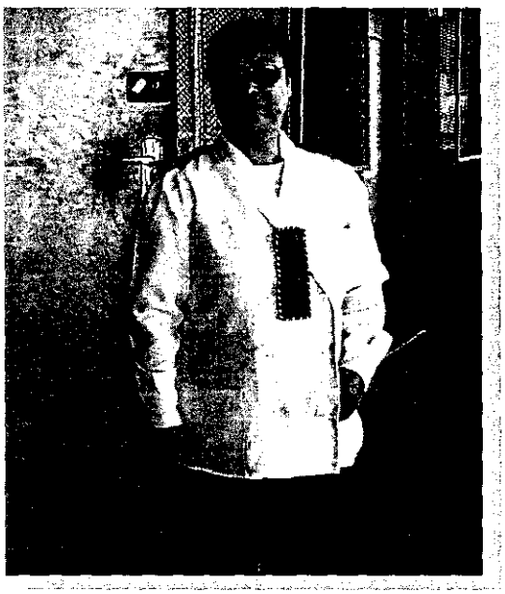
iv) National and Provincial laboratory co-ordinators to *participate in* international TB laboratory courses to strengthen *capacity related to* latest developments *on TB laboratory* issues.

ANNEX 5

DRUG RESISTANT TUBERCULOSIS

INTRODUCTION

Drug resistant tuberculosis, especially multi-drug resistant tuberculosis (MDR-TB).forms a serious threat to global tuberculosis control because MDR-TB is not only extremely expensive, but also very difficult to treat. Recalling that MDR-TB is man made and occurs solely because of inappropriare prescription of drugs, failing drug management (bad quality of drugs, interruption of stock). or inappropriate taking of drugs, it is clear that settings with a high prevalence of MDR-TB are least likely to be able to deal with the far more complicated management of MDR-TB. Thus, before introducing MDR-TB treatment (DOTS+) on top of a basic DOTS programme, the causal factors for the emergence of drug resistance in that setting have to be identified and dealt with. Introducing treatment of MDR-TB in settings with poor DOTS programme performance will result in ongoing production of new MDR-TB cases. Furthermore, failure to adequately use rhe few second-line drugs available will destroy the last tools available to combat drug-resistant tuberculosis and will eventually result in super-resistanr strains and thus in an uncontrollable tuberculosis situation which will affect all levels of the South African society regardless of potential funding.



It is of utmost importance to regard the MDR-TB problem in South Africa as a part of the NTCP responsibility and thus *to* tackle it within the context of that NTCP. The South African NTCP recognises that a wide range of conditions in addition to the 'DOTS-package' must be met in order for a MDR-TB treatment programme /DOTS+ intervention) to be safe and effective. Therefore the following stepwise approach is agreed on.

A logical stepwise approach to control MDR-TB in South Africa involves:

- The collection and inrerpretation of representative national and provinciai drug resistance surveillance (DRS) data;
- A review of rhe current tuberculosis control programme in provinces with high levels of (M)DR-TB, including a systematic analysis of the treatment delivery process in order to identify the factors responsible for rhe emergence of drug-resistant tuberculosis in that setting;

- Ensure that all causal factors identified are addressed;
- Introduction of infection control measures targeting MDR-TB patients in order to prevent nosocomial (super)infection of especially HIV infected patients and staff;
- The introduction of a technically sound DOTS-plus package (guidelines) as an integral part of the NTCP (tailored to the local infrastructure and available funding):
- A system of internal and external monitoring and quality assurance, dealing with all essential elements of a DOTS+ programme, such as laboratory quality control. treatment delivery, an adopted recording reporting system and cohort analysis.

This stepwise approach is in line with the international guidelines for establishing DOTS-plus pilot projects for the management of multi-drug resistant tuberculosis.
Compliance with these guidelines will further allow the NTCP or a subset of provinces to participate in the pooled procurement process for preferentially priced second line drugs.

TIMEFRAME

Phase 1 has already been initiated by the NTCP in close collaboration with MRC in all nine provinces. The process of collecting and interpreting data will be finished shortly.

Phases 2, 3 and 4 should be realised within the time frame of this MTDP It must be stressed that the process of analysing and solving problems leading to the emergence of drug-resistant tuberculosis is ajoint venture of the three main levels of the NTCP: National level [national overview, training, research, drug tenders, guidelines, supervision), provincial level [managerial and technical evaluation and co-ordination, planning and costing) and district level [responsibilities largely depending on local situation and the status of health sector reform).

Ideally phase 4 and 5 are introduced simultaneously after completion of the previous phases. However, in reality provincial MDR-TB treatment centres have been established already and technical and operational approaches are based on existing national guidelines.
In the actual situation a logical approach involves the following steps:

- A comparison of national guidelines with international guidelines and if necessary modification of the national guidelines (responsibility of national);
- A systematic review of the quality of care delivered by the MDR-TB treatment centres with special focus on:
  - i) Availability and access to MDR referral centres:
  - ii) Timely referral of MDR suspects to the referral centres:
  - iii) Continuity of drug supply:
  - iv) Adherence to the guidelines [regimens, reporting recording system, DOT):
  - v) Treatment delivery after hospitalisation (referral, defaulter/ interruption rate, supervision of treatment), including the use of step down facilities;
  - vi) Management of side effects:
  - vii) Availability of laboratory facilities and laboratory quality control; and

viii) Costs involved (responsibilityof nationai in *close* coiiaboration with provincial authorities; consider international consultancy).

- Plan of Action depending on the results *of* the review, involving supportive and if necessary restrictive measures (responsibilitynational and provincial level).

Given the potential negative epidemioiogicai and economic impact of inadequate treatment of MDR-TB these 3 steps must be finaiised within the first year *of* the MTDP

The foliowing additional issues need to be addressed in this Plan of Action as well:

- Strategies to address the specific needs of MDR tuberculosis patients, such as targeted counselling and evaluation *of* family profiles. specific grants for MDR tuberculosis patients while on treatment, and procedures to prevent treatment interruption (e g occasional pass-outs from hospital, leave to collect pensions, etc)

inter-departmental coiiaboration (e.g. with the Department of Welfare) should be formalised *to* address the social probiems of MDR tuberculosis patients:

- The ethicai and iegai impiications *of* MDR tuberculosis treatment in SA as a consequence of conflict between existing public health legislation and the Constitution and Biii of Rights need urgent attention, as health care providers are increasingly faced with difficult issues, such as termination of non-responsive treatment, habitual treatment interrupters, refusals to be treated or admitted to hospital, and patient vs community rights.

ANNEX 6

PROGRAMME MONITORING INDICATORS

Case finding

NDICATOR	DESCRIPTION	SOURCE	:OLLECTION	LEVEL	RANGE/ NOTES
Proportion of smear positive pulmonary cases among TB suspects	No. of smear positive pulmonary cases detected divided by the total number of suspects	laboratory register	Supervision	All	5-20%
Case detection rate new smear positive pulmonary cases	No. new smear positive pulmonary cases as percentage expected number of incident cases	R&R	Quarterly report	National National	70% (1) WHO (1) objective
Proportion pulmonary smear positive cases out of all pulmonary cases	No. new smear-positive pulmonary cases divided by total number of pulmonary cases	R&R	Quarterly report	All	50-70%
Retreatment ratio	No. of smear positive retreatment cases (relapses and other retreatments) divided by the sum of new smear positive pulmonary patients and retreatment cases.	R&R	Quarterly report	All	Only ss+ RRx cases counted, not other RRx cases
HIV positivity among TB patients	No. HIV + TB patients divided by all TB patients	Sentinel report	Sentinel Survey	All	(Not an indicator; epidemiol ogic profile).
Accessibility of laboratory service	No. laboratories with sputum smear services divided by no. all laboratories. (in NHLS)	Progress reports	Half-yearly valuation meetir	Province National	Area specific
Smear result turn around time	Number of days elapsed between receiving sputum specimens from the patient and receiving results Definition is important. Delay in sending should be part of undesirable delay.	Sputum referral form Laboratory register	Supervision	All	0-48 hour

ANNEX 6

Case holding

INDICATOR	DESCRIPTION	SOURCE	COLLECTION	LEVEL	RANGE
1. Ratio smear positive pulmonary patients put on treatment	No. smear positive pulmonary patients in TB register divided by no. in Laboratory register	TB register Laboratory register	Supervision	All	95-100%
2. Conversion rate at 2 (3)months	No. smear positive cases that convert from smear positive to smear negative at 2 (new smear positive patients) and 3 (retreatment patients) months	R&R	Quarterly report	All	> 85%
3. Treatment outcome	Cure, completion, success, failure, death, default and transfer rates for different patient categories	R&R	Quarterly report	All	> 85%
4. Drug resistance	Drug resistance patterns under different re-treatment categories?	Progress reports	Yearly evaluation meeting	Province National	
5. Access and acceptance of VCT	Proportion of TB patients receiving VCT out of all registered patients	Progress reports	Yearly evaluation meeting	Province National	

Programme management

NDICATOR	DESCRIPTION	SOURCE	COLLECTION	LEVEL	RANGE
. DOT(S) coverage	No. districts Implementing DOTS strategy as percentage all districts in province/country No. of clinics offering DOT services, as percentage of all PHC clinics No. of patients receiving community-based DOT as percentage of all patients	Progress report	Half-yearly evaluation meeting	Province National	100% 100% Area spacific indicator given that all patients get DOT
. Supervision	No. of clinics offering DOT convert from smear positive to smear negative at 2 (new smear positive patients) and 3 (retreatment patients) months	Progress report	Quarterly report	Province National	75%
. Reporting	Cure, completion, success, failure, death, default and transfer rates for different patient categories	R&R	Quarterly report	Province National	100%

***Programme management** (contd)*

INDICATOR	DESCRIPTION	SOURCE	COLLECTION	LEVEL	RANGE
4. Drug accounting	**Proportion and type of drugs and supplies used in a quarter compared to the estimates for that quarter**	**R&R**	**Quarterly report**	**Province National**	**90-110%**
5. Drug stocks	**Various stocks of TB drugs at district, provincial and national level, expressed in Month/Supplies**	**Quarterly drug stock reports**	**Quarterly**	**Unit, District, Province**	**> 3m/s > 3m/s > 6m/s (2)**
6. Sputum smear quality control	**Proportion of slides false positive or negative in QA sample** **Proportion of agreement in sputum smear quality control**	**QA report**	**Supervision**	**Province National**	**FP: 0-2% FN: 0-5%** **95% or higher**
7. Training	**Proportion of training sessions conducted as proportion of sessions programmed**	**Progress reports**	**Quarterly report**	**All**	**> 80%**
8. Drug Resistance	**Prevalence and trends of drug resistance, MDR-TB in particular**	**Project report**	**Survey**	**Province National**	**IR: 0-1% AR: 2-4% (3)**

(1) WHO target of 70% is utilised for national purposes. However, calculation of the case detection rate is problematic because it is difficult to establish the denominator of real incidence, due to HIV/TB and absence of reliable data on the Annual Risk of Infection.

(2) At any given time drugs stocks should not be below the given target, to ensure efficient drug distribution and uninterrupted drug supply. It means that reserve stocks in each province should be 12 m/s at the moment that a new supply is delivered.

(3) Initial resistance: Convention is that this should ideally be 0%, not more than 1%. Acquired resistance should be low as well, but will be somewhat higher than IR.

ANNEX 7

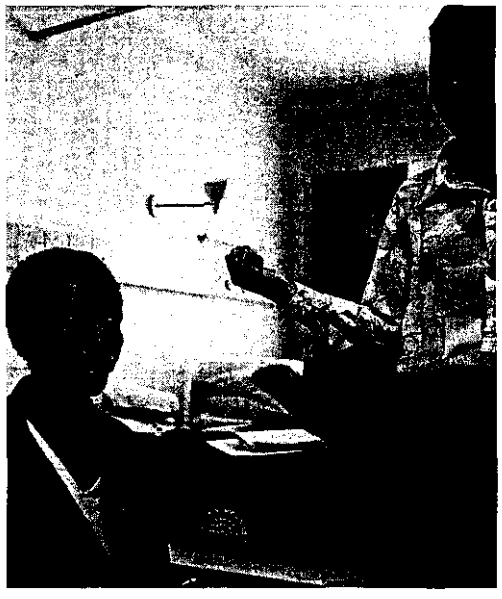
OPERATIONAL RESEARCH

Operational research (OR) is defined as the systematic collection of information linked to the improvement in service provision. The process is delineated as an iterative process of:

- Describing the situation;
- Analysing the problem;
- Planning an intervention/change;
- Evaluating the effects of the change; and
- Recommendations.

The NTCP should focus on OR that will assist programme implementation rather than basic and clinical research.

Though there is recognition that OR is part of the NTCP and that funds should be allocated to it. there are a couple of critical issues that need to be dealt with before it can be implemented effectively and efficiently:



1. Most health care providers are not interested in OR, perceiving it as an expensive luxury, complicated. more aimed at personal advancement than at improving the delivery of care and distorting routine performance:
2. Many researchers do not acknowledge local knowledge and expertise of health care providers in the field, operate In a rather isolated way and do not provide adequate feed hack of research results to the community and the health care providers;
3. Staff of the NTCP may not he trained to reflect critically upon the daily routine and the quality of the recording and reporting system may be so poor that it masks more that reveals problems:
4. OR is not properly co-ordinated leading to wrong priorities, duplication. inadequate feed back of results to relevant authorities; and
5. Funds for *OR* are part of health system research and managed by the Health Systems Research Unit at DOH **and** not by the NTCP;

Priorities

i) *OR related to tuberculosis controi needs to be integrated into the NTCP (including an adequate dedicated budget) and co-ordinated by the central level of the NTCP.*

ii) *Formulating OR questions is part of the responsibilities of the national staff and the provincial co-ordinators.*

iii) *Training must be provided to enable health providers to participate in basic OR.*

iv) *Conduct an audit of what research is being conducted by government, MRC, universities, mines. donors and UN agencies.*

v) *Convene a meeting to define roles among programmes in the Department of Health and the MRC.*

vi) *Convene a national workshop to prioritise research and identify funding for key research activities.*

vii) *Appoint a research co-ordinator at the central level.*

The following research questions (mainly related to TB-HIV) are already identified:

1. CONTINUUM OF CARE - SEAMLESS CARE

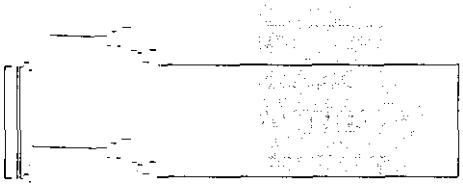
- *What is the TB/HIV patient'sjourney through the health system?*
- *How effective are different referrai mechanisms?*
- *What is the role of hospitals and step down facilities in TB/HIV care?*
- *How effective are DOTS supporters in HIV prevention, VCT promotion and condom distribution?*
- *How effective are home based carers in providing DOT?*

2. BEHAVIOUR CHANGE

- *What is the impact of voluntary counselling and rapid HIV testing on HIV risk behaviours?*
- *What is the impact of combined TB/HIV messages on stigma towards people with TB?*

3. ADHERENCE

- *Is adherence to TB treatment different in people who are HIV-positive compared to people who are HIV-negative?*
- *What are reasons for good and poor adherence to TB preventive therapy and cotrimoxazole prophylaxis7*
- *What are the best mechanisms to support people living with HIV raking TB preventative therapy or cotrimoxazole prophylaxis7*



4. CARING FOR THE CARERS

- How effective are the draft guidelines that have been developed for caring for the carer?
- How effectively have post-exposure prophylaxis and protection of health worker guidelines been implemented?
- What is the impact of health workers getting sick with TB or HIV-related diseases on service delivery?

5. DIAGNOSIS

- How many *TB* cases are detected through active case finding linked to posr-test counselling for HIV-positive clients and screening for TB preventive therapy?

6. TREATMENT

- How can directly observed treatment be used for delivery of HAART?

7. NUTRITION

- What is the impact of nutritional support on TB treatment outcomes?

8. PROPHYLAXIS

- What is the impact of TB preventative therapy on TB incidence and isoniazid resistance?
- What is the cost-effectiveness of *TB* preventive therapy?
- What is the impact of cotrimoxazole prophylaxis on TB mortality and corrirnoxazole resistance?

9. TRADITIONAL HEALING

- What is the role of traditionai healers in identifying and referring TB suspects?
- What is the impact of traditional medicines on managing side effects of TB drugs?

10. COSTING STUDIES

- What are the costs and what is the cost-effectiveness of the DOTS programme?

11. ECONOMIC IMPACT STUDIES

- What is the economic impacr of the tuberculosis epidemic on patients, their household, the health care system and the country?

ANNEX B

TB-HIV ISSUES

THE BURDEN OF TB AND HIV

South Africa is facing one of the worst dual epidemics of tuberculosis (TB) and HIV in the world. It is estimated that 4.7 million South Africans are infected with HIV of whom 1.7 million will get sick with TB before they die. The prevalence of HIV in pregnant women has increased from less than 1% in 1990 to 24.5% in 2000. It is estimated that 250 000 South Africans will die of AIDS this year and that there will be nearly one million AIDS orphans by 2005. The number of TB cases reported in South Africa was relatively stable between 1980 and 1989. Fuelled by the rise in HIV prevalence, reported TB cases increased from about 60000 in 1989 to 147 578 cases in 1999, an increase of 246%.

TB is the most common opportunistic infection and the biggest killer of people living with HIV in South Africa. HIV, by attacking the immune system, increases the lifetime risk of getting sick with TB after being infected with TB from 10% to 50%. TB also accelerates HIV disease. It is estimated that 50% of TB patients in South Africa are infected with HIV. As a result of HIV infection, many TB patients get sick and die from other opportunistic infections, HIV-positive TB parients have mortality rates that are 2 to 4 times higher than HIV-negative patients. ranging from 6% to 39% in sub-Saharan Africa.

Because of the similarity of symptoms in TB patients and people living with AIDS, some people are unclear that the diseases can occur independently. It is important for rhe public to realise that although HIV increases the risk of developing TB, not all HIV-positive people have TB and nor all people with TB are HIV-positive. People with TB or HIV face similar problems of stigmatisation, fear and discrimination and have shared needs for counselling, care and support. Both HIV/AIDS and TB are more common in social-economically-stressed communities. Innovative approaches to poverty alleviation are required to help HIV and TB prevention.

THE NEED FOR TB/HIV COLLABORATION IN SOUTH AFRICA

Recognising the strong interaction of these diseases, one of the major recommendations of the national reviews of the TB Control Programme in 1996 and the HIV/AIDS&STD Programme in 1997 was to improve collaboration between the HIV/AIDS&STD and the TB Programmes at all levels. At national level, there have already been many activities of collaboration in the areas of policy formulation. advocacy. training and provincial support visits. A Joint Strategy for HIV/AIDS&STD and TB Control in South Africa was developed last year and endorsed by provinces and senior management at the Department of Health. TB/HIV collaboration is also being addressed in an Integrated Plan for Children Infected and Affected by HIV/AIDS involving the Departments of Health, Welfare and Education. At provincial level, all provincial co-ordinators for HIV/AIDS&STD and TB have met to identity areas for collaboration and conduct joint operational planning.

TB/HIV pilot districts were established in 1999 to implement and evaluate a comprehensive package of HIV/AIDS/STI/TB prevention. care and support at district level. Provincial Heads of Health have decided to use the lessons learned from the TB/HIV Pilot Districts In well functioning TB Demonstration and Training Districts from 2001 to 2005. Districts that introduce TB/HIV activities will be called TB/HIV Training Districts. All provinces except the Western Cape have developed business plans to establish a TB/HIV Training District this year.

INTERNATIONAL RECOGNITION OF THE NEED FOR TB/HIV COLLABORATION

There is increasing recognition globally of the need for improved collaboration between HIV/AIDS&STD and TB programmes. *To* counteract the impact of HIV, a significant expansion in scope of the Directly Observed Treatment, Short-course (DOTS) strategy is required beyond effective case finding and cure, through a range of interventions earlier in the sequence. These interventions inciude measures to decrease HIV transmission (e.g. voluntary HIV counselling and testing, condom promotion.

STI management, preventive treatment for tuberculosis and antibiotic prophylaxis against bacterial infections) Continuity of care is another issue to be dealt with

WHO in collaboration with UNAIDS is co-ordinating the "ProTest Initiative" which is investigating how to interrupt the sequence of events by which HIV infection fuels the tuberculosis epidemic, by promoting voluntary counselling and testing for HIV as an entry point to access to a range of HIV and TB prevention and care interventions. South Africa is participating in the ProTest Initiative through the TB/HIV Pilot Districts. Increasing international interest in TB/HIV collaboration has culminated in WHO and UNAIDS co-ordinating a Global TB/HIV Working Group that is part of the Stop TB Initiative. The Global TB/HIV Working Group met for the first time in April 2001 to develop a strategic framework for TB/HIV collaboration. One of the recommendations of the Group was to support the expansion of the ProTest Initiative.

The Heads of State and Government of the Organisation of African Unity (OAU) met in Abuja, Nigeria from 26 to 27 April 2001 at a Special Summit devoted specifically to address the exceptional challenges of HIV/AIDS, TB and other related infectious diseases The Summit declared that AIDS is a State of Emergency in the continent and committed participants to take

personal responsibility to provide leadership in the battle against HIV/AIDS TB and other related infectious diseases It set a target of allocating 15% of national budgets on health and undertook to mobilise all the human, material and financial resources required to provide care and support and quality treatment

TB DIAGNOSIS

The majority of HIV-positive TB patients get smear-positive pulmonary TB bur they have an increased risk of smear-negative and extra-pulmonary TB. Diagnosis of TB in HIV-infected patients is therefore more difficult. TB patients who are early in their HIV disease with intact immune systems will present with a similar clinical picture as those who are not infected with HIV. In more severely immuno-compromised patients, there is a higher likelihood of smear-negative pulmonary TB and extrapulmonary TB. The chest X-ray findings in a pulmonary TB patient who is also infected with HIV may be atypical. This tends to delay diagnosis and treatment. thus increasing the number of infectious TB patients able to spread the disease for longer periods. The diagnostic protocol in the national guidelines addresses the need for chest x-rays and TB cultures if smear-negative TB suspects do not respond to a one week course of broad spectrum antibiotics. The guidelines also explain how to diagnose extra-pulmonary TB.

HIV VOLUNTARY COUNSELLING AND TESTING

Only about 10% of South Africans who are infected with HIV are aware of their HIV status. Voluntary HIV counselling and testing (VCTJhas been shown to decrease HIV risk behaviours and to decrease HIV incidence in other countries. It is estimated that for every 10 people who feceive VCT, one HIV infection is prevented. This means that providing VCT to 1000 people will prevent 100 HIV infections. Since about 30% of HIV-positive people will develop TB, counselling 1000 people will also prevent 30 cases of TB. People who are identified to be HIV-positive need to be counselled *on* the symptoms of TB. encouraged seeking care if they develop TB symptoms and linked into a package of care and support.

The South African government views increased access to VCT as a major priority Through the Integrated Plan for Children Infected and Affected by HIV/AIDS, the Cabinet has committed funding to train 2 people in every health facility in the country to do HIV counselling and rapid HIV testing and to purchase enough rapid HIV kits to test 12.5% of the adult population over 3 years. TB hospitals should ensure that they participate in this process and that they develop the capacity to provide VCT.

DIRECTLY OBSERVED TB TREATMENT

Fortunately TB can be cured whether a person is infected with HIV or not using the same drug regimens for the same length of time. As in all cases, HIV-positive TB patients should be linked with a treatment supporter who will encourage and observe the patient to ensure treatment completion.

COTRIMOXAZOLE PROPHYLAXIS

In July 2000. the World Heaith Organisation (WHO) and the Joint United Programme on HIV/AIDS (UNAIDS) recommended that cotrimoxazole prophylaxis should be provided *to* symptomatic people living with HIV as part of a package of care. These recommendations are based on studies in the Ivory Coast that showed that cotrimoxazole decreased hospitaiisations by 50% in aiI HIV-positive clients. More importantly, cotrimoxazole prophylaxis given to HIV-positive TB patients decreased mortality by 50%. It is now national policy that symptomatic HIV-positive clients including aii HIV-positive TB patients should receive cotrimoxazole prophylaxis *(960* mg daily for life) starting one month after initiation of TB treatment.

PALLIATIVE AND HOME-BASED CARE

AIDS is a terminal illness As a result, health workers who provide care for HIV-positive TB patients need training on palliative care or to be able to refer their patients *to* receive palliative care

Some HIV-positive TB patients may be well enough to be discharged from hospital but still be sick enough to require care in their homes. Families of these patients need *to* be trained on home based care and to be supported by home based care teams. It will be important to establish adequate referral mechanisms *to* ensure a continuum of care and to avoid "home based negiect".

Some patients may *be* well enough to be dbcharged from hospital but still be sick enough to requlre care In their homes.

MULTI-DRUG RESISTANT TB

Although people infected with HIV are not more prone to infection with MDR TB than other people, they **do** progress more quickly from infection to disease The most important way to prevent MDR TB is to ensure that TB patients are given the correct TB treatment regimens and that they are cured through directly observed treatment

There are several benefits expected from the above interventions. Improved TB/HIV and community collaboration should make more efficient use of limited resources at district level and improve TB case finding and treatment completion. Increased access to VCT services has been shown to decrease risk behaviours and may help to reduce stigma. Rapid HIV testing is reliable and inexpensive. It also ensures that peopie receive their HIV test results and helps them to access HIV care and support. Cotrimoxarole is effective in decreasing morbidity in HIV-positive patients and in decreasing mortality in HIV-positive TB patients. Isoniazid and cotrimoxazole are inexpensive and available in South Africa. The provision of prophylactic regimens may serve as an incentive for people to come forward for voluntary HIV counselling and testing. Improved HIV care will help to decrease morbidity and mortality in HIV-positive patients including TB/HIV dually infected patients.

COVERING THE COUNTRY WITH TB/HIV TRAINING DISTRICTS

The Provincial Heads of Health have agreed to implement the lessons learned from the TB/HIV pilots throughout South Africa in TB/HIV Training Districts. The vision is to build on the success of the TB Control Programme's establishment of TB Demonstration and Training Districts. Funding for these activities will come from the Department of Health with assistance from donors such as the Belgian Technical Co-operation. The provincial business plans that were submitted to national have been sent to Belgium in preparation for a Belgian mission that will come to South Africa later this year.

Commitment is required at every level of the health system to strengthen TB/HIV collaboration

ANNEX 9

KEY PARTNERS

Health services alone cannot manage to reduce the TB incidence. Experience throughout the world has shown that education, housing, employment and nutritional supply have profound effects in improving the health status of the people. Joint planning and resource sharing among different stakeholders has been demonstrated to be beneficial in most countries. Some of the current problems/ constraints that impede on this process have been identified as follows:

- Lack of clarity of the concept of collaboration: What is the purpose of collaboration; Why do we need to collaborate; at what level do we collaborate; and how do we collaborate?
- Who are our partners, what do we want from them, and what do they want from us?
- Lack of collaboration at top management;
- Lack of mutual information: and
- No clear referral criteria and clinicai management guidelines between partner organisations and governmental health facilities.

The actions to be taken in the MTDP will be described for the most relevant partner organisations such as mines. prisons, SAPS, NGOs, Universities and private health care organisations

A. MINES. PRISONS AND SAPS

Regarding TB control, institutions like mines and prisons offer both challenges and opportunities. Challenges include crowding, infection control, migration of patients 'in and out' and work/incarceration related risk factors like silicosis and/or poor nutrition. TB control opportunities include interventions such as health education, targeted active case finding and DOT. The NTCP recognises that inadequate tuberculosis control in institutions like prisons and or mines has the potential of a very rapid deterioration of the tuberculosis epidemic, especially given the interaction with the HIV epidemic. In order to interrupt the chain of transmission in

these settings and to prevent the emergence and rapid spread of drug resistance, a framework of essential tuberculosis control measures must be implemented, taking into consideiation the opportunities and challenges mentioned above.

In the actual situation there is not a uniform approach towards tuberculosis control in prisons and referral systems between prisons and civiiian public health services need improvement. The mine industry attempts to ensure an effective and uniform approach in the mines of employees with puimonary tuberculosis (MOHAC circular NO: 0*1/5/51* for all miners, irrespective of employment category and including contract workers. However. experiences of public health services surrounding the mines suggest that implementation of - and compliance with these guidelines is not yet realised and that strategies and performance of different (types of) mines may differ significantly For instance, in some settings contract workers in reality depend on public health services delivered to 'informal settlements'. The same category of miners shows high treatment interruption / defaulter rates.

The different characteristics of mines and prisons do not allow for one set of recommendations. However the following list of recommendations applies to both:

- Improve communication between the three directorates – top management to clarify collaborative issues and how each partner will benefit from this. Parallel actions simultaneously – National, Province, District;
- Gain commitment for the implementation of the national guidelines;
- Establish link between the three partners – review policies. facilitate partnership activities; and
- Representation at PHRC.

STEPWISE APPROACH TO STRENGTHENING TUBERCULOSIS CONTROL IN PRISONS

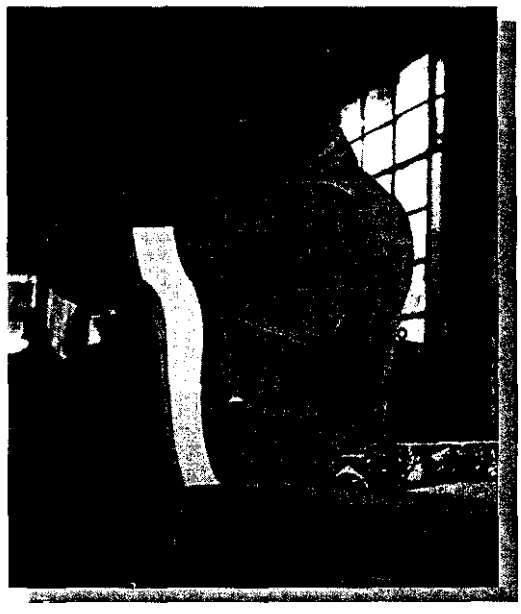
1. National review of the tuberculosis situation and tuberculosis control activities in the South African correctional system, including both pre- and post-conviction facilities. The review should focus on i) diagnostic procedures, including both passive - and active case finding and laboratory quality control, ii) treatment regimens and treatment delivery. iii) follow-up procedures for released prisoners, iv) infection control measures, v) the recording reporting system, vi) supervision, vii) drug resistance, viii) drug quality and drug stock and ix) health education / training. Given the continuous flow of patients between the civilian society and the prison the public health services involved should take part in the review.
2. Translation of the strengths and weaknesses of the correctional system in a comprehensive plan of action which will describe:
    - The minimal tuberculosis control package in the correctional system ensuring adequate diagnosis, treatment and recording/reporting of tuberculosis cases:
    - A stepwise impact-related approach to optimise tubercuiosis control in prisons through additional interventions on top of the minimal package;

- Roies and responsibilities of all involved (including civilian public health sector receiving reieased prisoners):
- An internal and external system of supervision and monitoring TB control performance in correctional institutions (performance indicators); and
- A timeframe for implementation of the action plan.

3. Impiementation of the plan.
4. Yearly progress reports (national team NTCP).
5. Involve human rights organisations to advocate for TB patients in the prisons
6. Networking is encouraged – to facilitate communication between prisons, intra and inter district, between provinces.

TIME FRAME FOR STRENGTHENING TB CONTROL IN PRISONS

The potential negative epidemiological impact of a poorly or uncontrolled HIV/TB epidemic in prisonsjustifies a pro-active and swift action in order to assess the TB situation in prisons and. - if necessary - correct crucial components of the tuberculosis programmes in these settings. For that reason the review and the comprehensive plan of action are scheduled for the first year of the MTDP under overall responsibility of the ministries involved. Crucial corrections (prevention *of* inadequate treatment and thus of the emergence and spread of drug resistant tuberculosis/are to be made during the 6 month period following the initiai assessment and planning phase. In case of lack of technicai manpower at the national level of the NTCP, the involvement *of* external / international consultants should be considered. The introduction of the complete minimai package is scheduled for the second year of the MTDP Depending on funding and performance of institutes involved addltionai control interventions are gradually introduced at both institutional (operations)and national (development of health education and training materials) level.



TB control in institutions like mines and prisons offers both challenges and opportunities

A final progress report based on theyearly progress reports is completed before the preparation of the next MTDP

STEPWISE APPROACH TO STRENGTHENING TUBERCULOSIS CONTROL IN MINES

1. Review of the MOHAC CIRCULAR NO: 01/5/5 by the national NTCP team.
2. 'Distant Situation analysis' of TB control in the mines through a semi-structured open exchange of views with representatives *of* different types of mines and the professionals involved in drafting the MOHAC Circular.
3. An 'on site review' of tuberculosis control in a representative sample *of* mines in close collaboration with the provincial and district authorities / public health system.
4. The review should at least address the following issues: i) roles and responsibilities of mines and surrounding public health services, including cross border situations, ii) epidemiological situation including drug resistance, HIV/AIDS and infection control, iii) case finding strategies, including the relative contribution of active case finding, iv) treatment strategies, including migration issues and quality and stock of drugs. v) access to care for (sub) contract workers, vi) laboratory services including quality control of smear microscopy and cultures/DST, vii) training and supervision, viii) the recording reporting system. including the results of cohort analysis, ix) health education strategies and x) the involvement *of* Unions.
5. Development *of* a consensus based stepwise approach to strengthening TB control in mines, based on a minimal package of care and a clear description of roles and responsibilities of the mines and the different levels of the NTP The stepwise approach includes a differentiated introduction of additional interventions depending on availability of funds, technical capacity and mine-specific conditions.
6. Implementation of the stepwise approach.
7. System of internal and externai supervision and monitoring of programme performance (yearly progress reports)

TIME FRAME FOR STRENGTHENING TB CONTROL IN MINES

Step 1-5 is to be scheduled for the first year *of* the MTDP In the second year all activities should focus on support and supervision of mines that do not meet the minimal package requirements. involving mines with well functioning TB programmes as 'role models'. In the same year the system of supervision and monitoring programme performance is initiated. Step 6, the differentiated introduction of additional control components takes place throughout the MTDP period (already existing private initiative).A final progress report based on theyearly progress reports is completed before the preparation of the next MTDP

B. NON-GOVERNMENTAL ORGANISATIONS

It is recognised that NGOs have an important role in the National TB Control Programme. NGOs add value to the NTCP through making treatment more accessible to TB patients

through various strategies and programmes, including community based DOTS. NGOs can assist by complimenting health facilities to improve their performance. NGOs service provision should be firmly linked to the health services and strong controls should be in place. These controls need to be contained within a set of National Guidelines.

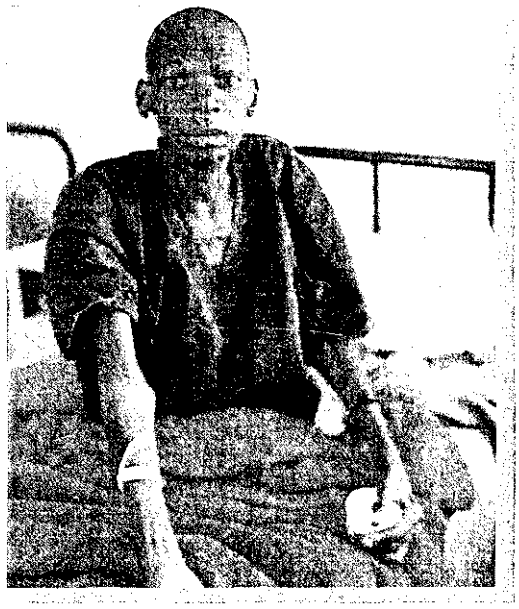
1. A Task Team to be appointed to draw up a set of National Guidelines for the role of NGOs in the NTCP These Guidelines need to include:
    - A financing framework;
    - Guidelines for tender processes:
    - Guidelines for Service delivery contracts;
    - 2-5 year outcome orientated contracts;
    - Evaluation mechanisms; and
    - Definitions of "partnerships".
2. The SANTA evaluation to be used as a learning experience for establishing relationships with NGOs. Funds and infrastructure that become available to be used to tackle priority issues of the MTDP
3. NGOs in the TB arena to play an advocaq role and to be allowed to offer constructive criticism to government initiatives without jeopardising government support and funding.

C. UNIVERSITIES AND PRIVATE SECTOR

Relationships to be established with Medical schools, Pharmacy schools, Nursing schools, Technikons, Welfare, Professional Societies. private laboratories, private hospitals and GP's

Training about the NTCP organisation and technical guidelines to be included in all curricula Training also to be included in continuous education activities Summer schools, seminars and workshops

Newsletters of academic and professional organisations to be used to promote the NTCP



PARTICIPANTS IN THE DEVELOPMENT OF THIS DOCUMENT WERE FROM THE FOLLOWING ORGANISATIONS:

ANNEX 10

INVITEES WORKSHOP KOPANONG
17-20 JULY. 2001

The National TB Control Programme acknowledges the support of KNCV and USAID in the developmet of this document.

UNAIDS
SANDF
National Department of Health
Provincial Department of Health
King George V Hospiral
Pulmonary Society
DFID-SA
USAID-Washington
SAIMR
Univ of Stellenbosch
CDC-Pretoria
EQUITY
Mpumalanga Province
Wits University
SANDF
Medical Research Council
Operation Hunger
KNCV
TB Care Association
Health Systems Trust
Department of Health-EU
Univ of Western Cape
Port Elizabeth District
NTCP
Clapp and Mayne
Western Cape Province
Gauteng Province
Correctional Services
TADSA
SATCI-SADC
Tradilional Healers Assoc

KwaZulu Natal
Eastern Cape
SALGA
Health Systems Trust ISDS
Deep South TB/HIV Project Orange Farm
MEDUNSA
North West
WHO-AFRO
Northern Cape
Gold Fields
Free State
NW Province
Northern Province
Common Ground Consulting
WHO-Pretoria
DFID-SA
LifeCare
Embassy *of* Belgium
USAID-Pretoria

ANNEX 11

PARTICIPANTS, *DO*CUMENT REVISION WORKSHOP

12-13 SEPTEMBER 2001
PRETORIA

Mpumalanga TB Control Programme
National TB Control Programme
IUATLD
KNCV
WHO
Health Systems Trust ISDS
Northern Cape Department of Health
Eastern Cape Department of Health
North West TB Control Programme
USAID