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STATE OF TUBERCULOSIS IN THE SADC REGION, 2012

ORIGINAL IN
ENGLISH

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ACRONYMS AND ABBREVIATIONS

ACSM	Advocacy, Communications and Social Mobilization
ADB	African Development Bank
AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
CDC	Centres for Disease Control and Prevention
CPT	Cotrimoxazole Preventive Therapy
DOT	Directly Observed Therapy
DOTS	Directly Observed Therapy, Short-course: important component of the STOP TB Strategy
DRC	Democratic Republic of Congo
DRS	Drug Resistance Surveillance or Survey
DST	Drug Susceptibility Testing
FDC	Fixed-Dose Combination (or FDC anti-TB drug)
FLD	First Line Drugs; the first line anti-TB drugs are: Isoniazid, Rifampicin, Pyrazinamide, Ethambutol and Streptomycine
GDF	Global TB Drug Facility
Global Plan	The Global Plan to Stop TB, 2011–2015
HIV	Human Immunodeficiency Virus
HTC	HIV testing and counselling
IPT	Isoniazid Preventive Therapy
MDG	Millennium Development Goal
MDR-TB	Multidrug Resistance Tuberculosis (TB resistance to at least Isoniazid and Rifampicin)
MS	Member State(s)
NICD	National Institute of Communicable Diseases
NSP	National Strategic Plan
NTP	National Tuberculosis Control Programme or equivalent
RCE	Regional Centre of Excellence
Rif	Rifampicin, one of the first line anti TB drugs
RISDP	Regional Indicative Strategic Development Plan
SADC	Southern Africa Development Community
SLD	Second Line Drugs: anti-TB drugs used for the treatment of Drug Resistant forms of TB including MDR and CDR-TB
(S)NRL	(Supra)National Reference Laboratory
TB	Tuberculosis
The Union	International Union Against Tuberculosis and Lung Disease
UNAIDS	Joint United Nations Programme on HIV and AIDS
UNITAID	International Facility for the Purchase of Drugs to Treat HIV and AIDS, Malaria and TB
URT	United Republic of Tanzania
WHO	World Health Organization
XDR-TB	Extensively Drug Resistant TB: TB due to MDR strains that are also resistant to a fluoroquinolone and at least one second-line injectable agent (amikacin, kanamycin and/or capreomycin)


Executive Summary

The Southern African Development Community (SADC) Tuberculosis (TB) Report is an annual report that aims to provide the Ministers of Health of the Community, the Secretariat and the partners with an overview of the epidemiology of the disease and progress on TB control in the Region. It gives a snapshot of the TB epidemic and provides a useful monitoring tool to improve TB control.

In SADC, the Strategic Plan for the Control of TB in the SADC Region, 2007-2015 guides TB control activities. Member States also subscribe to the Millennium Development Goals that have the following TB-specific target: "To halt and begin to reverse the incidence of TB by 2015". In order to achieve these goals, it is necessary for SADC to monitor annual progress by Member States, both individually and collectively as a region.

This report covers the year 2012. Member States submitted data to the SADC secretariat and the draft report was presented at the TB Managers meeting in September 2013. Feedback from the meeting was incorporated in the final draft report, which was presented to the SADC Ministers of Health meeting for approval.

While progress was evident in the reporting year, challenges and gaps also persisted which decrease MS capacity for TB control. For example, sustained financing for TB control remained an enormous challenge. Of the available funding for TB Control, governments contributed 25-58% in 2012; followed by the Global Fund to fight AIDS, Tuberculosis and Malaria as a major contributor to TB financing. However, a significant gap remained for the funding needed for the implementation of TB strategic plans, ranging from 25 to 83%. A further challenge is the end of the African Development Bank support for the SADC communicable disease project addressing collaboration and harmonisation in 2014.

Human resources levels in the central units of TB programmes varied largely across the region and this applies to the subnational level as well. Some Member States had as little as one person per 10,000 TB patients in the Central Unit.
A high HIV prevalence and an emerging drug resistance TB problem aggravate the burden of TB in the Region. Estimated incidence rates remain high with all but four Member States having rates above 200 per 100,000 population, resulting in large number of cases diagnosed and notified. While a decreasing trend was apparent in notification rates, it is difficult to determine what is happening in the absence of prevalence surveys. Only five MS were conducting or preparing for a TB prevalence survey in 2012.

MDR and XDR-TB are an increasing challenge for the region: all but one MS have diagnosed and started treatment of MDR-TB patients, and five MS have diagnosed XDR-TB in the reporting year.
Treatment success rates for smear-positive TB range from 50 to 88%, with only five MS above 85%. This is due to high death and defaulter rates in some MS, which is related in part to the high HIV co-infection rate.

On the positive side, MS made substantial progress in TB/HIV collaboration. Eleven MS tested more than 80% of the TB patients for HIV, reporting positivity rates from 8 to 78%. In the high TB/HIV co-infection burden countries, provision of co-trimoxazole therapy is adequate but coverage for anti-retroviral therapy (ART) urgently needs improvement.

New diagnostic technologies have found their way into the region. Most countries started to implement a more sensitive microscopy method (LED) and a molecular diagnostic GeneXpert that is applicable at district level.
The SADC secretariat continued to develop policies and guidance documents for the region. However, these and other data are not widely available in the public domain, which could help countries to have quick access to a policy and evidence base in support of their own implementation.

The SADC secretariat continued to develop policies and guidance documents for the region. However, these and other data are not widely available in the public domain, which could help countries to have quick access to a policy and evidence base in support of their own implementation.

Though the region has made substantial progress in TB control, it is not enough to achieve the targets for reduction in incidence and mortality. Recommendations are made to both Member States and the SADC Secretariat based on the findings, discussions and input from the TB Managers Meeting.

Recommendations for the SADC secretariat:

1. Look for innovative ways to mobilise resources both for MS and for continuation of the SADC harmonizationactivities for TB Control;
2. Develop outstanding regional strategies or frameworks;
3. Make endorsed policy and framework documents available on the SADC website and monitor the domestication;
4. Adapt the data collection template for annual State of TB Report;

5. Assess achievements towards the MDGs and use the assessment as a starting point for the development of a new Strategic Approach for the SADC Region beyond 2015.

Recommendations for the Member States:

1. Submit financial information for the 2013 report for MS that did not submit this information in 2012;
2. MS that are conducting a prevalence survey, report on the findings for the 2013 report; other MS should consider if there is need for a prevalence survey in their country.
3. MS with national case detection rates below 70%: scale and speed-up interventions that improve diagnosis of TB: LED microscopy, front-loading for sputum samples and molecular techniques (GeneXpert, line probe assays); other MS should assess how to improve case detection further;
4. MS with a high proportion of pulmonary TB not diagnosed through smear microscopy should ensure bacteriologic diagnosis is done in all presumptive TB patients through microscopy, GeneXpert or culture;
5. MS with treatment success rates below 85%: provide treatment support and ART for co-infected patients and ensure an uninterrupted supply of TB diagnostics and medicines; other MS should assess how to improve treatment outcomes further;
6. MS that test less than 90% of TB patients for HIV: scale up HIV testing of TB patients; other MS should assess how to reach 100% testing of TB patients;
7. MS with limited capacity to diagnose and treat drug-resistant TB: scale and speed-up programmatic management of drug-resistant TB and ensure sustainable funding;
8. MS that cannot provide information on TB in special settings and vulnerable populations: adapt your recording and reporting systems or do targeted surveys.

1. Introduction and Background

The Southern African Development Community (SADC) Tuberculosis (TB) Report is an annual document that aims to provide the Ministers of Health of the Community, the Secretariat and the partners with an overview of the state of the disease and its control in the Region. It provides a snapshot of the progress achieved in the last year towards Regional, Continental and Global commitments by both the SADC and the Member States (MS). It is also meant as a useful monitoring tool for the implementation of the SADC Framework for the Control of Tuberculosis, 2007-2015.

This report is based on the core indicators that were adopted and endorsed by the Member States. The data in this report were taken or calculated from the reports MS submitted to the SADC secretariat unless otherwise stated.

Section 2, entitled "Background", introduces the reader to the importance of TB as a public health problem in the SADC Region, including its global context. It also presents a brief outline of the SADC Regional approach to Tuberculosis Control and its commitments.

Section 3 describes the methodology followed to compile and produce this report. It explains how the report was validated with input of the SADC TB Managers.

Section 4 discusses the performance of MS based on the core indicators of the Harmonised Surveillance Framework for HIV and AIDS, Tuberculosis and Malaria in the SADC Region. Progress made by SADC in terms of policy and guidance development is analysed against its Strategic Framework for the Control of Tuberculosis in the SADC Region, 2007-2015.

Section 5 discusses the findings including identified gaps and challenges and presents the conclusions of this report.

Section 6 presents recommendations both for the SADC secretariat and the MS. The recommendations follow the findings and discussion of this report and include suggestions made at the TB managers meeting.

Annexes provide information on current global strategies and definitions, the data collection format, and tables of critical data as reported by Member States.

2. Background

2.1 The Global Context of TB in the SADC Region

Globally, TB still poses a serious public health concern, despite major progress in reducing TB cases and deaths in the past two decades. Africa and Asia share the majority of the world's TB burden. Africa has 24% of the world's TB cases yet only 16% of its population. Africa also has the highest rates of cases and deaths per capita. Africa's TB burden is further confounded by the AIDS epidemic, with almost 80% of TB cases among people living with HIV residing in this region (WHO, 2012). TB is also among the most important causes for mortality in women worldwide, further exacerbating gender disparities in health. Africa recorded more HIV-associated TB deaths among women than men in 2011, while in other regions more deaths were estimated to occur among men. Forecasts suggest that the target of halving TB prevalence by 2015 [i] will not be met in the African region (WHO, 2012).

Five countries in the SADC region are among the worldwide 22 high-burden countries for TB: the Democratic Republic of the Congo (DRC), Mozambique, South Africa, the United Republic of Tanzania (URT) and Zimbabwe. In 2011, the SADC Region contained the majority of African countries with estimated TB incidence of more than 300 per 100,000 population [ii]. The WHO estimated that 50% of HIV prevalence in new TB cases in 2011 was again located in this region. Of the almost 1,4 million TB cases reported in the WHO African region in 2011, 54% were reported in the SADC Region.

Table 1 shows the estimated incidence and prevalence rates for the SADC countries for 1990 and 2011 and how the 2011 rate compared with 1990.

i Stop TB Partnership's target of halving TB prevalence by 2015 compared with a baseline of 1990.
ii Excluding URT and Malawi and the low incidence states of Mauritius and Seychelles.

Table 1: Estimated incidence and prevalence rates 1990 and 2011

Country	Estimated incidence rate 1990	Estimated incidence rate 2011	% Change in estimated incidence 1990-2011	Estimated prevalence rate 1990	Estimated prevalence rate 2011	% Change in estimated prevalence 1990-2011
Angola	205	310	51%	342	413	21%
Botswana	533	455	-15%	757	360	-52%
DRC	327	327	0%	616	512	-17%
Lesotho	184	632	243%	249	411	65%
Malawi	326	191	-41%	354	164	-54%
Mauritius	28	21	-25%	52	38	-27%
Mozambique	401	548	37%	816	490	-40%
Namibia	379	723	91%	675	729	8%
Seychelles	43	30	-30%	49	39	-20%
South Africa	301	993	230%	439	768	75%
Swaziland	267	1,320	394%	349	854	145%
URT	226	169	-25%	323	177	-45%
Zambia	710	444	-37%	590	352	-40%
Zimbabwe	296	603	104%	242	547	126%

Source: WHO Global Tuberculosis Report 2012.

In response to the TB epidemic in the Region, SADC Member States endorsed the Strategic Plan for the Control of TB in the SADC Region, 2007-2015. This document calls for collaboration and harmonisation through development of policies and guidance documents of which several have been endorsed already before 2012. These include, amongst others, the Harmonized Minimum Standards for the Prevention, Treatment and Management of Tuberculosis in the SADC Region as well as Harmonized Minimum Standards for communicable diseases in prisons and the military. Functions and standards for both National and Supranational Reference laboratories were developed and endorsed.

The SADC secretariat activities related to TB are part of a communicable disease project funded by the African Development Bank. This funding will end in 2014.

2.2 Global, Continental and Regional commitments for TB Control

Global Commitments

a) The Millennium Development Goals (MDG) specific indicators measuring progress in TB control are the incidence rate, the prevalence rate, the death rate and the proportion of cases that are detected and cured in DOTS (Directly Observed Therapy, Short Course) programmes. Targets linked to the MDGs and endorsed by the Stop TB Partnership are listed below.

TB in the Millennium Development Goals (set for 2015):

- By 2015: Halt and begin to reverse the incidence of TB

STOP TB Partnership Targets (set for 2015 and 2050):

- By 2015: Reduce prevalence of and death due to TB by 50%, compared with their levels in 1990
- By 2050: Eliminate TB as a public health problem, defined as a global incidence of active TB of less than one case per 1 million population per year


b) The Stop TB Strategy has the following goal "To reduce dramatically the global burden of TB by 2015 in line with the Millennium Development Goals and the Stop TB Partnership targets." The Global Plan to Stop TB 2011–2015 retains the full spirit of its predecessor while providing a clearer blueprint for action, setting out what needs to be done to achieve the 2015 targets set within the context of the MDGs and by the Stop TB Partnership. The specific objectives are to:

1. Achieve universal access to high-quality care for all people with TB;
2. Reduce the human suffering and socioeconomic burden associated with TB;
3. Protect vulnerable populations from TB, TB/HIV and drug-resistant TB;
4. Support the development of new tools and enable their timely and effective use; and
5. Protect and promote human rights in TB prevention, care and control.

The components of the Stop TB Strategy include the following:

1. Pursue high-quality DOTS expansion and enhancement;
2. Address TB/HIV, MDR-TB, and the needs of poor and vulnerable populations;
3. Contribute to health system strengthening based on primary health care;
4. Engage all care providers;
5. Empower people with TB, and communities through partnership; and
6. Enable and promote research.

These declarations and strategies guide the surveillance framework used by SADC to monitor regional progress of the collective goals.

Continental Commitments

a) The Abuja Call for Accelerated Action Towards Universal Access to HIV and AIDS, Tuberculosis and Malaria Services of 2006, which called for the prevention of multidrug-resistant TB, and for universal access to prevention, treatment, care and support for TB;
b) Resolution AFR/RC 55/RS that was adopted by the WHO Regional Committee for Africa at its 55th session in Maputo, Mozambique, in 2005, which declared TB an emergency, and also asked Member States to declare TB an emergency in their own countries.

Regional Commitments

SADC Member States have adopted the "Harmonised Surveillance Framework for HIV and AIDS, Tuberculosis and Malaria" (Nov 2010) to monitor regional progress on declarations of commitment and mobilisation of resources to these diseases.

The harmonised surveillance framework for TB is guided by the following regional declarations that SADC Member States have committed to the following goals:

a) The Strategic Plan for the Control of TB in the SADC Region, 2007-2015, recommended the Stop TB Strategy as the basis for TB surveillance in the region.
b) The SADC Protocol on Health Article 9 on communicable disease control and 12 on Tuberculosis Control, which commits Member States to:
   1. Harmonize and where appropriate standardize policies of case definitions, notification systems and treatment and management of major communicable diseases (Article 9);
   2. Cooperate in the establishment of regional reference laboratories and share technical expertise to ensure high immunization rates (Article 9);
   3. Share information related to outbreaks and epidemics within the Region and to work together to control and manage the epidemics (Article 9);
   4. Develop strategies for the sustained control of TB, including the efficient supply and delivery of drugs (Article 12); and
   5. Ensure, where appropriate, the harmonisation of TB control activities and HIV and AIDS programmes (Article 12).

3. Methodology

Member States submitted data to the SADC Secretariat in a standardised format. Annex 4 contains the format for the 2012 report.

The country reports were checked for consistency and completeness. Where necessary, the Member States were asked for clarification or additional information. Next, data were analysed based on the agreed SADC core TB indicators and trends identified. Outstanding inconsistencies in the data were resolved during the TB Managers meeting in September 2013.

Participants at the TB Managers meeting discussed the initial draft of the report. TB Managers made suggestions for change and corrections, which were incorporated in the final draft. The final draft was presented to the Meeting of the Ministers of Health from the SADC Region for final approval. The report was also presented at a Partners Forum meeting, held after the TB Managers meeting, for the partners' information.

4. Progress towards TB Control in the SADC Region

4.1 Progress towards TB Control in SADC Member States

4.1.1. SADC core indicators for TB

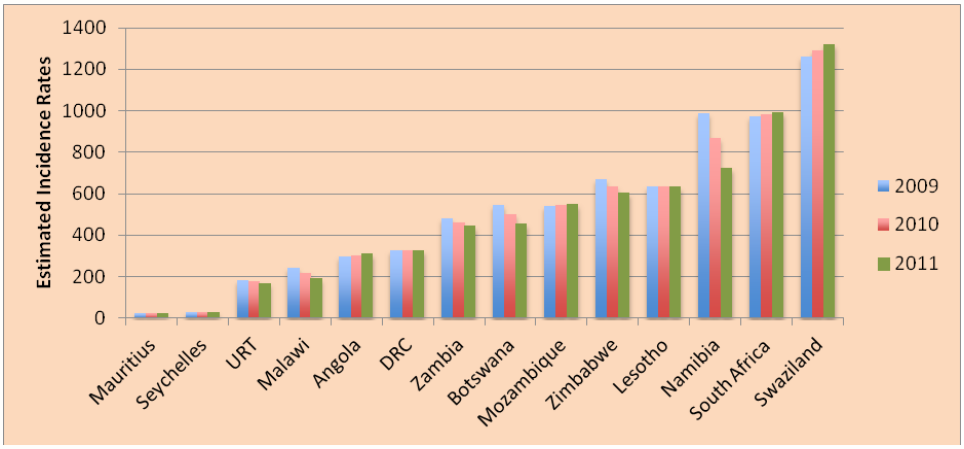
In 2010, SADC approved and endorsed 'The Harmonised Surveillance Framework for HIV and AIDS, Tuberculosis and Malaria in the SADC Region'. The framework provides a set of core indicators for TB control, MDR- and XDR-TB and TB/HIV collaboration. The core indicators are: TB prevalence rate, TB incidence rate, TB mortality rate, case detection rate, treatment success rate, MDR and XDR-TB pick-up rates and percentage of TB patients that tested HIV-positive. Definitions for the indicators are found in Annex 1.

TB Prevalence and TB Incidence

Data collection for the indicators TB prevalence and TB incidence rates depends on population-based surveys usually done every five years. None of the Member States performs these surveys routinely. The WHO Global Task Force on TB Impact Measuring recommended that globally 21 countries should have a prevalence survey between 2008 and 2015. Five of the SADC Member States are among the focus countries: Malawi, Mozambique, South Africa, URT and Zambia. In 2012, five member states were in various stages of a prevalence survey: Malawi, South Africa, URT, Zambia and Zimbabwe. URT has progressed furthest and results are expected in 2013.

For 2011, WHO estimated incidences in the SADC Region from 21 per 100,000 population in Mauritius to 1,320 per 100,000 population in Swaziland. Figure 1 shows the estimated incidence for MS in the years 2009-2011. The figure shows that in some Member States the estimated incidence increased in the last three years (Angola, Mozambique, South Africa and Swaziland) and decreased in other MS (Botswana, Malawi, Namibia, URT, Zambia and Zimbabwe). The estimated incidence remained the same in the other MS.

Figure 1: Estimated TB incidence rate, 2009 - 2011



Source: WHO Global Tuberculosis Report 2012.

TB mortality and Treatment success rate

The standard format for the SADC annual report included the request for data on mortality of sputum smear-positive cases only. Therefore, assessing the TB mortality rate as defined (estimated number of deaths due to TB of all cases of TB) is not possible. In addition, TB registers (the data sources for TB mortality) contain information on death while on TB treatment. These deaths may be due to TB, but could also be due to other causes. More information on treatment outcomes in the SADC Region including mortality is described in the section on treatment outcomes (4.1.1.2).

Case Detection Rate

The case detection rate is based on the estimated incidence of new smear-positive notifications. WHO provided these estimated incidences in their annual reports, however, WHO now presents estimated TB incidences for all forms of TB, meaning all new and recurrent cases. Therefore it is difficult to present progress in case detection rate for sputum smear-positive cases only. The data available from WHO do not yet include 2012.

MDR and XDR-TB pick-up rates

The data submitted by the MS do not allow reporting on MDR and XDR-TB pick-up rates. Section 4.1.7 provides more information on MDR and XDR-TB.

Percentage of TB patients that tested HIV-positive

Table 2: TB/HIV collaborative activities in TB programmes

Country	% TB patients Tested for HIV	% Of tested TB patients HIV +ve
Angola	25%	10%
Botswana	87%	63%
DRC	33%	16%
Lesotho	88%	75%
Malawi	93%	59%
Mauritius	96%	8%
Mozambique	94%	58%
Namibia	99%	47%
Seychelles	100%	14%
South Africa	84%	65%
Swaziland	85%	76%
URT	77%	39%
Zambia	87%	61%
Zimbabwe	88%	78%
SADC Region	73%	58%

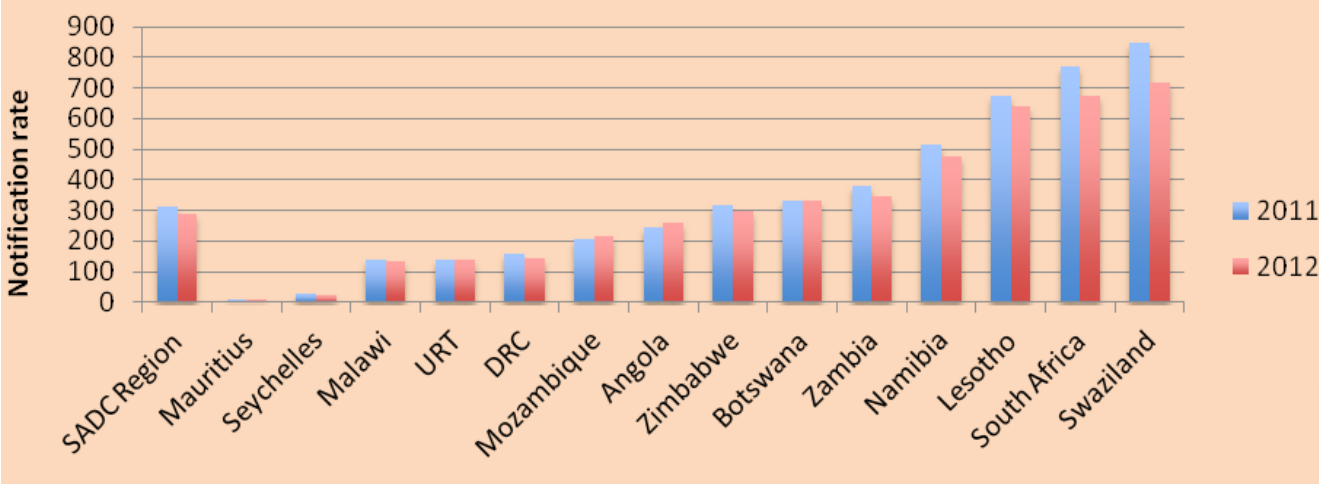
The SADC region has the highest rates of HIV co-infection in TB patients in the world, with 55% or more of the tested TB patients HIV-positive in eight of the Member States. Of the countries that test greater than 75% of TB patients for HIV, only Mauritius and Seychelles have less than 15% of the tested patients HIV-positive. All other Member States carry the double burden of TB and HIV epidemics and therefore it is crucial to increase efforts to integrate TB and HIV care and control in all levels of the health care system.

Section 4.1.7 provides more information on TB/HIV collaboration.

4.1.1.1 Notification and Case detection

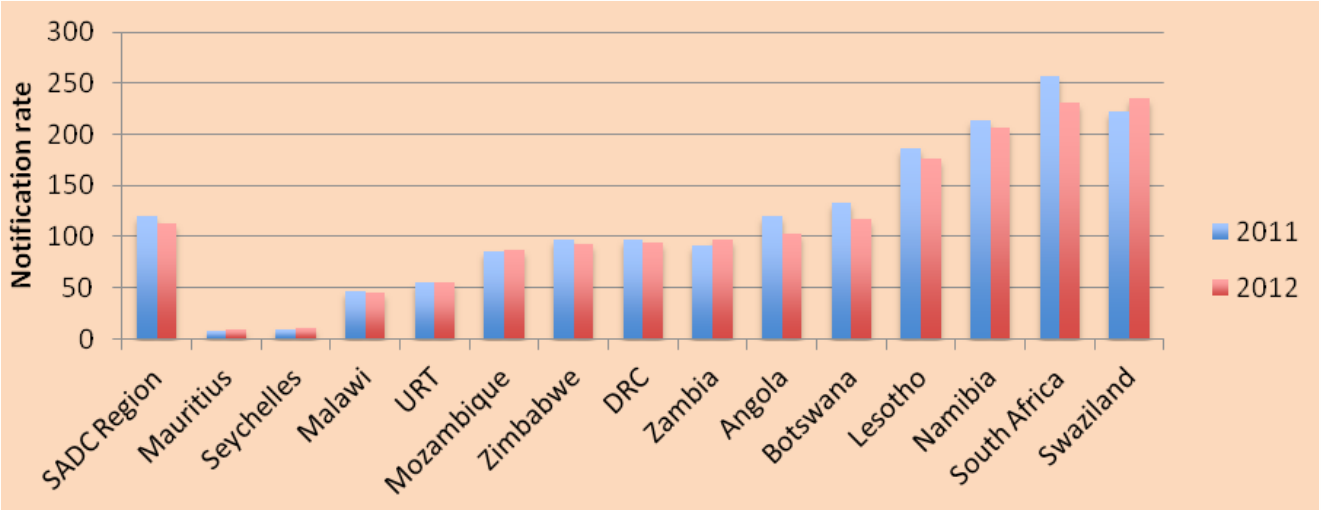
The burden of TB in the SADC Region is presented here using notification data reported by the Member States, i.e. cases detected and notified in the country. Lesotho, South Africa and Swaziland still have the highest notification rates (with over 600 new and retreatment cases per 100,000 population). Mauritius and Seychelles have very low notification rates and are therefore, unlike most of the other MS, not classified as high TB prevalence countries. In general, although the order of all countries in the ranking has changed slightly from 2011 to 2012, most countries show a decrease in notification rates for new and retreatment cases (see Figure 2).

Figure 2: Notification rates new and retreatment TB cases 2011-2012



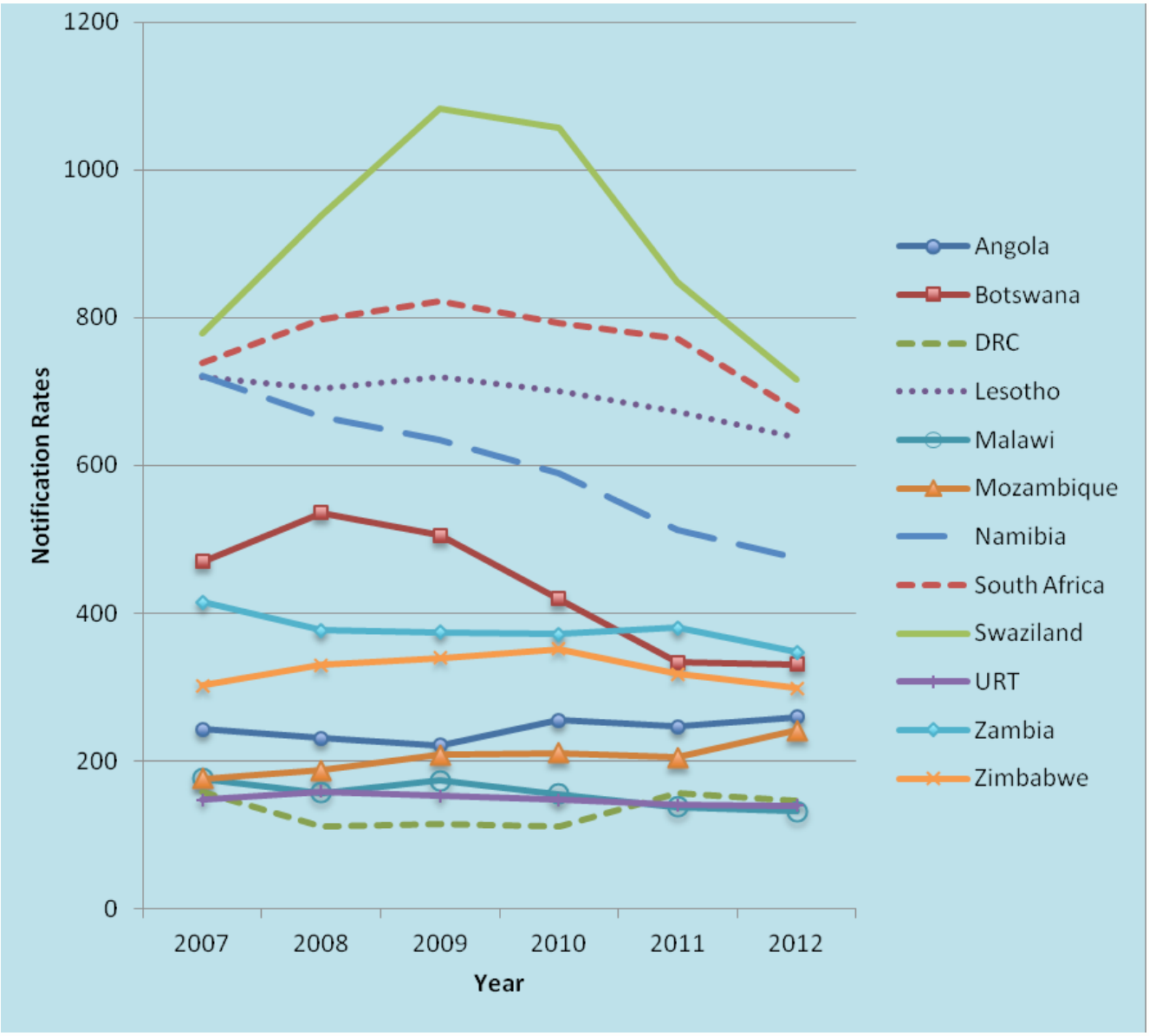
Looking at smear-positive TB, the most infectious form of TB, the pattern is less clear. In some MS the notification rate increased whilst in others it decreased. A potential reason for the decrease is that countries do diagnose pulmonary TB without performing smear microscopy. For the countries that had a decrease in smear-positive TB notification rate, 9-32% of pulmonary TB cases were diagnosed without a smear (see also Table 3). However, some of the MS that had an increase in notification rate did have high percentages of diagnosed pulmonary TB of around 50% without smear microscopy as well.

Figure 3: Notification rates new smear-positive (SS+) TB 2011-2012



The six-year notification rate trends of TB in the SADC countries show a slight decline after 2008 - 2009 for most countries (Figure 4). The notification rates for the whole of the African Region have increased since 1990 and peaked around 2008 and 2009 (WHO, 2012), with slowly declining rates afterwards. The peaks in the SADC region coincide with the HIV associated increased TB rates in the Member States. Some countries like Namibia and South Africa show a higher rate of decline, compared to others.

Figure 4: Six-year trend in TB notifications in high prevalence MS 2007-2012



Note: Mauritius and Seychelles are excluded from the graph. Both countries have low notification rates and the trend would not be visible.

Pulmonary cases of TB with a positive sputum smear are a source of transmission of Mycobacterium tuberculosis. The percentage of sputum smear-positive pulmonary cases of the total pulmonary cases notified in any country is therefore an important indicator for control purposes. There is wide variation in this percentage indicator in the SADC region, from 98% in Mauritius to 41% in Zimbabwe. The very high rates reported by some Member States might indicate that they do not diagnose smear-negative TB cases. The low rates in other MS reflect the high HIV co-infection rates in these countries. Table 3 shows the percentage of sputum smear-positive cases of all new pulmonary cases as well as the percentage of pulmonary cases not detected through smear microscopy.

Table 3: New smear-positive TB and pulmonary TB not diagnosed by microscopy

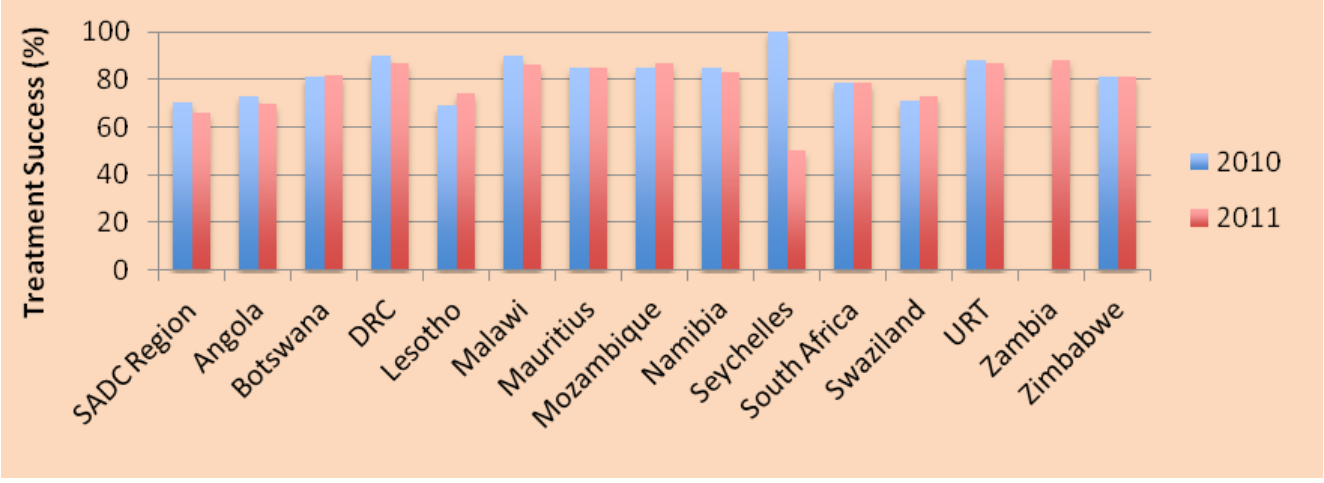
Country	% New SS+ of new pulmonary cases	% Pulmonary cases not diagnosed by microscopy
Angola	48%	4%
Botswana	53%	32%
DRC	84%	-
Lesotho	39%	17%
Malawi	51%	32%
Mauritius	98%	3%
Mozambique	49%	-
Namibia	63%	15%
Seychelles	53%	-
South Africa	47%	28%
Swaziland	45%	55%
URT	54%	-
Zambia	43%	-
Zimbabwe	41%	9%
SADC Region	73%	58%

The percentage of pulmonary TB cases not detected by microscopy is very high in some countries. It is not clear whether this is a reporting error, due to the introduction of GeneXpert diagnostic technology or indeed diagnosis not through microscopy. If the latter, it is worrying as bacteriology is the cornerstone of TB diagnosis, of which microscopy is the most important examination in most MS.

4.1.1.2 Treatment outcomes

The global target for 2015 for the treatment success rate is 87% or higher for all TB cases. In 2011, which is the latest data available, only four Member States achieved 87% or higher for new smear-positive cases: DRC, Mozambique, URT and Zambia. The data for new smear-positive cases are presented to facilitate comparison with Figures 6 and 7 that provide the death and defaulter rates for new smear-positive TB cases, respectively. The data were similar in 2010 for most countries. However, in six Member States the treatment success rate decreased from 2010 to 2011, which is a concern.

Figure 5: TB Treatment Success Rates 2010 - 2011 (new smear-positive TB) [iii]

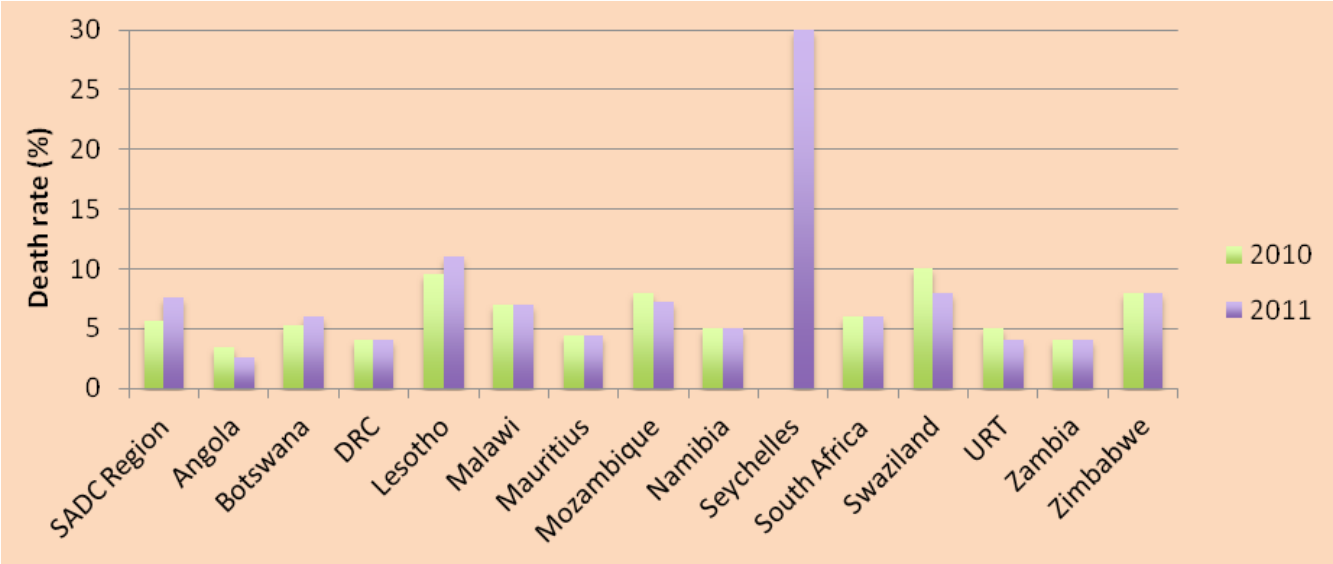


Source for Figures 5, 6 and 7: Data for 2010 are taken from table 6.1, annex 5, 2011 SADC TB report.

iii Note: the aboslute number of cases in Seychelles was very low which results in high percentages. This also applies to Figure 6 Death rates and Figure 7 Defaulter rates.

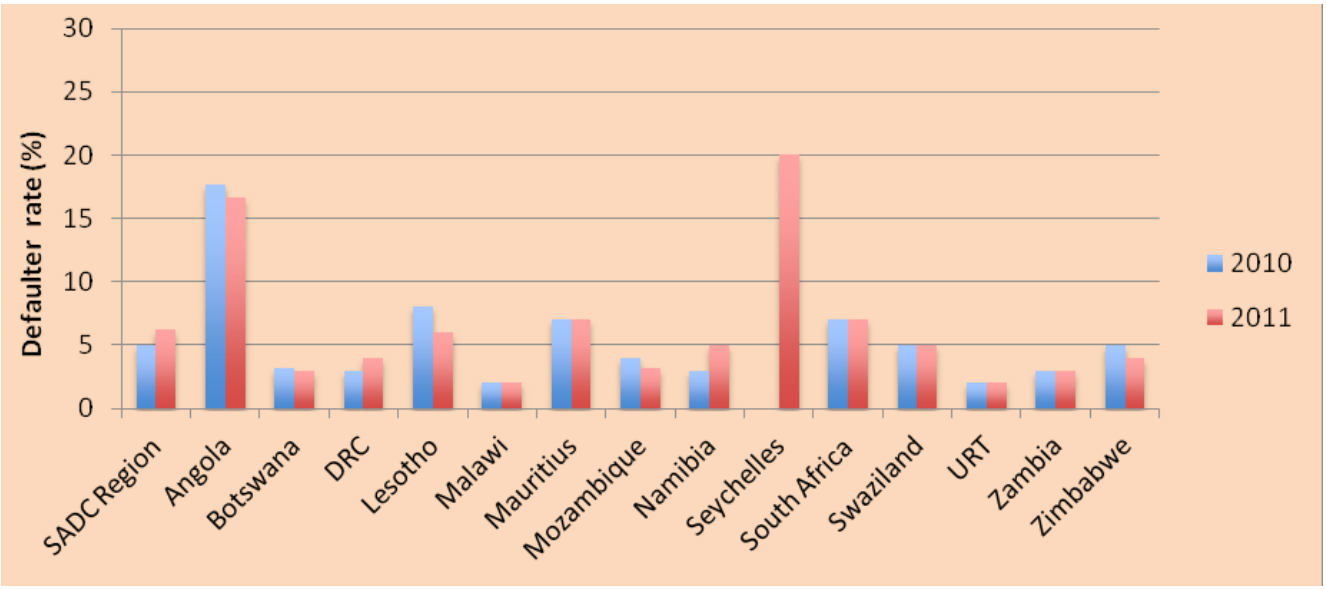
Another way of analysing the performance of TB control programmes is to evaluate at the number of deaths and defaulters in the cohorts. When compared with 1990 rates, death rates have generally decreased. In the 2011 cohort, four MS (Lesotho, Seychelles, Swaziland and Zimbabwe) still report 8% or higher death rates, a decline from eight MS in 2009. The high HIV co-infection rates in these countries, apart from Seychelles, probably contribute to the high TB death rates. These rates should continue to fall, as access to antiretroviral therapy (ART) is scaled up in the Region and programmes improve their performance. Figure 6 shows the death rates in 2010 and 2011 in the MS and the SADC Region.

Figure 6: Death Rates 2010 - 2011 (new smear-positive TB)



Finishing treatment is paramount in the prevention of drug-resistant TB. Figure 7 shows the defaulter rates for 2010 and 2011. Angola maintained a high defaulter rate for three years (over 15%) though it decreased in 2011 compared to 2010. Also Seychelles had a high defaulter rate of 24% in 2011 (see footnote Figure 5). Lesotho, Mauritius, and South Africa also had defaulter rates greater than 5% in the 2011 cohort. Defaulting TB treatment is an important cause of drug resistant tuberculosis and therefore taking steps to minimize the occurrence of defaulters is essential.

Figure 7: Defaulter Rates 2010 - 2011 (new smear-positive TB)



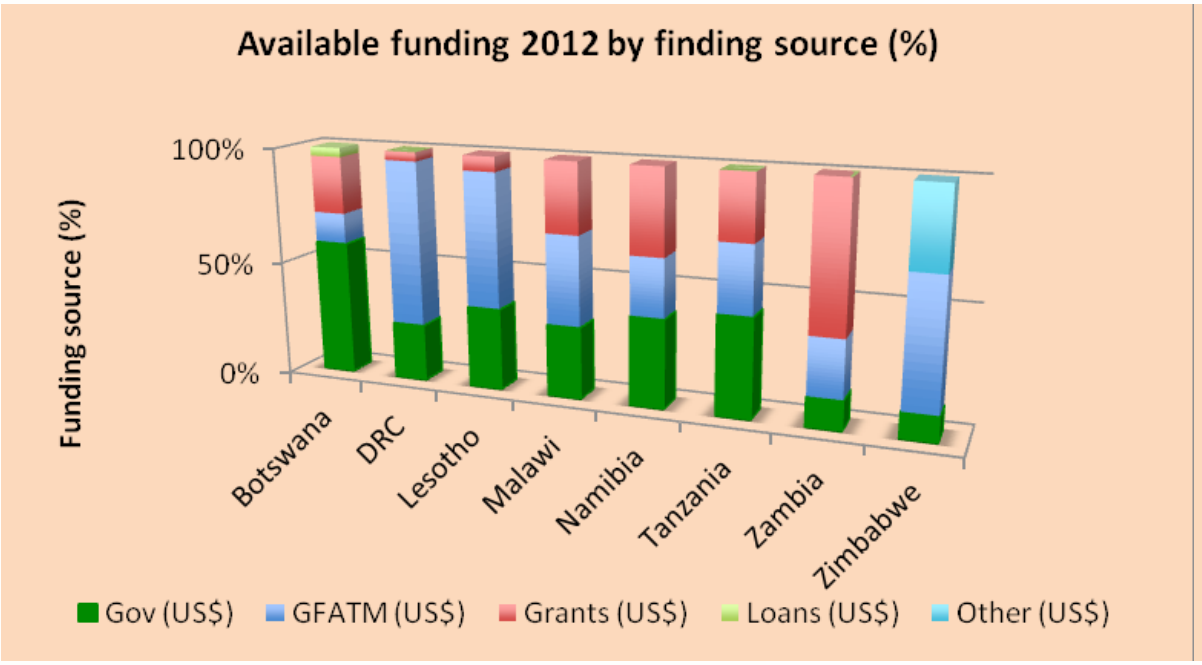
Note: Figure 6 and 7 have the same scale to facilitate comparison.

4.1.2 Political commitment with adequate and sustained financing

The STOP TB Strategy recognises political commitment as the foundation for the strategy. An indicator for political commitment is the percentage of funding for TB control in the country provided from domestic sources. In addition, recognition of TB as a major public health concern, the availability of National Strategic Plans for TB and sufficient capable human resources show commitment of governments.

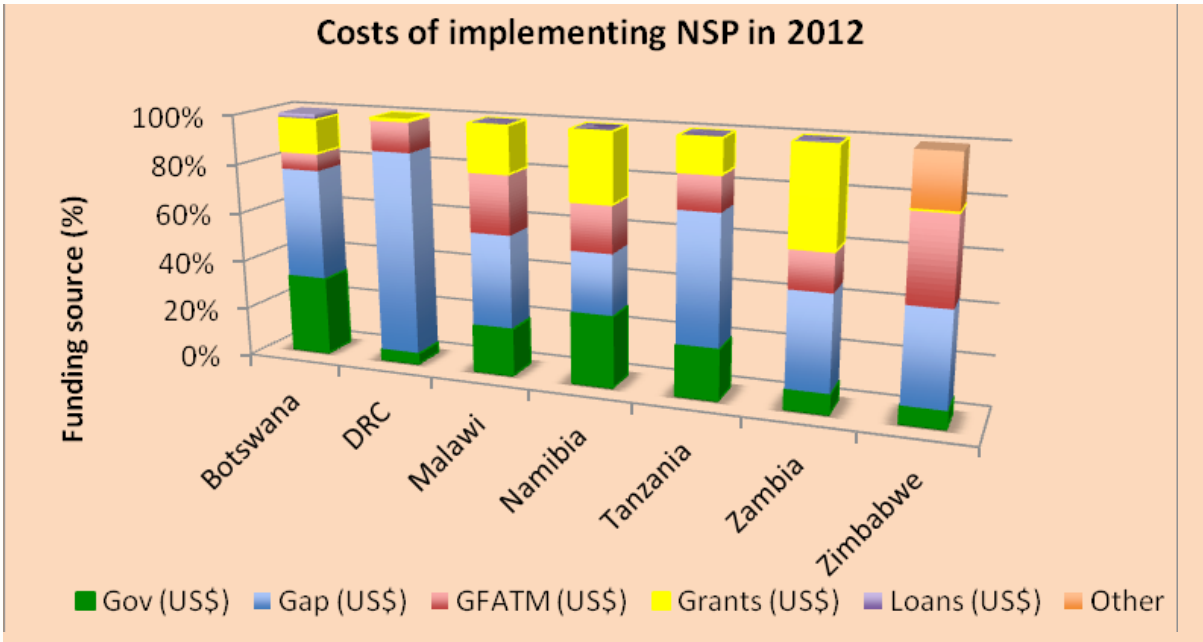
Eight countries provided information on funding for TB. Government contribution towards TB funding ranged from 11% in Zimbabwe to 58% in Botswana. Global Fund was a major funder for most countries: ranging from 13% in Botswana to 71% in DRC.

Figure 8: Available TB Control funding in 2012 by funding source



Seven of the countries also provided information on the existing funding gap for implementing the National Strategic Plan (NSP) for 2012. The eighth country (Lesotho) could not report on their funding gap, as part of TB funding is shared with other departments within the Ministry of Health. Lesotho is therefore not included Figure 9.

Figure 9: Costs for implementing the National Strategic Plans in 2012 by funding source



In 2001, the Heads of States of the African Union pledged to commit 15% of the Government budget to health, known as the "Abuja Declaration". For 2012, only seven countries provided information on this pledge. Two countries reached the 15% target: Botswana and Seychelles. Lesotho, with a 14% government funding commitment, was close to the target.

The WHO African region declared TB an emergency in Africa. The declaration urged Member States to develop and implement emergency strategies and plans to address the TB epidemic; to improve TB case detection and treatment outcomes rapidly; to speed up DOTS coverage and interventions to control TB/HIV co-infection; to expand national partnerships and to improve capacity of TB Control Staff quantitatively and qualitatively (WHO 55th Session, 2005). Follow up on these recommendations is another indicator of political commitment.

Six Member States reported that TB has been declared an emergency in their country: DRC, Mozambique, Namibia, Swaziland, URT and Zambia. Another four countries mentioned in earlier annual reports that TB had been declared an emergency: Angola, Botswana, Malawi and South Africa. Mauritius and Seychelles are low burden countries where TB was not considered an emergency. Of the countries without a declaration of emergency for TB, Zimbabwe mentioned that donors do not consider TB a public health concern because the country has not declared it an emergency, which may negatively affect TB funding.

All countries have Strategic Plans for TB apart from Seychelles, where TB is not a major health concern. The Plans cover periods from three to seven years and most plans are costed. For three Member States the Strategic Plan ended in 2012 and new costed Strategic Plans were in development. The financial overview shows there are considerable gaps in available funding for the countries' strategies.

Sufficient and capable Human Resources at all levels are crucial for TB Control. All countries had a TB manager. Staffing levels within the central office of NTP varied greatly from four staff in Zambia to 34 staff in URT. The number of staff in the central office did not necessarily reflect the burden of TB in the country. Staffing per 10,000 TB notifications (new and retreatment) ranged from less than 1 person in South Africa and Zambia to 30 persons in Swaziland. This comparison does not include Mauritius and Seychelles because both countries have a very low number of TB cases. Half of the Member States provided information on the functions present in the central office. Many countries had officers specifically working on TB/HIV and MDR-TB. Among the other functions present were grants managers, infection control officers, laboratory and pharmacy technicians and support staff (i.e., data clerks, logistical staff).

Eleven Member States have NTP staff at regional or provincial level. Of the eleven, nine had 100% of positions filled. Twelve Member States have also NTP staff at District level and seven countries had all of those positions filled.

4.1.3 Ensure early case detection, and diagnosis through quality assured bacteriology

All Member States use sputum smear microscopy as the first test in people with pulmonary TB symptoms. Conventional light microscopy is simple and cheap; however, sensitivity to detect TB with light microscopy is variable across settings and it is low in HIV-infected people. The number of microscopy services decreased slightly in 2012 (from 3,957 to 3,908). Across the Region there was 1 microscopy centre per 68,218 inhabitants, ranging from 39,678 in Botswana to 1 per 645,000 in Mauritius.

Fluorescence microscopy using light emitting diode (LED) equipment is more sensitive. Twelve Member States have introduced the use of LED microscopy: only Angola and Seychelles have not. This is a further increase from 2011, when 10 countries reported the use of LED microscopy. In South Africa nearly all microscopy centres (97%) use LED microscopy.

GeneXpert MTB/Rif® is another promising test for use at district or sub-district level. The WHO endorsed this test in 2010 and recommends the test as the initial test in people suspected to have MDR-TB or HIV-associated TB (WHO Policy Statement, 2011). Five MS reported introduction of the GeneXpert test in 2011; by 2012, introduction of this technology was in nearly all of the Member States, though coverage within countries is still low. Only Zambia reported not introducing the test, though it is used in the country by a TB REACH project[iv]. South Africa started the process of moving towards using GeneXpert MTB/Rif® as the first diagnostic test and reached a coverage of 54% countrywide in 2012. In addition to providing a rapid molecular diagnosis of TB, the test provides information on the existence of Rifampicin (Rif) resistance. The existence of Rif-resistance is a good proxy for MDR-TB, though bacteriologic confirmation by culture is usually still needed.

iv TB REACH is a funding mechanism for countries and projects for which the secretariat is hosted by WHO.

Case finding in the Region is mainly passive, meaning that people with symptoms present themselves at health services. In recognition that the symptoms may be a reflection of TB, the health care worker requests the test for TB, usually sputum smear microscopy. Passive case finding is subject to availability and access to health care services in countries. Where availability and access is limited, notifications rates could be negatively affected.

For a definitive diagnosis of TB, culture is necessary and drug sensitivity testing (DST) provides information on the resistance pattern of the bacteria. All MS have laboratories performing TB culture and apart from Seychelles, all countries can perform first-line drug (FLD) DST. Mauritius and Seychelles perform culture and DST on presumptive TB cases routinely. Seychelles sends samples for DST to South Africa. Compared to 2011, the number of laboratories performing TB culture increased to 45 (from 39) and for the first-line drug DST it went up to 35 (from 32). The capacity to perform FLD DST did not increase; it remained at 17 laboratories of which 15 are located in South Africa.

4.1.4 Provide standardised treatment with supervision and patient support

Most countries use the recommended drug regimen of an intensive phase of 2 months Isoniazid/Rifampicin/Ethambutol/Pyrazinamide followed by 4 months of Isoniazid and Rifampicin for new patients with sensitive TB (2HRZE/4RH). Botswana and Namibia have a slightly different regimen: 2HRZE/4RHE. Retreatment cases also receive Streptomycin and have a longer intensive and continuation phase of treatment: 2SHRZE/1HRZE/5HRE. Most MS use fixed dose combinations (FDCs) of the TB drugs. FDCs reduce the possibility of resistance development.

Most Member States provide Directly Observed Therapy treatment decentralised in the community. In practice this means that a community member, often a family member of the patient, observes daily the intake of the medication by the patient. In Mauritius and Seychelles patients remain in hospital until their sputum has converted to negative. Swaziland uses paid treatment supporters that resulted in improved treatment success rates for new smear-positive patients.

4.1.5 Effective drug supply and management

An uninterrupted supply of drugs and TB commodities is essential for a good TB programme to reach its goals and objectives. In general, the procurement and supply chain management did not pose major problems for the Member States though several experienced some drug stock outs in 2012: DRC, Mozambique, South Africa, Zambia and Zimbabwe. Several MS faced procurement and supply chain problems. Procurement problems existed for second line drugs (SLD) and paediatric formulations in some countries, which was associated with a worldwide shortage due to the limited number of suppliers. Three countries reported supply chain problems. For example, DRC faced problems at the port of entry in the country due to insufficient coordination between the ordering and the delivery. Also the internal transport in the country, especially to remote health facilities, experienced challenges in 2012. Lesotho did experience problems with the supply of HIV kits and laboratory reagents. In Zimbabwe some paediatric single dose formulations expired due to low consumption of the same.

4.1.6 Monitoring and Evaluation System and impact measurement

Every year WHO publishes a global TB report providing an assessment of the TB epidemic and also the progress made towards prevention, care and control. Similarly, every country and region should be monitoring these indicators and most do. The Monitoring and Evaluation framework utilized includes assessment of activities, monitoring costs and expenditure, determining the extent of programme coverage and evaluating treatment outcomes, as well as the epidemiological impact of the programme.

SADC MS maintain a recording and reporting system in line with these international recommendations and report regularly to SADC and WHO. Data in this report are largely from this system in Member States. Most of the SADC Member states have dedicated M&E Officers, except Angola and Seychelles.

Five of the SADC Member States are among the 21 focus countries that should conduct a prevalence survey before 2015: Malawi, Mozambique, South Africa, URT and Zambia. Apart from Mozambique, these countries were working on various stages of a prevalence survey in 2012. Furthermore, also Zimbabwe is working on a prevalence survey. URT has progressed furthest and results are expected in 2013. Malawi and Zimbabwe expect to start field activities for the survey in 2013.

4.1.7 Addressing TB/HIV, MDR-TB and needs for poor and vulnerable populations

Despite the important progress since the adoption of the DOTS Strategy in 1993, the African region and especially the SADC Member States have been confronted with new and important challenges influencing TB control. The impact of the HIV epidemics in the region and the emergence of multidrug resistant TB (MDR-TB) are very clear. It is also important to remember that the combination of both of these factors in the region has a huge impact in terms of burden of disease and pose significant challenges for TB control.

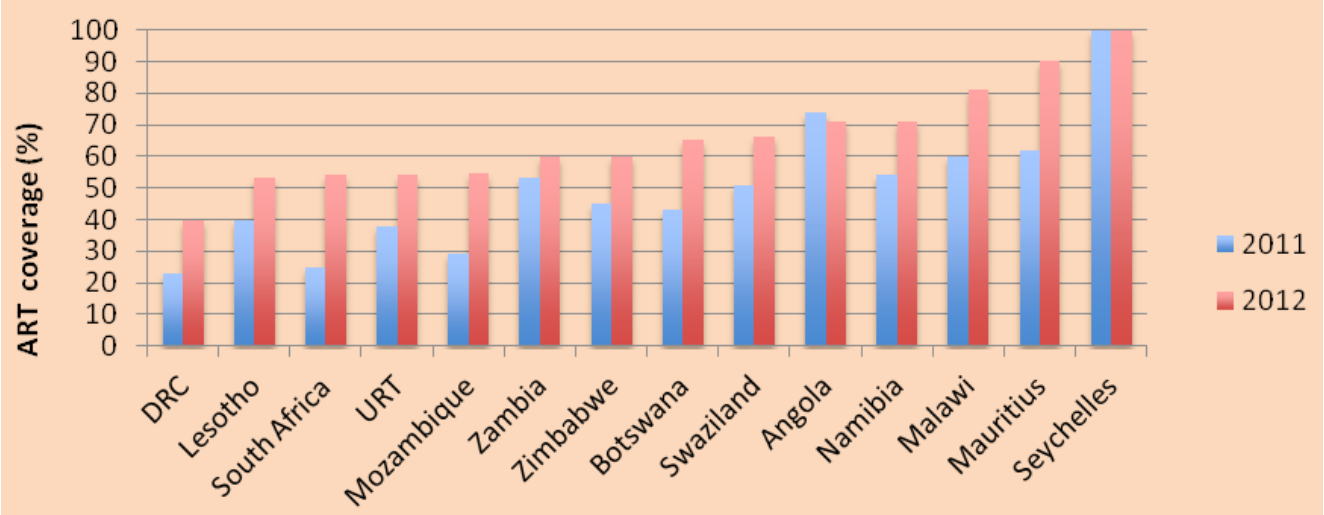
TB/HIV

SADC uses several indicators to evaluate the progress of SADC Member States in implementing interventions and activities to decrease the impact of the joint burden of TB and HIV. These indicators are part of the WHO framework published in the WHO policy on TB and HIV collaborative activities (WHO Policy, 2012).

All the Member States routinely offer HIV counselling and testing to their TB patients; however, coverage is variable and countries like Angola and DRC only test a third or less of their TB patients for HIV. Testing coverage increased in the Region since 2011, and now 12 of the 14 countries test over 75% of their TB patients for HIV.

Antiretroviral therapy (ART) and co-trimoxazole preventive therapy (CPT) are lifesaving interventions for HIV-infected TB patients. Levels of coverage for co-trimoxazole prophylactic therapy remain high with 12 out of the 14 countries reporting coverage of 75% or more of their patients receiving this intervention. Furthermore, Figure 10 shows the huge progress MS have made in the coverage of antiretroviral therapy for co-infected patients. Mauritius achieved 90% (total 10 patients co-infected) and Seychelles achieved 100% (3 patients co-infected). The other MS, where TB/HIV co-infection is a greater challenge, reach levels of ART coverage between 40% (DRC) and 81% (Malawi). Ideally, all HIV-positive TB patients should receive ART.

Figure 10: Provision of ART for HIV-infected TB patients 2011-2012



Reports on the use of Isoniazide Prevention Therapy (IPT) by the Member States are deficient and insufficient to reflect on this activity in this report.

MDR-TB

In the SADC, South Africa and DR Congo are the two countries that are classified amongst the 27 high MDR-TB burden in the world. However, several countries in the Region have been detecting increasing numbers of MDR-TB cases in recent years, both as absolute numbers and as a proportion of total cases.

In the last few years, all Member States apart from Seychelles reported MDR-TB cases. South Africa dominates the numbers, having more cases of both MDR and XDR-TB than all the other SADC Member States put together. The cumulative number of cases in South Africa as of 2012 was 69,442 and 5,542 for MDR and XDR-TB, respectively.

Countries that reported cases of XDR-TB ever include Botswana, DRC, Lesotho, Mozambique, Namibia, South Africa and Swaziland; most of them in the most southern corner of the continent. However, in 2012, only South Africa (1,545 cases), Mozambique (5 cases), Namibia (4 cases), Swaziland (2 cases) and DRC (2 cases) have reported XDR-TB cases.

The real extent of the problem is not known because most countries do not have the capacity of routine or continuous surveillance of drug resistance. In addition, the capacity to do Drug Susceptibility Testing (DST) for second line drugs is limited in the SADC region to DRC, South Africa and URT. South Africa acts as the Supra-National Laboratory for almost all the other Member States for second-line drug sensitivity testing.

Angola never had a drug resistance survey (DRS). South Africa will conduct another drug resistance survey in 2013. DRC and Zimbabwe have had surveys 10 years ago or longer. The remaining Member States have had surveys in or after 2006. The low prevalence MS Mauritius and Seychelles do culture and DST routinely and do not depend on DRS for drug resistance surveillance. It is essential that a more uniform and systematic surveillance be put in place for the whole SADC region.

All Member States who have reported Drug Resistant TB have some of those patients on treatment, indicating access to second-line drugs across the Region. In most MS, government and donors fund the drugs. The Global Fund and UNITAID [v],, as well as some other unspecified donors, are the most frequently listed funders of drugs by Member States.

Poor and vulnerable populations

TB Control in vulnerable populations remains a challenge. Several of these are of particular concern to the Region, especially the mining workforce, prisoners and children. The next section (4.1.8) deals with TB in the mining sector. For 2012 MS were not requested to report on prisoners and children. However, childhood TB is a growing concern worldwide. For prisoners a study from Africa showed that the available data for Sub-Saharan Africa, including at least 5 SADC countries, demonstrate high prevalence rates among prisoners compared to the general population (O'Grady, 2011). In an area where the prevalence rates in the general population are already estimated to be high, TB in prisons warrants greater programmatic interventions.

4.1.8 Mining and TB

The year 2012 saw an important step towards better TB control in the mining sector: the Heads of State of the Member States signed The Declaration on Tuberculosis in the Mining Sector in August 2012. The Declaration indicates five priority areas for urgent attention and action for TB, HIV, Silicosis and other occupational respiratory diseases in the mining sector:

1. Strengthening Accountability, Coordination and Collaboration at National and Regional level;
2. Promoting a supportive policy and legislative environment;
3. Strengthening Programmatic Interventions;
4. Strengthening Disease Surveillance system;
5. Strengthening Programme Monitoring and Evaluation (M&E).

SADC requested a preliminary analysis of the South African mining sector (WHO Stop TB, 2012). This analysis identified five interventions necessary to address TB among present and former miners and their families as well as affected communities:

1. Actively look for people with TB and treat them promptly;
2. Eliminate conditions leading to high TB rates in mines;
3. Improve TB treatment;
4. Actively seek former mine workers who could have TB and
5. Create a legal and regulatory framework that provides compensation for occupational disease among miners.

v UNITAID uses innovative financing to increase treatment coverage for HIV/AIDS, malaria and TB in low-income countries.

The standardised format for the 2012 annual TB report asked Member States for the first time to assess TB and mining in their countries. Most Member States did identify TB and Mining as a problem, apart from Mauritius, Namibia, Seychelles and Zimbabwe. Namibia and Zimbabwe reported that they have no data on TB in mine workers to support the issue being a problem. Only three Member States provided an estimate for the percentage of all TB cases that occur in mine workers: 2% in Angola and 2.5% in Botswana. Lesotho carried out a study among MDR-TB patients and found that 24% of them worked in the mines or had a history of working in the mines.

Many Member States have programmatic activities in place to address TB and mining or are working on interventions. However, only few Member States have information on the contribution of labour migration to TB. Four Member States report their citizens working in South African mines and the other States have no information on migrant workers.

4.2 SADC Response to the TB Epidemic

SADC is committed to the health of the region's citizens, guided by specific targets within the objective of "Health for All in the 21st Century by 2020". In the area of TB, SADC is guided by the following documents: The Health Policy Framework, the SADC Protocol on Health and the SADC Framework for the Control of Tuberculosis, 2007-2015. The Protocol on Health aims to harmonize and rationalise resources in the implementation and attainment of the health objectives of the Region.

The purpose of the framework is to compliment the national work and to facilitate integration through harmonization. This is accomplished through the following strategic approaches:

1. Coordination and harmonization of national TB control policies and guidelines in SADC Region in order to ensure enhanced and expanded quality DOTS services accessible to all TB patients;
2. Health system strengthening to support expansion and extension of quality DOTS services; and
3. Strengthening of partnerships and collaboration between TB programmes, HIV programmes, NGO's, private sector and civil society and other sectors in the SADC Region.

This section highlights some of the key achievements in the past year with regard to the strategic approaches.

4.2.1 Coordination and Harmonization of National TB Control Policies and Guidelines

Member States, through the SADC Protocol on Health, are committed to dealing with Tuberculosis in a harmonised manner. A number of key regional strategic frameworks and minimum standards were developed in recent years to guide action in the control of TB in a harmonised way, and to focus on TB in special settings and with marginalised populations. There are also guides for national and Supranational Reference Laboratories in SADC. Member States are expected to align their TB programmes with the regional Minimum Standards, and to effect implementation of them nationally.

Table 4: Progress on coordination and harmonization activities

1. Coordination and harmonisation of national TB control policies and guidelines in SADC Region		
	Main Activities	**Achievements to date**
1.1.	Develop harmonised regional policy for the control of TB	Harmonized Minimum Standards for the Prevention, Treatment and Management of Tuberculosis in the SADC Region
1.2.	Develop regional management guidelines for TB control, including treatment regimens to reduce risk of drug-resistant TB	Same.
1.3.	Develop regional policy guidelines on TB laboratory quality assurance system: microscopy, culture and drug susceptibility testing	- Functions and National Standards for National Reference Laboratories, 2010 - Functions and National Standards for Supranational Reference Laboratories, 2010

1.4.	Develop regional protocols for prevention and management of all forms of drug-resistant TB, including TB/HIV and MDR/XDR-TB in special settings and marginalised populations	- Policy Framework for Population Mobility and Communicable Diseases – draft available - Regional Minimum Standards for the Harmonized Control of HIV and AIDS, Tuberculosis and Malaria in Militaries in the SADC Region, 2010 - Minimum Standards for HIV and AIDS, TB, Hepatitis B and C, and Sexually Transmitted Infections Prevention, Treatment, Care and Support in Prisons in the SADC Region, 2011 - The Declaration on Tuberculosis in the Mining Sector, 2012 - Child & Adolescent HIV, TB and Malaria Continuum of Care and Support, 2013-2017
1.5.	Develop regional policy framework on TB/HIV co-infection management	Covered by the Minimum Standards.
1.6.	Develop regional guidelines on stakeholder participation in TB control, prevention and management	The Partnership Forum for TB serves as a Regional STOP TB Partnership. Terms of Reference for the Partnership Forum developed and approved.
1.7.	Develop regional policy guidelines and framework on access to affordable and high-quality supplies, reagents and drugs in line with the SADC Pharmaceutical Programme	- SADC Pooled Procurement Strategy for Essential Medicines and Health Commodities 2013-2017 - Pharmaceutical Business Plan 2007-2013 - Initiated the development of strategy for manufacturing drugs and commodities for communicable diseases
1.8.	Develop regional policy guidelines on operational research and emerging issues on TB control	No policy developed yet.

As indicated in Table 4, many guidance documents have been developed in recent years. Despite the existence of a capacity building strategy to facilitate the domestication of these policies, there are no available data on the progress made towards domestication in the reporting period.

Other achievements of note during the reporting period include:

- The development of SADC Guidelines for Monitoring Operational Plans to streamline and improve the SADC Secretariat's monitoring function of operational plans. This includes monitoring of and reporting on progress made in meeting the regional development agenda as articulated in the RISDP (Regional Indicative Strategic Development Plan) and Strategic Plan for the Organ. Guidelines for monitoring of the implementation of protocols by Member States are also being finalised.
- The development of the SADC Minimum Standards for Child and Adolescent HIV, TB and Malaria Continuum of Care and Support (2013-2017) adopted in October 2012.

Of concern was that there has been no progress on the approval and endorsement of the Policy Framework for Population Mobility that was drafted in 2009. In a Region with much movement across borders including migrant workers for the mining and other sectors, such a Framework is urgent to develop.

4.2.2 Health Systems Strengthening to Support Extension and Expansion of Quality DOTS Services

African leaders have recognised that strengthening health systems, including human resources, capacity building of laboratories, surveillance and implementation are all critical pathways to accelerating universal access to TB care and support services. Numerous initiatives have been developed at the global and sub-regional levels in recent years. However, recent data from WHO still shows mixed progress towards strengthening of health systems. This is further compounded by a lack of sustainable health financing, limited public health budgets and logistical challenges. SADC has a commitment to health system strengthening in the region to support quality DOTS services.

Table 5: Progress on regional capacity building activities

2. Regional capacity building for the health system to support expansion of quality DOTS services		
	Main Activities	**Achievements to date**
2.1.	Coordinate identification of regional training needs and the development of a regional strategy for human resource capacity for TB control in line the SADC HR Strategy	- SADC Human Resources for Health Strategic Plan 2007-2019 - Regional Centre of Excellence (RCE) for Human Resource Development identified in 2012 (National Institute of Communicable Diseases (NICD) South Africa) and memorandum of Understanding approved
2.2.	Identify and strengthen regional laboratories to improve access and quality of laboratory services for TB control	The NICD in South Africa and the Zimbabwe National Quality Assurance Programme have been identified as RCEs. Memorandum of Understanding has been signed but the centres are not yet operational.
2.3.	Develop a regional surveillance systems, monitoring and evaluation framework for the TB control programme	- Harmonised Surveillance Framework, 2010 - Tele-Health Strategy developed - Regional database design started.
2.4.	Coordinate the enhancement of programme-based operational research on all aspects of TB control and in the development of new tools for TB control	No activities to date.
2.5.	Strengthen capacity for the implementation of the SADC TB Programme	Identification of Regional Training Institutes initiated.

Other SADC activities in the area of capacity building for health systems that were achieved in the reporting period include the following:

- The 2011-12 Regional Assessment (SADC, 2012) revealed that nearly all countries in the sub region now have capacity for or access to early diagnosis of TB and drug-resistant TB for all suspects.
- The Assessment also noted that DOTS is covered in all 12 strategic framework/plans of the reviewed SADC countries.
- An assessment of the state of Tele-health systems in Member States was completed in 2012 towards the advancement of a Tele-Health System for HIV and AIDS, TB and Malaria Surveillance and Information Sharing in SADC.

SADC MS also participated in capacity building activities organised by TB partners:

- In the second Africa Regional Conference on Management of TB Medicines in December 2012.
- Capacity was built in supply chain management in some SADC countries with support from WHO and the African Pharmaceutical Society.
- Through the Global Drug Facility (GDF), eligible countries were supported by the WHO in the following ways:
  1. To apply for and access free quality-assured, first-line anti-TB medicines,
  2. Participated in annual monitoring missions of GDF-supported programmes to ensure renewal of GDF grants for the full three-year course, and
  3. Successfully brokered agreements for cross-country donations or lending to cover shortfalls in the countries.
- Capacity was built for a total of 180 participants in the use of workload indicators for staffing need (WISN) tool in South Africa, Swaziland and Zambia. In addition, Namibia was helped to finalize its human resources for health strategic plan and policy, and guidance was provided to Malawi and Swaziland to draft health workforce strategic plans.

4.2.3 Strengthening of Partnerships and Collaboration between TB Programmes, HIV Programmes, NGO's, Private Sector, Civil Society

SADC is aligned with continental goals like those expressed in the Abuja Call for Accelerated Action Towards Universal Access to HIV/AIDS, Tuberculosis and Malaria Services, African Union Member States made the commitment to developing and supporting partnership mechanisms to coordinate the contributions of stakeholders from the public sector, private sector and civil society at regional and international levels.

Table 6: Progress on strengthening partnerships and collaboration activities

3. Strengthening of partnerships and collaboration among key stakeholders: National TB and HIV and AIDS programmes, UN agencies, civil society and the private sector		
	Main Activities	**Achievements to date**
3.1.	Develop regional advocacy strategy on stakeholder commitment to TB control	Process for development started.
3.2.	Develop and coordinate the implementation of a regional advocacy, communication and social mobilisation (ACSM) strategy on TB control in line with the broader communicable disease control strategy	Process of development for guidance on Social Behaviour Change to support TB, HIV and sexual transmitted disease initiated.
3.3.	Mobilise resources for TB control	SADC Resource Mobilisation Strategy, 2012
3.4.	Develop a regional Stop TB Partnership	The Partnership Forum for TB serves as a Regional STOP TB Partnership. Terms of Reference for the Partnership Forum developed and approved.

Achievements on strengthening partnerships included:

- SADC Heads of State signed the Declaration on Tuberculosis Control in the Mines and the code of practice to implement the declaration with the support of various partners for the purpose of mobilization of resources in this area.
- In terms of integration, the Regional Assessment (SADC, Oct 2012) showed that TB/HIV integration is now considered a pillar of all HIV and TB strategic frameworks and plans. TB/HIV integration was included in all 12 strategic frameworks/plans reviewed.
- All strategic framework/plans reviewed in the Assessment included provisions for Advocacy, Communication and Social Mobilisation, as per STOP TB strategy recommendations.
- In recognition that international funding is decreasing, MS decided to investigate the possibility of increasing domestic funding. A process was initiated to develop a sustainable strategy for Health (mainly addressing TB and malaria) and HIV.

Involvement and contribution towards TB Control in SADC Region is shown though support by partners for:

- Support to TB prevalence surveys in 5 SADC countries in 2012 by WHO (Malawi, South Africa, URT, Zambia and Zimbabwe).
- Development of medium-term plans for TB control in all countries. Many countries successfully used the medium-term plans to secure TB control funding from the Global Fund.

5. Discussion and Conclusions

5.1 Discussion

The findings described in the previous sections show that progress had been made but also that many challenges and gaps remain.

Funding for TB Control is scarce and insufficient to cover the funds necessary to implement the strategic plan MS had for 2012. Funding gaps as high as 83% exist and of the available funding, governments contributed only 11%-58%. Only two countries achieved the Abuja pledge to spend at least 15% of the government budget on health. SADC Ministers recognised the funding challenge and endorsed the Resource Mobilisation Strategy. Funding for the harmonization work that the SADC secretariat does, ends in 2014. Of concern is, that only half of the countries provided financial information for this report.

Human Resources available for TB Control vary widely across the Region and are often do not feflect the level of the TB burden in countries. Several countries have only one or even less than one person available at central level per 10,000 TB notifications. This shows the enormous challenge for staff to manage and coordinate TB control activities.

Many MS reported decreasing notification rates for TB. However, this is in contrast with the *estimated incidences that increased* in some of these MS. The significance of this finding is not straightforward. It could be that the estimated incidence is not correct. It could also mean that TB cases remain undetected in the communities. It certainly shows the relevance of a better understanding of the epidemic at country level. Prevalence surveys present a good method to minimise this information gap. Five MS are at different stages of conducting a prevalence survey and will hopefully be able to present some of their findings next year.

Treatment outcomes are a critical conclusion of the TB pathway of care. TB diagnosis needs to be followed by prompt treatment initiation and the patient needs to complete the treatment. Only six MS have treatment success rates for smear-positive cases of 85% or more. Some MS show high death and defaulter rates. One MS reported an innovative way to remind and track patients who fail to show up for appointments by the use of SMS messages. Another mentioned a patient-centred approach and involving former TB patients in TB care. It is worthwhile for individual MS to explore what may work in their country to improve on treatment outcomes.

TB/HIV co-infection has interfered with TB Control in the SADC Region for more than a decade now. MS made substantial progress especially on testing TB patients for HIV and offering co-trimoxazole and antiretroviral therapy to those who are HIV-infected. More is needed especially in the collaboration with the HIV programme and also in offering TB care for HIV-infected individuals. The data available were not sufficient to allow analysis of that aspect for this report.

MDR and XDR-TB are found in almost all MS. Diagnostic capacity increased for MDR-TB, but not for XDR-TB. Not all diagnosed cases are put on treatment and no information on treatment outcomes was available.

TB care in special settings and in vulnerable populations saw great progress in 2012. The Heads of State of the MS signed a Declaration on TB in the mining sector. The Declaration asks for urgent attention and action in legislation, programmatic interventions, surveillance and monitoring and evaluation. TB in the mining sector is a problem in most MS, though not much information is available. Other special settings and vulnerable populations for which insufficient data were available, was TB in correctional facilities and TB in children. An emerging good practice was the systematic screening of all migrant workers for TB on arrival and periodically thereafter. This would also assist in TB Control in the mining sector because mine workers are often migrant workers, contributing to poor treatment outcomes due to their mobility.

The SADC secretariat progressed in the development of *policies and guidance documents.* An important one is the development of minimum standards of care for communicable disease for children and adolescents. Furthermore, two Regional Centres for capacity building of laboratory staff have been identified and Memoranda of Understanding signed.

However, *gaps and challenges* remain. The Regional Framework for Population Mobility and Communicable Diseases was developed in 2009 and is still not endorsed. In a Region with heavy cross-border health issues, this is a much-needed framework. Regional guidelines on stakeholder participation in TB control, prevention and management have not been developed, though the process for development has started. The guideline may be helpful to MS. The same applies to regional policy guidelines on operational research and emerging issues on TB control. Globally, the need for evidence on effective TB interventions is urgent. TB implementers are always aware of the scarce resources and look for cost-effectiveness as well. SADC should maintain a forward-looking focus and aim to develop its own evidence base for regionalised TB control interventions.

In addition, domestication of SADC's policies and guidance documents remains unclear. The SADC website provides little information and even most endorsed documents are not available on the web.

5.2 Conclusions

Although substantial progress has been made over the last decade in the response to TB in the SADC Region, the region itself is not on track to achieve a 50% reduction in TB mortality by 2015.

In most Member States with a high TB prevalence, the diagnosis of TB and prompt and complete treatment does not reach the required levels necessary to halve the incidence rates by 2015, one of the MDG targets.

The findings of this report identified the following policy and guidance gaps and challenges:

1. Resource mobilisation;
2. Regional strategies or frameworks on mobile populations, stakeholder participation in TB Control and on operational research and emerging issues on TB control;
3. Availability of endorsed policy and framework documents and information on the domestication of the same;
4. Data collection template for annual State of TB Report does not cover all core indicators and relevant areas.

Member States face *programmatic TB control gaps and challenges:*

1. Finance for TB control information insufficient;
2. Inadequate information on the real incidence and prevalence in MS;
3. Low case detection and poor treatment outcomes;
4. Low enrolment of HIV co-infected TB patients on ART;
5. Inadequate capacity to diagnose and treat Drug-Resistant TB;
6. Lack of data on TB in special settings and vulnerable populations.

TB/HIV co-infection remains a major driving force of the TB epidemic. Now that programmatic management of Drug-Resistant TB is increasing in many countries, it also becomes clear how MDR and XDR-TB negatively impact TB control implementation in terms of funding and human resources. Most Member States continue to struggle with these challenges.

In addressing high-risk populations, significant progress has been made in SADC in 2012 by the signing of the Declaration on Tuberculosis in the Mining Sector. However, Member States have insufficient data to demonstrate the size of the problem in their respective countries. Both TB in prisons and childhood TB remains largely unaddressed, although the extent of this problem is becoming increasingly clear.

More functional health systems, better coordination, improved partnerships and full commitment by the national authorities and their development partners are required for countries to achieve progress towards the targets of the health MDGs by 2015.

6. Recommendations

SADC has made great strides in recent years in the application of its Strategic Framework for the Control of Tuberculosis (2007-2015). The review conducted for the 2012 SADC TB Report uncovers a number of areas that need attention in order to maximise the achievements by 2015 and beyond. Given the challenges that the Region faces in terms of poverty and development, financing, health systems including the health workforce and the burden of disease, the Region should consider concentrating on priority policy and programmatic areas.

Recommendations to the SADC secretariat:

1. Look for innovative ways to mobilise resources both for MS and for continuation of the SADC harmonization activities for TB Control;
2. Develop outstanding regional strategies or frameworks;
3. Make endorsed policy and framework documents available on the SADC website and monitor the domestication;
4. Adapt the data collection template for annual State of TB Report;
5. Assess achievements towards the MDGs and use the assessment as a starting point for the development of a new Strategic Approach for the SADC Region beyond 2015.

Recommendations for the Member States:

1. Submit financial information for the 2013 report for MS that did not submit this information in 2012;
2. MS that are conducting a prevalence survey, report on the findings for the 2013 report; other MS should consider if there is need for a prevalence survey in their country.
3. MS with national case detection rates below 70%: scale and speed-up interventions that improve diagnosis of TB: LED microscopy, front-loading for sputum samples and molecular techniques (GeneXpert, line probe assays); other MS should assess how to improve case detection further;
4. MS with a high proportion of pulmonary TB not diagnosed through smear microscopy should ensure bacteriologic diagnosis is done in all presumptive TB patients through microscopy, GeneXpert or culture;
5. MS with treatment success rates below 85%: provide treatment support and ART for co-infected patients and ensure an uninterrupted supply of TB diagnostics and medicines; other MS should assess how to improve treatment outcomes further;
6. MS that test less than 90% of TB patients for HIV: scale up HIV testing of TB patients; other MS should assess how to reach 100% testing of TB patients;
7. MS with limited capacity to diagnose and treat drug-resistant TB: scale and speed-up programmatic management of drug-resistant TB and ensure sustainable funding;
8. MS that cannot provide information on TB in special settings and vulnerable populations: adapt your recoding and reporting systems or do targeted surveys.

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6. Annexes

Annex 1: Glossary of Core Indicators and Common Terms and Definitions[vi]

Term	Meaning/Definition
SADC approved and endorsed core indicators	
TB prevalence rate	Estimated number of all active TB cases per 100,000 population at a given point in time. Date for the prevalence rate come from population-based surveys and reporting frequency is once every 5 years.
TB incidence rate	Estimated number of TB cases per year, per 100,000 population. Data also come from population-based surveys, or longitudinal surveys and is reported once every 5 years.
TB mortality rate	Estimated number of deaths due to TB, all cases, per year per 100,000 population. Data come from the routinely available information in the TB registers and reporting frequency is annually.
Case detection rate	Annual new smear-positive notifications (+/- DOTS) over the estimated annual incidence rate for new smear-positive cases. The case detection rate is reported annually.
Treatment success rate	New sputum smear-positive patients started treatment in a given reporting period who completed treatment, with or without proof of cure. The data are available in the TB and laboratory registers and routinely reported on an annual basis.
MDR-TB pick-up rate	The percentage of MDR-TB patients identified by bacteriology confirmation of all culture positive set of specimens with 1st line anti-TB drug sensitivity testing results (i.e. number of all TB cases with 1st line anti-TB drug sensitivity testing results). The data for this indicator come from routinely collected data in TB registers and laboratory drug sensitivity reports. Reporting frequency is annually. Reports on drug resistance sentinel surveillance or rapid surveys among risk groups contribute additional information on MDR-TB.
XDR-TB pick-up rate	The percentage of XDR-TB patients identified by bacteriology confirmation of all culture positive cases with 2nd line drug sensitivity testing results (i.e. number of all TB cases with 2nd line anti-TB drug sensitivity testing results). The data for this indicator come from culture and sensitivity testing done on routinely on all retreatment and MDR-TB cases and is reported annually.
Percentage of TB patients who test HIV-positive	Percentage of HIV-positive TB patients among those tested out of the total number of TB patients receiving HIV testing and counselling (HTC). The data are available in routine health services statistics or sentinel surveys. Reporting frequency is annually.
Definition of TB Cases	
Case of tuberculosis	A patient in whom any form of TB has been diagnosed by laboratory and clinical investigation
Definite case	A patient with positive culture for the Mycobacterium tuberculosis complex. In Member States where culture is not routinely available, a patient with sputum smear-positive for acid-fast bacilli (AFB+) is also considered a definite case.
Pulmonary case	A patient with tuberculosis disease involving the lung parenchyma.
Smear-positive pulmonary case	A patient with one or more initial sputum smear examinations positive for acid-fast bacilli.

vi Based on SADC and international agreed definitions.

Smear-negative pulmonary case	A patient with pulmonary tuberculosis not meeting the above criteria for smear-positive pulmonary case. Diagnostic criteria should include: at least two sputum smear examinations negative for acid-fast bacilli; and radiographic abnormalities consistent with active pulmonary tuberculosis; and no response to a course of broad-spectrum antibiotics (except in a patient for whom there is laboratory confirmation or strong clinical evidence of HIV infection); and a decision by a clinician to treat with a full course of anti-tuberculosis chemotherapy; or positive culture but sputum examinations negative for acid-fast bacilli.
Extrapulmonary case	A patient with tuberculosis of organs other than the lungs (e.g. pleura, lymph nodes, abdomen, genitourinary tract, skin, joints and bones, meninges). Diagnosis should be based on one culture positive specimen, or histological or strong clinical evidence consistent with active extra-pulmonary disease, followed by a decision by a clinician to treat with a full course of anti-tuberculosis chemotherapy. A patient in whom both pulmonary and extra-pulmonary tuberculosis has been diagnosed should be classified as a pulmonary case.
New case	A patient who has never had treatment for tuberculosis or who has taken antituberculosis drugs for less than one month.
Relapse	A patient who previously received TB treatment and was declared cured or treatment completed AND has once again developed sputum-smear or culture positive TB.
Re-treatment case	A patient previously treated for TB, who is started on a re-treatment regimen after previous treatment has failed (treatment after failure), who returns to treatment having previously defaulted (see below; treatment after default), or who was previously declared cured or treatment completed and is diagnosed with bacteriologically positive (sputum smear or culture) TB (relapse).
Re-Treatment after default	A patient who completed at least one month of TB treatment and returns after at least 2 months' interruption of TB treatment with active TB as judged on clinical, bacteriological or radiological grounds.
Transfer-in	A patient who has been transferred from another TB reporting unit to continue treatment in the receiving treatment unit.
Other	All cases that do not fit the above definitions, e.g., chronic TB case, a patient who remains smear-positive after completing a re-treatment regimen under supervision.
Definitions related to MDR-TB and XDR-TB	
MDR-TB	A case of bacteriologically proven TB who continues to produce positive smears or cultures despite directly observed first line treatment, and who is , (with at least one positive culture and drug susceptibility result) showing resistance to rifampicin and isoniazid.
New MDR-TB case	An MDR-TB patient with no history of TB drug use before or use for less than one month.
Relapse MDR-TB case	MDR-TB patient who was previously cured (whether in Category I, II or IV) but who has come back with smear-positive MDR-TB and is proved to be MDR-TB on culture and DST.
Treatment after default MDR-TB case	An MDR-TB patient who is returning to TB treatment after defaulting from treatment as is now smear-positive for AFB and is proved to be MDR-TB on culture and DST.
Treatment after failure of category I MDR-TB case	Has had category I but the treatment failed and is proved to be MDR-TB on culture and DST

vii *The denominator is a WHO estimation of new cases—pulmonary and extrapulmonary—based on a mathematical model that takes into account all available data, including case notifications, an estimate of the completeness of notifications, the trend in notifications, TB mortality in the population, studies on TB disease prevalence and risk of infection, HIV prevalence, duration of TB illness, likelihood of receiving TB treatment in different sectors, and case fatality given different treatment scenarios for the individual countries. It can only be used at national level.*

Annex 2: Global Declarations, Commitments and Targets for TB Control

Millennium Development Goals (MDGs):

Halt and begin to reverse TB incidence by 2015

Abuja declaration against AIDS, TB, Malaria and other communicable diseases

The primary goal of the Declaration was to arrest and reverse the accelerating rate of HIV infection, TB and Other Related Infectious Diseases (ORID)

Objectives:

a) To advocate for optimal translation of earlier commitments of African Leaders into social and resource mobilization for sustainable programming of Primary Health Care.

b) To develop policies and strategies aimed at preventing HIV, Tuberculosis and other related infections, and at controlling the impact of the epidemic on socio-economic development in Africa.

c) To establish sustainable mechanisms for national and external resource mobilization for prevention, and treatment of the persons living with HIV AND AIDS and Tuberculosis.

d) To ensure that we (AU) attend to the needs of vulnerable groups such as children, the youth, women and persons with disabilities, workers and mobile populations.

World Health Assembly resolution 1991

To detect at least 70% of new smear-positive cases in DOTS programmes

To successfully treat at least 85% of detected cases.

Stop TB Partnership

By 2005: At least 70% of people with sputum smear-positive TB will be diagnosed (i.e. under the DOTS strategy), and at least 85% cured.

By 2015: The global burden of TB (per capita prevalence and death rates) will be reduced by 50% relative to 1990 levels.

By 2050: The global incidence of active TB will be less than 1 case per million population per year.

TB Global Plan:

- **By 2005, and to be sustained or exceeded by 2015:** At least 70% of people with infectious TB will be diagnosed (i.e. under the DOTS strategy) and at least 85% of those diagnosed will be cured.

- **By 2015:** the global burden of TB disease (disease prevalence and deaths) will be reduced by 50% relative to 1990 levels.

Specifically this means reducing prevalence to 155 or fewer per 100 000 population, and reducing deaths to 14 or fewer per 100 000 per year by 2015, including people co-infected with TB and HIV. The number of people dying from

TB in 2015 should be less than 1 million.

- **By 2050:** TB will be eliminated as a global public health problem. Using the criterion for TB elimination adopted in the USA, this means that the global incidence of TB disease will be less than 1 per million population.

Maputo Resolution of 55th Regional Committee of the African Region of WHO of 2005

Ministers of Health from 46 Member States of the Africa Region unanimously declared TB an emergency in the Region

- Rapidly improve case detection and treatment outcomes through Acceleration of the DOTS coverage
- Reduce patients transfer and defaulter rates
- Accelerate scale up of TB/HIV interventions
- Improve human resources for TB control
- Expand national partnerships and
- Mobilize additional resources for TB control.

SADC Strategic Framework for the Control of Tuberculosis in the SADC Region, 2007-2015

Objectives

- To increase access to high-quality Tuberculosis diagnosis & patient-centred treatment in the SADC Region
- To reduce the suffering and socioeconomic burden due to Tuberculosis in the SADC Region
- To ensure access to prevention, diagnosis and treatment of TB, TB/HIV and MDR/XDR-TB in the SADC Region
- To support the development and adoption of new tools for Tuberculosis prevention, diagnosis and treatment in the SADC Region

Abuja Call for Accelerated Action towards Universal Access to HIV AND AIDS, Tuberculosis and Malaria services, May 2006:

African Heads of State and Government adopted the call at a special summit in Abuja that affirmed 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.

Annex 3: Global Partnerships and Initiatives in support of TB control[viii]

Organizations	Services offered
International Union Against Tuberculosis and Lung Disease (IUATLD/The Union)	Technical support
Global Fund to Fight AIDS, TB and Malaria (GFATM/ Global Fund)	Technical and financial support for national TB programmes
TB Coalition for Technical Assistance (TBCTA) – [ATS, CDC, FHI, KNCV, IUATLD, JATA, MSH, WHO]	Technical support
TB Control Assistance Programme (TB CAP)	Technical support
UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR)	Development of new TB diagnostics
World Health Organisation (WHO)	Technical and financial support
National Institute of Communicable Diseases (NICD)	Laboratory based TB services
University Research Co.(URC)/Centre for Human Services	Strengthening human resources for TB and TB/ HIV
Global TB Alliance	Develop and equitable access to new TBdrugs
Stop TB Partnership and its various initiatives and working groups:	
The Global Drug Facility (GDF)	Provision of TB drugs
Green Light Committee (GLC)	Support in management of MDR-TB
DOTS Expansion Working Group	Support related to laboratory capacity strengthening, public-private mix, childhood TB, and poverty and TB

viii *Also universities, research community etc, and many more; list not exhaustive.*

Working Group on DOTS-Plus	Support in Multidrug-resistant TB management
TB/HIV Working Group	TB/HIV collaboration
Working Group on New TB Diagnostics	New TB Diagnostics
Working Group on New TB Drugs	New TB Drugs
Working Group on New TB Vaccines	New TB Vaccines
Advocacy, Communications and Social Mobilization Working Group	Advocacy, Communications and Social Mobilization Working Group

Annex 4 : Reporting Format used in 2009 (Country Profile)

Country Profile

Key Indicator	2009	2008	2007	2006	2005	1990
Population						
TB Burden						
Incidence (All cases/100 000)						
Incidence(sis+/100 000/yr)						
Prevalence (all cases/100 000 pop/yr)						
Mortality (deaths/100 000)						
Prevalence of HIV in adult TB Patients (15-49 yrs, %)						
New TB cases multi-drugs resistant (%)						
Previously treated TB cases multi-drug-resistant (%)						
Surveillance and DOTS Implementation						
Notification Rate (New and relapse/100 000 pop/yr)						
Notification Rate (New sis+/100 000 pop/yr)						
Case Detection Rate (New and Relapse, %)						
Case Detection Rate (New sis+ cases, %)						
DOTS Notification rate (new and relapse/100 000 pop/yr)						
DOTS Notification Rate (New sis+/100 000 pop/yr)						
DOTS Case Detection Rate (New and Relapse, %)						
DOTS Case Detection Rate (New sis+ cases, %)						
DOTS Treatment success						

Budget and Finance							
NTP budget by source of funding	Gap (US $, %)						
	GFATM (US $, %)						
	Grants (US $, %)						
	Loans (US $, %)						
	Gov (US $, %)						

Annex 5 Data Tables

1. Burden of TB in SADC Member States

1.1 TB Notifications in SADC Member States 2009

Country	Population 2009	TB Notifications (New & Retreatment) No.	Notification rate/100,000 (New & Retreatment)	New TB Notifications 2009	Notification rate/100,000 New cases 2009
Angola	17,596,000	42,686	235	38,823	220
Botswana	1,798,372	9088	505	7966	443
DRC	68,919,951	116,664	169	114,039	165
Lesotho	1,876,733	13,520	720	11,545	615
Malawi	14,085,345	24,356	173	21,886	155
Mauritius	1,280,000			116	9
Mozambique	21,802,866	45,493	431	41,900	208
Namibia	2,103,766	13,332	634	11,850	556
Seychelles	87,298			15	17
South Africa	49,320,500	406,082	812	340,066	690
Swaziland	1,108,4492	11,032	1,083	10,038	986
Tanzania	41,915,880	64,417	154	60,191	144
Zambia	12,896,830	48,591	374	43,066	331
Zimbabwe	12,470,708	46,294	376	41,768	335

1.2 New TB Notifications by Type 2009

Country	TB Notification rate new cases 2009 (/100,000)	Pulmonary cases notification rate/100,000	Pulmonary cases as % of all new cases	Rate new Smear-positive cases(SS+) /100,000	SS+ cases as % of new Pulm. cases	Extra-pulmonary cases as % of all new cases
Angola	220	207	94%	128	52.7%	6%
Botswana	443	419	82%	175	48.1%	18%
DRC	165	125	80%	106	85%	20%
Lesotho	615	435	78.5%	211	44%	22% (2486)
Malawi	155	120	86%	54	45%	23%
Mauritius	9					
Mozambique	208	167	80.4%	89	53.5%	19.6%
Namibia	556	450	81%	219	46%	19%
Seychelles	17			8		
S/Africa	690	587	85%	279		
Swaziland	986	680	69%	344	46%	19%
Tanzania	144	112	78%	59	53%	22%
Zambia	331	255	79%	100	38%	21%
Zimbabwe	335	303	82	81	29%	19%

1.3 HIV Burden in Tuberculosis patients

Country	No. New TB Notifications	No. Tested for HIV	% tested	No. +ve	% +ve
Angola	38,823	2,143	6	424	19.8
Botswana	7,966	5,212	65.4	3,399	65.2
DRC	114,039	31,312	27.5	6,126	19.6
Lesotho	13,520[16]	11,563	78.1	8,084	76.5
Malawi	24,356	21,041	86	13,558	64
Mauritius	116	116	100	7	6
Mozambique	45,493	38,087	84	25,056	66
Namibia	11,850	9,849	74.0	5,676	58.0
Seychelles	15	15	100	1	6.6
S/Africa	340,066	83,436	24.5	44,431	53.3
Swaziland	10,038	8,272	82.4%	6,895	83.4%
Tanzania	64,417	56,388	88	20,994	37
Zambia	43,066	34,992	72	23,584	67
Zimbabwe	41,768	28,952	63	22,745	78.5

ix Total notification (new and retreatment)

1.4 Drug Resistance burden (MDR/XDR)

Country	No. MDR cases detected 2009	Cumulative MDR cases	No. on treatment	No. XDR cases detected 2009	Cumulative XDR cases	Years Drug Resistance Surveys conducted	Source of drugs for treatment Gvt/GF/ Donors
Angola	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Botswana	148	354	111	0	3	1995, 2002, 2007/8	Gvt
DRC	92	521	372	0	0	None	GLC, GF,UNITAID
Lesotho	160	385	294	0	3	2008/10	GLC, UNITAID
Malawi	9	144	45	0	0	2010	Gvt
Mauritius	1	3	3	0	0	None	Govt
Mozambique	137	418	138	0	2	2008	GLC, Gvt
Namibia	275	790	275	17	40	2008	Gvt
Seychelles	0	0	0	0	0	None	Gvt
S/Africa	9,070	3,7810[17]	5,496[18]	594	2,387[19]	2002	Gvt
Swaziland	166	450	250	5	5	2009	Gvt/GF
Tanzania	27	80	25	-	-	2007	GF
Zambia	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Zimbabwe	39	39	0	0	0	1994	Gvt, NAC, GF, Donors

2 Performance of National Tuberculosis Programmes (NTP's)

2.1 Application of basic DOTS (Short Course Chemotherapy and Directly observed treatment and sputum microscopy)

Country	% Cases (SS+ notified 2009) managed under DOTS	% Cases not managed under DOTS	% Pulmonary cases diagnosed by sputum microscopy
Angola	100%	0	-
Botswana	100%	0	63.4%
DRC	100%	0	70%
Lesotho	100%	0	80%
Malawi	100%	0	90%
Mauritius			
Mozambique	100%	0	87%

x *2004-2009*
xi *As at Feb 2010*
xii *2004-2009*

Namibia	100%	0	76%[20]
Seychelles			
S/Africa			
Swaziland	100%	0	75%
Tanzania	100%	0	-
Zambia	100%	0	100%
Zimbabwe	100%	0	

2.2 Cohort analysis results of treatment outcome (Cases notified 2008)

Country	New SS+ cases notified 2008 (No.)	% cured	% completed treatment (no sputum results)	% Success rate (Cured + Completed treatment)	% Died	% Defaulted	% Transferred out	% Treatment failures
Angola	22562	47%	25%	72%	2%	18.9%	31%	
Botswana	3161	50.5%	20.6%	71.1%	5.1%	4.4%	6.6%	1.6%
DRC	114,039	83%	4%	87%	4%	3%	2%	1%
Lesotho	3858	64.4%	9.1%	74%	11%	4%	2%	2%
Malawi	7,632	86%	2%	88%	8%	2%	2%	1%
Mauritius	116			86%		8%		
Mozambique	18,824	82%	1.4%	84%	9.7%	4.1%	1.5%	1.4%
Namibia	4,928	72%	10%	82%	6%	4%	4%	4%
Seychelles	15			93%	0	0		
S/Africa[21]	340,066			74%	7.8%	7.5%	3%	2%
Swaziland	3,213	50%	18%	68%	10%	8%	3%	7%
Tanzania	24,171	83.8%	4.5%	88%	5%	2%	4%	0.2%
Zambia	13,211	78%	5%	83%	5%	3%	4%	1%
Zimbabwe	10,370	67.2%	7.1%	74.3%	9.%	7.3%	7.2%	0.2%

xiii This has been calculated as (SS+ + SS-)/(SS+ + SS- + SND)
xiv Figures estimated from graph in South African TB report to SADC

2.3 TB Laboratory services in SADC: Coverage of laboratory services

		TB LABORATORY SERVICES 2009		
COUNTRY	POPULATION	Number of labs working in NTP Smear[22]	Culture	DST
Angola	17,596,000	147 (1:119,700)	1	1
Botswana	1,798,372	52 (1:34,584)	1	1
DRC	68,919,951	1,339 (1:51,471)	1	1
Lesotho	1,876,733	17 (1:110,396)	1	1
Malawi	14,085,345	210 (1:67,073)	1	1
Mauritius	1,280,000	1 (1:1,280,000)	1	1
Mozambique	21,806,822	433 (1:50,362)	1	1
Namibia	2,103,766	31 (1:67,863)	1	1
Seychelles	87,298	2 (1:43,649)	1	0
S/Africa	49,320,500	249 (1:198,074)	16	16 1ST line 5 2nd line
Swaziland	1,018,449	19 (1:53,602)	1	1
Tanzania	41,915,880	807 (51,940)	3	1
Zambia	13,046,508	204 (1:63,953)	3	3
Zimbabwe	12,470,708	115 (1:108,440)	2	2

2.4 Laboratory Capacity to diagnose TB, MDR/TB and XDR/TB

Country	Capacity to do TB Culture	Capacity to do DST for 1st line drugs	Capacity to do DST for 2nd line drugs	Country to which specimens are sent for 2nd line DST
Angola	yes	yes	yes	-
Botswana	yes	yes	no	RSA
DRC	yes	yes	no	Belgium
Lesotho	yes	yes	no	RSA
Malawi	yes	yes	no	RSA
Mauritius*	yes	yes	No	
Mozambique	yes	yes	No	RSA
Namibia	yes	yes	No	RSA

xv *Figures in brackets indicate the ratio of population to 1 microscopy centre*

Seychelles*	yes	yes	No	
S/Africa	yes	yes	yes	-
Swaziland	yes	yes	No	RSA
Tanzania	yes	yes	No	Belgium
Zambia*	yes	yes	no	
Zimbabwe	yes	yes	no	RSA

**Information not provided but deduced from other parts of the report*

2.5 Implementation of TB/HIV Collaborative activities

Activity	Countries implementing activity	Number of Member States implementing
1 ESTABLISH MECHANISMS FOR COLLABORATION		
1.1 Ensure a coordinating body exists for effective TB/HIV collaboration at all levels	DRC, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia, Zimbabwe	11
1.2 Conduct surveillance of HIV prevalence among TB patients	Angola, Botswana, DRC, Malawi, Mauritius, Mozambique, Namibia, South Africa, Seychelles, Swaziland, Tanzania, Zambia, Zimbabwe	13
1.3 Carry out joint HIV/TB planning	DRC, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Swaziland, Tanzania, Zambia, Zimbabwe, Lesotho	12
1.4 Conduct monitoring and evaluation (M&E)	DRC, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Seychelles, Swaziland, Tanzania, Zambia, Zimbabwe	12
2 DECREASE THE BURDEN OF TB IN PEOPLE LIVING WITH HIV		
2.1 Establish intensified TB case finding	Angola, Botswana, DRC, Malawi, Mauritius, Lesotho, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe	14
2.2 Introduce Isoniazid Prevention Therapy (IPT)	Botswana, Lesotho(U-5s), Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia	8

2.3 Ensure TB infection control in health care and congregate settings	Angola, Botswana, DRC, Mauritius, Mozambique, Namibia, South Africa, Seychelles, Swaziland, Tanzania, Zambia, Zimbabwe	12
3 DECREASE THE BURDEN OF HIV IN TB PATIENTS		
3.1 Provide HIV testing and counselling	Angola, Botswana, DRC, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Seychelles, Swaziland, Tanzania, Zambia, Zimbabwe	14
3.2 Introduce HIV prevention methods	DRC, Lesotho, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia, Zimbabwe	10
3.3 Introduce co-trimoxazole preventive therapy (CPT)	Angola, Botswana, DRC, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe	12
3.4 Ensure HIV care and support	Angola, Botswana, Lesotho, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe	12
3.5 Introduce Anti-retroviral therapy (ART)	Angola, Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Swaziland, Tanzania, Zambia, Zimbabwe, South Africa	13

Source: Reports from Member States 2009

3 Support Services (Financing, Human Resources etc.)

3.1 Financing: To determine financing and sustainability

		Source of funding for NTP			
Country	**NTP Budget in USD**	**Government Amount (%)**	**Global Fund Amount (%)**	**Other major donor Amt (%)**	**Others Amount (%)**
Angola	1,824,283	1,000,000 (54%)	755,083 (41%)	69,200 (3.7%)	
Botswana	17,352,385	9,812,414 (56.5)	1,239,971(7.1)	1,300,000(7.5)	5,000,000(28.8)
DRC[23]	53,708,783	304,800 (0.6)	10,929,403(20.3)	NA	3,321,231(6.2)
Lesotho	5,732,507	1,353,259 (23.6)	4,379,248 (76.4)		
Malawi	5,832,249	2,857,143 (49.0)	2,775,106 (47.6)	200,000 (3.4)	n/a
Mauritius					
Mozambique					
Namibia	9,888,445	3,442,132 (34.8)	4,163,989 (42.1)	2,282,324(23.0)	
Seychelles		(100)			

xvi DRC has given the funding gap of US$ 39,153,448 in addition to these figures

S/Africa		562,483,780 (94.0)	36,198,021 (6.0)		
Swaziland	13,240,108	5,779,179 (43.6)	1,463,000 (11.0)	2,815,023 (21.2)	
Tanzania	10,614,742	(7%)	(70%)	(23%)	
Zambia					
Zimbabwe			4,497,193		

3.2 Human Resources for NTP

Country	National Manager NTP	No. professional staff in central NTP office	% Provinces or Regions with TB Coordinators	% Districts with TB Coordinators
Angola	1	5	100%	90%
Botswana	1	20	n/applicable	76%
DRC	1	60	100%	n/applicable
Lesotho	1	6	n/a	100%
Malawi	1	16	100%	100%
Mauritius				
Mozambique	1	4	100%	100%
Namibia	1	11[24]	13 (100%)[25]	34 (100%)[26]
Seychelles				
S/Africa				
Swaziland	1	8	100%	100%
Tanzania	1	22	26	161
Zambia	1	5	100%	100%
Zimbabwe	1	15	100%	100%

xvii This includes resident technical advisors and positions supported by development partners
xviii These are NOT dedicated to TB but also address HIV and malaria
xix These is currently not a substantive position on the MoHSS staff establishment, leading to a very rapid turnover of staff


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