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**Annex II**

**PROGRESS REPORT ON THE IMPLEMENTATION OF THE  
COMMITMENTS OF THE MAY 2006 ABUJA SPECIAL SUMMIT  
ON HIV/AIDS, TUBERCULOSIS AND MALARIA (ATM)**

**ANNEX II**

**STATUS REPORT ON TUBERCULOSIS IN AFRICA**

**(Detailed Report is prepared at the request of the Conference  
of the Ministers of Health)**

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## EXECUTIVE SUMMARY

### Referent TB control indicators and targets

A number of targets have been set and commitments made with direct relevance to TB Control in the African continent over the past 10 years.

In 1991, the World Health Assembly (WHA) adopted a resolution urging countries to detect 70% of new smear-positive TB cases arising annually, and successfully treating 85% of them by 2005. These targets remain relevant for all countries that have not yet attained these targets.

In 2000, World leaders established the Millennium Development Goals that seek to halt by 2015 and begin to reverse the incidence of HIV/AIDS, malaria and other major diseases. Incidence, prevalence and death rates associated with tuberculosis, and proportion of tuberculosis cases detected and cured under DOTS as specified by the WHA were re-iterated. By way of operationalising the TB related MDG targets, the Stop TB Partnership confirmed the WHA targets for case detection and successful treatment. In addition, it called for 50% reduction in global TB burden relative to 1990 levels by 2015, and elimination of TB by 2050.

In April 2001, the African Heads of State and Government adopted a declaration on HIV/AIDS, Tuberculosis and Other related Infectious Diseases (ORID) calling upon member states to strive to allocate 15% of national budgets to the improvement of the health sector, and to allocate appropriate and adequate portions of this amount for the fight against HIV/AIDS, TB and ORID.

Confirming the gravity of the TB epidemic in Africa, the 55<sup>th</sup> session of the Ministers of Health of the WHO African Region (2005) declared TB an emergency in the Region calling upon member states to implement urgent and extra-ordinary actions to rapidly improve tuberculosis case detection and treatment success-rates; and accelerate implementation of interventions to combat the TB/HIV epidemic, including increased access to ARVs by doubly-infected patients;

In May 2006, Heads of State and Government of the African Union held a Special Summit on HIV/AIDS, Tuberculosis and Malaria, to review the status of implementation of the 2000 and 2001 Declarations and Frameworks of action to Roll Back Malaria, and the 2001 Abuja Summit on HIV/AIDS, TB and ORID. They adopted the "Abuja Call for Accelerated Action towards Universal Access to HIV/AIDS, Tuberculosis and Malaria services" that pledged collective dedication to a comprehensive remedial effort anchored on an implementation mechanism that responds to the continent's health and developmental challenges and imperatives. The Summit reaffirmed previous global and regional targets for TB control as well as called for universal

access to TB prevention, treatment, care and support services, including of key TB-HIV interventions.

Despite the progress in tuberculosis control, northern African countries have failed in achieving the global targets for tuberculosis control. While DOTS has expanded, covering 94% of the regional population and treatment success is high (82%), the case detection rate is only 44%. To improve case detection, the regional plan to Stop TB was developed as part of the global plan 2006–2015. The budgetary need for the period of 2006 to 2015 indicated in the Plan is US\$ 3.1 billion in the WHO/EMRO Region. Support to countries was enhanced and partnership development promoted.

This Report is prepared at the request of the 2006 Special Summit and the AU Conference of Ministers of Health. It reviews the status towards achievement of the TB targets as specified in the Abuja commitments and the MDGs.

## **Status of TB Control indicators and targets**

### ***Leadership at National, Regional and Continental Levels***

The 2006 Abuja Call for Universal Access to ATM services is the most recent indication of the continent's growing political leadership for TB Control in the Region. It builds on and creates a supportive political environment for the quantitative pursuance of the World Health Assembly, MDG, Abuja 2001, and Maputo 2005 TB control targets. Political leadership has also been demonstrated through declaration of TB as national emergencies by at least 18 countries in the African Region; the adoption of a Regional Strategy to combat the TB/HIV epidemic by the 57<sup>th</sup> session of the Regional Committee for Africa in 2007 and other related declarations by Regional Economic Communities (RECs), and Health Communities.

The stated commitment notwithstanding, national financing of health and TB Control programmes remains insufficient. Only two countries have achieved the 2001 pledge to allocate at least 15% of national budgets to the improvement of the health sector. Furthermore, a later call to allocate 34USD per capita for health is yet to be adopted by the majority of countries.

### **Estimated Prevalence, incidence and death rates**

Estimated TB prevalence, incidence and death rates all continue to increase in most countries. Notification rates have risen from 82 per 100,000 population in 1990 to 160 in 2006. Despite an apparent stabilisation and decline in overall TB globally and in the African Region, at this rate, the MDG targets for TB incidence and prevalence are unlikely to be achieved at regional level. In Eastern Mediterranean Region, incidence rates are higher for Djibouti, Somalia and Sudan than in the other countries in northern Africa.

However, according to the 2008 WHO Global TB Report, by the end of 2006, *Comoros, Ghana, Mali, Mauritius, Sao Tome & Principe and Seychelles* had

already halted and started to reverse overall and smear positive TB incidence as specified in the core MDG targets (without applying the reference to 1990 rates as specified by the Stop TB Partnership in quantifying the MDG targets).

A further 6 countries, namely, *Angola, Benin, Cape Verde, Eritrea, Guinea Bissau and Niger* had already halted and started to reverse estimated TB prevalence, while four countries, namely, *Angola, Comoros, Sao Tome & Principe and Seychelles* had already halted and started to reverse death rates.

### **Status of case detection and treatment success rates**

#### ***Case detection rate:***

While increasing overtime during the past five years, at 46%, new smear positive case detection rate for the African Region is significantly below the 70% target set by the WHA, MDGs and the Special Summit. The region is only achieving 65% of the target. Mediterranean countries of North Africa are also performing better.

However, according to the 2008 WHO TB Report, 12 countries<sup>1</sup> had met the 70% case detection target, and 8 countries<sup>2</sup> had achieved the 85% treatment-success target. Only 3 countries (Algeria, Benin and Tunisia) had met both targets.

#### ***Treatment Success Rates***

Treatment success rate has been increasing progressively since 1999. Nevertheless, at 76%, it still falls short of the 85% target. The region's performance is only 89% of the set target. Based on treatment outcomes for patients enrolled in 2005, only eight countries from the Region<sup>3</sup> had reached the target. This compares to two countries for 2001 patient cohort, three countries for 2002 cohort, four countries for 2003 cohort and eight countries for 2004 cohort. A further four countries<sup>4</sup> were making good progress and had attained treatment success rates of 80% and above. In the EMRO African countries, success rates are generally above 76% except where records were not available.

#### ***Drug Resistant TB***

Drug resistant TB, especially multi-drug resistant TB, is widely prevalent than previously known. Twenty-six countries from the region reported a total of 8,624 multi-drug resistant TB (MDR-TB) cases during 2007 while four countries (Botswana, Lesotho, Mozambique and South Africa (99.1% of the

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<sup>1</sup> Algeria, Angola, Benin, Botswana, Cameroon, Kenya, Lesotho, Madagascar, Namibia, and South Africa

<sup>2</sup> Algeria, Benin, Comoros, DR Congo, Eritrea, Gambia, Mauritius and Sierra Leone

<sup>3</sup> Algeria, Benin, Democratic Republic of Congo, Eritrea, Gambia, Mauritius and Sierra Leone

<sup>4</sup> Kenya, Rwanda, United Republic of Tanzania and Zambia

cases)) reported a total of 541 Extensively Drug Resistant TB cases (XDR-TB) cases during the same period.

In terms of capability to diagnose MDR TB, there were still 10 Member States without this capability by the end of 2007.

Of the 26 countries that reported at least a case of MDR or XDR-TB during 2007, only 17 countries (65.4%) have an organized treatment programme for these cases despite the availability of a Stop TB Partnership global facility for accessing concessionary priced second line drugs by DOTS based TB Control programmes. Only 9 countries had successfully applied to this facility by February 2008.

### ***Status of implementation of TB/HIV Interventions***

During 2006 in the Africa Region, only 22% of notified cases were tested for HIV, compared to the 100% set by the Special Summit. However, this represents a 100% increase in coverage compared to 11.2% for 2005.

Of those who tested positive, 37.1% were started on Anti-Retroviral Therapy (ART), increasing from 27.3% in 2005. Again this is far less than the 100% target. At this rate, the region is unlikely to reach the 100% target for both indicators by 2010.

However, 11 countries<sup>5</sup> recorded significant gains in ART coverage compared to the previous year. The best results ranged from 30.8% in Rwanda to 56.9% in Malawi. Furthermore, overall, 89.1% of HIV positive TB patients were started on Co-trimoxazole preventive therapy (CPT), a 23.4% increase compared to 72.2% in 2005. At this rate, Universal Access to CPT for dually infected persons is likely to be achieved by 2010.

### ***Access to essential anti-TB medicines***

Availability of first line anti-TB drugs has improved tremendously. By the end of December 2007, all 36 eligible countries from the Africa region that applied to the GDF secured first line anti-TB drug grants, including pediatric formulations for some countries.

The increased availability notwithstanding, of the 42 countries that reported, only 69% maintained uninterrupted supply of first line anti-TB drugs at both the central and peripheral levels. As stated under drug resistant TB section above, only 65.4% of countries with reported MDR-TB cases had organized treatment programmes for those cases, and only 9 countries<sup>6</sup> had taken steps to access concessionary priced second line drugs from the global facility of the Stop TB Partnership for such programmes.

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<sup>5</sup> Benin, Cote D'Ivoire, DRC, Guinea Bissau, Kenya, Malawi, Mauritius, Mozambique, Rwanda, South Africa and Zambia

<sup>6</sup> Burkina Faso, DRC, Guinea Conakry, Kenya, Lesotho, Mozambique, Rwanda, Tanzania (pre-approval stage) and Uganda

### ***Resource mobilization***

It is not feasible to accurately determine levels of national financing for TB Control as TB funding is not earmarked within the general primary health care services. It is however evident that only two countries have attained the 15% allocation of national budgets to health as pledged in the 2001 Abuja declaration.

At the same time, external funding for TB control activities has increased significantly. The Global Fund to Fight AIDS, TB and Malaria (GFATM) has been the single most important source of additional funding for TB control. Approximately 953 million USD (37% of total approved GFATM grants) has been approved for TB Control in the region from 2002-2007.

However, the increased flow has not been matched by timely spending and increased case detection and treatment success rates in the majority of countries. Countries under emergency situations face extra challenges.

### **Conclusions**

Tuberculosis control in Africa has progressed in the last decade but the continent still lags behind on major TB Control targets. Financial resources, traditionally a bottleneck for NTPs till the 2000's, is no longer a major factor as GFATM grants, GDF grants (for standard TB treatment), GLC support (for drug resistant TB), bilateral donors support and several Partnership mechanisms provide technical and financial assistance to cover most needs. In order to achieve Universal Access by 2010 and the MDG targets by 2015, much remains to be done, especially to:

- **Increase treatment success rate for smear positive TB cases:** through implementation of initiatives to reduce preventable unfavourable treatment outcomes such as patient default, transfer out and HIV/AIDS related TB deaths
- **Increase case detection rates:** through development and strengthening of laboratory infrastructure, public private partnerships in the delivery of TB services and expanded institutional and community DOTS services.
- **Detect, treat and prevent Drug resistant TB:** through surveillance, development of culture and DST capability for first line anti-TB drugs, and programmatic management of drug resistant TB cases as part of routine NTP activities
- **Scale up TB/HIV collaborative activities:** especially HIV testing among TB patients, Co-trimoxazole and other preventive therapy, and ART for eligible dually infected persons

- **Address Health Systems Components** that affect TB Control (laboratory networks, personnel, surveillance, supply systems and monitoring and evaluation.

**Key Recommendations:**

The following recommendations are made:

- i. All countries to periodically review their TB Control performance with regard to the WHA, MDG and Abuja targets and develop strategies to accelerate their attainment
- ii. Member states to decentralize and strengthen TB laboratory services in the public and private sectors to improve case detection and ensure quality assured laboratory services in pursuit of Universal Access to such services.
- iii. The African Union to advocate with national governments in the 10 countries without local capability for TB culture and drug susceptibility testing for first line anti-TB drugs to establish this capacity in order to facilitate diagnosis and treatment of MDR-TB cases
- iv. National TB Control Programmes to prioritize implementation of strategies to expand DOTS diagnosis and treatment services with a view to rapidly move towards the WHA, MDG, Abuja and Regional Committee targets for treatment success and case detection. This includes strengthening the capacity of the Health Systems to suspect and diagnose Tuberculosis, and to reduce treatment failures, treatment defaulters and transfer outs.
- v. All countries with generalized HIV epidemic (5% or higher) in the general population to programme and implement in full the Regional Strategy for controlling TB-HIV with particular emphasis on universal access to HIV testing for TB patients, ART for eligible HIV positive patients and other interventions to reduce the burden of TB on People Living with HIV & AIDS, and reduce the burden of HIV & AIDS on dually infected TB patients.
- vi. Member states to allocate sufficient resources to ensure uninterrupted supply of first line anti-TB drugs at central and peripheral levels, including adequate buffer stocks at the various levels.
- vii. For drug resistant TB cases, national programmes to determine the burden of MDR-TB and initiate treatment programmes for all confirmed cases. National programmes should also mobilize sufficient quality assured second line drugs including concessionary priced drugs through the Stop TB Partnership Green Light Committee



- viii. Member states to respect the pledge to allocate at least 15% of the national budget to health development and allocate a sufficient amount of that for delivery for TB control interventions. Further, Member States to timely expend approved GFATM grants and submit proposals for more funding to meet funding gaps for scale up of activities towards universal access.

## **STATUS REPORT ON TUBERCULOSIS IN AFRICA**

### **1: BACKGROUND:**

#### **1.1 TB CONTROL TARGETS:**

##### **1.1.1 World Health Assembly target:**

In 1991, all WHO member states adopted a World Health Assembly (WHA) resolution<sup>7</sup> setting two targets for global TB control to be reached by 2000: **to detect 70% of new smear-positive TB cases arising annually, and to successfully treat 85% of these cases**. When it became apparent that the year 2000 targets would not be met on time, the WHA postponed the target date to 2005. By 2005 only a small number of countries had attained the targets. Nevertheless, the WHA recommended that all countries continue pursuing these operational targets as they are essential to achieve impact on TB epidemiology.

##### **1.1.2 Millennium Development Goal targets and indicators for TB Control:**

Responding to the world's main development challenges, World leaders established in 2000 the Millennium Development Goals with targets and indicators for 2015. MDG number 6, namely: Combat HIV/AIDS, malaria and other diseases includes TB. The target is "To have halted by 2015 and begun to reverse the incidence of malaria and other major diseases". Two related TB specific indicators have been specified:

- Incidence, prevalence and death rates associated with tuberculosis
- Proportion of tuberculosis cases detected and cured under DOTS. This is similar to the WHA and Stop TB Partnership targets

##### **1.1.3: Stop TB Partnership targets:**

To operationalise the WHA and the MDGs targets, the Stop TB Partnership defined a quantitative framework for measuring reduction in TB prevalence and death rates. In addition, the Stop TB Partnership committed to eliminate TB as a public health problem by 2050. Three targets were set, namely:

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<sup>7</sup> World Health Organization. Forty-Fourth World Health Assembly. Resolution WHA44.8. Geneva World Health Organization 1991. Report No.: WHA44/1991/REC/1

- *At least 70% of people with sputum-smear positive TB will be diagnosed and at least 85% cured by 2005. These are similar to the targets set by the WHA.*
- *By 2015, the global burden of TB (per capita prevalence and death rates) will be reduced by 50% relative to 1990 levels.*
- *The global incidence of TB disease will be less than 1 case per million population per year (definition for TB elimination) by 2050.*

#### **1.1.4: Abuja Declaration and Plan of Action on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases (ORID) <sup>8</sup>**

In April 2001, the African Heads of State and Government met in Abuja at a special summit of the Organisation of African Unity (OAU) devoted specifically to address the exceptional challenges of HIV/AIDS, Tuberculosis (TB) and Other Related Infectious Diseases (ORID). At the end of the Summit, a Declaration was adopted that, among others, pledging to set a **target of allocating 15% of national budgets to the improvement of the health sector**, and that an appropriate and adequate portion of this amount is put at the disposal of authorities for the fight against HIV/AIDS, TB and ORID.

#### **1.1.5: Declaration of TB as an Emergency in the African Region**

In August 2005, recalling Resolution AFR/RC44/R6 of September 1994 on implementation of Short Course Chemotherapy by TB Control Programmes in the region; noting the increasing national and international commitments to fight AIDS, tuberculosis and malaria; and noting the increasing financial resources made available, among others, by the Global Fund to Fight AIDS, Tuberculosis and Malaria, the Stop TB Partnership and bilateral partners; and convinced that unless extraordinary actions are undertaken to address the current trend the TB epidemic would only get worse; the 55<sup>th</sup> session of the Regional Committee of Ministers of Health of the WHO African Region declared TB an emergency in the Region<sup>9</sup> and called for urgent and extraordinary actions to rapidly bring the TB epidemic under control. Among other actions, the resolution requested Member States to:

- develop and implement with immediate effect emergency strategies and plans to control the worsening tuberculosis epidemic;
- rapidly improve tuberculosis case detection and treatment success-rates; and
- accelerate implementation of interventions to combat the TB/HIV epidemic, including increased access to ARVs by doubly-infected patients;

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<sup>8</sup> African Summit on HIV/AIDS, Tuberculosis and other related infectious diseases. Abuja Nigeria. 24-27 April 2001. OAU/SPS/ABUJA/3

<sup>9</sup> Resolution AFR/RC55/R5, 25 August 2005

### **1.1.6: Special Summit on HIV/AIDS, Tuberculosis and Malaria<sup>10</sup>**

In May 2006, Heads of State and Government of the African Union, held a Special Summit on HIV/AIDS, Tuberculosis and Malaria, to review the status of implementation of Declarations and Frameworks for Action on the 2000 Abuja Summit on Roll Back Malaria, and the 2001 Abuja Summit on HIV/AIDS, TB and ORID. During the summit, the Heads of State and Government adopted the “Abuja Call for Accelerated Action towards Universal Access to HIV/AIDS, Tuberculosis and Malaria services”<sup>11</sup>.

The Call collectively resolved dedication to a comprehensive remedial effort anchored on an implementation mechanism that addresses the following program areas:

- i: Leadership at National, Regional and Continental Levels
- ii: Resource mobilisation
- iii: Protection of Human Rights
- iv: Poverty Reduction, Health and Development
- v: Strengthening Health Systems
- vi: Prevention, Treatment, Care and Support
- vii: Access to Affordable Medicines and Technologies
- viii: Research and Development
- ix: Implementation at national level
- x: Partnerships
- xi: Monitoring, Evaluation and Reporting

### **1.1.7 The 2007 WHO Regional Committee addresses TB and HIV**

Noting that tuberculosis cases have more than trebled in many countries over the past 10 years, especially where HIV prevalence is high and recognizing the public health importance of the two epidemics, the 57<sup>th</sup> session of the Regional Committee for the African meeting in Brazzaville in August 2007 adopted a resolution calling for further strengthened and improved mechanisms of collaboration between the Tuberculosis and AIDS Control Programmes in order to increase prevention, case finding and treatment of TB among PLWHA, improve access to HIV Testing and Counselling among TB patients and infection control to reduce transmission.

## **2: Monitoring, Evaluation and Reporting mechanisms for the Call**

The Third Session of the African Union Conference on Ministers of Health, held from 10-14 April 2007 in Johannesburg, South Africa, agreed on a Monitoring and Reporting Mechanism for the Implementation of the 2006 Abuja Commitments on HIV/AIDS, Tuberculosis and Malaria (ATM) services

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<sup>10</sup> Special Summit of African Union on HIV and AIDS, Tuberculosis and Malaria (ATM). Abuja, Nigeria. 2-4 May, 2006. Sp/Assembly/ATM/2(I). Rev 3

<sup>11</sup> Abuja Call for Accelerated Action towards Universal Access to HIV and AIDS, Tuberculosis and Malaria services in Africa. Sp/Assembly/ATM/2(I). Rev 3

for the period 2007-2010<sup>12</sup>. The framework is based on the programme areas agreed by the Heads of State and Government as outlined in section 1.1.5.

## **2.1: Abuja targets to be met by a United Africa by 2010**

Within the agreed monitoring and evaluation Framework for the implementation of the Abuja Call, Member States will intensify the fight against the three diseases and achieve other internationally agreed goals.

In addition to the WHA, MDG, Stop TB Partnership and Abuja 2001 targets outlined in sections 1.1.1-1.1.4<sup>13</sup>, the Summit set the following Tuberculosis related specific targets to be achieved by a United Africa by 2010:

- *100% of TB patients have access to HIV Testing and counselling services*
- *100% of eligible HIV positive TB patients access anti-retroviral treatment*

## **3: Operating Definitions<sup>14</sup>:**

### **3.1 Patient classification and categorisation**

**3.1.1 A case of tuberculosis:** A patient in whom TB has been bacteriologically confirmed, or has been diagnosed by a clinician.

**3.1.2 Pulmonary tuberculosis:** Bacteriologically confirmed TB of the lungs (definite TB case) or a case of pulmonary tuberculosis that does not meet the bacteriological confirmation criteria but has at least two sputum smears negative for TB bacilli, no response to a course of broad spectrum antibiotics among those not used in the treatment of TB, radiological abnormalities consistent with active pulmonary TB, and a decision by a clinician to treat with a full course of anti-tuberculosis chemotherapy.

**3.1.3 Extra-pulmonary tuberculosis:** Tuberculosis of organs other than the lungs for example the pleura of the lungs, lymph nodes, abdomen, genitor-urinary tract, skin, joints and bones, brain meninges, etc. Diagnosis is based on at least one culture-positive specimen, or histological or strong clinical evidence consistent with extra-pulmonary tuberculosis, followed by a decision by a clinician to treat with a full course of anti-tuberculosis chemotherapy. A patient diagnosed with both pulmonary and extra-pulmonary TB is classified as a case of pulmonary TB.

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<sup>12</sup> Strengthening of Health Systems for Equity and Development in Africa. Third session of the African Union Conference of Ministers of Health, Johannesburg South Africa. CAMN/MIN/9 (III)

<sup>13</sup> to detect 70% of new smear-positive TB cases arising annually, and to successfully treat 85% of these cases; to have halted by 2015 and begun to reverse the incidence of malaria and other major diseases; and WHA and MDG targets plus reducing per capita prevalence and death rates by 50% relative to 1990 levels, and reducing TB incidence to less than one case per million population per year by 2050

<sup>14</sup> Adapted from Global tuberculosis control: Surveillance, planning, financing: WHO report 2008. WHO/HTM/TB/2008.393

**3.1.4 New TB case:** A patient who has never been treated with anti-TB medicines before or who has previously taken anti-tuberculosis treatment for less than one month.

**3.1.5 Relapse case:** A patient previously treated for TB who was declared cured or treatment completed, but is diagnosed with bacteriologically confirmed TB again.

**3.1.6 Treatment after Failure:** A TB patient who is started on re-treatment anti-TB regimen after having failed on a previous treatment regimen.

**3.1.7 Treatment after default:** A TB patient who returns for treatment with positive bacteriology, following interruption of treatment for two months or more.

**3.1.8 Other:** All cases which do not fit the above standard definitions.

**3.1.9 Case detection rate:** proportion of identified TB cases relative to estimated existing cases in a referent population. Diagnosis is mainly among adults through sputum smear microscopy, culture or any other WHO recommended test for the diagnosis of TB.

**3.2 Treatment outcomes of bacteriologically confirmed pulmonary TB patients:**

**3.2.1 Cured:** A new or re-treatment TB patient who is sputum smear positive at the beginning of treatment and is sputum smear /or culture negative in the last month of treatment and on at least one previous occasion during the course of treatment.

**3.2.2 Treatment completed:** A patient who has completed treatment but who does not meet the criteria to be classified as a cure or a failure.

**3.2.3 Treatment success rate:** proportion of TB cases on treatment who are cured, plus those who have completed treatment but have no bacteriological evidence for cure relative to all those smear and or culture positive that started treatment during a specified time cohort.

**3.2.4 Treatment Failure:** A patient who, while on first line or re-treatment regimen, is bacteriologically positive at 5 months or later during the course of treatment or found to harbour MDR or XDR strain at any point of time during the treatment.

**3.2.5 TB death:** A known TB patient who dies from any cause whilst still on TB treatment.

**3.2.6 Treatment Defaulter:** A patient whose treatment was interrupted for two consecutive months or more.

**3.2.7 Transfer out:** A patient who has been transferred to another recording and reporting unit and for whom the treatment outcome is not known.

### **3.3 Drug resistant TB**

**3.3.1 Multidrug resistant TB (MDR-TB):** TB caused by a strain resistant to, at least, Isoniazid (H) and Rifampicin ® at the same time.

**3.3.2 Extensively drug resistant TB (XDR-TB) :** TB caused by a strain that is resistant to at least Rifampicin and Isoniazid (i.e. MDR-TB), plus resistance to any medicine in the fluoroquinolone family such as Ciprofloxacin and Ofloxacin; and also resistance to at least one of the three second line injectable anti-TB drugs such as Capreomycin, Kanamycin and Amikacin.

## **4: Situation Analysis. Report on TB situation in the WHO African Region**

### **4.1: Leadership at National, Regional and Continental Levels**

Since TB was declared an emergency in the African Region, 18 countries<sup>15</sup> declared TB a national emergency /crisis and implemented special action plans to accelerate control.

In August 2007, the 57<sup>th</sup> session of the Ministers of Health of the African Region adopted a Strategy for control of the TB/HIV dual epidemic that highlights strengthening of mechanisms for collaboration between TB and HIV/AIDS control programmes, improving prevention, case finding and treatment of TB among people living with HIV and AIDS, improving access to HIV testing and counselling among TB patients, infection control to reduce transmission, advocacy, communication and social mobilisation, partnerships and resource mobilisation , and research.

During its 46<sup>th</sup> Conference, Health Ministers of the East, Central and Southern African (ECSA) health community in March 2008, adopted among others, a resolution on increasing access to medicines and medical supplies that urges all member states to develop and implement national medicines policies by 2009 and review essential drug lists and treatment guidelines at least every two years.

### **4.2 Prevention, Treatment, Care and Support**

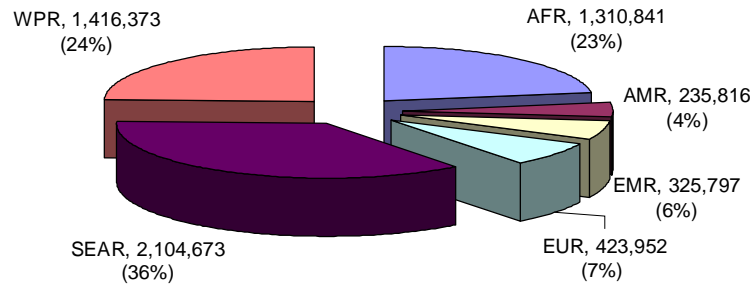
#### **4.2.1 Trend of TB Notifications**

Absolute TB cases notified in the Region have continued to increase every year. With approximately only 11% of the world population, the Region contributes at over 20% of the global TB burden (Figure 4.21).

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<sup>15</sup> Botswana, Burkina Faso, Cote d' Ivoire, DRC, Guinea Conakry, Kenya, Lesotho, Malawi, Mali, Mozambique, Namibia, Nigeria, Senegal, Sierra Leone, South Africa , Tanzania, Togo and Zambia

Figure 4.2.1: Proportion of notified TB cases by WHO Region. 2006



Notification rates (per 100,000 population) for all forms of TB have risen from 82 in 1990 to 160 in 2006. For new smear positive cases, the rates have risen from 19 in 1993 to 72 in 2006. At this rate, the MDG targets relative to 1990 rates are unlikely to be achieved for the entire region (Table 4.2.1).

Table 4.2.1: Trend of TB notification rates by country. African Region

New smear-positive notification rates. African Region 1993–2006														
	Rate (per 100 000 population)													
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Algeria		25	20	23	26	25	26	27	26	26	27	26	26	26
Angola	42	36	31	63	64	55	54	65	83	123	125	130	127	130
Benin	29	27	30	29	29	29	31	32		31	31	31	32	34
Botswana	101	109	122	158	172	186	161	179	174	188	170	172	173	175
Burkina Faso		6	10	13	10	12	12	13	12	12	13	14	16	19
Burundi	31	25	18	24	32	43	45		44	40	42	43	42	38
Cameroon	17	14	21	16	24	29	38	25	29	48	63	64	73	76
Cape Verde			28	28	25	24			30	23	34	34	27	25
Central African Republic			52	56	63	71	72		35	69	69	71	51	104
Chad			28	12			36			39	38	23	25	
Comoros			17	17	16	15	16	12	13	10	6	8	10	8
Congo		62	72	87	67	67	71	132	131	149	101	117	101	91
Côte d'Ivoire	50		55	58	57	61	60	50	63	62	64	67	67	68
DR Congo	35		46	52	52	69	71	71	81	83	97	109	111	105
Equatorial Guinea			57	53	56	69						86		
Eritrea					4	4	15	16	18	16	21	17	15	14
Ethiopia		10	15	21	25	29	32	44	46	50	53	54	49	45
Gabon		38	46	24	52	78	79		94	84	99	104	81	87
Gambia			67	62	66	70	64			70	68	64	70	73
Ghana		33	15	35	39	40	35	36	37	37	36	33	33	34
Guinea	31	30	31	38	39	43	44	48	49	51	52	57	61	64
Guinea-Bissau			80	75	68	42	53	38		62	64	77	71	63
Kenya	39	43	51	60	66	81	89	92	98	104	113	119	113	107
Lesotho	84	78	79	102	134	136	147	161		164	187	217	216	202

Liberia	75		54	29		44		33	29	61	40	74	63	81
Madagascar	52	54	58	59		63			67	66	73	75	70	81
Malawi	58	60	62	65	72	80	72	71	70	63	61	66	64	60
Mali		20	21	24	35	27	28	25		26	28	27	30	32
Mauritania			93		107	48	82	62				58	39	49
Mauritius			10	9	10	9	10	10	7	7	8	10	9	7
Mozambique	64	63	66	64	66	70	72	73	75	80	82	85	87	87
Namibia			42	167	184	200	204	213	237	241	279	259	259	262
Niger	5	21	16		35	31	25	27	30	29	36	34	38	38
Nigeria	2		9	10	10	11	13	14	18	17	21	24	25	28
Rwanda			33	35	44	63	56	45	38	45	52	46	45	45
Sao Tome & Principe							22	21	29	29	22	33	32	23
Senegal		52	60	64	57	56	50	56	57	53	59	56	57	
Seychelles	3		8	14	17	11	12	14	15	11	6	15	9	
Sierra Leone		34	35	54	54	53		55	57	60	60	69	78	81
South Africa			56	99	125	150	161	167	182	212	247	266	262	272
Swaziland			69	228			171	172	119	129	144	171	194	224
Togo	13		20	20	19	18	17	18		21	22	26	29	33
Uganda	60	72	64	70	76	78	77	70	68	73	75	75	71	68
UR Tanzania	55	59	67	70	70	74	73	71	71	68	68	69	66	63
Zambia		107	108	127			114	124	122	150	171	153	129	120
Zimbabwe	47		76	100	119	117	115	114	120	124	112	112	100	96
<b>AFR</b>	<b>19</b>	<b>21</b>	<b>36</b>	<b>44</b>	<b>45</b>	<b>51</b>	<b>54</b>	<b>54</b>	<b>59</b>	<b>65</b>	<b>71</b>	<b>75</b>	<b>73</b>	<b>72</b>

The increasing absolute notifications and rates notwithstanding, there is a tendency towards stabilization of overall rates and decline in new smear positive case notification rates since 2004 (Figure 4.2.2). These findings are consistent with apparent decline in TB cases globally<sup>16</sup>.

#### 4.2.2: Estimated Prevalence, incidence and death rates

Relative to MDG targets and basing on 1990 baseline as stipulated in the Stop TB Partnership operationalisation of the MDG targets, estimated regional TB prevalence, incidence and mortality rates have increased and are unlikely to be achieved by 2015 based on current trends (Figure 4.2.2)

However, according to the WHO Global TB Report for 2008, by the end of 2006, six countries<sup>17</sup> had already halted and started to reverse overall and smear positive TB incidence as specified in the core MDG targets.

A further 6 countries<sup>18</sup> had already halted and started to reverse estimated TB prevalence, while four countries, namely, Angola, Comoros, Sao Tome & Principe and Seychelles had already halted and started to reverse death rates (Table 4.2.2)

<sup>16</sup> WHO Global TB Report, 2008

<sup>17</sup> Comoros, Ghana, Mali, Mauritius, Sao Tome & Principe and Seychelles

<sup>18</sup> Angola, Benin, Cape Verde, Eritrea, Guinea Bissau and Niger



Figure 4.2.2: Trend of notification rates for total and smear positive cases, and absolute rate change for total cases. African Region 1990-2006

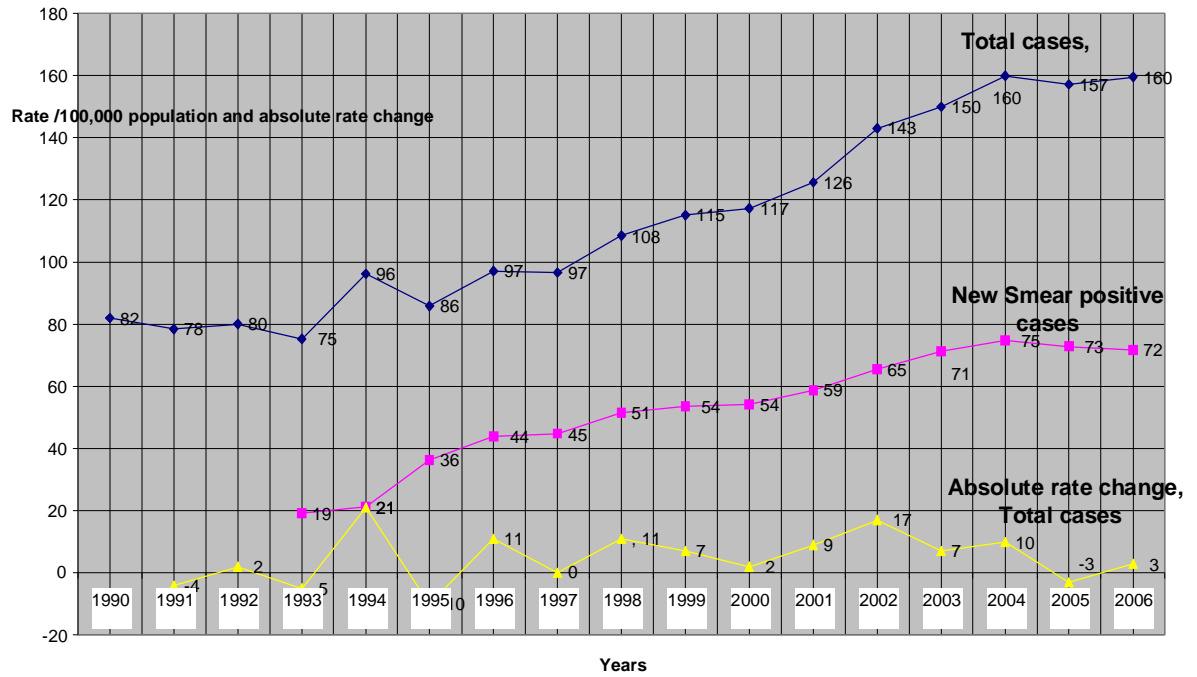
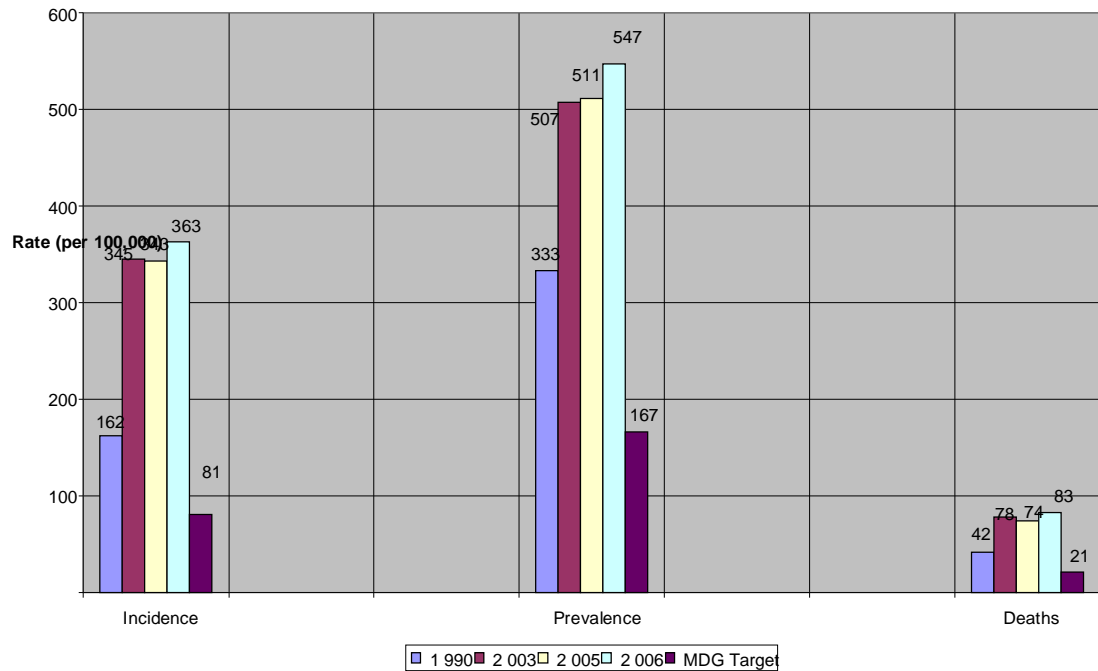


Figure 4.2.2: Estimated TB prevalence, Incidence and death rates. African Region 1990-2006



**Table 4.2.2: Estimated Prevalence, Incidence and Mortality Rates (per 100,000)**

*Associated with TB (Source: WHO TB Global Report 2008)*

Country	Prevalence		Incidence				Mortality	
	All Forms		All Forms		Smear +ve		All Forms	
	1990	2006	1990	2006	1990	2006	1990	2006
Algeria	44	56	37	56	17	25	2	2
Angola	514	344	203	285	91	127	58	29
Benin	140	135	77	90	34	39	15	18
Botswana	294	454	240	551	98	218	34	91
Burkina Faso	337	476	159	248	69	108	50	71
Burundi	307	714	147	367	64	162	38	91
Cameroon	193	237	77	192	34	83	22	29
Cape Verde	413	324	162	168	73	76	46	36
Central African Republic	336	528	138	345	60	149	40	80
Chad	254	570	119	299	53	131	29	76
Comoros	186	86	85	44	38	20	15	7
Congo	251	566	161	403	70	177	36	80
Cote d'Ivoire	330	747	168	420	73	183	40	105
DR Congo	266	645	156	392	69	173	35	84
Equatorial Guinea	176	404	102	256	45	112	19	54
Eritrea	231	218	72	94	32	42	20	22
Ethiopia	307	641	151	378	67	168	37	83
Gabon	383	428	153	354	68	152	44	69
Gambia	347	423	183	257	82	114	38	53
Ghana	532	379	224	203	99	90	60	48
Guinea	254	466	122	265	55	118	29	56
Guinea-Bissau	403	313	156	219	70	97	39	40
Kenya	133	334	116	384	45	153	29	72
Lesotho	254	513	184	635	77	255	30	88
Liberia	333	578	132	331	59	147	37	70
Madagascar	365	415	176	248	79	111	38	45
Malawi	321	322	258	377	99	143	75	111
Mali	715	578	302	280	135	124	80	69
Mauritania	576	606	225	316	101	142	63	71
Mauritius	50	40	26	23	12	10	4	4
Mozambique	298	624	177	443	77	186	36	117
Namibia	674	658	306	767	132	316	75	96
Niger	315	314	124	174	55	78	35	36
Nigeria	278	615	124	311	55	137	32	81
Rwanda	201	562	159	397	62	162	62	128
Sao Tome & Principe	345	252	135	103	61	46	38	26
Senegal	378	504	192	270	86	121	42	58
Seychelles	113	56	43	33	20	15	9	5
Sierra Leone	491	977	214	517	96	230	55	119
South Africa	774	998	301	940	130	382	78	218
Swaziland	665	1,084	267	1,155	113	458	76	278
Togo	775	787	327	389	145	171	89	105
Uganda	296	561	163	355	69	154	56	84
UR Tanzania	270	459	178	312	77	135	36	66
Zambia	636	568	297	553	123	228	100	102
Zimbabwe	246	597	136	557	54	227	47	131
<b>AFR</b>	<b>333</b>	<b>547</b>	<b>162</b>	<b>363</b>	<b>70</b>	<b>155</b>	<b>42</b>	<b>83</b>

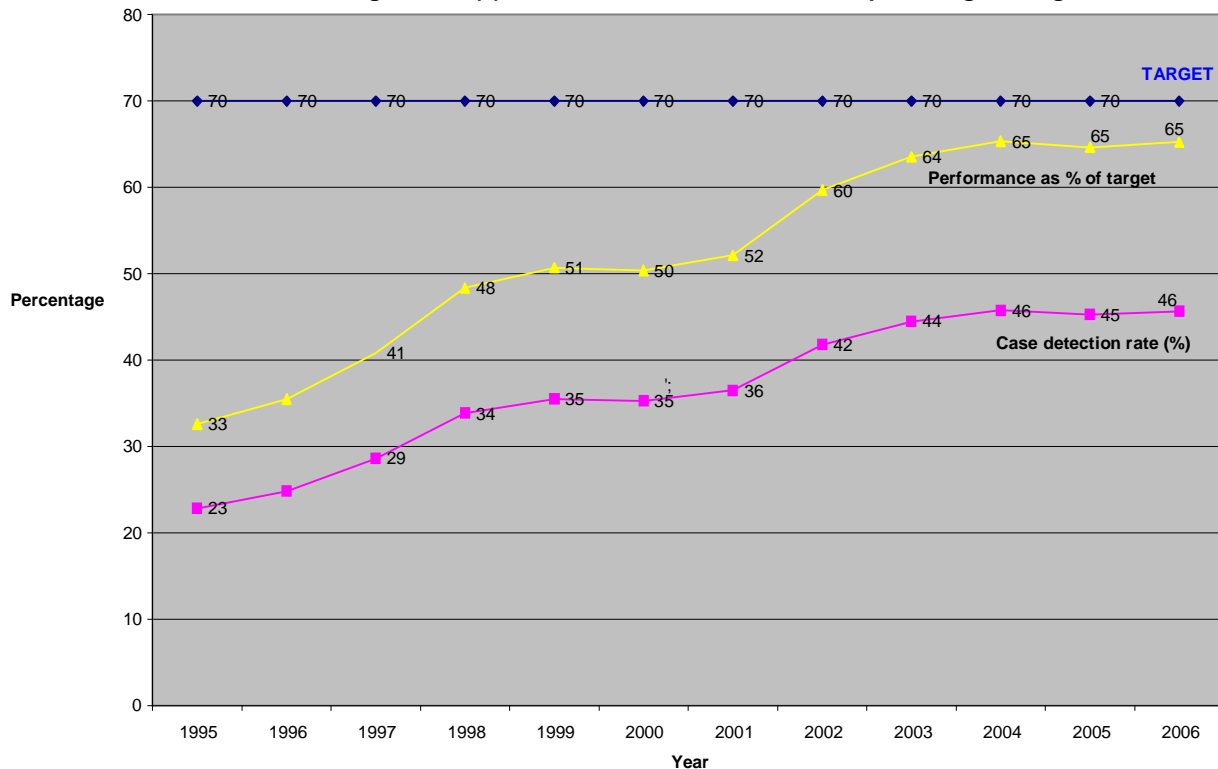
### 4.2.3: Status of case detection and treatment success rates

Based on the WHO TB Global Report 2008, as of end 2006, 10 countries<sup>19</sup> had met the World Health Assembly target of 70% case-detection rate, and 8 countries<sup>20</sup> had achieved the 85% treatment-success rate. Only 2 countries (Algeria and Benin) had met both targets (Table 4.2.3).

#### a): Case detection rates:

At 46%, new smear positive case detection rate for the African Region is still far below the 70% target set by the WHA, MDGs and the AU Heads of state and Government Call for Universal Access. While increasing overtime during the past five years (Figure 4.2.3 (a)), the region is only achieving 65% of the target.

Figure 4.2.3(a): Trend of case detection rate and percentage of target



#### b): Treatment Success Rates

At 76%, the treatment success rate (89% of target) for the 2005 new smear positive patient cohort falls short of the WHA, MDG, Stop TB Partnership and AU UA targets. Only eight countries from the African Region<sup>21</sup> have reached the target. This compares to two countries in 2001, three countries in 2002,

<sup>19</sup> Algeria, Angola, Benin, Botswana, Cameroon, Kenya, Lesotho, Madagascar, Namibia, and South Africa

<sup>20</sup> Algeria, Benin, Comoros, DR Congo, Eritrea, Gambia, Mauritius and Sierra Leone

<sup>21</sup> Algeria, Benin, Democratic Republic of Congo, Eritrea, Gambia, Mauritius and Sierra Leone

four countries in 2003, and eight countries in 2004. A further four countries<sup>22</sup> have attained treatment success rate of 80% and above but below 85%. However, treatment success rate has been increasing gradually since 1999 (Figure 4.2.3(b)).

Figure 4.2.3(b): Trend of treatment success rate and percentage of expected target. African Region 1994-2005

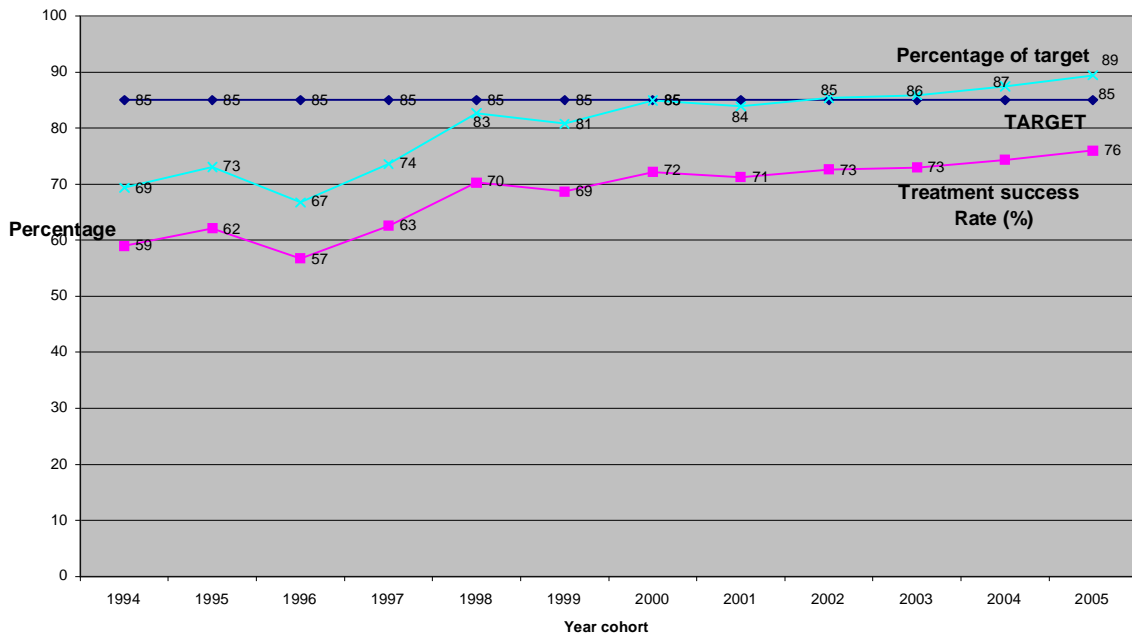


Table 4.2.3: Proportion of New smear positive TB cases Detected and Cured under DOTS

Country	Case Detection Rate (%) (70% target)			Treatment Success Rate (%) (85% target)		
	1995	2000	2006	1995	2000	2005
Algeria	-	126	102	-	87	87
Angola	-	-	76	-	68	72
Benin	83	86	86	73	-	87
Botswana	73	75	80	67	77	70
Burkina Faso	11	17	17	25	60	71
Burundi	19	-	24	45	80	78
Cameroon	-	31	91	-	77	74
Cape Verde	-	-	33	-	-	64
Central African Republic	-	-	69	37	57	65
Chad	36	-	-	47	-	-
Comoros	54	49	42	90	93	91
Congo	69	86	51	-	69	28
Cote d'Ivoire	50	32	37	68	-	75
DR Congo	41	48	61	80	78	85
Equatorial Guinea	85	-	-	89	-	-
Eritrea	-	42	35	-	76	88
Ethiopia	15	30	27	61	80	78
Gabon	-	-	58	-	-	46
Gambia	74	-	64	76	-	87

<sup>22</sup> Kenya, Rwanda, United Republic of Tanzania and Zambia

Ghana	15	37	38	54	50	73
Guinea	44	54	55	78	68	72
Guinea-Bissau	-	45	64	-	-	69
Kenya	57	51	70	75	80	82
Lesotho	59	72	79	47	-	73
Liberia	-	26	55	79	80	76
Madagascar	52	-	73	55	70	74
Malawi	42	44	42	71	73	73
Mali	16	17	26	59	-	75
Mauritania	-	-	34	-	-	55
Mauritius	89	90	67	-	93	86
Mozambique	57	45	47	39	75	79
Namibia	21	77	83	-	56	75
Niger	-	40	49	-	65	74
Nigeria	11	12	20	49	79	75
Rwanda	35	33	27	-	61	83
Sao Tome & Principe	-	-	-	-	-	-
Senegal	62	53	-	44	52	-
Seychelles	-	83	-	89	82	-
Sierra Leone	28	33	35	69	77	86
South Africa	-	58	71	-	66	71
Swaziland	-	-	49	-	-	42
Togo	13	11	19	60	-	71
Uganda	-	48	44	-	63	73
UR Tanzania	57	49	46	73	78	82
Zambia	-	-	53	-	-	84
Zimbabwe	-	45	42	-	69	68
AFR	23	35	46	62	72	76

#### 4.2.4: Prevalence of Drug Resistant TB

Drug resistant TB constitutes a silent component of the TB epidemic in the region. Until an outbreak of XDR-TB was reported in early 2006, little attention was being paid to identification and treatment of drug resistant TB, even though evidence shows that it exists everywhere it has been surveyed for.

Regular case notification initiated in 2007 yielded 8,474 MDR-TB cases from 28 countries. Four countries, namely, Botswana (2 cases), Lesotho (1 case), Mozambique (1 case) and South Africa (536) also reported 541 XDR-TB cases. By the end of 2007, there were still 10 Member States without facilities for TB culture and drug susceptibility Testing, constituting 78.3% coverage with culture and drug susceptibility testing coverage by country. Table 4.2.4 shows MDR-TB cases notified by country during 2007, and countries' status of treatment programmes for MDR/XDR-TB as of January 2008.



Ghana															None, ad hoc
Guinea Conakry															Present, GLC supported
Guinea Bissau															No C & S lab
Kenya	5	7	7	9	7	9	9	8	3	9	4		77	Being set up, GLC supported	
Lesotho							2	17	1	17	5	4	46	Being set up, GLC	
Liberia															No C & S lab
Madagascar	0	0	0	0	2	1	0	0	0	0	3	0	6	None. Ad hoc	
Malawi						1							1	None, ad hoc	
Mali	2	2	1	0	1	1	1	4	1	0	0	0	13	Starting, KNCV & Gvt	
Mauritania					3			3					6	None	
Mauritius															None, Ad hoc
Mozambique	10	12	9	9	7	27	13	15	6	36	16	3	163	Present, GLC supported	
Namibia													150	Present, Govt supported	
Niger	0	0	1	0	0	0	0	0	1	0	0	0	2	None, ad hoc	
Nigeria	1	0	2	0	5	1	1	2	1	0	1	2	16	None. Ad hoc	
Rwanda	6	9	12	6	12	13	8	5	13	9	4	8	105	Present, GLC supported	
Sao Tome						1							1	No C & S lab	
Senegal						9							9	None, ad hoc	
Seychelles															None, ad hoc
Sierra Leone															None, ad hoc, NO DST
South Africa	611	546	671	529	769	748	466	594	722	739	460	514	7369	Present, Gvt supported	
Swaziland												67	67	Present, Gvt supported	
Togo													0	None, ad hoc	
Tanzania						8							8	Being set up, GLC pre-approval stage	
Uganda												67	67	Present, GLC supported	
Zambia	3	0	4	10	1	0	0	1	0	0	2	5	26	Present, Gvt supported	
Zimbabwe															None, ad hoc
AFR	668	607	750	602	847	873	558	680	795	841	533	720	8624		

#### 4.2.5: Status of implementation of TB/HIV Interventions

The key Abuja special Summit targets for TB/HIV interventions are to test 100% of TB patients for HIV and commencing 100% of eligible co-infected TB patients on ART. During 2006, only 22% of notified cases (287,945 TB cases) were tested for HIV, 150,739 (52.3%) of which tested positive. This compares to 11.2% and 52.0% respectively for 2005. By country,

Of those who tested positive, 37.1% were started on Anti-Retroviral Therapy (ART), increasing from 27.3% in 2005 but still far short of the 100% target. At this rate, the region is unlikely to reach the 100% target by 2010 set by the special summit.

However, 11 countries<sup>23</sup> recorded ART coverage of 30% and above, ranging from 30.8% in Rwanda to 56.9% in Malawi. Zambia with the highest coverage in 2005, recorded a 44.3% decline in coverage during 2006. Furthermore, 89.1% were started on Co-trimoxazole preventive therapy (CPT), a 23.4% increase compared to a figure of 72.2% for 2005. Based on this trend, it is likely that 100% coverage with this intervention could be achieved by 2010. At this rate, Universal access to CPT is likely to be achieved by 2010. Table 4.2.5 shows coverage for the three interventions by country for 2005 and 2006.

Country	Total cases notified		Proportion (%) of notified cases tested for HIV		Proportion of tested cases positive for HIV		Proportion (%) HIV positive put on CPT		Proportion (%) HIV positive put on ART	
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
Algeria	21336	21263								
Angola	38317	54699								
Benin	3,457	3734	23	88.9	13.8	14.9	0	68.2	0	43.1
Botswana	10,228	8,519	22.4	53.8	79.8	71.1	0	0	0	0
Burkina Faso	3,659	4,248	33.2	33.2	46.1	50.8	67.8	65.7	32.4	26.9
Burundi	6627	6176	0	0						
Cameroon	22,073	24879	0	34.7		38.9		0		0
Cape Verde	305	276	97.7	97.8	4.7	3	0	100	100	0
Central African Republic	3411	6375	0	0						
Chad	6505		0							
Comoros	112	116	100	100	1.8	1.7	100	0	100	0
Congo	9959	8600	0	0						
Côte d'Ivoire	20,026	21,145	20.4	27.5	38	36.7	38	55.6	13.9	46.7
DR Congo	99,558	98,139	1.9	1.3	20.5	14.3	73.6	90.4	0.8	54.3
Equatorial Guinea										
Eritrea	3612	3136	0	0						
Ethiopia	125,135	123,009	2.6	2.6	41.1	39.8	88.3	85.6	29.4	27.3
Gabon	2611	3206	7.1	20.1	100	100	100	100	0	0
Gambia	2120	1881	0	29.2		25.8		0		16.2
Ghana	12,124	12511	7	17.1	40.3	33.3	100	68.2	36.8	13.9
Guinea	7090	9076	0	0						
Guinea-Bissau	1816	2161	11	7	55	56.3	100	100	30	50.6
Kenya	108,401	115,234	14.4	60.1	57.2	52	44	141.2	17.3	42.9
Lesotho	10,802	13368	1.4	18.8	81.4	88.6	78.7	56.2	0	8.6
Liberia	3456	4514	3.3	15.2	12.3	14.7	0	0	0	0

<sup>23</sup> Benin, Cote D'Ivoire, DRC, Guinea Bissau, Kenya, Malawi, Mauritius, Mozambique, Rwanda, South Africa and Zambia



Madagascar	19475	22,517	9	0	0.9		0		0	
Malawi	27,610	27,011	44.3	63.9	69	69.9	91.7	93.2	49.2	56.9
Mali	4877	5224	0	9.2		14.6		0		0
Mauritania	2218	2766	0.5	0	0					
Mauritius	127	115	90.6	87	1.7	5	100	80	50	80
Mozambique	33,718	35632	0	24.2		70.4		17.4		45.9
Namibia	15894	15,771	16	0	57.5		0		0	
Niger	8224	8755	0	0			42.8		34.2	
Nigeria	66,848	74,225	10.3	10.1	18	20.7	0	0	0	0
Rwanda	7,680	8,283	65.1	76.1	45.5	40.7	15.3	43.9	12.8	30.8
Sao Tome & Principe	142	153	100	100	3.5	2	0	0	0	0
Senegal	10120		0							
Seychelles	14		0				100		100	
Sierra Leone	6,930	8208	0	15		8.5		100		0
South Africa	302,467	341,165	22.5	32.3	51.9	52.8	100	97.9	33	40.1
Swaziland	8,864	9195	0	20.1		79.9		87.9		19.4
Togo	2636	2924	0	0						
Uganda	41,809	41,579	25.2	26	71.3	58.9	25.1	23.2	10.1	7.9
UR Tanzania	64,200	62,100	2.5	11.5	52.1	50.5	61.1	56.9	22.4	25.9
Zambia	53,267	51,179	2	22.6	56.7	62.2	0	30.6	68.1	37.9
Zimbabwe	54891	47774	0	0						
AFR	1,254,751	1 310 841	11.2	22	52	52.3	72.2	89.1	27.3	37.1

Based on these figures, the proportion of TB cases tested for HIV had doubled between 2005 and 2006 but falls far below the Universal Access target of 100%.

By country, only Comoros and Sao Tome and Principe had achieved the target in both years. Cape Verde and Mauritius consistently tested over 80% of notified cases and should easily reach the set target by 2010. Benin, Botswana, Ethiopia, Kenya, Malawi and Rwanda are also making sufficient progress from year to year to reach the target by 2010.

#### 4.3: Access to essential anti-TB medicines

Uninterrupted supply of first line anti-TB medicines is a basic requirement for effective DOTS based TB Control Programmes. With the set up of the Global Drug Facility (GDF) for access to free quality anti-TB first line drugs to all DOTS based programmes with a GNP of less than 3,000 USD, the availability of first line anti-TB drugs has improved tremendously. By the end of December 2007, all 36 eligible countries from the region that applied to the GDF secured 3 year first line anti-TB drug grants, including pediatric formulations for some countries.

Notwithstanding, latest available information<sup>24</sup> indicates that only 69% of 42 countries that submitted reports had uninterrupted supply of first line anti-TB drugs at both the central and peripheral levels during 2006, while 92.8% had uninterrupted supply at peripheral level. Since implementation is mostly at peripheral level, approximately 7.2% of countries ran out of drugs at some point, thereby limiting access to these. This is a significant short fall with regard to Universal Access to essential TB treatment.

<sup>24</sup> WHO Global TB Report 2008

For the treatment of drug resistant TB, of the 26 countries that reported at least a case of MDR or XDR-TB during 2007, only 17 countries (65.4%) have an organized treatment programme. Even then, except for those supported through the GLC, not all patients have access to second line anti-TB drugs. As of January 2008, only 9 countries<sup>25</sup> had applied and been approved to access concessionary priced second line drugs from the Green Light Committee (GLC) of the Stop TB Partnership. This facility is available to all DOTS based TB Control programmes and should be utilized more widely than is currently the case considering the wide spread existence especially of MDR-TB cases.

#### **4.4: Resource Mobilization**

##### **4.4.1 National financing of TB services**

During 2006, 39 of the 46 Member States (84.7%) % provided information on Financing TB Control<sup>26</sup>. These countries represent 93% of estimated TB incidence in the Region for that year. TB specific disaggregated data mobilized at national level is however not readily available as most programmes are implemented within primary health care services.

WHO has since developed a planning and budgeting tool that is designed to help countries align their strategic plans and budgets with all the elements of the new Stop TB Strategy. During 2007, 35 countries in the African Region were introduced to the tool and used it to elaborate programme budgets. This is expected to improve the process of budget estimation and expenditure accountability in the coming years.

##### **4.4.2 External financing of TB services**

During the past five years, external funding for TB control activities has increased significantly. The Global Fund to Fight AIDS, TB and Malaria (GFATM) has been the single most important source. During rounds 1-7 from 2002-2007, approximately 953 million USD (37% of total available grants global) was approved for TB Control activities in the African Region. This is the largest proportion, followed only by the West Pacific Region at 430 Million USD (Figure 4.7.1)<sup>27</sup>. Notwithstanding, this has not been matched with spending (Table 4.7.1) and translating into increased case detection and treatment success rates.

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<sup>25</sup> Burkina Faso, DRC, Guinea Conakry, Kenya, Lesotho, Mozambique, Rwanda, Tanzania (pre-approval stage) and Uganda

<sup>26</sup> WHO Global TB Control Report 2008

<sup>27</sup> Adopted from WHO Global TB Control Report 2008

**Figure 4.7.1: Global Fund funding for TB Control by WHO Region in Million US \$. Rounds 1-7**

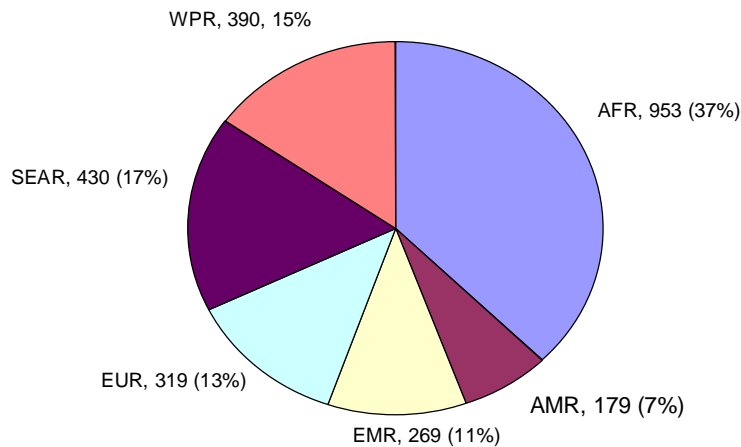


Table 4.7.1. (attached) shows TB and TB/HIV grants from the GFATM for countries in the WHO African Region for 2002-2007

## **5: Conclusions:**

### **5.1: Leadership at National, Regional and Continental Levels**

The 2006 Abuja Call for Universal Access to ATM services by 2010 by a United Africa is the most recent indication of stated ultimate political leadership for TB Control in the Region. It effectively ratifies continental commitment to the World Health Assembly, MDG and Stop TB Partnership targets for TB Control.

It also complements the 2001 Abuja Declaration on HIV/AIDS, Tuberculosis and other related Infectious diseases, the 2005 Declaration of TB as an Emergency in the Region by Ministers of Health of the WHO African Region and subsequent declaration of national emergencies by at least 18 countries, and is itself complemented by subsequent commitments on TB/HIV and related strategies by the declarations of the Ministers of Health of the African Region and various regional economic communities in 2007 and 2008.

The stated commitment notwithstanding, national financing of health and TB Control programmes is still insufficient to support requisite scale up towards universal access. To date, the target of “allocating 15% of national budgets to the improvement of the health sector” as stated in the 2001 declaration has only been achieved by a limited number of countries. Furthermore, a later call to allocate 34USD per capita for health is yet to be realised by the majority of countries.

## 5.2: TB Prevention, Treatment, Care and Support

### 5.2.1: Estimated Prevalence, incidence and death rates

TB Prevalence and incidence measure the status of the TB epidemic with regard to existing cases and new cases occurring in a defined population at a point in time or during a defined time period. Both are directly linked to programme activity and population coverage with diagnostic and notification services. They are also directly linked to programme performance with regard to ability to successfully cure those with infectious forms of TB. Their trend provides a measure of the burden of tuberculosis on a population. Survey based accurate measures of both prevalence and incidence is the best way to determine this burden. However, these can be time consuming, costly and technically challenging such that they are beyond the routine use of most national programmes, even though they are encouraged where feasible. In the absence of such studies, proxy measures are being used by WHO to estimate prevalence, incidence and death rates.

Estimated TB prevalence, Incidence and death rates have all continued to increase. Absolute notified cases and TB notification rates have also continued to increase at regional level. As a case in point, notification rates as a proxy for TB prevalence have risen from 82 per 100,000 population in 1990 (the Stop TB Partnership set reference year for measuring progress towards the MDG targets) to 160 in 2006. At this rate, the TB control MDG targets for TB incidence and prevalence are unlikely to be achieved at regional level.

However, according to the WHO Global TB Report for 2008, by the end of 2006, six countries<sup>28</sup> had already halted and started to reverse overall and smear positive TB incidence as specified in the core MDG targets (without reference to the 1990 rates as specified by the Stop TB Partnership operationalisation of the MDG targets). A further 6 countries<sup>29</sup> had already halted and started to reverse estimated TB prevalence, while four countries, namely, Angola, Comoros, Sao Tome & Principe and Seychelles had already halted and started to reverse death rates ( Table 4.2.2).

### 5.2.2: Status of case detection and treatment success rates

#### ***Case detection rate:***

Case detection is a function of availability of laboratory services to diagnose TB as well as the quality of the services offered. Poorly developed laboratory infrastructure, poor equipment, poor personnel skills, poor technique and poor interpretation skills all contribute to low case detection rates. In the era of HIV/AIDS, an increasing proportion of patients with sputum smear negative TB and extra-pulmonary TB has been observed due to the effect of the co-infection. However, where available, culture and other more specific diagnostic methods exist that correct for this atypical presentation.

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<sup>28</sup> Comoros, Ghana, Mali, Mauritius, Sao Tome & Principe and Seychelles

<sup>29</sup> Angola, Benin, Cape Verde, Eritrea, Guinea Bissau and Niger

At 46%, new smear positive case detection rate for the African Region is still significantly below the 70% target set by the WHA, MDGs and the AU Heads of state and Government Call for Universal Access. While increasing overtime during the past five years, the region is only achieving 65% of the target.

However, based on the WHO TB Global Report 2008, as of end 2006, 10 countries<sup>30</sup> had met the World Health Assembly target of 70% case-detection rate, and 8 countries<sup>31</sup> had achieved the 85% treatment-success rate. Only 2 countries (Algeria and Benin) had met both targets (Table 4.2.3).

### ***Treatment Success Rates***

The level of cured patients and the treatment success rate measure the effectiveness of a programme to reduce sources of infection in a community. This measure is directly affected by the proportion of patients that fail on treatment (Treatment Failures), default from treatment (Treatment Defaulters) are transferred out to other registration units (Transfer out) or die from any cause while on TB treatment.

At 76%, the treatment success rate for the 2005 new smear positive patient cohort represents only 89% of WHA, MDG, Stop TB Partnership and African Union Universal Access targets.

Only eight countries from the Region<sup>32</sup> have reached the treatment success target. This compares to two countries in 2001, three countries in 2002, four countries in 2003, and eight countries in 2004. A further four countries<sup>33</sup> have attained treatment success rate of 80% and above but below 85%.

However, treatment success rates have been increasing progressively since 1999.

### **5.2.3: Drug Resistant TB**

Drug resistant TB is essentially a man made problem arising from causes related to the practice of health care workers or the patient. In the former, inadequate dosage, improper drug combinations, or incorrect duration of treatment are the main causes. In the latter, patient intolerance to some drugs, failures to adhere to treatment or defaulting are the commonest causes.

Available data shows that drug resistant TB has emerged as a silent element of the TB epidemic in the region. Regular case notification initiated in 2007 yielded 8,624 MDR-TB cases from 28 countries and 541 XDR-TB cases from four countries.

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<sup>30</sup> Algeria, Angola, Benin, Botswana, Cameroon, Kenya, Lesotho, Madagascar, Namibia, and South Africa

<sup>31</sup> Algeria, Benin, Comoros, DR Congo, Eritrea, Gambia, Mauritius and Sierra Leone

<sup>32</sup> Algeria, Benin, Democratic Republic of Congo, Eritrea, Gambia, Mauritius and Sierra Leone

<sup>33</sup> Kenya, Rwanda, United Republic of Tanzania and Zambia

By the end of 2007, there were still 10 Member States without facilities to identify drug resistant TB cases, translating into 78.3% coverage with culture and drug susceptibility testing coverage by country.

Of the 26 countries that reported at least a case of MDR or XDR-TB during 2007, only 17 countries (65.4%) have an organized treatment programme. As of January 2008, only 9 countries<sup>34</sup> had applied and been approved to access concessionary priced second line drugs from the Green Light Committee (GLC) of the Stop TB Partnership. This facility is available to all DOTS based TB Control programmes.

#### **5.2.4: Status of implementation of TB/HIV Interventions**

While the increase in notified TB cases in the region is widespread, it is most noticeable where HIV prevalence is high. HIV promotes the progression of TB infection to disease while TB is responsible for over 40% of AIDS related deaths in the region and is an AIDS defining condition. Several randomised trials have demonstrated the effectiveness of joint tuberculosis and HIV/AIDS interventions in reducing morbidity and mortality among dually infected persons<sup>35</sup> and such interventions are now recommended as standard minimum package of care for dually infected persons.

During 2006, only 22% of notified cases were tested for HIV, compared to the 100% set by the Abuja Summit. However, this represents a 1005 increase in coverage compares to 11.2% for 2005.

Of those who tested positive, 37.1% were started on Anti-Retroviral Therapy (ART), increasing from 27.3% in 2005. Again this is far less than the 100% target. At this rate, the region is unlikely to reach the 100% target by 2010.

However, 11 countries<sup>36</sup> recorded ART coverage of 30% and above, ranging from 30.8% in Rwanda to 56.9% in Malawi. Furthermore, 89.1% were started on Co-trimoxazole preventive therapy (CPT), a 23.4% increase compared to 72.2% in 2005. At this rate, Universal access to CPT is likely to be achieved by 2010.

### **5.3: Access to essential anti-TB medicines**

TB is a bacteriological disease and its treatment is fundamentally anti-bacterial. Uninterrupted access to effective and high quality anti-TB medicines is key to an effective TB control programme and must be ensured.

Overall, availability of first line anti-TB drugs has improved tremendously. By the end of December 2007, all 36 eligible countries from the region that applied to the GDF secured 3 year first line anti-TB drug grants, including pediatric formulations for some countries.

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<sup>34</sup> Burkina Faso, DRC, Guinea Conakry, Kenya, Lesotho, Mozambique, Rwanda, Tanzania (pre-approval stage) and Uganda

<sup>35</sup> WHO Interim policy on collaborative TB/HIV activities, Geneva, World Health Organisation, 2004

<sup>36</sup> Benin, Cote D'Ivoire, DRC, Guinea Bissau, Kenya, Malawi, Mauritius, Mozambique, Rwanda, South Africa and Zambia

Notwithstanding, latest available information<sup>37</sup> indicates that only 69% of 42 countries that submitted reports had uninterrupted supply of first line anti-TB drugs at both the central and peripheral levels during 2006. This is a significant short fall with regard to Universal Access to essential TB treatment.

For the treatment of drug resistant TB, only 65.4% of countries that reported some drug resistant TB cases had organized treatment programmes. Furthermore, as of January 2008, only 9 countries<sup>38</sup> had applied and been approved to access concessionary priced second line drugs from the Green Light Committee (GLC) of the Stop TB Partnership. This facility is available to all DOTS based TB Control programmes and should be utilized more widely than is currently the case.

#### **5.4: Resource mobilization**

Adequate financial, human and logistic resources are a pre-requisite for implementation of TB control activities, as for other health services. Scale up towards universal access will entail even more funding and human resources. While donor funding provides significant additional resources, the best way to ensure sustainability is through allocation of national resources.

There is insufficient information to determine national funding for TB Control as most activities are implemented within primary health care services without clear earmarking for TB control.

During the past five years, external funding for TB control activities has increased significantly. The Global Fund to Fight AIDS, TB and Malaria (GFATM) has been the single most important source. During rounds 1-7 from 2002-2007, approximately 953 million USD (representing 37% of total available grants globally) was approved for TB Control activities in the African Region. Notwithstanding, this has not been matched with timely spending and has not translated into increased case detection and treatment success rates all round.

Despite the progress in tuberculosis control, the Region has failed in achieving the global targets for tuberculosis control. While DOTS has expanded, covering 94% of the regional population and treatment success is high (82%), the case detection rate is only 44%. To improve case detection, the regional plan to Stop TB was developed as part of the global plan 2006–2015. The budgetary need for the period of 2006 to 2015 indicated in the Plan is US\$ 3.1 billion in the Region. Support to countries was enhanced and partnership development promoted.

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<sup>37</sup> WHO Global TB Report 2008

<sup>38</sup> Burkina Faso, DRC, Guinea Conakry, Kenya, Lesotho, Mozambique, Rwanda, Tanzania (pre-approval stage) and Uganda

## **6: Conclusions and Key Recommendations**

### **6.1: Conclusions**

Tuberculosis control in Africa has progressed during the last decade but the continent still lags behind on major TB Control targets. Financial resources, traditionally a bottleneck for NTPs till the 2000's, is no longer a major factor as GFATM grants, GDF grants (for standard TB treatment), GLC support (for drug resistant TB), bilateral donors support and several Partnership mechanisms provide technical and financial assistance to cover most needs. In order to achieve Universal Access by 2010 and the MDG targets by 2015, much remains to be done, especially to:

- **Increase treatment success rate for smear positive TB cases:** through implementation of initiatives to reduce preventable unfavourable treatment outcomes such as patient default, transfer out and HIV/AIDS related TB deaths
- **Increase case detection rates:** through development and strengthening of laboratory infrastructure, public private partnerships in the delivery of TB services and expanded institutional and community DOTS services.
- **Detect, treat and prevent Drug resistant TB:** through surveillance, development of culture and DST capability for first line anti-TB drugs, and programmatic management of drug resistant TB cases as part of routine NTP activities
- **Scale up TB/HIV collaborative activities:** especially HIV testing among TB patients, Co-trimoxazole and other preventive therapy, and ART for eligible dually infected persons
- **Address Health Systems Components** that affect TB Control (laboratory networks, personnel, surveillance, supply systems and monitoring and evaluation.

### **6.2: Key Recommendations**

6.2.1 All countries to periodically review their TB Control performance with regard to the WHA, MDG and Abuja targets and develop strategies to accelerate their attainment; working in close collaboration with national and regional stakeholders and the International Community.

6.2.2 Member states to decentralize and strengthen TB laboratory services in the public and private sectors to improve case detection and ensure quality assured laboratory services in pursuit of Universal Access to such services.



- 6.2.3 National TB Control Programmes to prioritize implementation of strategies to expand DOTS diagnosis and treatment services with a view to rapidly move towards the WHA, MDG, Abuja and Regional Committee targets for treatment success and case detection. This includes strengthening the capacity of the Health Systems to suspect and diagnose Tuberculosis, and to reduce treatment failures, treatment defaulters and transfer outs.
- 6.2.4 All countries with generalized HIV epidemic (5% or higher) in the general population to programme and implement in full the Regional Strategy for controlling TB-HIV with particular emphasis on universal access to HIV testing for TB patients, ART for eligible HIV positive patients and other interventions to reduce the burden of TB on People Living with HIV & AIDS, and reduce the burden of HIV & AIDS on dually infected TB patients.
- 6.2.5 Member states to allocate sufficient resources to ensure uninterrupted supply of first line anti-TB drugs at central and peripheral levels, including adequate buffer stocks at the various levels.
- 6.2.6 For drug resistant TB cases, national programmes to determine the burden of MDR-TB and initiate treatment programmes for all confirmed cases. National programmes should also mobilize sufficient quality assured second line drugs including concessionary priced drugs through the Stop TB Partnership Green Light Committee
- 6.2.7 Member states to respect the pledge to allocate at least 15% of the national budget to health development and allocate a sufficient amount of that for delivery for TB control interventions. Further, Member States to timely expend approved GFATM grants and submit proposals for more funding to meet funding gaps for scale up of activities towards universal access.
- 6.2.8 The UN and Other International Organizations and Donor Agencies are called upon to continue to mobilize required resources, as well as research for new TB drugs and provide technical support to Member States.
- 6.2.9 The African Union and Regional Economic Communities and Health Organizations to advocate to national governments in the 10 countries without local capability for TB culture and drug susceptibility testing for first line anti-TB drugs, to establish this capacity in order to facilitate diagnosis and treatment of MDR-TB cases. In this connection, they should also promote regional cooperation.

2008

# Progress report on the implementation of the commitments of the May 2006 Abuja special summit on HIV/AIDS, tuberculosis and malaria (ATM) Annex II

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