Republic of Namibia
Ministry of Health and Social Services

National Tuberculosis and Leprosy Programme

Annual Report: 2015-2016

Vision:

A Namibia where tuberculosis and leprosy are no longer a public health threat.

Mission statement:

Provision of high quality tuberculosis and leprosy prevention, diagnosis, treatment and care services with focus on universal access, equity for all those at risk and responsiveness to emerging challenges in the context of the Namibia Ministry of Health and Social Services Strategic Plan 2009- 2013 and the Millennium Development Goals.

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Preface

Namibia reported a marginal increase in the number of notified TB cases from 9,882 cases in 2014 to 9,944 cases in 2015, making the country one of the worst affected by TB in the world. The number of reported cases of multidrug resistant TB also increased from 137 to 190 during the same period, partly due to scale up of laboratory testing for TB drug resistance during the anti-TB drug resistance survey.

Coverage of HIV services for TB patients continues to improve, with 95% of TB patients having a known HIV status. About 40% of the TB patients were co-infected with HIV, a marginal decrease from 44% in 2014. The majority (92%) of HIV infected TB patients were on antiretroviral therapy (ART).

Namibia also maintained relatively high treatment success rates among new smear-positive TB patients; 88% of new smear positive patients registered in 2014 were successfully treated, compared to 87% the previous year. The treatment success rate for patients with MDR-TB however declined from 68% for patients started on treatment in 2012, to 64% for those started in 2015.

Although Namibia has reached elimination status for leprosy, sporadic cases continue to be reported from various regions, with significant year on year variations in the number of reported cases (6 and 9 cases in 2014 and 2015 respectively), suggesting inconsistent case finding and surveillance. There is therefore need to systematise leprosy diagnosis and reporting.

The Directorate of Special Programmes acknowledges the ongoing support provided by the following organisations: the Global Fund to Fight HIV/AIDS, TB and Malaria (GFATM), World Health Organisation (WHO), and United States Agency for International Development (USAID) through KNCV Tuberculosis Foundation and Management Sciences for Health (MSH), the United States Centers for Disease Control and Prevention (CDC), and the Namibia Institute of Pathology (NIP). Implementation of community-based TB services by Namibia Red Cross Society, Advanced Community Health Care Services Namibia (CoHeNa), Healthworks, Penduka. Johanniter Hilfswerk, Project HOPE and Health Unlimited continues to be a key component of tuberculosis care and prevention in the country.

I sincerely acknowledge the stewardship being provided by MoHSS leadership at all levels, particularly the regional directors, as well as regional and district TB and leprosy coordinators.

I am confident that our continued collaboration will result in the ultimate goal of ending tuberculosis and leprosy in the country.

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Ms A. Nitschke
Director; Directorate of Special Programmes

Table of contents

List of figures

List of tables

List of annexes

List of acronyms

ACSM	advocacy, communication and social mobilisation
AFB	acid-fast bacilli
Am	amikacin
Amx/Clv	amoxicillin/clavulanate
ART	antiretroviral therapy
CBTBC	community-based tuberculosis care
CCRC	Central Clinical Review Council of the NTLP
CDC	United States Centres for Disease Control and Prevention
Clr	clarithromycin
Cm	capreomycin
CMO	Chief Medical Officer
CMS	central medical stores
CPT	co-trimoxazole preventive therapy
Cs	cycloserine
DM	direct microscopy
DOT	directly-observed treatment
DOTS	directly observed treatment - short course (WHO strategy)
DRS	drug resistance survey
DSP	Directorate of Special Programmes
DST	drug susceptibility testing
DTLC	District Tuberculosis and Leprosy Coordinator
E	ethambutol
Eto	Ethionamide
FDC	fixed-dose combination
FLD	first line (anti-TB) drugs (or medicines)
GFATM	Global Fund to fight HIV/AIDS, TB and Malaria
GRN	Government of the Republic of Namibia
H	isoniazid
HAART	highly active anti-retroviral therapy
HCT	HIV counselling and testing
HIV	human immunodeficiency virus
IEC	information, education and communication
IPT	isoniazid preventive therapy
ITECH	International Training and Education Centre for Health
IUATLD	International Union against Tuberculosis and Lung Disease (The Union)
KAP	knowledge, attitude, practices
Km	kanamycin
KNCV	Koninklijke Nederlandse Centrale Vereniging (Royal Dutch Tuberculosis Association)
Lfx	levofloxacin
RTLC	Regional TB and leprosy coordinator
Lzd	linezolid
MDR-TB	multi-drug-resistant tuberculosis
Mfx	moxifloxacin
MoHSS	Ministry of Health and Social Services
MSH	Management Sciences for Health
MTP-II	Second Medium Term Plan (for tuberculosis and leprosy)
NGO	non-governmental organisation
NIP	Namibia Institute of Pathology
NSP	new smear-positive
NTLP	National Tuberculosis and Leprosy Programme
OR	operational research

PLHIV	People Living with HIV
PTB	pulmonary tuberculosis
R	rifampicin
RMT	Regional Management Team
RTLC	Regional Tuberculosis and Leprosy Coordinator
S	streptomycin
SHPO	Senior Health Programme Officer
SLD	second line (anti-TB) drugs/medicines
SNT	sputum not tested
TALFU	Treatment After Lost to Follow_Up
TB	tuberculosis
TIPC	Therapeutics Information and Pharmacovigilance Centre
USAID	United States Agency for International Development
WHO	World Health Organisation
Z	pyrazinamide

Executive summary

The 2015-2016 annual report contains data on tuberculosis (TB) and leprosy for the 2015 calendar year and treatment outcomes for new and Previously Treated cases for the 2014 cohort year[1]. The report highlights the progress in the implementation of the Second Medium-term Plan for Tuberculosis and Leprosy 2010-2016/17 (TBL MTP-II), focusing on the following strategic results:

1. High quality TB DOTs and leprosy services expanded and enhanced,
2. Increased access to high quality TB/HIV treatment and care intervention,
3. Programmatic management of drug-resistant TB improved and scaled up,
4. General health systems strengthened and effectively supporting TB and leprosy services,
5. Partnership for TB control and leprosy eradicated strengthened, and
6. Communities and people with TB and leprosy empowered.

The country reported 9,944 cases of all forms (9,614 new and relapse cases) of TB in 2015, a marginal increase from 9,882 cases in 2014. The case notification rate (CNR) for all forms of TB in 2015 was 436 cases per 100,000 population, compared to 442 per 100,000 in 2014.

During 2015, 190 patients commenced treatment for MDR-TB, compared to 137 in 2014. Three cases were notified as XDR-TB, while the number of cases of poly-drug resistant TB cases increased from 7 in 2014 to 17 in 2015. The number of patients commenced on treatment for rifampicin resistance based on Xpert MTB/RIF results declined significantly from 199 cases in 2014 to127 cases in 2015.

The treatment success rate for new smear positive (NSP) cases commenced on treatment during 2014 was 88%. The unfavourable outcomes were as follows: lost to follow up (4%), failure (4%) and death (4%), and transferred out (0%). The treatment success rate for MDR-TB declined from 68% for the 2012 cohort to 63% for the 2013 cohort.

Coverage of HIV counselling and testing for TB patients continued to improve: 95% of TB patients registered in 2015 had an HIV result recorded in the TB registers. Less than half (40%) of these patients were HIV positive, and 95% were either commenced or on continued on antiretroviral therapy (ART) compared to 84% in 2014.

Nine new cases of leprosy were notified in 2015, an increase from six the previous year. These cases were reported in Ohangwena, Oshana and Zambezi regions.

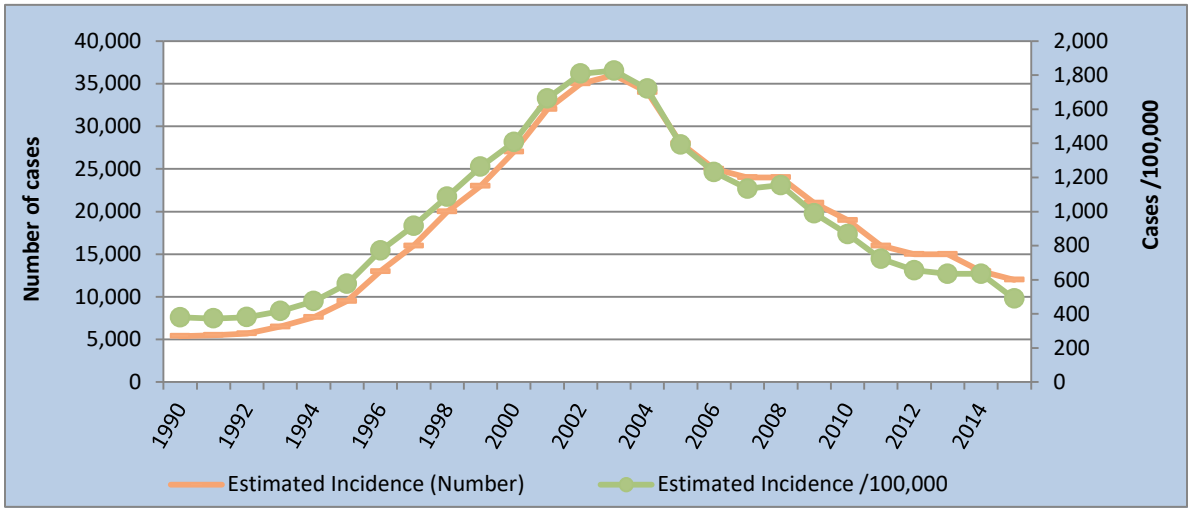
[1]. Treatment outcomes for MDR-TB included in this report are for patients registered in 2013

Chapter 1 : National overview

1.1. Case notifications

The per capita burden of TB remains high in Namibia, according to the World Health Organisation (WHO)[2]; 9,944 cases of all forms of TB were reported in 2015. After a consistent decline in the number of notified TB cases in since 2004, a marginal (0.6%) increase was observed in 2015, compared to the previous year. The reported increase is presumably due to expanded use of the Xpert MTB/RIF during the anti-TB drug resistance survey conducted during the reported period. Despite this increase, WHO estimates that the incidence of TB in Namibia continues to decline (*Figure 1*).

Figure 1: Trend in the estimated incidence of TB in Namibia, 1990-2015



Source: http://www.who.int/tb/country/data/download/en/

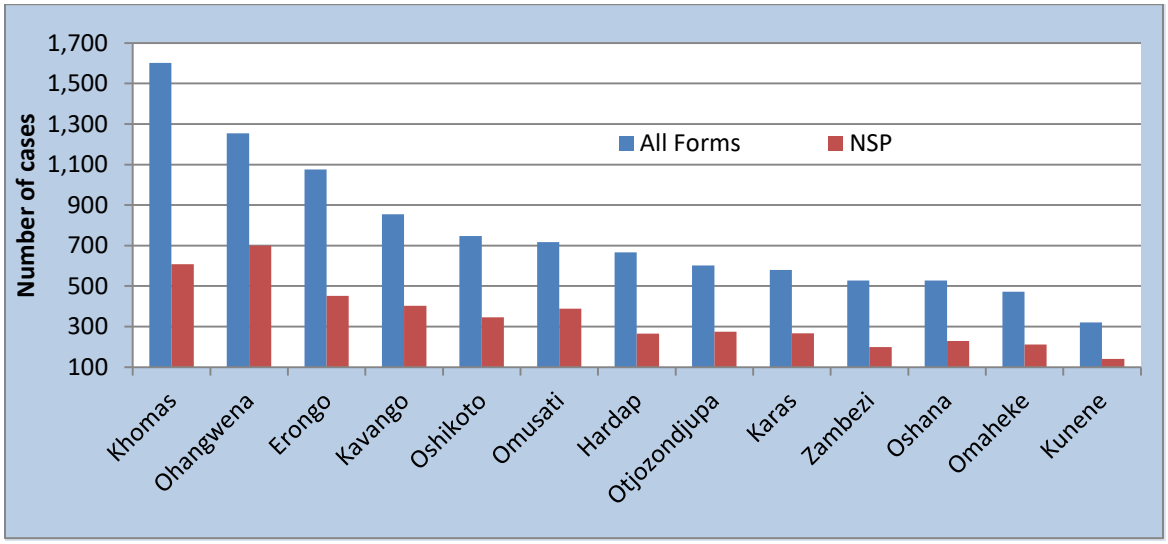
Table 1: TB case notifications for 2015

	New	Relapse
Pulmonary, bacteriologically confirmed[3]	4,877	1,166
Pulmonary, clinically diagnosed	1,514	390
Extra pulmonary	1,470	197
Totals	7,861	1,753
New and relapse	9,614	
Previously treated, excluding relapses	330	
Totals cases notified (all forms)	9,944	

Figure 2: Regional distribution of notified TB cases, 2015

[2] 2014 Global TB Report, World Health Organization

[3] A bacteriologically confirmed TB case: a biological specimen is positive by smear microscopy, culture or Xpert MTB/RIF. A clinically diagnosed TB case: not bacteriologically confirmed but diagnosed with active TB by a clinician or other medical practitioner who has decided to give the patient a full course of TB treatment.



Khomas region continues to report the highest number of TB cases in the country, followed by Ohangwena and Erongo respectively. Consistent with previous years, Kunene reported the lowest reported number of TB patients. Figure 3 shows the distribution of bacteriologically confirmed cases juxtaposed with all forms of TB, by region.

Figure 3: Regional distribution of all forms and new bacteriologically confirmed pulmonary TB cases, 2015

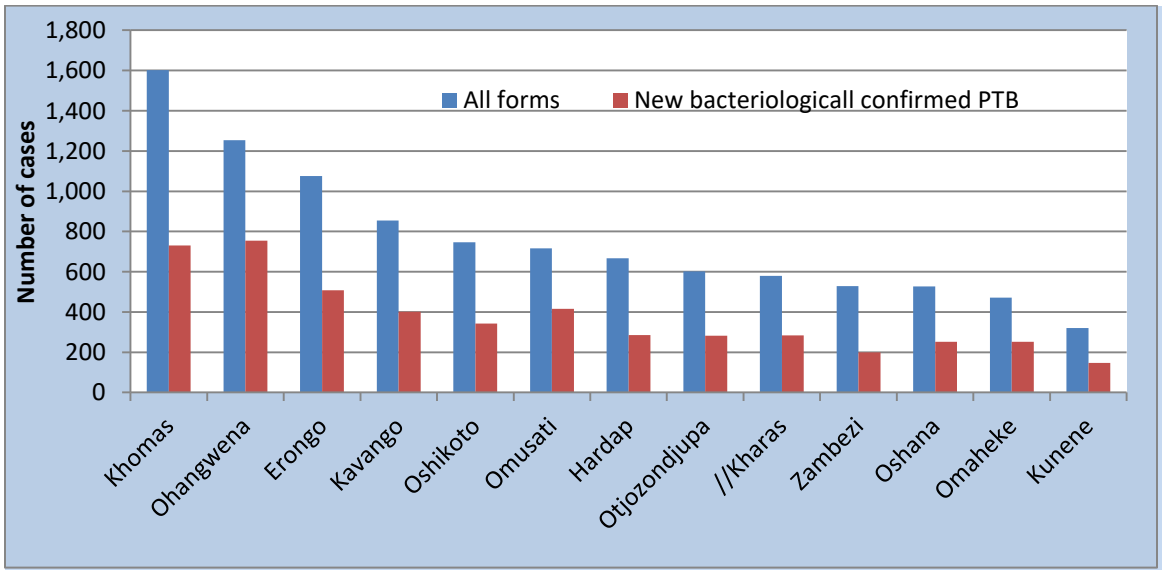
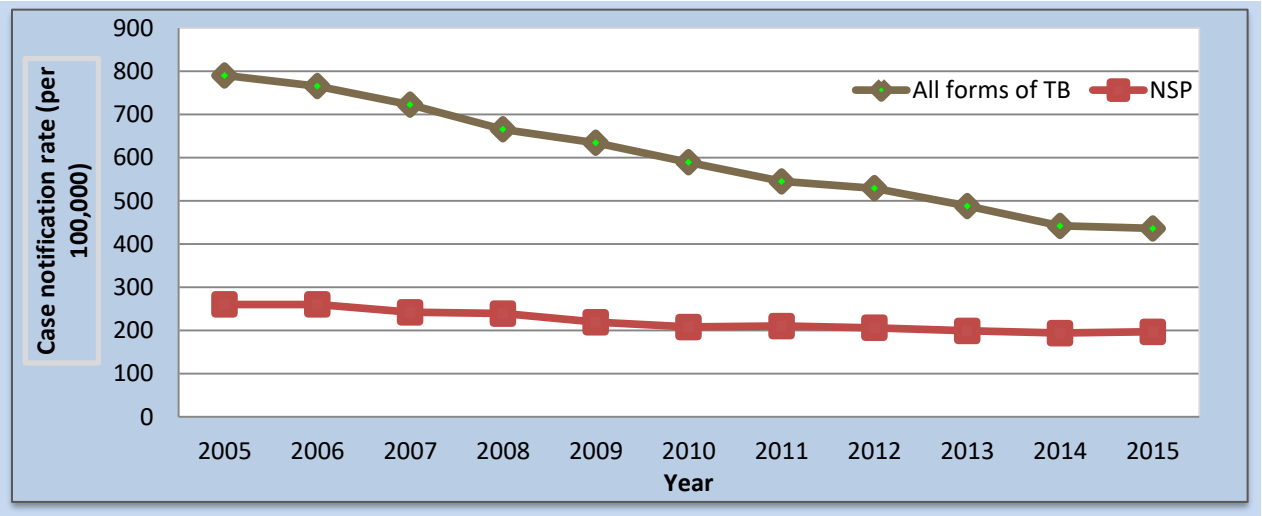
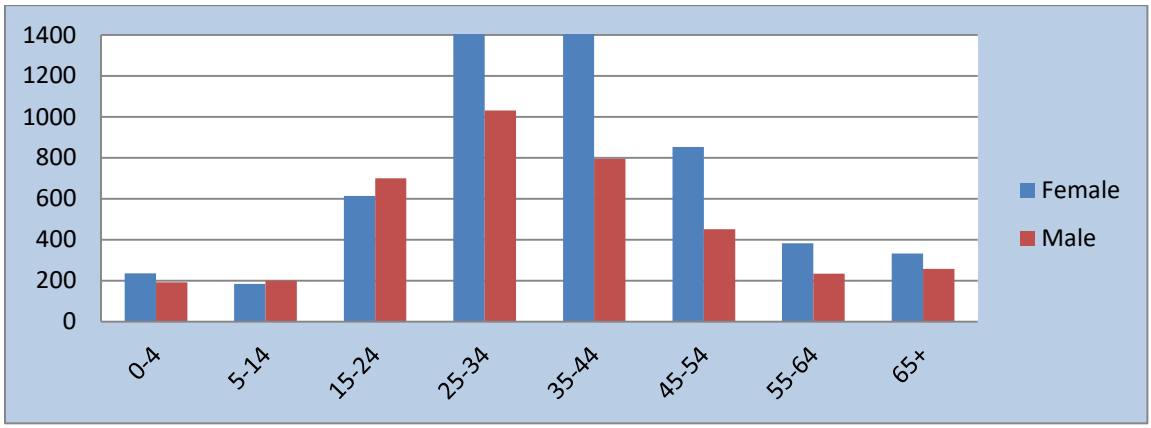


Figure 4: Trends in case notification rates for all forms and NSP TB cases, 2005-2015, Namibia



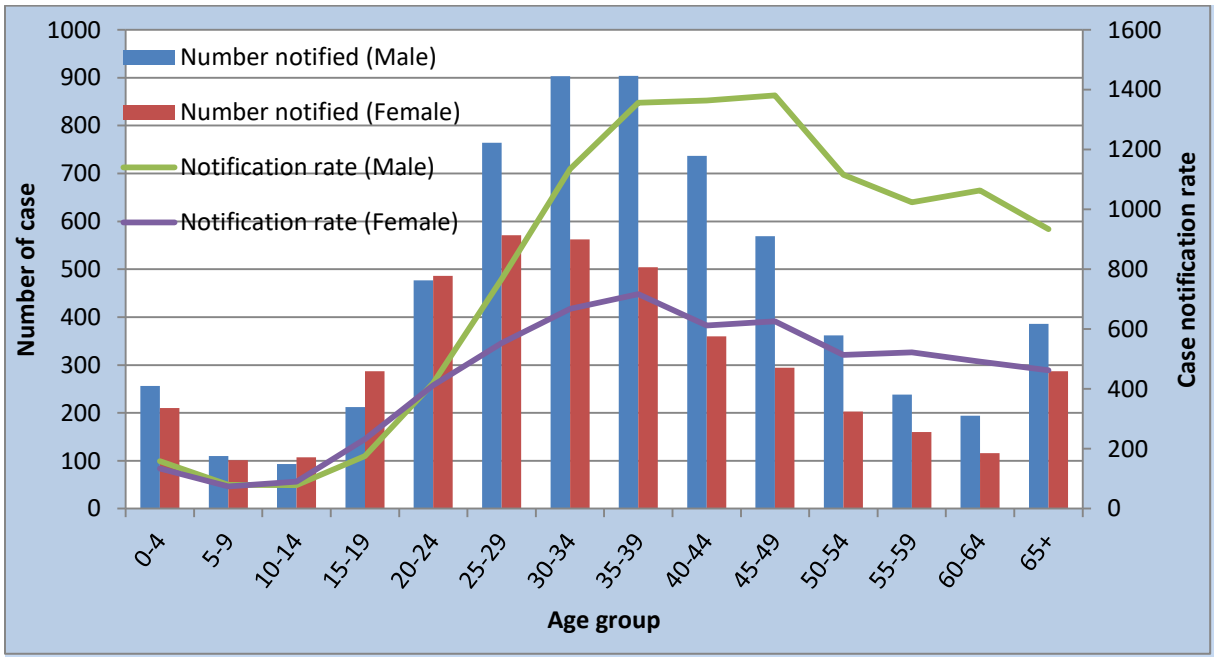
Although the number of TB cases increased from 9,882 cases in 2014 to 9,944 in 2015, the case notification rate for all forms of TB cases maintained a decline (436/100,000 in 2014 compared to 442/100,000 the previous year) primarily due to the growing population. There was however, a slight increase in the notification rate of NSP cases from 194/100,000 in 2014 to 197/100,000 in 2015 (*Figure 4*).

Figure 5: Age-sex distribution of new and relapse TB cases, 2015



As shown in Figure 5, the notifications show a male predominance, except for the 05-14 and 15-24 age groups, which have more cases among females than males (*Figure 5*). The age-specific notification rates demonstrate the relative magnitude of the disease burden among males and females, with the notification rates among males being almost twice those among females (*Figure 6).*

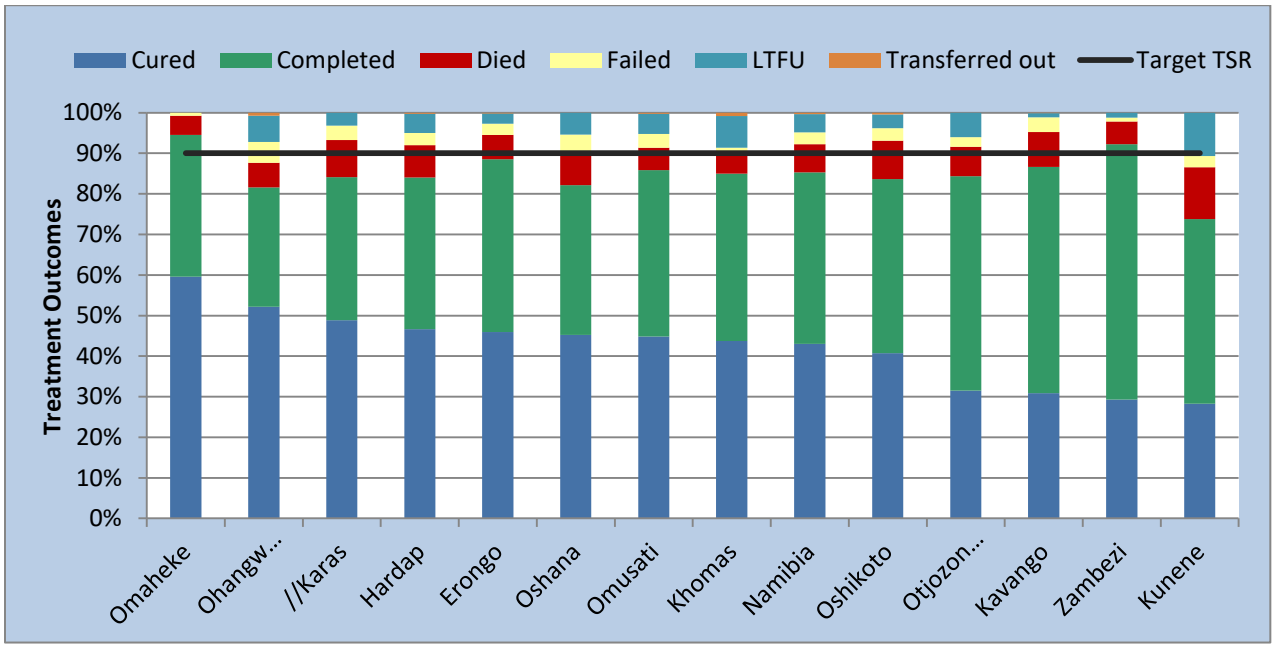
Figure 6: Distribution of TB notifications and notification rates by age group, 2015



1.2. Treatment outcomes

The national target of for treatment success rate for all forms of TB for the 2014 cohort was 90%. The reported treatment success for this period was 85%, with significant variations among regions, as shown in *Figure 7.* The target treatment success rate was achieved in Omaheke and Zambezi regions.

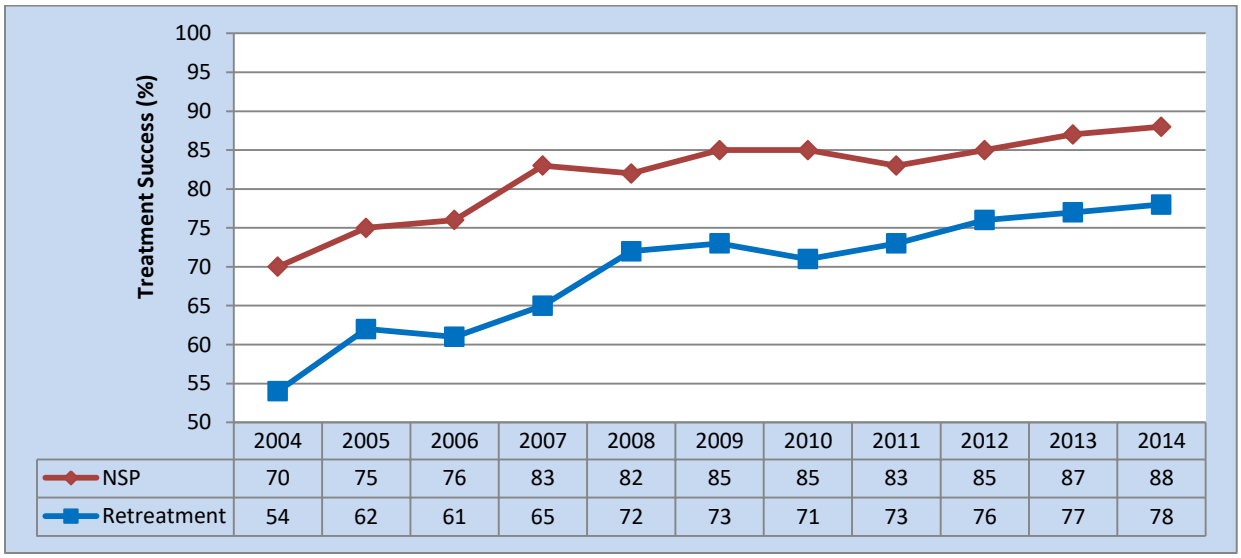
Figure 7: Treatment outcomes for all forms of TB, 2014 cohort; by region



Treatment success rates for new smear positive cases increased marginally from 87% to 88% for the 2013 and 2014 cohorts respectively; similarly, the treatment success

rates for smear positive Previously Treated cases increased from 77% to 78% for the respective cohorts (*Figure 8).*

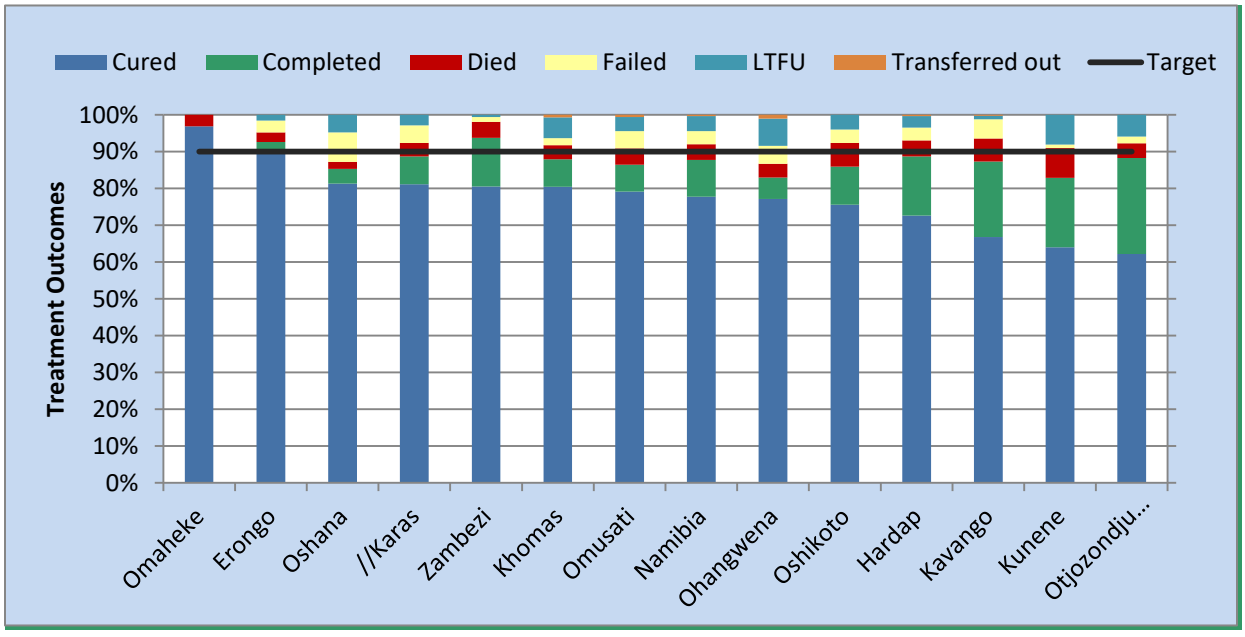
Figure 8: Trends in treatment success rate for NSP and Previously Treated cases, 2004 – 2014



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
NSP	70	75	76	83	82	85	85	83	85	87	88
Retreatment	54	62	61	65	72	73	71	73	76	77	78

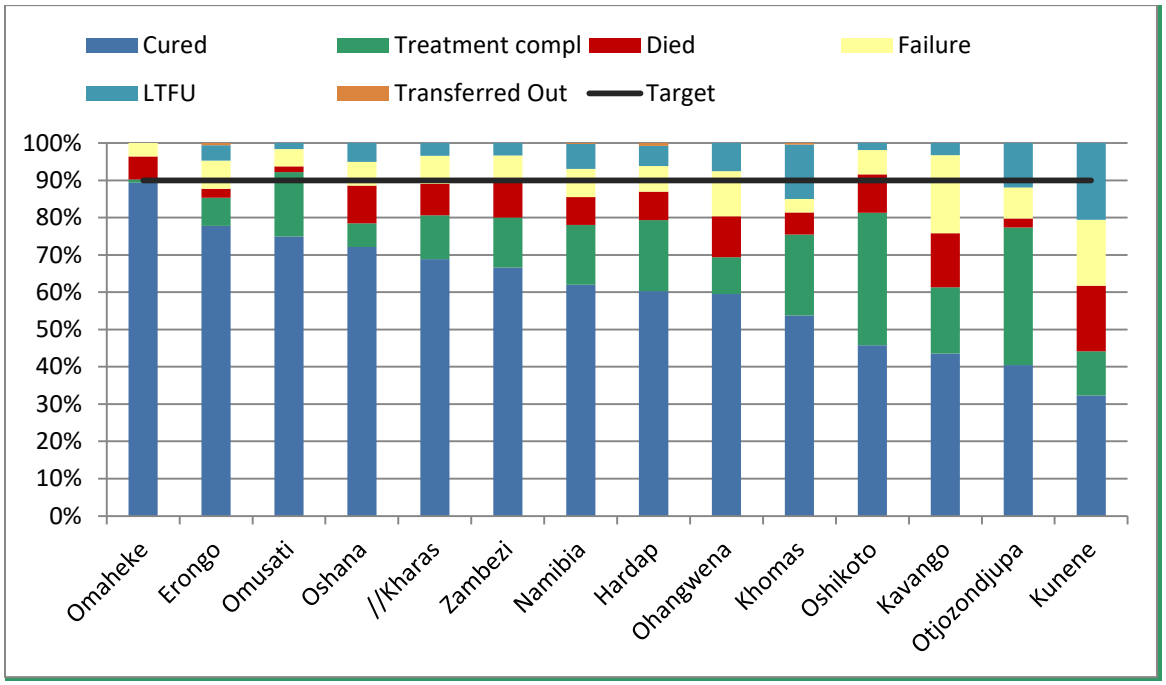
Omaheke region has maintained cure rates above 90% among new smear positive TB cases since 2011; with a slight increase for the 2014 cohort 97% compared to 96% for the previous cohort. Similarly, Erongo region reported 89% cure rate for the 2013 cohort. On the other hand, Kunene region reported the lowest cure rate of 64% primarily due to a high number of patients that died while on TB treatment (8%).

Figure 9: Treatment outcomes for NSP cases by region, 2014 cohort



At 78% treatment success rate for the 2014 cohort, treatment outcomes for Previously Treated patients are less favourable than for new cases, with a cure rate ranging from 32% in Kunene region to 89% in Omaheke region (*Figure 10).*

Figure 10: Treatment outcomes for Previously Treated case by region; 2014 cohort



Namibia reported 78% cure rate and 88% treatment success rate among new smear positive cases for the 2014 cohort *(Figure 11).* The treatment success rate for Previously Treated cases was relatively low at 78%.

Figure 11: Trends in treatment outcomes for new smear -positive cases 2004 – 2014

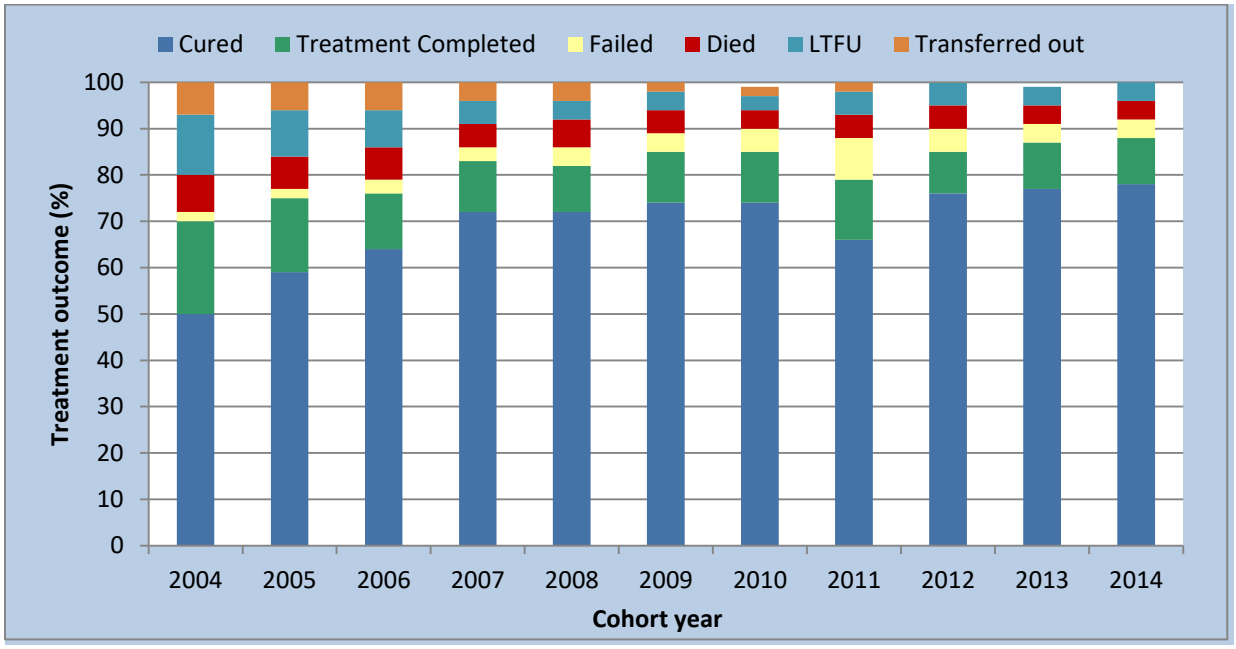
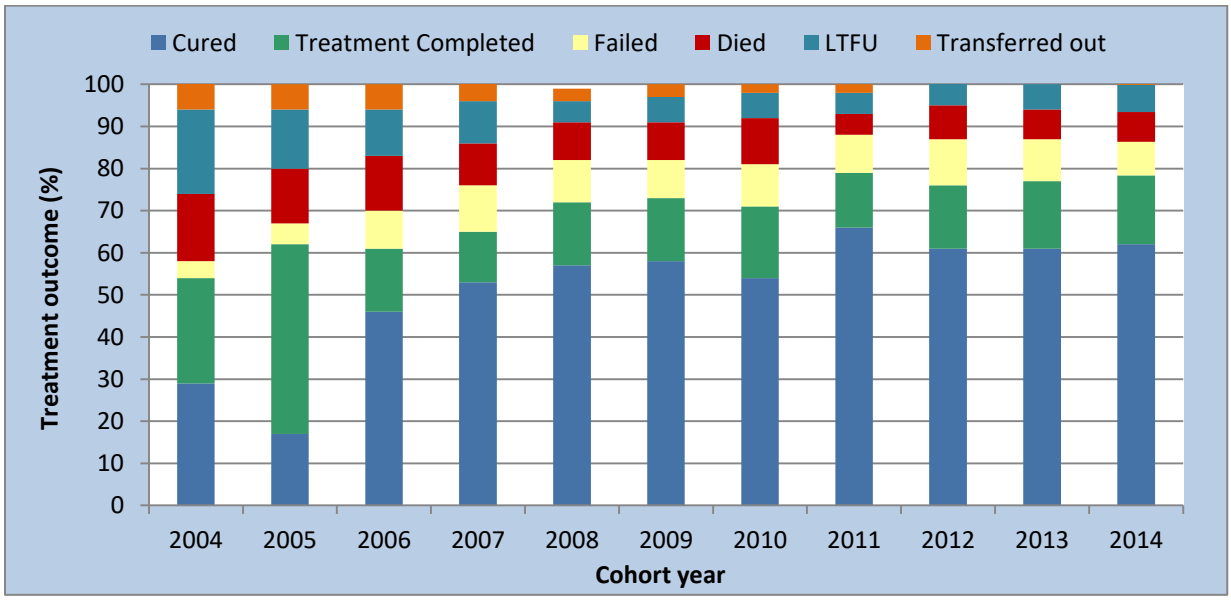
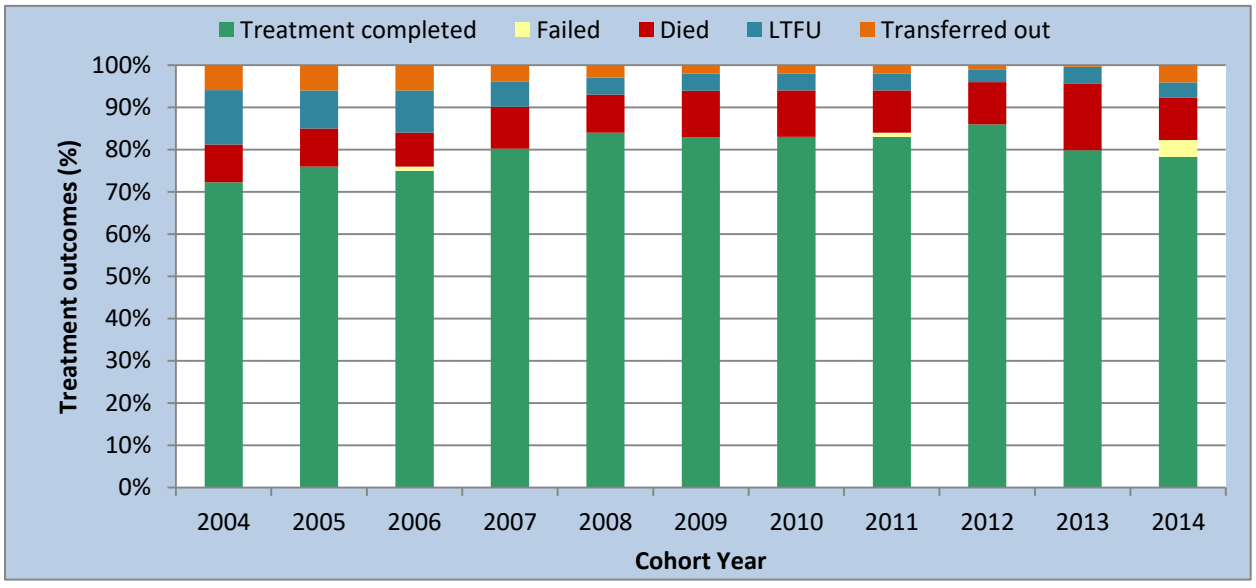


Figure 12: Trends in outcomes of previously treated cases, 2004-2014, Namibia



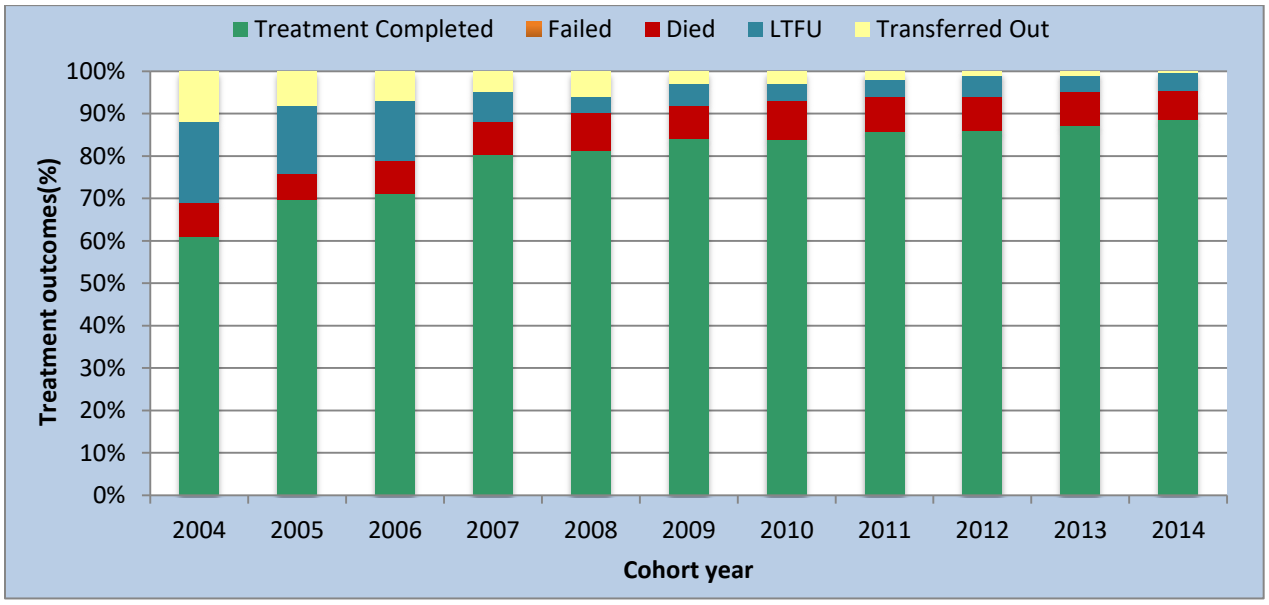
The trends in treatment outcomes for smear-negative cases are shown in *Figure 12.* An inconsistent trend, which indicating rise-and –fall is seen for the treatment completed a decline of 85% to 82%. A failure rate of 4% last seen in 2011and the death rate remained could influence the declining treatment complete rate.

Figure 13: Trends in treatment outcomes for smear-negative cases, 2004– 2014 Namibia



The treatment success rate for EPTB cases was 88% for the 2014 cohort; comparable to the treatment success rate for the previous year (*Figure 14).* At 7%, the death rate among patients in this category was relatively high.

Figure 14: Trends in treatment outcomes for EPTB cases 2004-2014, Namibia



The treatment success rate for sputum not-tested (SNT) children was 90% for the 2014 cohort (*Figure 15*). The treatment success rate for sputum not-tested (SNT) adults was 80%, with a death rate of 15% (*Figure 16).*

Figure 15: Trends in treatment outcomes for SNT (adults) 2005-2014, Namibia

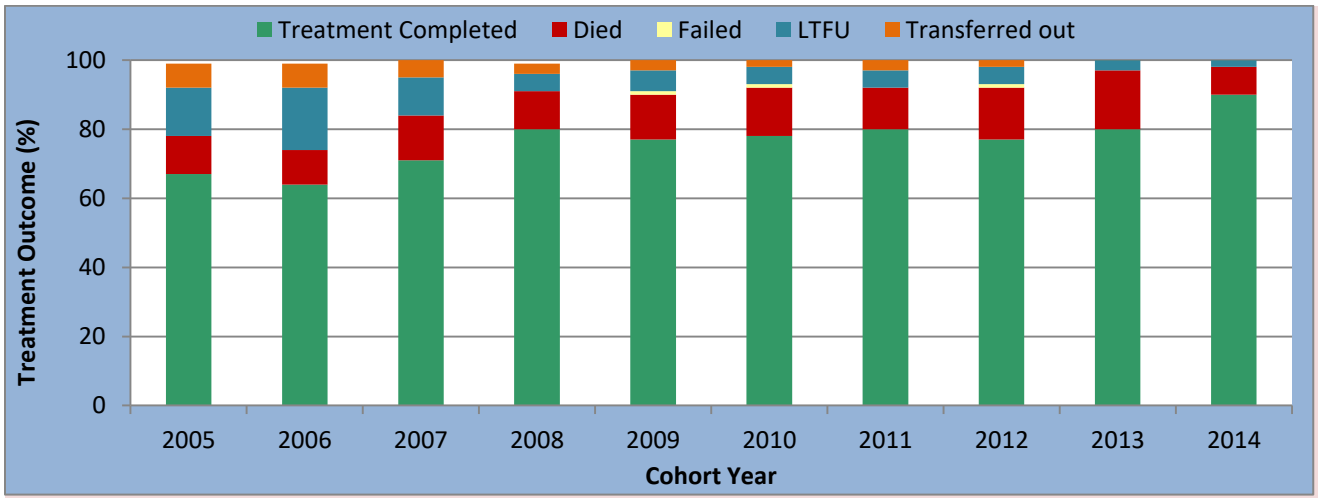
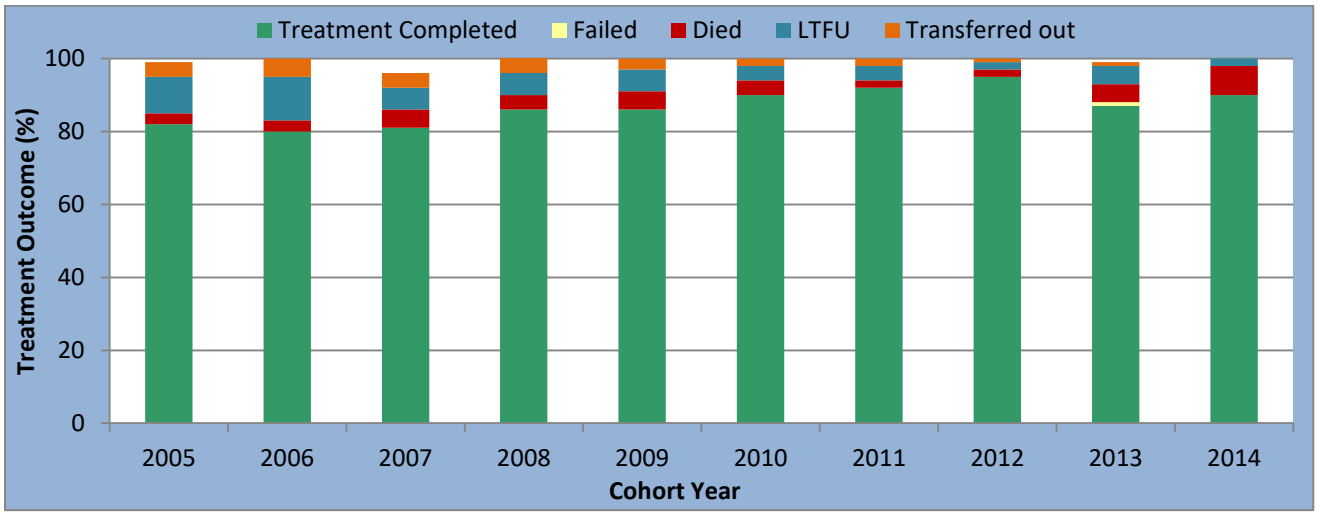
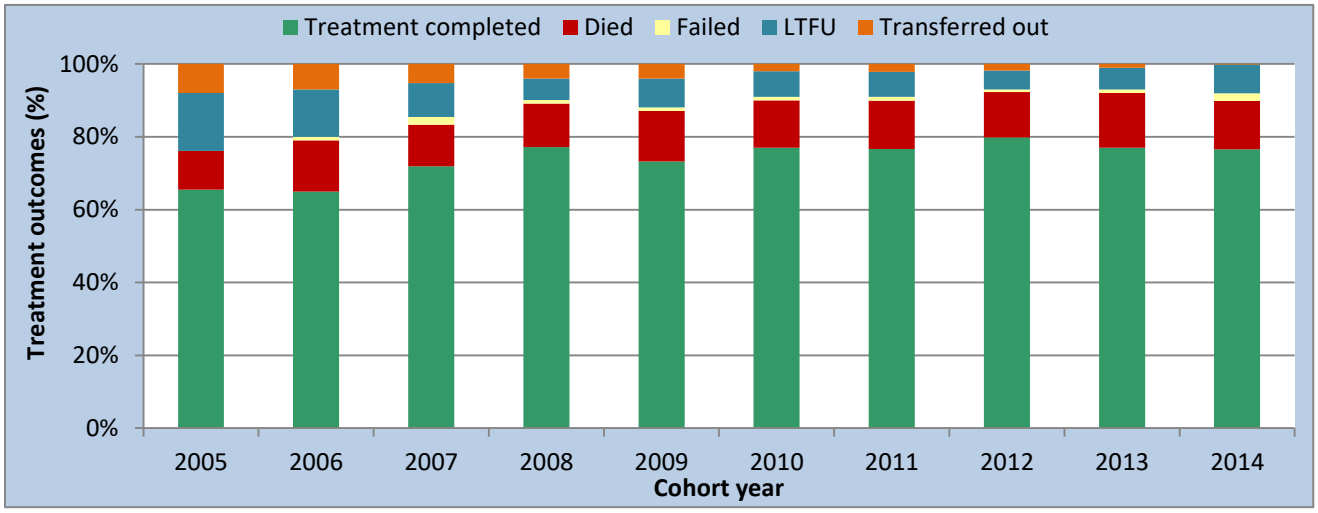


Figure 16: Treatment outcomes for SNT (children) 2005-2014, Namibia



The treatment success rate for other previously treated cases for the 2014 cohort was 77%, largely due to high death (13%) and LTFU (8%) rates.

Figure 17: Trend in treatment outcomes for 'Other previously treated cases', 2005-2014; Namibia



Chapter 2: TB DOTs and leprosy services expanded

2.1.Funding

Funding for TB and leprosy control activities comes primarily from the Namibian government in 2015, with complementary funding from the Global Fund, USAID and CDC.

2.2.Diagnosis

The Namibia Institute for Pathology (NIP) provides diagnostic services; direct smear microscopy and Xpert MTB/RIF are performed in 32 and 22 of the 40 NIP laboratories respectively. Gene Xpert utilisation was scaled up during the TB drug resistance survey (first half of the reporting period), with the Xpert MTB/RIF test being performed on all diagnostic specimens enrolled for the survey. The *National Guidelines for the Management of Leprosy* are been used as a guiding tool for the diagnosis of leprosy.

2.3.Treatment- care and support and DOT coverage

Community TB care organisations remain vibrant in providing care and support to TB patients in the community. In 2015, all 13 regions had DOT coverage for TB patients, with funding from the Global Fund Single Stream Funding and KNCV. During this period CBTBC providers registered 7,892 (79%) patients.

2.4.Congregate settings and other specials situations

a) Namibia Correctional Service (NCS) and Namibia Defence Force (NDF)

In 2015, the Namibia Correctional Service (NCS) reported 18 cases of TB in correctional facilities. The Namibia Defense Force (NDF) actively supported the NTLP during social mobilisation campaigns. The NCS and Namibia Police Force were supported by Global Fund through the NTLP to participate in international exchange tours to the Swaziland and Zambia for benchmarking. The occupancy and number of inmates diagnosed with TB in the various correctional facilities are shown in *Annex 23.*

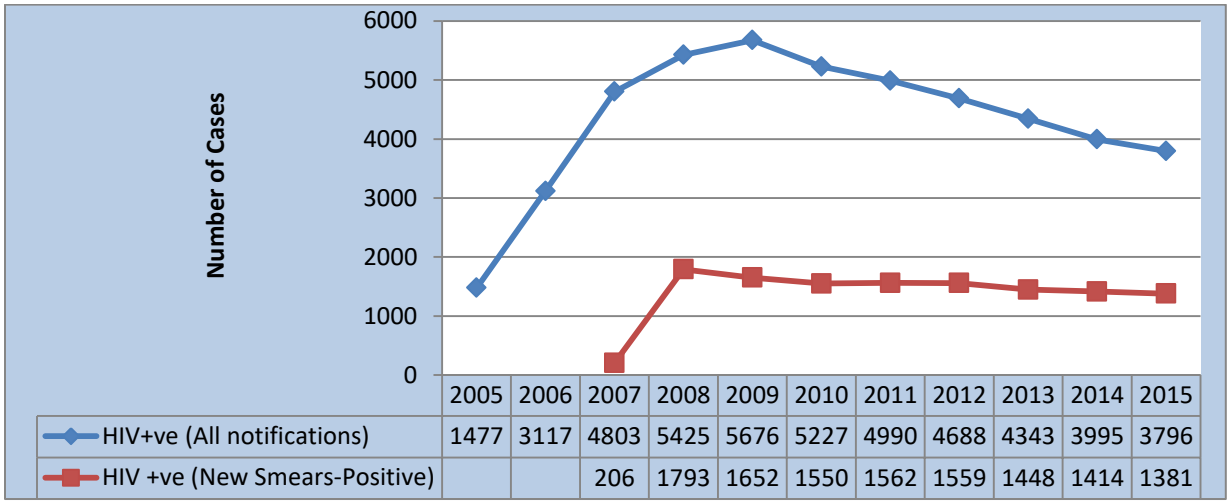
Chapter 3: TB/HIV

3.1.Overview

During 2015; 95% of TB patients were tested for HIV, 92% of TB/HIV co-infected patients were on antiretroviral therapy (ART) and 96% were put on cotrimoxazole preventive therapy (CPT).

3.2.TB notifications among PLHIV

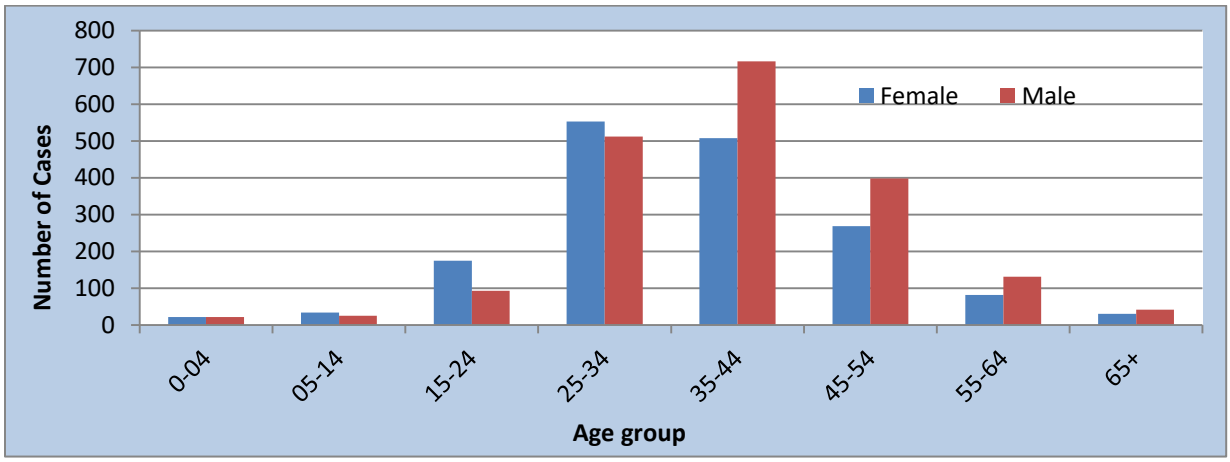
Figure 18: Trends in TB/HIV notifications 2005-2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
HIV+ve (All notifications)	1477	3117	4803	5425	5676	5227	4990	4688	4343	3995	3796
HIV +ve (New Smears-Positive)			206	1793	1652	1550	1562	1559	1448	1414	1381

The number of TB patients who are HIV infected has been declining since 2009 (*Figure 18*). This decline is however less marked among smear-positive TB patients.

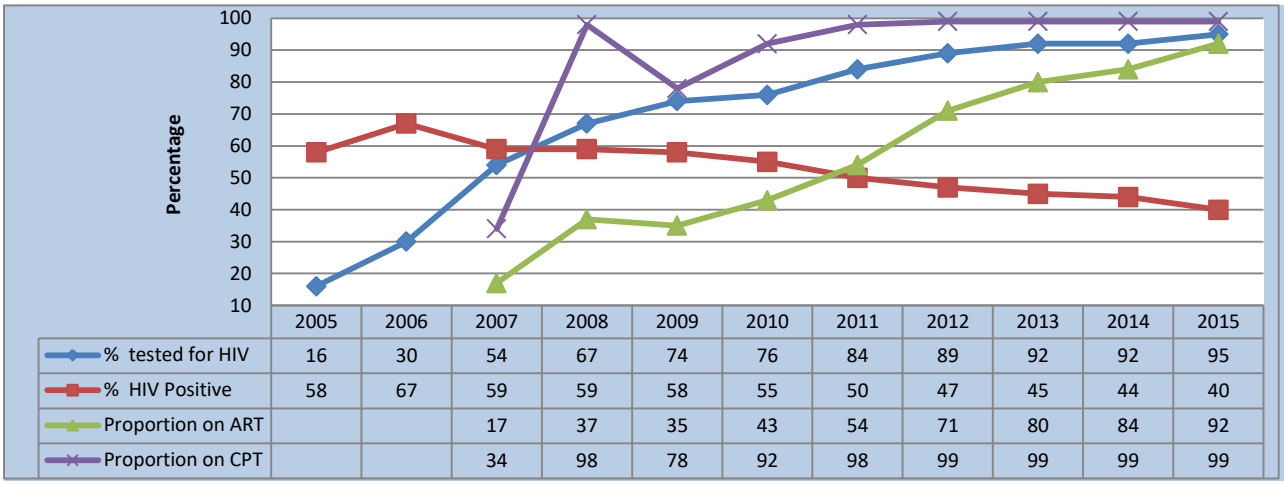
Figure 19: Age-sex distribution among New and Relapse TB/HIV cases, 2015



The age-sex distribution of TB among PLHIV largely mirrors the overall age-sex distribution of TB in the country. It is however noteworthy that there is a female preponderance in the 05-14, 15-24 and 25-34 age groups (*Figure 19*).

3.3.Provision of HIV services for TB patients

Figure 20: Trends in selected TB/HIV indicators 2005-2015



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
% tested for HIV	16	30	54	67	74	76	84	89	92	92	95
% HIV Positive	58	67	59	59	58	55	50	47	45	44	40
Proportion on ART			17	37	35	43	54	71	80	84	92
Proportion on CPT			34	98	78	92	98	99	99	99	99

The majority (95%) of patients registered for TB treatment in 2015 had a documented HIV status; 3,796 (40%) of these were HIV positive. There has also been significant increase in the number initiated on ART (from 84% in 2014 to 92% in 2015 (*Table 2).*

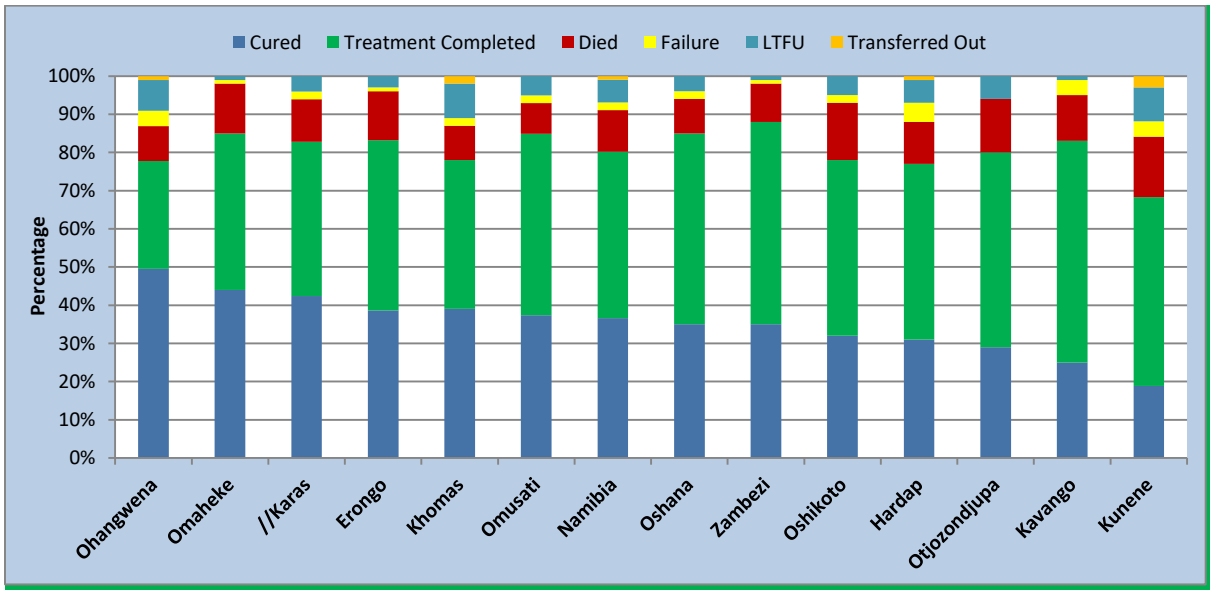
Table 2: Summary of TB/HIV indicators by region, 2014

Region	All forms of TB (number)	Known HIV status		HIV-positive TB patients		HIV-positive TB patients on CPT		HIV-positive TB patients on ART	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Erongo	1,075	1,014	94	399	39	395	99	348	87
Hardap	667	612	92	216	35	211	98	190	88
//Karas	579	568	98	248	44	248	100	226	91
Kavango	854	780	91	325	42	324	100	325	100
Khomas	1,602	1,542	96	676	44	663	98	528	78
Kunene	321	315	98	104	33	104	100	101	97
Ohangwena	1,254	1,246	99	391	31	391	100	387	99
Omaheke	472	446	94	133	30	133	100	129	97
Omusati	717	665	93	252	38	252	100	239	95
Oshana	527	521	99	232	45	232	100	222	96
Oshikoto	747	672	90	311	46	311	100	289	93
Otjozondjupa	601	594	99	208	35	205	99	195	94
Zambezi	528	481	91	301	63	301	100	301	100
Namibia	9,944	9,456	95	3,796	40	3,770	99	3,480	92

3.4.TB treatment outcomes for TB/HIV patients

The TB treatment success rate for TB/HIV co-infected patients was 81% for the 2014 cohort (*Figure 21).*

Figure 21: TB treatment outcomes for TB/HIV patients by region, 2014 cohort



The TB treatment success rate among TB/HIV patients showed marginal improvement from 79% to 82% for the 2013 cohort and 2014 cohorts respectively. The death rate for all forms of TB among TB/HIV patients (11%) is higher than that among all TB patients (7%).

Chapter 4: Programmatic Management of Drug-resistant Tuberculosis (PMDT)

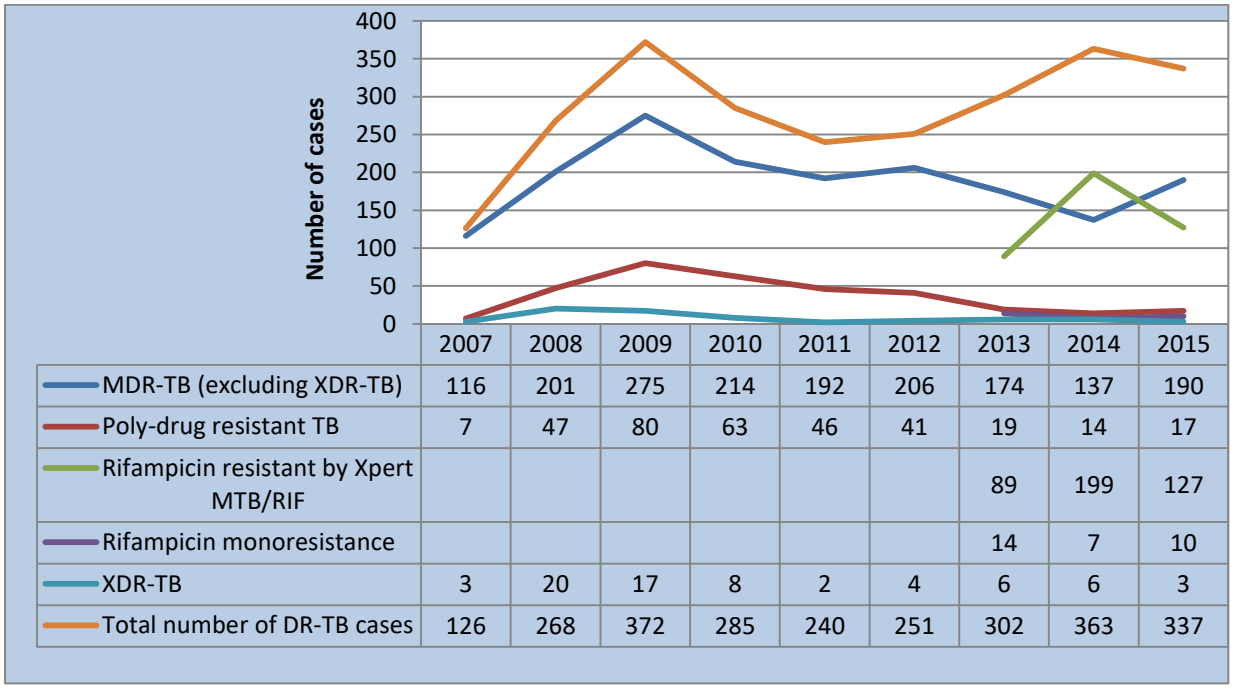
4.1. Overview

The 2014/15 anti-TB drug resistance survey revealed that3.9% of new TB patients and 8.7% of previously treated TB patients have MDR-TB. The survey provided an opportunity to scale up the use of Xpert MTB/RIF and to strengthen laboratory reporting of TB, including anti-TB drug resistance.

4.2. DR-TB notifications

In total, 337 cases of drug-resistant TB were reported nationally (190 MDR-TB, excluding XDR-TB; 3 XDR-TB; 127 rifampicin resistance on Xpert MTB/RIF only and 10 rifampicin monoresistance). An additional four (4) patients were started on second line anti-TB treatment without DST results. The trend of reported DR-TB cases between 2007 and 2015 is shown in *Figure 22.*

Figure 22: Trends in the reported cases of drug-resistant TB; 2007-2015, Namibia



	2007	2008	2009	2010	2011	2012	2013	2014	2015
MDR-TB (excluding XDR-TB)	116	201	275	214	192	206	174	137	190
Poly-drug resistant TB	7	47	80	63	46	41	19	14	17
Rifampicin resistant by Xpert MTB/RIF							89	199	127
Rifampicin monoresistance							14	7	10
XDR-TB	3	20	17	8	2	4	6	6	3
Total number of DR-TB cases	126	268	372	285	240	251	302	363	337

Figure 23 shows the age-sex distribution of DR-TB cases registered in 2015. Overall the distribution is similar to that of susceptible TB cases, albeit with a female preponderance in the 45-54 age group.

In 2015, Kavango, Oshana and Otjozondjupa regions reported the highest numbers of MDR-TB patients in the country, while the lowest numbers were reported in Kunene and Omaheke regions (*Figure 24*).

Figure 23: Age-sex distribution for DR-TB cases, 2015

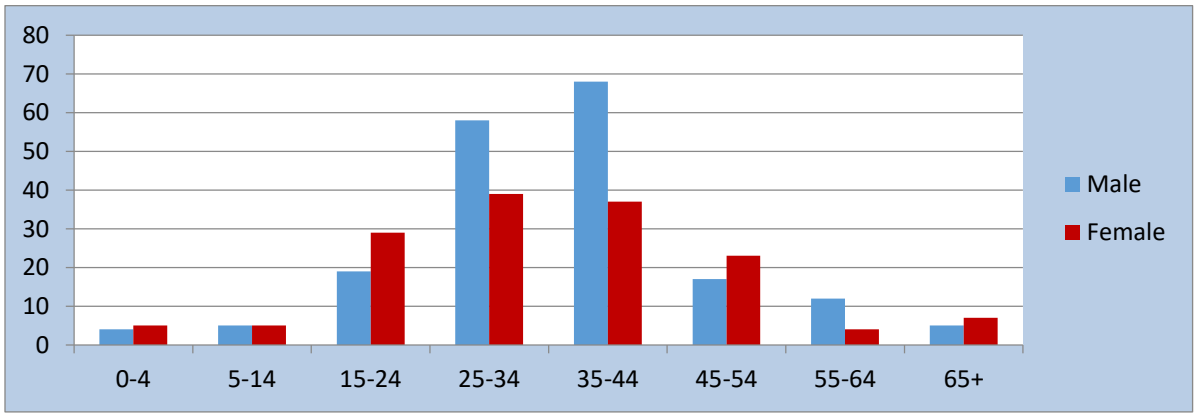
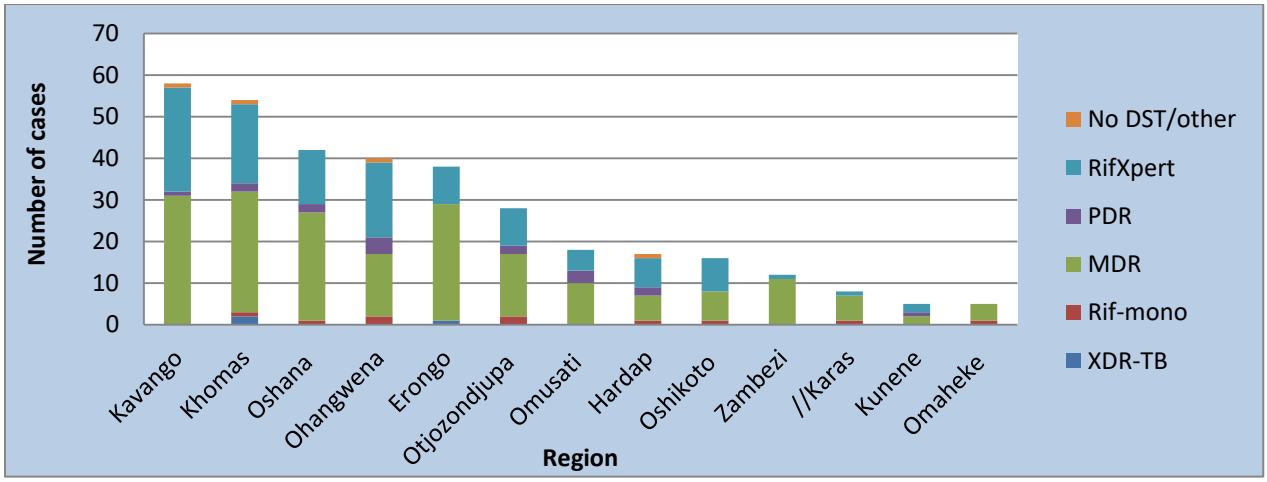
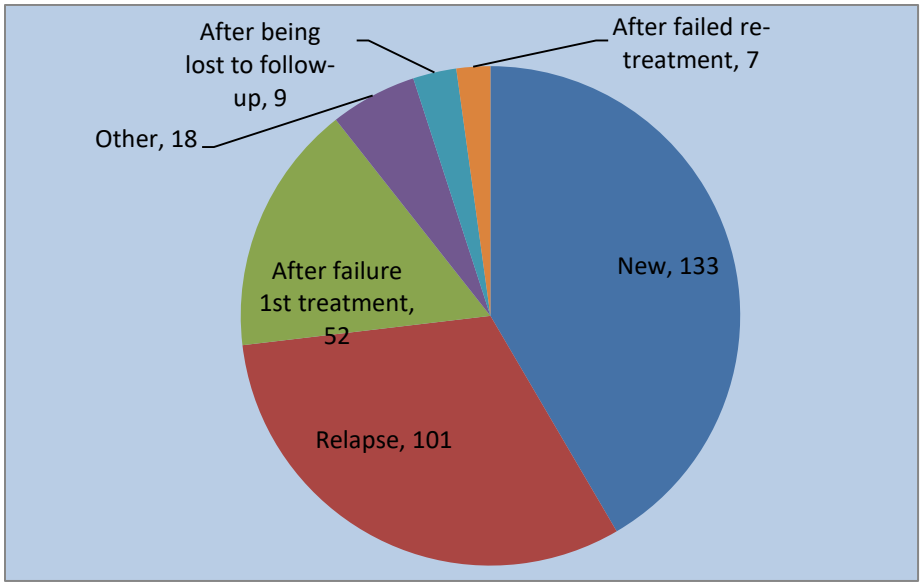


Figure 24: Regional distribution of reported DR-TB cases by resistance pattern, 2015



Almost half (49%) of patients with rifampicin-resistant TB did not have history of previous TB treatment, compared to 29% in 2014. The increase is largely due to the expanded testing for DR-TB instituted during the DRS.

Figure 25: Distribution of rifampicin resistant TB cases by treatment history, 2015



4.3. Treatment outcomes for DR-TB patients

Figure 26 shows the treatment outcomes for DR-TB patients initiated on treatment in 2013, stratified by region. Omaheke and Kavango achieved treatment success rates exceeding 70%. The relatively poor treatment outcomes are primarily due to high death and LTFU rates.

Figure 26: Regional distribution of DR-TB treatment outcomes, 2013 cohort

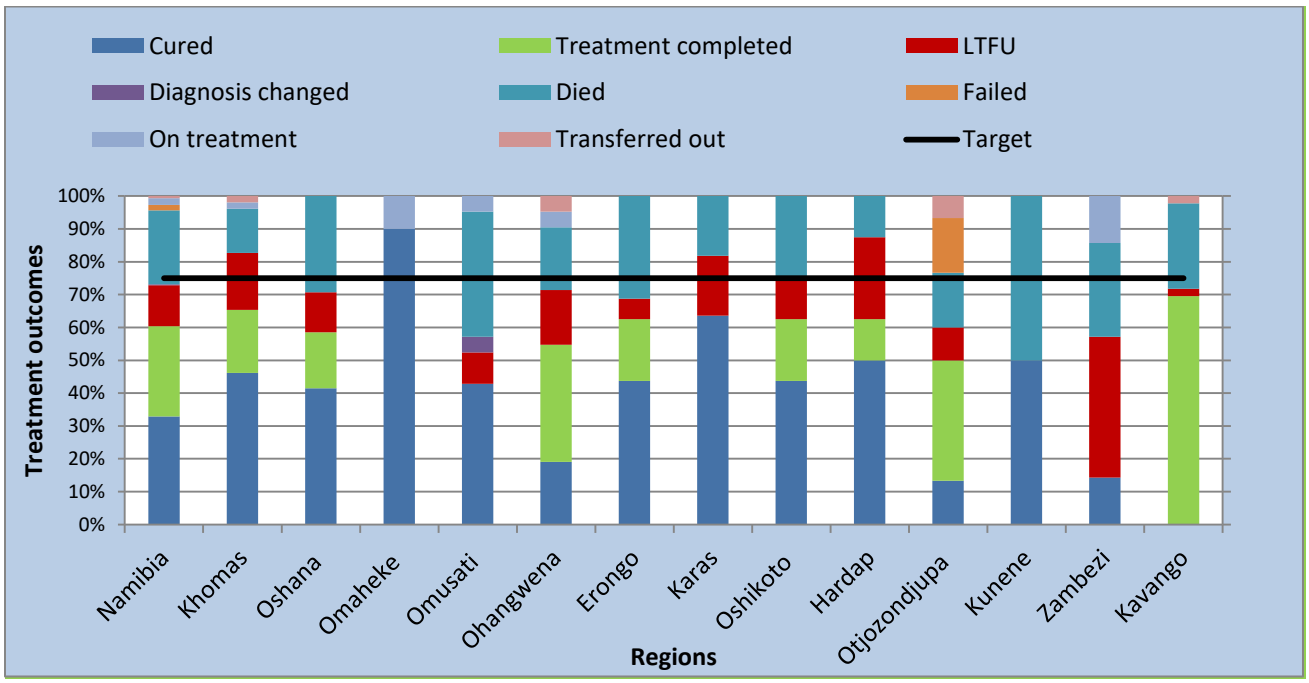
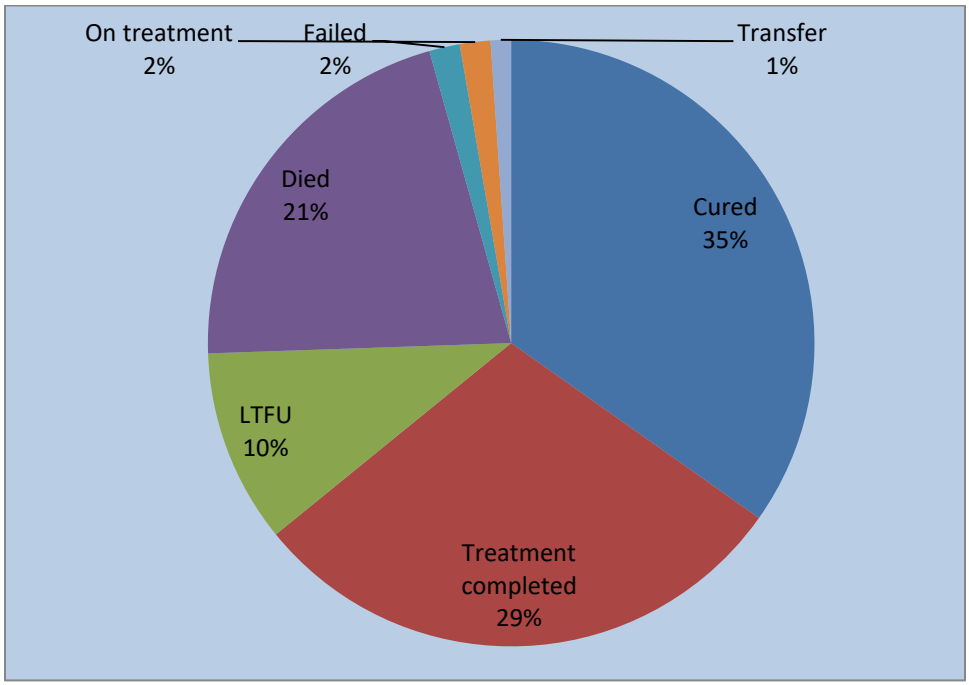


Figure 27: Treatment outcomes for MDR-TB patients; 2013 cohort, Namibia



The treatment success rate for MDR-TB for the 2013 cohort was 64%. The loss to follow-up (10%) and death (21%) rates have not significantly changed from the previous year. The treatment success rate for all rifampicin resistant cases was marginally lower (62%), also due to high loss to follow-up (12%) and death (23%) rates.

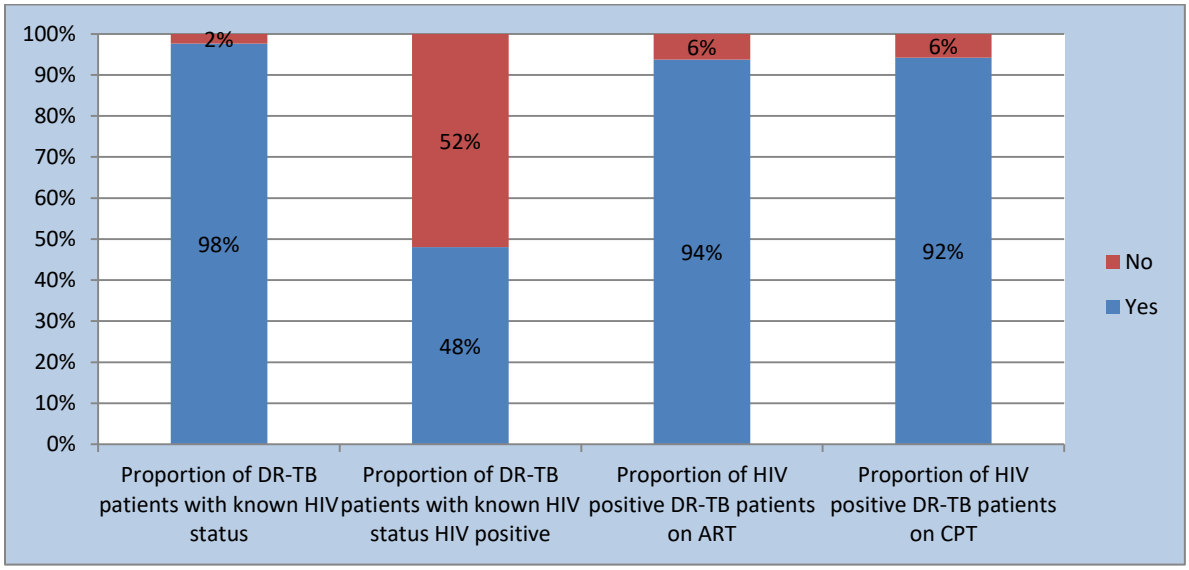
4.4. Capacity building on PMDT

The cessation of I-TECH Namibia's function as the largest in-service training provider to the MoHSS negatively affected the NTLP's ability to provide trainings on TB in general, including PMDT. Only two of the planned three trainings on PMDT were conducted in 2015, with the third being conducted in February 2016; 75 participants (doctors, nurses, field supervisors, social workers, rehabilitation professionals and environmental health practitioners) were trained. The comprehensive orientation on PMDT is expected to enhance the team approach in managing patients with TB.

4.5. DR-TB and HIV

Of the 341 DR-TB patients notified in 2015, 98% had a known HIV status; 48% of these patients were HIV infected. The majority (94%) of HIV positive DR-TB patients were put on ART, while 92% were on CPT.

Figure 28: DR-TB and HIV in Namibia, 2015



Chapter 5: Partnership for TB and leprosy

5.1. Overview:

The implementation of community based TB care(CBTBC) activities has contributed to the improvement of key indicators such as treatment success rate and has reverse the adverse outcomes such as lost-to—follow up and failures. Community based TB care organizations involved in TB care, operate in different settings (rural, urban) in Namibia, and use different approached such as patient support (DOT), community health education, contact tracing and case finding. Advocacy, Communication and Social Mobilization (ACSM) activities are part of the CBTBC approach, and are reported by TB Field Promoter (TBFP) on a monthly basis. The Namibian government is supporting the Community Based TB Care Organisations mainly through funding from Global Fund and USAID.

5.2. Partner specific reports

5.2.1. United States Centre for Disease Control and Prevention (CDC) Namibia

5.2.2. CDC continues to support TB control and prevention activities in the country, focusing on technical and logistic support for TB diagnostic and laboratory quality management, institutional capacity building for TB, TB/HIV and DR-TB management, and implementation of activities to address TB/HIV. Management of Science for Health (MSH)

MSH is a USAID funded international NGO that is providing technical support on pharmaceutical management. Additionally, MSH also continues to support the maintenance of the online electronic recording and reporting system for DR-TB case (ETB manager.

5.2.3. Advanced Community Health Care Services Namibia (CoHeNa)

Advance Community Health Care Services Namibia is a locally registered not-for-profit organisation with a staff compliment of 52, working in Omaheke and Hardap regions. The organisation focuses on community health education, TB case finding and treatment support. Funding for these activities is primarily from the Global Fund.

Table 3: Selected data for Hardap and Omaheke regions, 2015

	Total	M	F
	Number (%)		
Number of TB patients registered by organisation during the reporting period	888	530 (60)	358 (40)
Number of DR-TB patients on treatment in the community during reporting period	29	17 (59)	12 (41)
Number of field promoters in the organisation at end of reporting period	39	11 (28)	28 (72)
Number of field promoters trained during the reporting period	22	4 (18)	18 (82)
Number of new community members trained as to observe treatment	777	213 (27)	564 (73)
Number of defaulter/ interrupters	17		
Number of defaulter/ interrupters traced who were put back on treatment	43		
Number of close contacts symptom-screened for TB	1,891		
Number of TB suspects (close contacts) referred to health facilities for TB examinations	2,886		
Number/ of TB patients with a known HIV status	97		
Number of TB patients provided with food supplements	632		
Number of patients/former TB patients trained in life-skills activities	0		
Number of TB awareness health education sessions events conducted	1,170		
Number of IEC materials distributed (TB booklets)	21,651		

Key challenges faced by CoHeNa during 2015 interruption of programmatic activities due to late disbursement of funds, inadequate transport for patient follow-up, and high staff turnover (attributed to job insecurity and unattractive remuneration).

5.2.4. Health Poverty Action (formerly Health Unlimited)

The Global Fund supports Health Unlimited to provide community based TB care in Tsumkwe Constituency in Grootfontein district. The main activities focus on treatment support, case finding and health education. The table below summarises the indicators describing the organisation's achievements during 2015.

Table 4: Performance indicators for Health Poverty Action

Indicator	M	F	Total
	Nr (%)		Nr
Number of TB patients registered by organisation during the reporting period	61 (54)	51 (46)	112
Number of DR-TB patients on treatment in the community during reporting period	8 (40)	12 (60)	20
Number of field promoters in the organisation at end of reporting period	9 (64)	5 (36)	14
Number of field promoters trained during the reporting period	0 (0)	0 (0)	0
Number of new community members trained as to observe treatment			12
Number of defaulter/ interrupters	3	1	3
Number of defaulter/ interrupters traced who were put back on treatment	1	0	1
Number of close contacts symptom-screened for TB	19	15	34
Number of TB suspects (close contacts) referred to health facilities for TB examinations	109	75	184
Number/ of TB patients with a known HIV status	49	55	104
Number of TB patients provided with food supplements	47	65	112
Number of patients/former TB patients trained in life-skills activities	0	0	0
Number of TB awareness health education sessions events conducted	349 (1919 people reached)	349 (1933 people reached)	349
Number of IEC materials distributed (TB booklets)	0	0	0

5.2.5.

5.2.6. Healthworks Business Coalition:

The Global Fund supports Healthworks Business Coalition to support engagement of the business sectior in TB control, and in 2015 Health Works conducted targeted training to support work place interventions, as well as other patient support activities. Other activities implemented in 2015 include breakfast meetings with human resources and wellness officers in private companies, training of field promoters, awareness sessions on TB at the workplace and establishment of DOT points in Erongo, //Kharas and Khomas regions. The project operates in Khomas, //Kharas, Otjozondjupa and Erongo regions. The performance indicators for the Healthworks are summarised in *Table 5* and *Table 6.*

Table 5: Healthworks TB Trainings 2015:

Training Venue	Number of participants	
	Male	Female
Khomas	8	13
Erongo	6	10
Omaheke	12	25

Table 6: Performance indicators for Healthworks Business Coalition

Indicator	Number
1) Number of TB patients registered by organisation during the reporting period	71
2) Number of DR-TB patients on treatment in the community during reporting period	0
3) Number of field promoters in the organisation at end of reporting period	5
4) Number of field promoters trained during the reporting period	5
5) Number of new community members trained as to observe treatment	0
6) Number of defaulter/ interrupters	1
7) Number of defaulter/ interrupters traced who were put back on treatment	0
8) Number of TB awareness health education sessions events conducted	47 (699 reached)

- **Key challenges** faced by Health Poverty Action during 2015 include service interruption and delayed staff recruitment due to delayed disbursement, as well as challenges with using existing tools to capture gender-disaggregated data on distribution of IEC materials.

5.2.7. Johanniter Hilfswerk

Johanniter-Hilfswerk (JH) is a German welfare organization that has been working in Namibia since 1974, and currently supports community-based TB care in Rundu district. In 2015 JH were operating 20 and employed 28 field promoters.

Table 7: Performance indicators for Johanniter Hilfswerk

Indicator	M	F	Total
1) Number of TB patients registered by organisation during the reporting period	177	159	336
2) Number of DR-TB patients on treatment in the community during reporting period	18	26	44
3) Number of field promoters in the organisation at end of reporting period	22	6	28
4) Number of field promoters trained during the reporting period	22	6	28
5) Number of new community members trained as to observe treatment	154	143	297
6) Number of defaulter/ interrupters	1		1
7) Number of defaulter/ interrupters traced who were put back on treatment	1		1
8) Number of close contacts symptom-screened for TB	2,289		2,289
9) Number of TB suspects (close contacts) referred to health facilities for TB examinations	236		236
10) Number/ of TB patients with a known HIV status	99		99
11) Number of TB patients provided with food supplements	82		82
12) Number of patients/former TB patients trained in life-skills activities	n/a		n/a
13) Number of TB awareness health education sessions events conducted	938		938
14) Number of IEC materials distributed (TB booklets)			

Challenges faced by Johanniter Hilfswerk during 2015 include follow-up for cross border and migrant patients, difficulties obtaining laboratory results due to inaccurate recording of patients' details, and inadequate transport to cater for long distances between DOT points and diagnostic services.

5.2.8. Namibia Red Cross Society (NRCS)

NRCS supports the implementation of community based TB activities in Omusati, Ohangwena and Zambezi regions. The organisation's key performance indicators for 2015 are summarised in *Table 8.*

Table 8: Performance indicators for Namibia Red Cross Society

Indicators	M	F	Total
	Nr ()	Nr()	Nr()
Number of TB patients registered by organisation during the reporting period	1,269 (53.7)	1,098(46.3)	2,367
Number of DR-TB patients on treatment in the community during reporting period	51 (58)	37 (42)	88
Number of field promoters in the organisation at end of reporting period	31 (22.2)	109 (77.8)	140
Number of field promoters trained during the reporting period	11 (20)	32 (80)	43
Number of new community members trained as to observe treatment	714 (53.8)	611 (46.20)	1,325
Number of defaulter/ interrupters			147
Number of defaulter/ interrupters traced who were put back on treatment			113
Number of close contacts symptom-screened for TB	2,265	2,474	4,739
Number of TB suspects (close contacts) referred to health facilities for TB examinations	2,124	2,474	4,598
Number/ of TB patients with a known HIV status	1,239	968	2,207
Number of TB patients provided with food supplements	497	498	995
Number of patients/former TB patients trained in life-skills activities	15	10	25
Number of TB awareness health education sessions events conducted			4,948
Number of IEC materials distributed (TB booklets)			10,818

5.2.9. Challenges faced by NRCS in 2015 include follow-up of cross border patients, long distances to access patients and communities, and delayed disbursement of Global Fund funds thereby delaying implementation of the planned activities. Penduka TB Programme:

Penduka TB programme supports community engagement and provides enabling nutritional support to ensure treatment adherence and case finding in Khomas Region (Windhoek district).

Table 9: Performance indicators for Penduka TB programme

Indicator	M	F	Total
1) Number of TB patients registered by organisation during the reporting period	425	596	994
2) Number of DR-TB patients on treatment in the community during reporting period	14	6	18
3) Number of field promoters in the organisation at end of reporting period	3	15	18
4) Number of field promoters trained during the reporting period	0	0	
5) Number of new community members trained as to observe treatment	31	119	
6) Number of defaulter/ interrupters	42	30	72

7) Number of defaulter/ interrupters traced who were put back on treatment	16	12	28
8) Number of close contacts symptom-screened for TB	665	256	921
9) Number of TB suspects (close contacts) referred to health facilities for TB examinations	43	56	99
10) Number/ of TB patients with a known HIV status	563	362	925
11) Number of TB patients provided with food supplements			163
12) Number of TB awareness health education sessions events conducted			296
13) Number of IEC materials distributed (TB booklets)			5,816

Key challenges faced by Penduka in 2015 include the long turnaround time for sputum results (especially for health facilities outside Windhoek city), inadequate nutritional support for TB patients (due to late disbursement of donor funds0 and high loss-to-follow-up rates (anecdotally attributed to inadequate nutrition and other social problems such as alcohol abuse).

5.2.10. Project HOPE Namibia (PHN)

Project HOPE Namibia are funded by the Global Fund to support community-based TB care in Oshikoto, Oshana and Kavango (Nankudu, Andara and Nyangana) regions. Table 10 summarises the performance indicators for PHN for 2015.

Table 10: Performance indicators for Project HOPE Namibia

Indicator	Male	Female	
1. Number of TB patients registered by organisation during the reporting period	738	530	1268
2. Number of DR-TB patients on treatment in the community during reporting period	N/A	N/A	N/A
3. Number of field promoters in the organisation at end of reporting period	9	50	59
4. Number of field promoters trained during the reporting period	9	50	59
5. Number of new community members trained as to observe treatment	383	1,083	1,466
6. Number of community members reached through health educations sessions (schools, churches, community etc.)	738	530	1,268
7. Number of defaulter/ interrupters			45
8. Number of defaulter/ interrupters traced who were put back on treatment			42
9. Number of close contacts symptom-screened for TB			6,750
10. Number of TB suspects (close contacts) referred to health facilities for TB examination			875
11. Number/ of TB patients with a known HIV status			1,170
12. Number of TB patients provided with food supplements			N/A
13. Number of patients/former TB patients trained in life-skills activities			N/A
14. Number of TB awareness health education sessions events conducted			10,225
15. Number of IEC materials distributed (specify……)			13

The key challenges faced by PHN during 2015 include inability to track presumptive patients referred to health facilities for evaluation, refusal of HIV test by 98 out of 1,268 new TB patients, and high lost to follow up during October to December 2015.

Chapter 6: Communities and people with TB and leprosy empowered

6.1. World TB Day Commemoration:

World TB Day was commemorated in Omusati region under the theme ***Unite to End TB***. The event remains an annual health promotion and communication activity for TB. The Deputy Minister of Health and Social Services gave the keynote address on behalf of the Minister. The specific objectives of the commemoration were to:

- Mobilise political commitment for TB control at various levels,
- Create awareness on the magnitude of TB in the country, as well as the basic symptoms,
- Encourage the public to seek TB diagnosis and treatment if they develop symptoms of TB, and
- Increase community awareness of the services available for the diagnosis and treatment of TB.

1.1 World Leprosy Day Commemoration

World Leprosy Day is commemorated annually on Sunday of January. The event was used as a social mobilisation for leprosy for the past 4 years. The 2015 event was commemorated in Kavango region in Mashare Constituency. Activities during the day included a testimony by a previous leprosy patient, handover of some key items including sunglasses to leprosy patients as well as site visit to a rehabilitation centre for leprosy patients. The special advisor to the Minister of Health and Social Services, Advocate Bince Gawanas officiated at the event on behalf of the Minister.

Chapter 7: Region Specific Reports[4]

7.1 Overview

This chapter reports on the disease burden and outcomes for each region. The table shows the relative rankings of the regional disease burden.

Table 11: Ranking of regions by disease burden, 2015

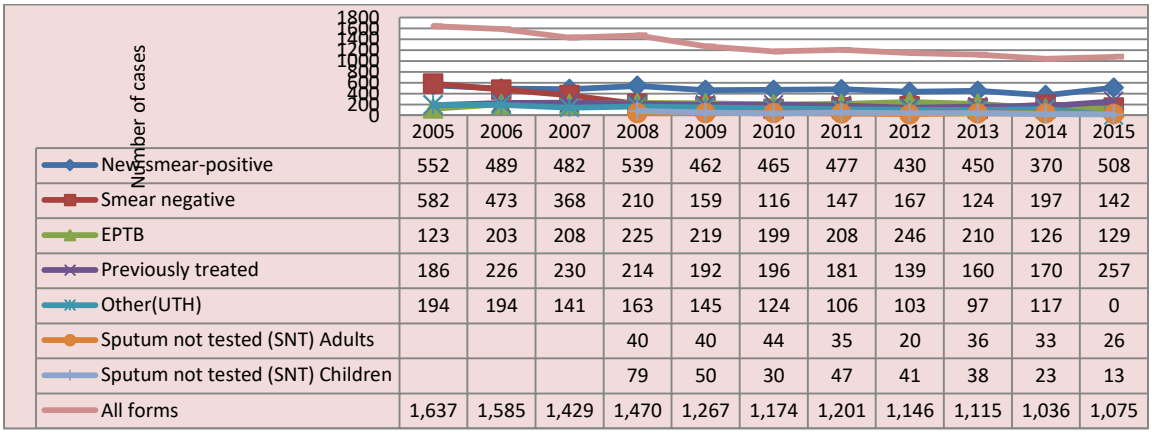
Region	Population	Notified cases of all forms of TB	Proportion of national TB burden	Case notification rate (per 100,000)
Khomas	400,191	1,602	16	400
Ohangwena	253,348	1,254	13	495
Erongo	175,853	1,075	11	611
Kavango	234,856	854	9	364
Oshikoto	192,469	747	8	388
Omusati	248,490	717	7	289
Hardap	85,629	667	7	779
Otjozondjupa	152,343	601	6	395
//Kharas	84,077	579	6	689
Zambezi	97,176	528	5	543
Oshana	186,634	527	5	282
Omaheke	74,040	472	5	637
Kunene	95,610	321	3	336
Namibia	2,280,716	9,944	100	436

Khomas region accounts for the highest proportion (16%) of the country's disease burden, a trend that has continued from previous years The four regions of Khomas, Ohangwena, Erongo and Kavango accounted for almost half of the country's case notifications. //Kharas, Hardap and Omaheke regions had the highest per capita case notifications.

7.2 Erongo Region[5]

Erongo region notified 1,075 cases of all forms of TB in 2015, an increase from 1,036 notified in 2014 (*Figure 29*).

Figure 29: Trends in TB case finding for Erongo region, 2005-2015[i]



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
New smear-positive	552	489	482	539	462	465	477	430	450	370	508
Smear negative	582	473	368	210	159	116	147	167	124	197	142
EPTB	123	203	208	225	219	199	208	246	210	126	129
Previously treated	186	226	230	214	192	196	181	139	160	170	257
Other(UTH)	194	194	141	163	145	124	106	103	97	117	0
Sputum not tested (SNT) Adults				40	40	44	35	20	36	33	26
Sputum not tested (SNT) Children				79	50	30	47	41	38	23	13
All forms	1,637	1,585	1,429	1,470	1,267	1,174	1,201	1,146	1,115	1,036	1,075

[4] Please note that the cases indicated as "New Smear Positive" for 2015 also include smear negative cases who are bacteriologically confirmed through Xpert MTB/RIF. Due to changes in case definitions, cases indicated as "Others" for 2015 are only those with unknown treatment history. Starting in 2015, the following patients are now included under "retreatment": patients with unknown treatment outcome for previous TB treatment episode, previously treated patients with smear negative TB, and previously treated patients with extra-pulmonary TB.

Table 12: Treatment outcomes for Erongo region, 2014 cohort

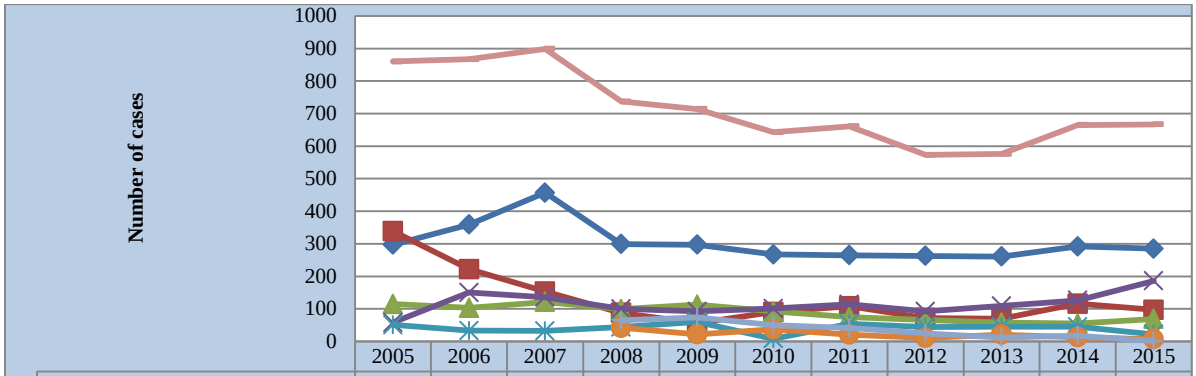
	Cured		Treatment completed		Treatment success		Died		Failed		LTFU		Transferred out		Total evaluated		Notified cases, 2014
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
NSP	337	89	12	3	349	93	10	3	12	3	6	2	0	0	377	102	370
Previously Treated	133	78	13	8	146	85	4	2	13	8	7	4	1	1	171	101	170
Smear Negative			168	90	168	90	13	7	0	0	6	3	0	0	187	95	197
EPTB			120	90	120	90	10	8	0	0	3	2	0	0	133	106	126
SNT adults			14	93	14	93	0	0	0	0	1	7	0	0	15	45	33
SNT children			18	95	18	95	1	5	0	0	0	0	0	0	19	83	23
Other forms			91	75	91	75	23	19	3	2	3	2	1	1	121	103	117
All Forms	470	46	436	43	906	89	61	6	28	3	26	3	2	0	1,023	99	1,036

The treatment success rate for new smear positive patients for Erongo was 93% and 89% for all forms of TB. The treatment failure rate among Previously Treated cases (8%) was particularly high for this cohort.

7.3 Hardap Region

After a sustained decline in the number of cases from 899 cases in 2007 to 573 cases in 2012, Hardap region has reported a marginal increase in the number of cases during the past three years. The number of cases notified in 2015 (667) was however comparable to that for 2014 (665).

Figure 30: Trends in TB case finding for Hardap region, 2005 -2015



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
NSP	297	359	457	299	297	267	265	263	261	292	285
Smear Negative	339	222	153	88	56	90	108	72	70	116	97
EPTB	115	103	121	99	113	92	75	66	58	55	69
Retreatment	58	150	136	100	92	101	114	92	109	126	186
Other	51	33	32	44	60	8	54	44	45	45	22
Sputum Not Tested Adults				42	22	37	21	11	21	13	7
Sputum Not Tested Children				65	74	50	41	25	12	18	1
All forms	860	867	899	737	714	643	661	573	576	665	667

Table 13: Treatment outcomes for Hardap region, 2014 cohort

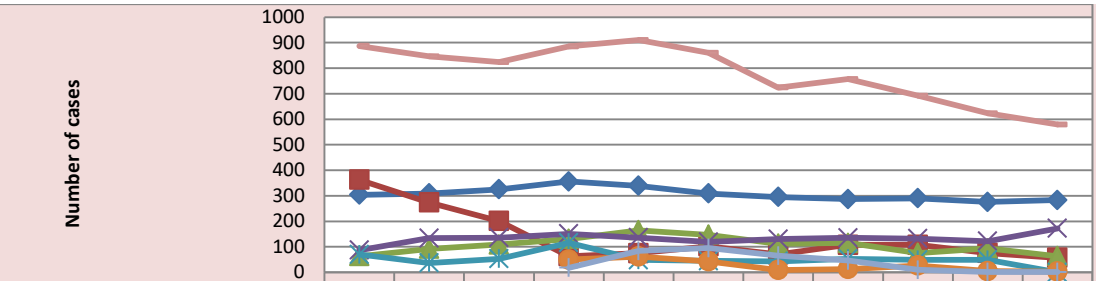
	Cured		Treatment completed		Treatment success		Died		Failed		Lost to follow-up		Transferred out		Total evaluated		Notified cases, 2014
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
NSP	235	76	41	13	276	89	15	5	11	4	8	3	1	0	311	107	292
Previously Treated	77	60	23	18	100	78	11	9	9	7	7	5	1	1	128	102	126
Smear Negative			90	87	90	87	12	12	0	0	1	1	0	0	103	89	116
EPTB			52	85	52	85	5	8	0	0	4	7	0	0	61	111	55
SNT adults			4	40	4	40	5	50	0	0	1	10	0	0	10	77	13
SNT children			5	100	5	100	0	0	0	0	0	0	0	0	5	63	8
Other forms			31	69	31	69	9	20	0	0	5	11	0	0	45	100	45
All Forms	312	47	246	37	558	84	57	9	20	3	26	4	2	0	663	101	655

The treatment success rate (TSR) for NSP was a relatively high 89%, while the overall TSR for all forms was 84%. Treatment success rate for patients for whom sputum examination was not performed (SNT adults) was significantly low at 40%, primarily due to a high (50%) death rate among the 10 patients evaluated.

7.4 //Kharas Region

The trend of declining notifications contibued in //Kharas region in 2015, despite the marginal increase in the number of bacteriologically confirmed cases. *Figure 31* and *Table 14* summarise the trend in case finding, and the treatment outcomes for the 2014 cohort, for //Kharas region.

Figure 31: Trends in TB case finding for //Kharas region, 2005-2015



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
New smear-positive	304	309	325	356	339	309	295	287	290	276	283
Smear negative	363	274	201	63	75	102	70	108	108	76	57
EPTB	63	92	109	131	165	147	112	115	76	94	63
Previously treated	87	134	136	151	136	119	130	135	132	122	172
Other (UTH)	70	37	53	116	49	45	43	53	49	49	0
Sputum Not Tested Adults				50	62	43	9	13	27	5	3
Sputum Not Tested Children				18	84	95	65	46	10	1	1
All forms	887	846	824	885	910	860	724	757	692	623	579

Table 14: Treatment outcomes for //Kharas region, 2014 cohort

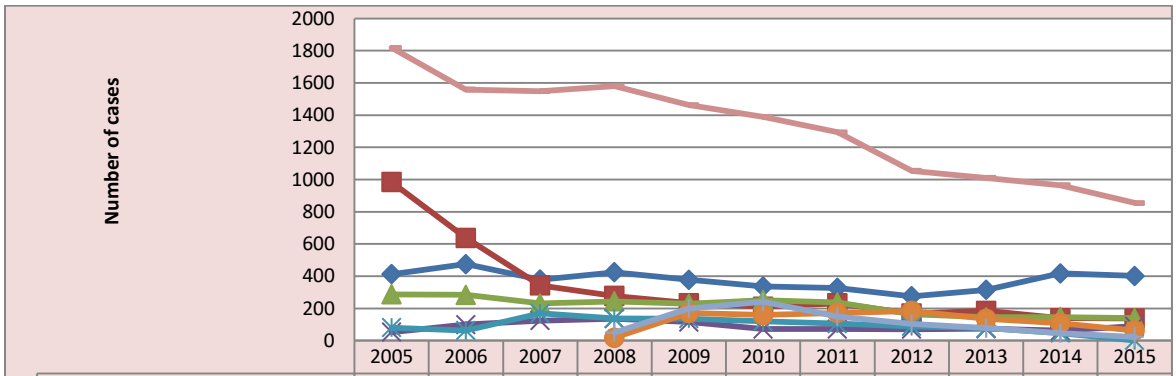
	Cured		Treatment completed		Treatment success		Died		Failed		Lost to follow-up		Transferred out		Total evaluated		Notified cases, 2014
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
NSP	223	81	21	8	244	89	10	4	13	5	8	3	0	0	275	100	276
Previously Treated	82	69	14	12	96	81	10	8	9	8	4	3	0	0	119	98	122
Smear Negative			56	78	56	78	13	18	0	0	3	4	0	0	72	95	76
EPTB			82	80	82	80	17	17	0	0	3	3	0	0	102	109	94
SND adults			6	86	6	86	1	14	0	0	0	0	0	0	7	140	5
SND children			1	100	1	100	0	0	0	0	0	0	0	0	1	100	1
Other forms			40	83	40	83	6	13	0	0	2	4	0	0	48	98	49
All Forms	305	49	220	35	525	84	57	9	22	4	20	3	0	0	624	126	494

The region has attained 89% treatment success rate among new smear positive patients, and 84% among all forms of TB. Despite the improvement in treatment outcomes, the number of patients that died while on treatment is relatively high across most categories.

7.5 Kavango region

Kavango region notified 854 TB cases (all forms) in 2015, a decline from 965 notified the previous year. There were particularly significant declines in the number of patients registered as “sputum not tested” (SNT) for both children and adults, a positive reflection on the diagnostic approaches being implemented in the region. The trends in TB case finding is shown in *Figure 32*.

Figure 32: Trends in TB case finding for Kavango region, 2005-2015



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
New smear-positive	412	475	379	424	378	336	327	275	315	417	401
Smear negative	985	638	343	277	233	211	232	168	185	139	137
EPTB	287	284	231	244	229	251	237	163	145	146	139
Previously treated	53	99	124	136	115	72	72	71	74	62	90
Other (UTH)	81	63	169	137	136	119	105	89	78	47	1
Sputum Not Tested Adults				18	172	159	172	184	135	108	63
Sputum Not Tested Children				50	199	241	149	104	78	46	23
All forms	1,818	1,559	1,549	1,581	1,462	1,389	1,294	1,054	1,010	965	854

Case management continues to improve in Kavango region, as evidenced by the continued increase in TSR among NSP from 85% to 87% for the 2014 cohort as well as improved cure rate from 58% to 76% in the same category. There is however a significant proportion of patients who were not evaluated in the 'sputum-not-tested' category (*Table 15*).

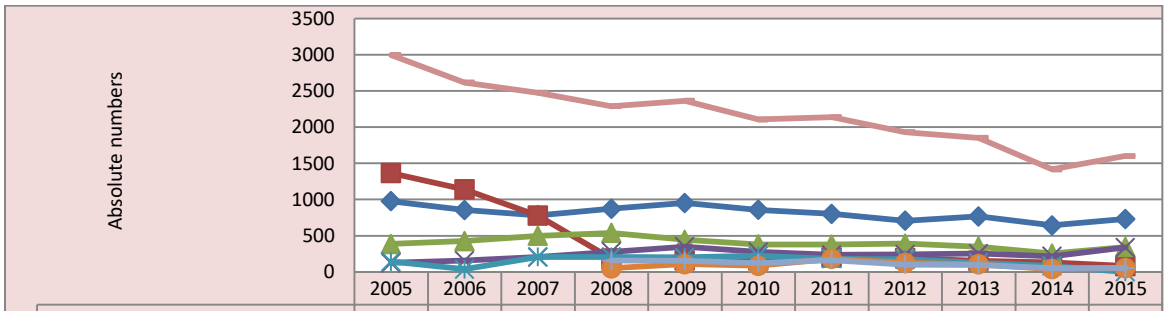
Table 15: Treatment outcomes for Kavango region, 2014 cohort

	Cured		Treatment completed		Treatment success		Died		Failed		Lost to follow-up		Transferred out		Total evaluated		Notified cases, 2014
	n		n		n		n		n		n		n		n		n
NSP	279	67	86	21	365	87	26	6	22	5	4	1	1	0	418	100	417
Previously Treated	27	44	11	18	38	61	9	15	13	21	2	3	0	0	62	100	62
Smear Negative			169	87	169	87	21	11	1	1	3	2	0	0	194	100	194
EPTB			148	96	148	96	6	4	0	0	0	0	0	0	154	105	146
SNT adults			58	82	58	82	12	17	0	0	1	1	0	0	71	66	108
SNT children			42	98	42	98	1	2	0	0	0	0	0	0	43	93	46
Other forms			39	80	39	80	10	20	0	0	0	0	0	0	49	104	47
All forms	306	31	553	56	859	87	85	9	36	4	10	1	1	0	991	97	1,020

7.6 Khomas region

Khomas reported a 13% increase in the number of notified cases in 2015, compared to 2014 (this however represents a 13% decline from the 2013 notifications). The trends of TB case finding and treatment outcomes (2014 cohort) for Khomas region are shown in in *Figure 33* and *Table 16* respectively.

Figure 33: Trends in TB case finding for Khomas region, 2005-2015



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
New smear-positive	976	855	783	873	952	858	801	708	766	642	731
Smear negative	1365	1141	778	186	158	159	201	191	155	130	81
EPTB	386	426	499	538	444	380	377	391	349	255	345
Previously treated	126	156	206	278	348	277	236	240	253	216	338
Other (UTH)	143	38	208	207	200	223	180	175	127	84	0
Sputum Not Tested Adults				50	109	85	181	125	105	40	52
Sputum Not Tested Children				157	152	123	163	102	96	50	55
All forms	2,996	2,616	2,474	2,289	2,363	2,105	2,139	1,932	1,851	1,417	1,602

Table 16: Treatment outcomes for Khomas region, 2014 cohort

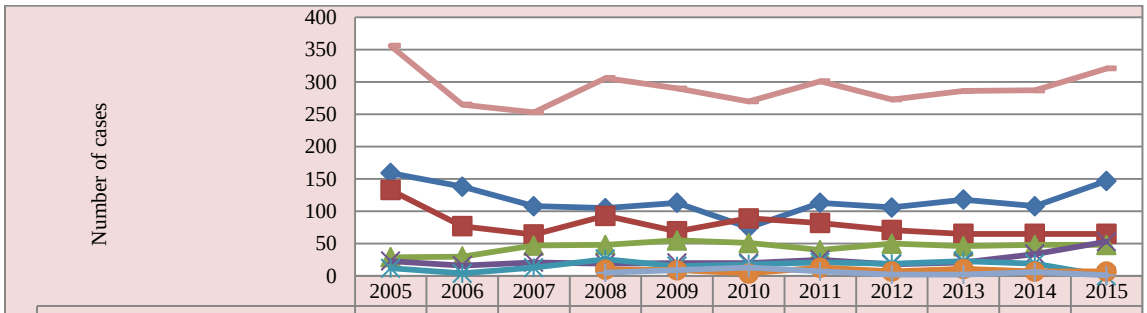
	Cured		Treatment completed		Treatment success		Died		Failed		Lost to follow-up		Transferred out		Total evaluated		Notified cases, 2014
	n		n		n		n		n		n		n		n		n
NSP	566	80	53	8	619	88	27	4	13	2	40	6	5	1	704	110	642
Previously Treated	136	54	55	22	191	75	15	6	9	4	37	15	1	0	253	117	216
Smear Negative			146	88	146	88	12	7	0	0	6	4	2	1	166	128	130
EPTB			268	87	268	87	13	4	1	0	23	7	4	1	309	121	255
SNT Adults			36	82	36	82	4	9	0	0	3	7	1	2	44	110	40
SNT Children			37	95	37	95	1	3	0	0	1	3	0	0	39	78	50
Other forms			68	75	68	75	7	8	1	1	15	16	0	0	91	108	84
All Forms	702	45	663	43	1,365	85	79	5	24	1	125	8	13	1	1,606	113	1,417

The treatment success rate for new smear positive cases was 88% for the 2014 cohort. However, there were 189 more cases evaluated for the 2014 cohort than those notified during the same year, suggesting delayed registration, notification and /or reporting.

7.7 Kunene Region

In keeping with previous years, Kunene region reported the lowest number (321) of TB cases in the country. This however represents an increase from the 287 cases reported in 2014, which is driven by increases in the numbers of new bacteriologically confirmed and previously treated patients

Figure 34: Trends in TB case finding for Kunene Region, 2005-2015



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
New smear-positive	159	138	108	105	113	75	113	106	118	108	147
Smear Negative	133	77	64	93	69	89	82	71	65	65	65
EPTB	29	30	47	48	55	51	40	50	46	48	48
Previously Treated	23	16	21	19	20	20	25	18	21	34	53
Other (UTH)	12	4	13	26	15	18	21	19	23	19	0
Sputum Not Tested Adults				10	9	4	13	7	11	7	7
Sputum Not Tested Children				5	9	13	7	2	2	6	1
All forms	356	265	253	306	290	270	301	273	286	287	321

Table 17: Treatment outcomes for Kunene region, 2014 cohort

	Cured		Treatment completed		Treatment success		Died		Failed		Lost to follow-up		Transferred out		Total evaluated		Notified cases, 2014
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
NSP	71	64	21	19	92	83	9	8	1	1	9	8	0	0	111	103	108
Previously Treated	11	32	4	12	15	44	6	18	6	18	7	21	0	0	34	100	34
Smear Negative			53	78	53	78	8	12	1	1	6	9	0	0	68	105	65
EPTB			37	80	37	80	6	13	0	0	3	7	0	0	46	96	48
SNT adults			2	29	2	29	3	43	0	0	2	29	0	0	7	100	7
SNT children			5	83	5	83	1	17	0	0	0	0	0	0	6	100	6
Other forms			10	56	10	56	4	22	0	0	4	22	0	0	18	95	19
All Forms	82	28	132	46	214	74	37	13	8	3	31	11	0	0	290	101	287

The treatment success rate for NSP cases (83%) reported in the region is still relatively low compare to other regions, and is mainly affected by relatively high death (8%)and lost to follow-up (8%) rates. The treatment outcomes are particularly poor for previously treated patients.

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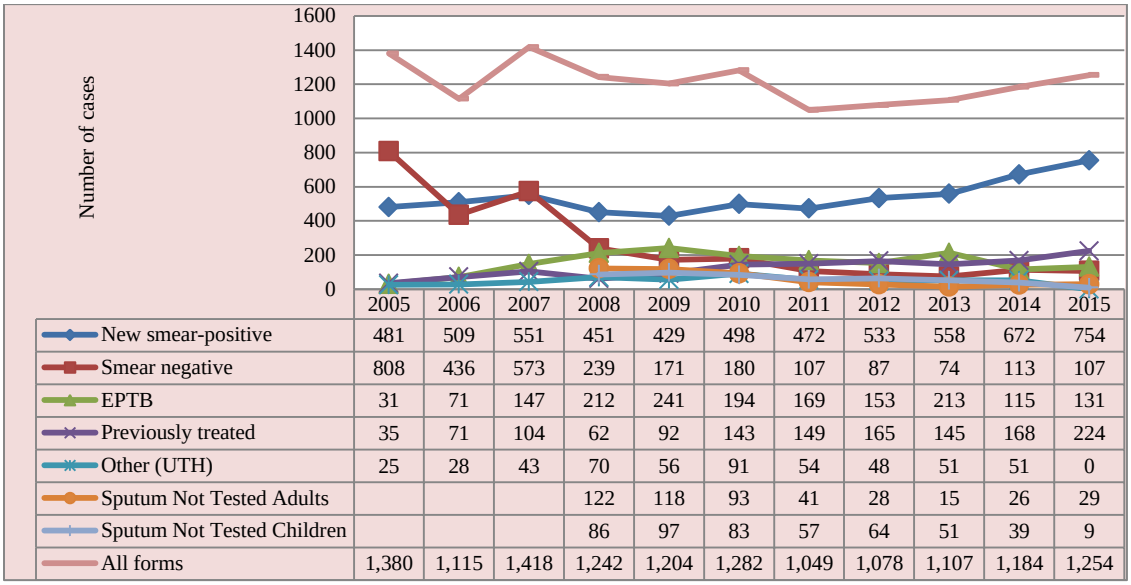
7.8 Ohangwena region

Ohangwena region reported 1,254 TB cases (all-forms) in 2015, a 6% increase from 2014. Ohangwena region appears to be unique in having a consistent increase in the number of TB cases since 2011, driven primarily by increases in numbers of new smear positive and previously treated cases (*Figure35*).

Figure 35: Trends in TB case finding for Ohangwena region, 2005-2015



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
New smear-positive	481	509	551	451	429	498	472	533	558	672	754
Smear negative	808	436	573	239	171	180	107	87	74	113	107
EPTB	31	71	147	212	241	194	169	153	213	115	131
Previously treated	35	71	104	62	92	143	149	165	145	168	224
Other (UTH)	25	28	43	70	56	91	54	48	51	51	0
Sputum Not Tested Adults				122	118	93	41	28	15	26	29
Sputum Not Tested Children				86	97	83	57	64	51	39	9
All forms	1,380	1,115	1,418	1,242	1,204	1,282	1,049	1,078	1,107	1,184	1,254

Table 18: Treatment outcomes for Ohangwena Region, 2014 cohort

	Cured		Treatment completed		Treatment success		Died		Failed		Lost to follow-up		Transferred out		Total evaluated		Notified cases, 2014
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
NSP	504	77	37	6	541	83	24	4	32	5	49	8	7	1	653	97	672
Previously Treated	103	60	17	10	120	69	19	11	21	12	13	8	0	0	173	103	168
Smear Negative			97	83	97	83	11	9	3	3	6	5	0	0	117	104	113
EPTB			110	86	110	86	7	5	2	2	7	5	2	2	128	111	115
SNT adults			16	94	16	94	1	6	0	0	0	0	0	0	17	65	26
SNT children			25	83	25	83	4	13	0	0	1	3	0	0	30	77	39
Other forms			38	86	38	86	5	11	1	2	0	0	0	0	44	86	51
All Forms	607	52	340	29	947	81	71	6	59	5	76	7	9	1	1,162	98	1,184

The treatment success rate for new smear positive cases has improved from 80% to 83% for the 2013 and 2014 cohorts respectively. Overall the death (6%)and lost to follow up (7%) rates are still very high for most categories.

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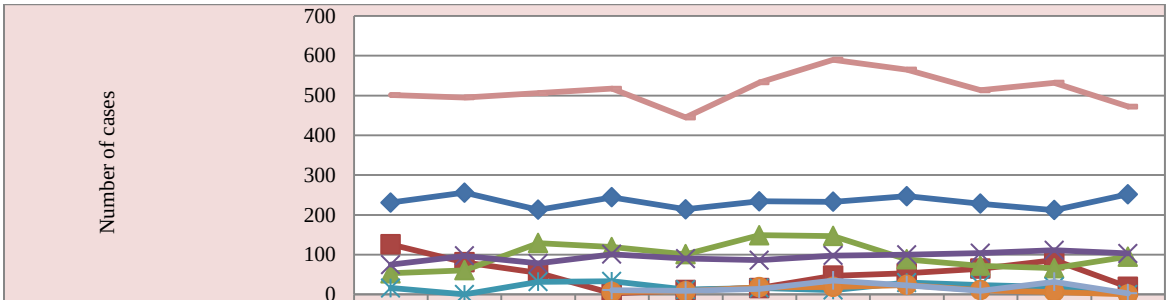
7.9 Omaheke Region

In 2015 Omaheke region reported 472 cases of TB (all forms), an 11% decline from the precious year; this despite a 19% increase in the number of bacteriologically confirmed cases. The region continues to report very low numbers of smear negative cases, which might indicate possible late diagnosis in for some patients. Encouragingly the number of patients without sputum examination results (sputum not tested) was very low (*Figure 36*).

Figure 36: Trends in TB case finding for Omaheke region, 2005-2015



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
New smear-positive	231	256	213	244	214	234	233	247	228	212	252
Smear negative	126	81	54	3	11	16	47	53	65	86	19
EPTB	53	61	129	119	101	149	147	88	72	66	95
Previously treated	75	97	78	101	90	86	98	100	104	111	103
Other (UTH)	16	0	32	33	12	16	11	30	24	19	0
Sputum Not Tested Adults				6	8	18	19	24	11	6	0
Sputum Not Tested Children				11	9	14	35	23	9	32	3
All forms	501	495	506	517	445	533	590	565	513	532	472

Table 19: Treatment outcomes for Omaheke region, 2014 cohort

	Cured		Treatment completed		Treatment success		Died		Failed		Lost to follow-up		Transferred out		Total evaluated		Notified cases, 2014
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
NSP	215	97	0	0	215	97	7	3	0	0	0	0	0	0	222	105	212
Previously Treated	101	89	1	1	102	90	7	6	4	4	0	0	0	0	113	102	111
Smear Negative			75	95	75	95	4	5	0	0	0	0	0	0	79	92	86
EPTB			70	93	70	93	5	7	0	0	0	0	0	0	75	114	66
SNT Adults			1	100	1	100	0	0	0	0	0	0	0	0	1	17	6
SNT Children			23	100	23	100	0	0	0	0	0	0	0	0	23	72	32
Other forms			15	88	15	88	2	12	0	0	0	0	0	0	17	89	19
All Forms	316	60	185	35	501	95	25	5	4	1	0	0	0	0	530	106	498

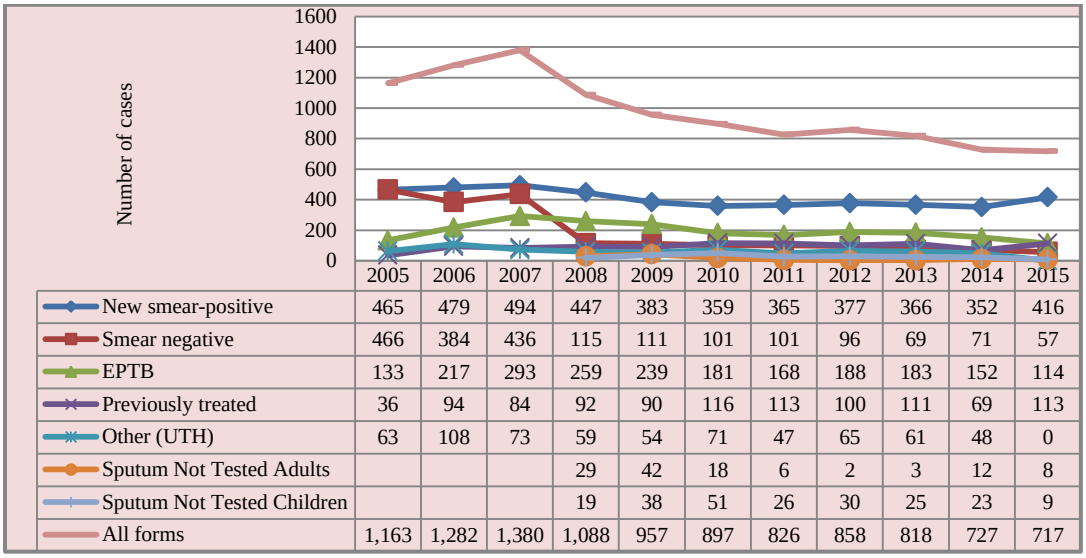
Omaheke continues to post impressive treatment outcome results, with a notable cure rate of 90% for the 2014 cohort of new smear positive patients. This trend is also evident among all the other patient categories.

7.10 Omusati Region

The cases of TB reported in Omusati regions have decrease consistently over the past four years, since 2012. The new cases (bacteriologically confirmed) have however remained relatively stable over the previous four years with

a peak during 2015 (table 27). The increase could be the result of the effective diagnostic methods during the drug resistant TB survey conducted during the first half of 2015

Figure 37: Trends in TB cases finding for Omusati region, 2005 -2015



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
New smear-positive	465	479	494	447	383	359	365	377	366	352	416
Smear negative	466	384	436	115	111	101	101	96	69	71	57
EPTB	133	217	293	259	239	181	168	188	183	152	114
Previously treated	36	94	84	92	90	116	113	100	111	69	113
Other (UTH)	63	108	73	59	54	71	47	65	61	48	0
Sputum Not Tested Adults				29	42	18	6	2	3	12	8
Sputum Not Tested Children				19	38	51	26	30	25	23	9
All forms	1,163	1,282	1,380	1,088	957	897	826	858	818	727	717

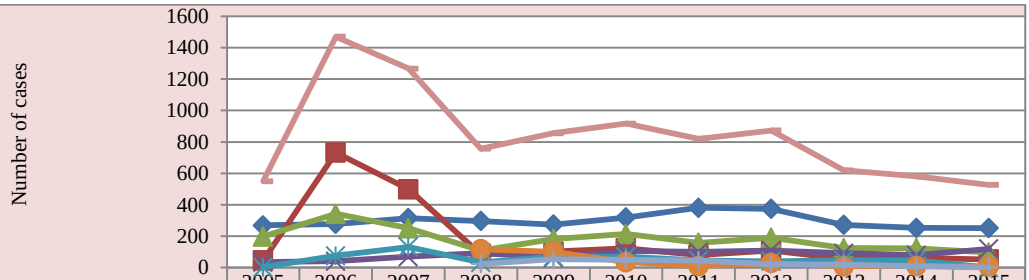
Table 20: Treatment outcomes for Omusati region, 2014 cohort

	Cured		Treatment completed		Treatment success		Died		Failed		Lost to follow-up		Transfer out		Total evaluated		Notified cases, 2014
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
NSP	269	79	25	7	294	86	15	4	16	5	13	4	2	1	340	97	352
Previously Treated	48	75	11	17	59	92	1	2	3	5	1	2	0	0	64	93	69
Smear Negative			73	88	73	88	4	5	1	1	5	6	0	0	83	117	71
EPTB			131	89	131	89	11	7	1	1	5	3	0	0	148	97	152
SND adults			9	90	9	90	1	10	0	0	0	0	0	0	10	83	12
SND children			8	62	8	62	2	15	0	0	3	23	0	0	13	57	23
Other forms			33	67	33	67	5	10	3	6	8	16	0	0	49	102	48
All Forms	317	45	290	41	607	86	39	6	24	3	35	5	2	0	707	97	727

7.11. Treatment success rate for the 2014 cohort (all forms) was 86% while the targets are set for 90%. Relatively high death (6%) and loss-to-follow-up (5%) accounted for the majority of the unsuccessful outcomes. Oshana Region

Oshana region continues to report declining numbers of TB cases since 2012; there was however a significant (49%) increase in the number of previously treated patients in 2015, compared to 2014. The use of sputum examination for diagnosis has increased significantly since 2008; there are very few patients being reported as sputum not tested over the past 3 years (*Figure 38*).

Figure 38: Trends in TB case finding for Oshana region, 2005 – 2015



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
New smear-positive	269	278	315	297	274	319	381	374	272	253	252
Smear negative	46	733	499	85	102	123	80	108	55	61	52
EPTB	198	342	251	108	183	214	158	191	125	123	96
Previously treated	35	41	70	93	63	107	100	109	92	80	119
Other (UTH)	2	76	132	33	69	69	46	40	48	46	0
Sputum Not Tested Adults				117	101	35	10	30	8	10	7
Sputum Not Tested Children				24	54	50	45	21	19	8	1
All forms	550	1,470	1,267	757	856	917	820	873	619	581	527

The treatment success rate for Oshana (new smear positive patients) increased from 80% to 85% between 2014 and 2015. Death rates are however particularly high among previously treated patients, smear negative and EPTB cases, while failure rates are high among new smear positive and retreatment cases (*Table 21*).

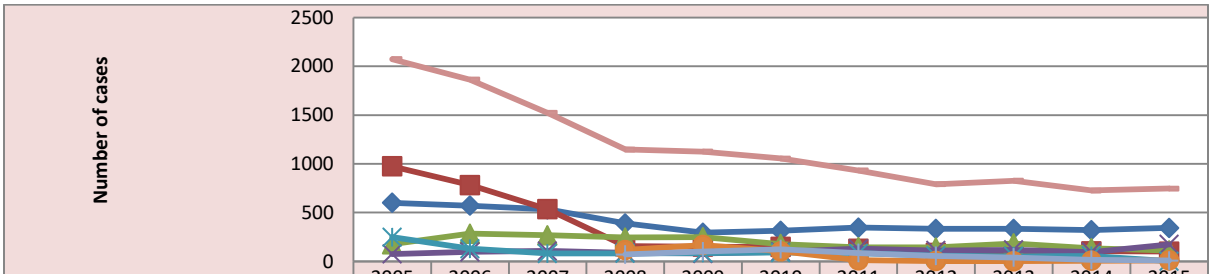
Table 21: Treatment outcomes for Oshana region, 2014 cohort

	Cured		Treatment completed		Treatment success		Died		Failed		Lost to follow-up		Transfer out		Total evaluated		Notified cases, 2014
	n		n		n		n		n		n		n		n		n
NSP	204	81	10	4	214	85	5	2	20	8	12	5	0	0	251	99	253
Previously Treated	57	72	5	6	62	78	8	10	5	6	4	5	0	0	79	99	80
Smear Negative			46	77	46	77	10	17	1	2	3	5	0	0	60	98	61
EPTB			106	85	106	85	12	10	0	0	6	5	0	0	124	101	123
SNT Adults			6	67	6	67	1	11	0	0	2	22	0	0	9	90	10
SNT Children			6	75	6	75	2	25	0	0	0	0	0	0	8	100	8
Other forms			34	74	34	74	5	11	3	7	4	9	0	0	46	100	46
All Forms	261	45	213	37	474	82	43	7	29	5	31	5	0	0	577	99	581

7.12. Oshikoto Region

Oshikoto region reported a marginally higher number of TB cases in 2015, compared to 2014. This increase was mainl driven by increases in the number of previously treated and new smear positive cases.

Figure 39: Trends in TB case finding for Oshikoto region: 2005-2015



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
New smear-positive	601	570	533	389	294	313	346	333	333	319	343
Smear negative	974	783	535	156	151	147	129	87	100	103	100
EPTB	175	284	267	244	247	177	145	142	183	134	111
Previously treated	76	97	106	89	81	99	130	112	118	95	173
Other (UTH)	248	129	81	82	85	90	84	58	52	55	2
Sputum Not Tested Adults				117	167	104	11	4	2	7	10
Sputum Not Tested Children				70	101	125	86	55	39	14	8
All forms	2074	1863	1522	1147	1126	1055	931	791	827	727	747

Table 22: Treatment outcomes for Oshikoto Region, 2014 cohort

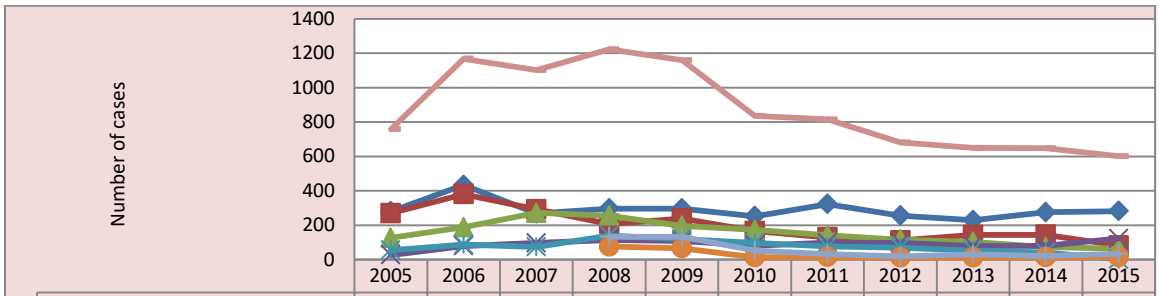
	Cured		Treatment completed		Treatment success		Died		Failed		Lost to follow-up		Transferred out		Total evaluated		Notified cases 2014
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
NSP	247	76	34	10	281	86	21	6	12	4	13	4	0	0	327	103	319
Previously Treated	49	46	38	36	87	81	11	10	7	7	2	2	0	0	107	113	95
Smear Negative			87	79	87	79	16	15	0	0	4	4	3	3	110	107	103
EPTB			109	87	109	87	12	10	0	0	5	4	0	0	126	94	134
SNT Adults			4	50	4	50	3	38	1	13	0	0	0	0	8	114	7
SNT Children			10	83	10	83	2	17	0	0	0	0	0	0	12	86	14
Other forms			30	81	30	81	4	11	2	5	1	3	0	0	37	67	55
All Forms	296	41	312	43	608	84	69	9	22	3	25	3	3	0	727	100	727

The treatment success rate among new smear positive cases declined from 90% to 86% for the 2013 and 2014 cohorts respectively. This decline was also evident among previously treated cases. Death, treatment failure and, to a lesser extent, loss to follow-up, were responsible for the majority of the unfavourable treatment outcomes on this region.

7.13. Otjozondjupa Region

Otjozondjupa region continues to report progressively declining TB case numbers since 2008, despite a marginal increase in the number of new bacteriologically confirmed cases between 2014 and 2015. The region however reported a significant number of patients, particularly children, as sputum not tested, a situation requiring attention.

Figure 40: Trends in TB case finding for Otjozondjupa region, 2005 – 2015



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
New smear-positive	280	433	268	297	297	252	323	256	229	275	282
Smear negative	270	380	292	207	239	165	129	111	143	144	82
EPTB	126	188	271	256	196	173	141	116	103	72	64
Previously treated	27	79	97	113	109	81	98	97	79	81	123
Other (UTH)	55	87	73	140	120	97	76	70	53	41	2
Sputum Not Tested Adults				76	66	14	16	12	12	14	15
Sputum Not Tested Children				133	132	53	32	19	30	20	33
All forms	758	1,167	1,101	1,222	1,159	835	815	681	649	647	601

Table 23: Treatment outcomes for Otjozondjupa region, 2014

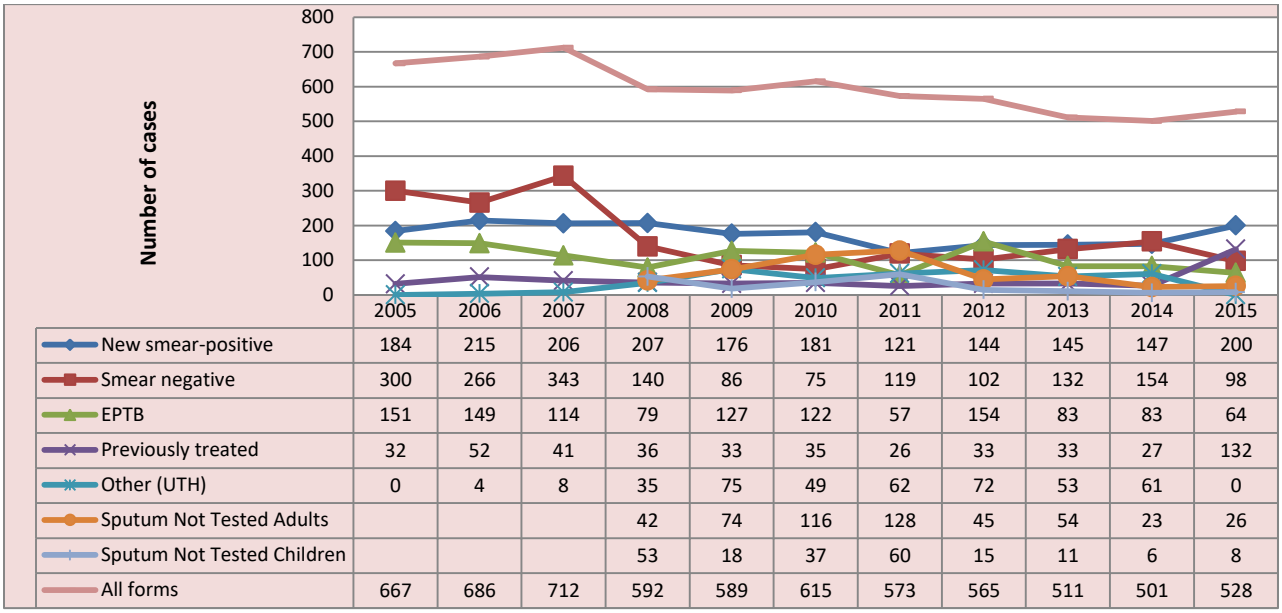
	Cured		Treatment completed		Treatment success		Died		Failed		Lost to follow-up		Transferred out		Total evaluated		Notified cases, 2014
	n		n		n		n		n		n		n		n		n
NSP	169	62	71	26	240	88	11	4	5	2	16	6	0	0	272	99	275
Previously Treated	34	40	31	37	65	77	2	2	7	8	10	12	0	0	84	104	81
Smear Negative			116	83	116	83	15	11	1	1	7	5	0	0	139	97	144
EPTB			63	84	63	84	7	9	2	3	3	4	0	0	75	104	72
SNT Adults			9	69	9	69	4	31	0	0	0	0	0	0	13	93	14
SNT Children			17	85	17	85	3	15	0	0	0	0	0	0	20	100	20
Other forms			34	81	34	81	5	12	0	0	3	7	0	0	42	102	41
All Forms	203	31	341	53	544	84	47	7	15	2	39	6	0	0	645	100	647

There was a marginal decline in the treatment success rate for new smear positive patients from 89% to 88% for the 2013 and 2014 cohorts respectively. Death (4%) and loss-to-follow-up (6%) account for the bulk of the adverse outcomes. Failure rate and loss to follow-up rates were particularly high among previously treated patients.

7.14. Zambezi Region

In 2015 the Zambezi region reported a marked increase among all forms of TB, while a slow decrease was reported over the 3 previous years. The new smear positive cases have increase significantly, the same as in majority of the regions

Figure 41: Trends in TB case finding for Zambezi region, 2005-2015



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
New smear-positive	184	215	206	207	176	181	121	144	145	147	200
Smear negative	300	266	343	140	86	75	119	102	132	154	98
EPTB	151	149	114	79	127	122	57	154	83	83	64
Previously treated	32	52	41	36	33	35	26	33	33	27	132
Other (UTH)	0	4	8	35	75	49	62	72	53	61	0
Sputum Not Tested Adults				42	74	116	128	45	54	23	26
Sputum Not Tested Children				53	18	37	60	15	11	6	8
All forms	667	686	712	592	589	615	573	565	511	501	528

Table 24: Treatment outcomes for Zambezi region, 2014 cohort

	Cured		Treatment completed		Treatment success		Died		Failed		Lost to follow-up		Transferred out		Total evaluated		Notified cases 2014
	n		n		n		n		n		n		n		n		n
NSP	128	81	21	13	149	94	7	4	2	1	1	1	0	0	159	108	147
Previously Treated	20	67	4	13	24	80	3	10	2	7	1	3	0	0	30	111	27
Smear Negative			152	94	152	94	9	6	0	0	0	0	0	0	161	105	154
EPTB			75	94	75	94	5	6	0	0	0	0	0	0	80	96	83
SNT Adults			26	93	26	93	2	7	0	0	0	0	0	0	28	122	23
SNT Children			2	100	2	100	0	0	0	0	0	0	0	0	2	33	6
Other forms			38	84	38	84	2	4	1	2	4	9	0	0	45	74	61
All Forms	148	29	318	63	466	92	28	6	5	1	6	1	0	0	505	101	501

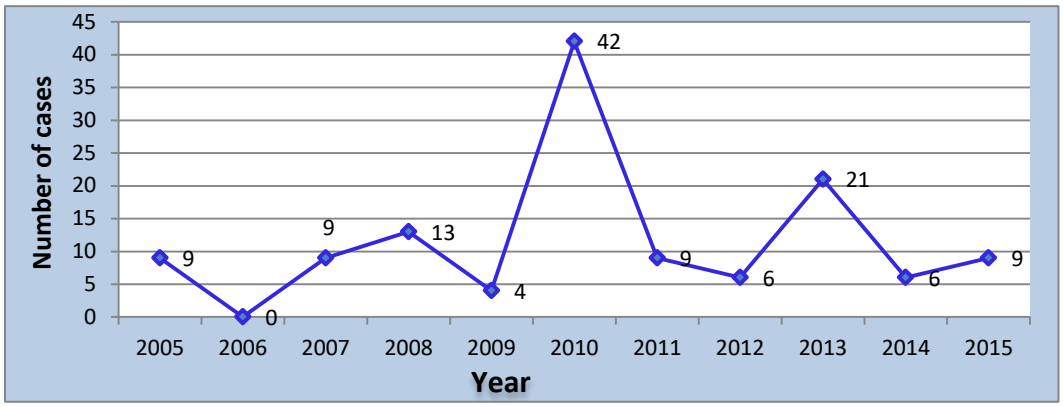
A remarkable 94% of new smear positive patients commenced on treatment in 2014 were successfully treated. The treatment success rate for previously treated [patients was however relatively low (80%) largely due to high death (10%) and failure (7%) rates. The number of previously treated patients evaluated (30) was however small.

Chapter 8: Leprosy

8.1. Overview

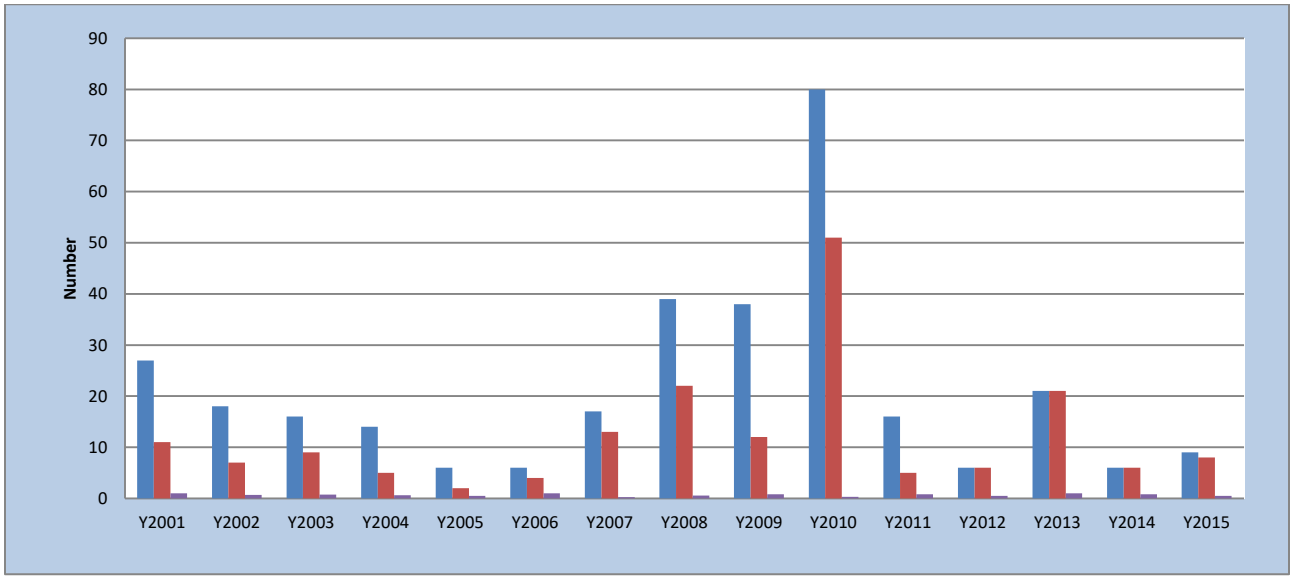
An a national level Namibia has accomplished leprosy elimination status (less than one case per 10,000 population) since 2004. The launch of the first *National Guidelines for the Management of Leprosy* in 2013 and the accompanying trainings saw the country diagnosing 21 cases in 2013. In 2015, 9 leprosy cases were notified.

Figure 42: Trends in the number of notified cases of leprosy, 2005- 2015



Over the past 10 years expanded leprosy case detection efforts have been accompanied by increased numbers of reported cases, suggesting that the current surveillance system could be under-reflecting the magnitude of the leprosy burden in the country.

Figure 43: Figure trends in leprosy cases (aggregated)



In 2016, leprosy cases were notified in Ohangwena (2), Oshana (2) and Zambezi (6) regions.

9. Chapter 9: Annexes

Annex 1: List of regions and Districts (2015)

Region	District
Erongo	Omaruru
Erongo	Swakopmund
Erongo	Usakos
Erongo	Walvis Bay
Hardap	Aranos
Hardap	Mariental
Hardap	Rehoboth
//Kharas	Karasburg
//Kharas	Keetmanshoop
//Kharas	Lüderitz
Kavango	Andara
Kavango	Nankudu
Kavango	Nyangana
Kavango	Rundu
Khomas	Windhoek
Kunene	Khorixas
Kunene	Opuwo
Kunene	Outjo
Ohangwena	Eenhana
Ohangwena	Engela
Ohangwena	Okongo
Omaheke	Gobabis
Omusati	Okahao
Omusati	Oshikuku
Omusati	Outapi
Omusati	Tsandi
Oshikoto	Onadjokwe
Oshikoto	Tsumeb
Otjozondjupa	Grootfontein
Otjozondjupa	Okahandja
Otjozondjupa	Okakarara
Otjozondjupa	Otjiwarongo
Zambezi	Katima Mulilo

Annex 2: Case Finding Summary by District/Region 2015

District	Bact+ PTB		Bact-ve PTB		SNT_Adults		SNT Children		New EPTB		Relapses		TALFU		TAF		Unknown RxOutcome		Unknown RxHistory		New & Relapse		All forms
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Omaruru	36	56	4	6	1	2	0	0	10	16	10	16	1	2	2	3	0	0	0	0	61	95	64
Swakopmund	184	49	56	15	13	3	6	2	45	12	66	18	2	1	1	0	0	0	0	0	370	99	373
Usakos	32	35	25	27	6	7	1	1	2	2	24	26	1	1	0	0	0	0	0	0	90	99	91
Walvis Bay	256	47	57	10	6	1	6	1	72	13	145	27	2	0	3	1	0	0	0	0	542	99	547
Aranos	28	41	2	3	0	0	0	0	9	13	25	36	2	3	0	0	0	0	3	4	67	97	69
Mariental	139	52	20	8	1	0	0	0	37	14	61	23	6	2	2	1	0	0	0	0	258	97	266
Rehoboth	118	36	75	23	6	2	1	0	23	7	78	23	3	1	3	1	6	2	19	6	320	96	332
Karasburg	72	59	5	4	2	2	0	0	16	13	25	20	0	0	3	2	0	0	0	0	120	98	123
Keetmanshoop	161	47	37	11	1	0	1	0	38	11	90	26	5	1	8	2	0	0	0	0	328	96	341
Lüderitz	50	43	15	13	0	0	0	0	9	8	37	32	0	0	0	0	4	3	0	0	111	97	115
Andara	69	55	24	19	5	4	0	0	12	10	14	11	0	0	0	0	2	2	0	0	124	98	126
Nankudu	43	34	24	19	18	14	10	8	14	11	15	12	4	3	0	0	0	0	0	0	124	97	128
Nyangana	45	83	3	6	0	0	0	0	1	2	2	4	1	2	2	4	0	0	0	0	51	94	54
Rundu	244	45	86	16	40	7	13	2	112	21	38	7	3	1	1	0	8	1	1	0	534	98	546
Windhoek	731	46	81	5	52	3	55	3	345	22	277	17	56	3	5	0	0	0	0	0	1541	96	1602
Khorixas	38	58	11	17	0	0	0	0	8	12	8	12	0	0	1	2	0	0	0	0	65	98	66
Opuwo	70	47	29	20	6	4	1	1	23	16	13	9	6	4	0	0	0	0	0	0	142	96	148
Outjo	39	36	25	23	1	1	0	0	17	16	21	20	4	4	0	0	0	0	0	0	103	96	107
Eenhana	123	59	20	10	1	0	3	1	27	13	30	14	3	1	0	0	0	0	0	0	204	99	207
Engela	592	61	80	8	26	3	6	1	93	10	124	13	17	2	38	4	0	0	0	0	921	94	976
Okongo	39	55	7	10	2	3	0	0	11	15	10	14	2	3	0	0	0	0	0	0	69	97	71
Gobabis	252	53	19	4	0	0	3	1	95	20	97	21	5	1	1	0	0	0	0	0	466	99	472
Okahao	56	50	7	6	0	0	1	1	23	21	21	19	0	0	3	3	0	0	0	0	108	97	111
Oshikuku	150	59	20	8	1	0	0	0	32	13	47	19	2	1	2	1	0	0	0	0	250	98	254
Outapi	172	59	23	8	7	2	7	2	52	18	27	9	2	1	1	0	0	0	0	0	288	99	291
Tsandi	38	62	7	11	0	0	1	2	7	11	7	11	0	0	1	2	0	0	0	0	60	98	61
Oshakati	252	48	52	10	7	1	1	0	96	18	92	17	15	3	12	2	0	0	0	0	500	95	527
Onandjokwe	229	46	76	15	4	1	6	1	81	16	81	16	4	1	0	0	18	4	0	0	477	96	499
Tsumeb	114	46	24	10	6	2	2	1	30	12	56	23	8	3	6	2	0	0	2	1	234	94	248
Grootfontein	123	49	23	9	5	2	19	8	19	8	51	20	7	3	2	1	0	0	0	0	240	96	249
Okahandja	55	40	26	19	2	1	11	8	18	13	24	17	0	0	2	1	0	0	0	0	136	99	138
Okakara	30	47	8	13	2	3	2	3	14	22	3	5	3	5	0	0	0	0	2	3	61	95	64
Otjiwarongo	74	49	25	17	6	4	1	1	13	9	29	19	1	1	1	1	0	0	0	0	148	99	150

Katima Mulilo	200	38	98	19	26	5	8	2	64	12	105	20	26	5	1	0	0	0	0	0	501	95	528
Namibia	4854	49	1094	11	253	3	165	166	1468	15	1753	18	191	2	101	1	38	0	27	0	9614	97	9944

Annex 3: Case Notification Rates (Per 100,000 populations) by case category/ region, 2015

Region	Bact+ PTB		Bact-ve PTB		SNT Adults		SNT Children		New EPTB		Relapses		TALFU		TAF		Unknown RxOutcome		Unknown RXHistory		New & Relapse		All forms	
	n	cnr	n	cnr	n	cnr	n	cnr	n	cnr	n	cnr	n	cnr	n	cnr	n	cnr	n	cnr	n	cnr	n	cnr
Erongo	508	289	142	81	26	15	13	7	129	73	245	139	6	3	6	3	0	0	0	0	1063	604	1075	611
Hardap	285	333	97	113	7	8	1	1	69	81	164	192	11	13	5	6	6	7	22	26	645	753	667	779
//Kharas	283	337	57	68	3	4	1	1	63	75	152	181	5	6	11	13	4	5	0	0	559	665	579	689
Kavango	401	171	137	58	63	27	23	10	139	59	69	29	8	3	3	1	10	4	1	0	833	355	854	364
Khomas	731	183	81	20	52	13	55	14	345	86	277	69	56	14	5	1	0	0	0	0	1541	385	1602	400
Kunene	147	154	65	68	7	7	1	1	48	50	42	44	10	10	1	1	0	0	0	0	310	324	321	336
Ohangwena	754	298	107	42	29	11	9	4	131	52	164	65	22	9	38	15	0	0	0	0	1194	471	1254	495
Omaheke	252	340	19	26	0	0	3	4	95	128	97	131	5	7	1	1	0	0	0	0	466	629	472	637
Omusati	416	167	57	23	8	3	9	4	114	46	102	41	4	2	7	3	0	0	0	0	706	284	717	289
Oshana	252	135	52	28	7	4	1	1	96	51	92	49	15	8	12	6	0	0	0	0	500	268	527	282
Oshikoto	343	178	100	52	10	5	8	4	111	58	137	71	12	6	6	3	18	9	2	1	711	369	747	388
Otjozondjupa	282	185	82	54	15	10	33	22	64	42	107	70	11	7	5	3	0	0	2	1	585	384	601	395
Zambezi	200	206	98	101	26	27	8	8	64	66	105	108	26	27	1	1	0	0	0	0	501	516	528	543
Namibia	**4854**	**213**	**1094**	**48**	**253**	**11**	**165**	**7**	**1468**	**64**	**1753**	**77**	**191**	**8**	**101**	**4**	**38**	**2**	**27**	**1**	**9614**	**422**	**9944**	**436**

Annex 4: Age-Sex Distribution of TB cases, 2015

	AGE GROUP	0 to 04	05 to 14	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65+	TOTAL
New & Relapse TB cases	Female	195	197	721	1046	795	473	252	264	3943
	Male	243	188	621	1501	1488	840	397	353	5631
	Total	438	385	1342	2547	2283	1313	649	617	9574
New and Relapse HIV+ TB cases	Female	22	34	176	557	513	267	82	31	1682
	Male	22	25	95	517	721	408	132	42	1962
	Total	44	59	271	1074	1234	675	214	73	3644
Smear negative	Female	50	45	109	227	176	107	70	79	863
	Male	62	52	105	262	324	209	121	109	1244
	Total	112	97	214	489	500	316	191	188	2107
EPTB	Female	68	64	137	176	127	78	34	43	727
	Male	79	75	96	222	219	126	64	49	930
	Total	147	139	233	398	346	204	98	92	1657

Smears not-done	Female	121	83	148	207	153	90	49	46	897
	Male	157	86	118	275	281	150	81	52	1200
	Total	278	169	266	482	434	240	130	98	2097
NSP cases	Female	27	67	431	533	364	189	110	116	1837
	Male	26	47	365	841	698	363	152	154	2646
	Total	53	114	796	1374	1062	552	262	270	4483
Previously treated cases (excluding relapses)	Female	3	4	18	30	25	16	9	9	114
	Male	5	1	24	93	71	50	22	12	278
	Total	8	5	42	123	96	66	31	21	392

Annex 5: TB/HIV Indicators 2015 by district/region

District	TB cases with Known HIV Status		TB cases HIV+		TB cases on ART		TB cases on CPT		All Forms TB (New and Previously RX)
	n	%	n	%	n	%	n	%	n
Omaruru	60	94	27	45	26	96	27	100	64
Swakopmund	339	91	109	32	100	92	105	96	373
Usakos	91	100	47	52	41	87	47	100	91
Walvis Bay	524	96	216	41	181	84	216	100	547
Aranos	68	99	20	29	15	75	20	100	69
Mariental	259	97	87	34	79	91	82	94	266
Rehoboth	285	86	109	38	96	88	109	100	332
Karasburg	121	98	55	45	55	100	55	100	123
Keetmanshoop	339	99	152	45	135	89	152	100	341
Lüderitz	108	94	41	38	36	88	41	100	115
Andara	124	98	63	51	63	100	63	100	126
Nankudu	125	98	37	30	37	100	36	97	128
Nyangana	51	94	12	24	12	100	12	100	54
Rundu	480	88	213	44	213	100	213	100	546
Windhoek	1542	96	676	44	528	78	663	98	1602
Khorixas	65	98	25	38	24	96	25	100	66
Opuwo	145	98	40	28	39	98	40	100	148
Outjo	105	98	39	37	38	97	39	100	107
Eenhana	204	99	74	36	74	100	74	100	207
Engela	971	99	295	30	291	99	295	100	976
Okongo	71	100	22	31	22	100	22	100	71
Gobabis	446	94	133	30	129	97	133	100	472
Okahao	104	94	51	49	51	100	51	100	111
Oshikuku	251	99	100	40	95	95	100	100	254
Outapi	254	87	82	32	76	93	82	100	291
Tsandi	56	92	19	34	17	89	19	100	61
Oshakati	521	99	232	45	222	96	232	100	527
Onandjokwe	494	99	224	45	202	90	224	100	499
Tsumeb	178	72	87	49	87	100	87	100	248
Grootfontein	248	100	55	22	55	100	55	100	249
Okahandja	138	100	68	49	65	96	68	100	138
Okakara	63	98	15	24	11	73	12	80	64
Otjiwarongo	145	97	70	48	64	91	70	100	150
Katima Mulilo	481	91	301	63	301	100	301	100	528

Namibia	9456	95	3796	40	3480	92	3770	99	9944

Annex 6: Treatment outcomes for all forms of TB notifications, 2014 cohort

District	Cured		Treatment Completed		TSR		Died		Failed		LTFU		Transferred out		Total Evaluated		Notified_2014
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Omaruru	31	48	24	38	55	86	6	9	3	5	0	0	0	0	64	98	65
Swakopmund	152	49	129	41	281	90	14	4	9	3	8	3	0	0	312	97	322
Usakos	34	40	38	44	72	84	10	12	1	1	3	3	0	0	86	110	78
Walvis Bay	253	45	245	44	498	89	31	6	15	3	15	3	2	0	561	98	571
Aranos	49	48	41	40	90	88	4	4	2	2	4	4	2	2	102	104	98
Mariental	141	50	95	34	236	84	20	7	9	3	17	6	0	0	282	101	279
Rehoboth	122	44	110	39	232	83	33	12	9	3	5	2	0	0	279	100	278
Karasburg	83	58	45	31	128	90	8	6	6	4	1	1	0	0	143	101	141
Keetmanshoop	148	44	118	35	266	79	41	12	16	5	14	4	0	0	337	99	339
Lüderitz	74	51	57	40	131	91	8	6	0	0	5	3	0	0	144	101	143
Andara	48	41	50	42	98	83	15	13	5	4	0	0	0	0	118	97	122
Nankudu	45	26	94	54	139	79	29	17	1	1	6	3	0	0	175	101	174
Nyangana	25	33	29	38	54	71	8	11	12	16	2	3	0	0	76	99	77
Rundu	188	30	380	61	568	91	33	5	18	3	2	0	1	0	622	105	592
Windhoek	702	44	663	41	1365	85	79	5	24	1	125	8	13	1	1606	113	1417
Khorixas	20	43	16	35	36	78	6	13	2	4	2	4	0	0	46	100	46
Opuwo	31	21	72	49	103	70	21	14	2	1	21	14	0	0	147	97	151
Outjo	31	32	44	45	75	77	10	10	4	4	8	8	0	0	97	108	90
Eenhana	94	48	58	30	152	78	32	16	5	3	4	2	2	1	195	99	196
Engela	467	52	264	30	731	82	34	4	49	5	71	8	7	1	892	97	922
Okongo	46	61	18	24	64	85	5	7	5	7	1	1	0	0	75	114	66
Gobabis	316	60	185	35	501	95	25	5	4	1	0	0	0	0	530	100	532
Okahao	49	52	32	34	81	86	5	5	4	4	4	4	0	0	94	97	97
Oshikuku	116	46	114	45	230	91	9	4	11	4	4	2	0	0	254	98	259
Outapi	117	40	118	41	235	81	18	6	9	3	25	9	2	1	289	97	299
Tsandi	35	50	26	37	61	87	7	10	0	0	2	3	0	0	70	97	72
Oshakati	261	45	213	37	474	82	43	7	29	5	31	5	0	0	577	99	581
Onandjokwe	218	43	217	43	435	86	44	9	12	2	14	3	0	0	505	102	493
Tsumeb	78	35	95	43	173	78	25	11	10	5	11	5	3	1	222	95	234
Grootfontein	49	19	153	60	202	80	12	5	10	4	29	11	0	0	253	103	246
Okahandja	59	48	52	43	111	91	7	6	2	2	2	2	0	0	122	94	130
Okakara	26	48	21	39	47	87	4	7	0	0	3	6	0	0	54	98	55
Otjiwarongo	69	32	115	53	184	85	24	11	3	1	5	2	0	0	216	100	216
Katima Mulilo	148	29	318	63	466	92	28	6	5	1	6	1	0	0	505	101	501

Namibia	4325	43	4249	42	8574	85	698	7	296	3	450	4	32	0	10050	102	9882

Annex 7: Treatment outcomes for NSP TB cases by district/region, 2014 cohort

District	Cured		Treatment Completed		TSR		Died		Failed		LTFU		Transferred Out		Total Evaluated		Notified_2014
	n		n		n		n		n		n		n		n		n
Omaruru	27	82	1	3	28	85	2	0	3	0	0	0	0	0	33	103	32
Swakopmund	114	88	1	1	115	88	7	0	6	0	2	2	0	0	130	104	125
Usakos	26	90	2	7	28	97	0	0	0	0	1	3	0	0	29	94	31
Walvis Bay	170	92	8	4	178	96	1	0	3	0	3	2	0	0	185	102	182
Aranos	37	70	12	23	49	92	1	0	1	0	1	2	1	2	53	110	48
Mariental	103	75	18	13	121	88	5	0	6	0	5	4	0	0	137	112	122
Rehoboth	95	79	11	9	106	88	9	0	4	0	2	2	0	0	121	99	122
Karasburg	58	85	2	3	60	88	3	0	4	0	1	1	0	0	68	99	69
Keetmanshoop	108	80	10	7	118	87	5	0	9	0	3	2	0	0	135	100	135
Lüderitz	57	79	9	13	66	92	2	0	0	0	4	6	0	0	72	100	72
Andara	41	69	9	15	50	85	6	0	3	0	0	0	0	0	59	100	59
Nankudu	38	76	5	10	43	86	5	0	0	0	2	4	0	0	50	104	48
Nyangana	24	46	15	29	39	75	3	0	9	0	1	2	0	0	52	98	53
Rundu	176	68	57	22	233	91	12	0	10	0	1	0	1	0	257	100	257
Windhoek	566	80	53	8	619	88	27	0	13	0	40	6	5	1	704	110	642
Khorixas	20	74	3	11	23	85	3	0	0	0	1	4	0	0	27	104	26
Opuwo	26	53	14	29	40	82	4	0	0	0	5	10	0	0	49	98	50
Outjo	25	71	4	11	29	83	2	0	1	0	3	9	0	0	35	109	32
Eenhana	78	80	4	4	82	84	10	0	3	0	1	1	2	2	98	102	96
Engela	395	76	33	6	428	82	12	0	27	0	48	9	5	1	520	96	541
Okongo	31	89	0	0	31	89	2	0	2	0	0	0	0	0	35	100	35
Gobabis	215	97	0	0	215	97	7	0	0	0	0	0	0	0	222	105	212
Okahao	37	77	4	8	41	85	2	0	3	0	2	4	0	0	48	94	51
Oshikuku	103	86	3	3	106	88	5	0	6	0	3	3	0	0	120	99	121
Outapi	97	72	18	13	115	85	4	0	7	0	7	5	2	1	135	94	144
Tsandi	32	86	0	0	32	86	4	0	0	0	1	3	0	0	37	103	36
Oshakati	204	81	10	4	214	85	5	0	20	0	12	5	0	0	251	99	253
Onandjokwe	180	79	19	8	199	87	15	0	8	0	7	3	0	0	229	100	229
Tsumeb	67	68	15	15	82	84	6	0	4	0	6	6	0	0	98	109	90
Grootfontein	42	34	58	47	100	81	5	0	4	0	15	12	0	0	124	114	109
Okahandja	43	84	4	8	47	92	3	0	1	0	0	0	0	0	51	75	68
Okakara	22	88	2	8	24	96	1	0	0	0	0	0	0	0	25	96	26
Otjiwarongo	62	86	7	10	69	96	2	0	0	0	1	1	0	0	72	100	72

Katima Mulilo	128	81	21	13	149	94	7	0	2	0	1	1	0	0	159	108	147
Namibia	3447	78	432	10	3879	88	187	0	159	0	179	4	16	0	4420	102	4335

Annex 8: Treatment outcomes for Previously Treated TB cases by district/region, 2014 Cohort

District	Cured		Treatment Completed		TSR		Died		Failed		LTFU		Transferred Out		Total Evaluated		Notified_2014
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Omaruru	4	67	2	33	6	100	0	0	0	0	0	0	0	0	6	120	5
Swakopmund	38	78	2	4	40	82	2	4	3	6	4	8	0	0	49	100	49
Usakos	8	62	4	31	12	92	0	0	1	8	0	0	0	0	13	100	13
Walvis Bay	83	81	5	5	88	85	2	2	9	9	3	3	1	1	103	100	103
Aranos	12	55	5	23	17	77	2	9	1	5	1	5	1	5	22	100	22
Mariental	38	66	10	17	48	83	4	7	3	5	3	5	0	0	58	98	59
Rehoboth	27	56	8	17	35	73	5	10	5	10	3	6	0	0	48	107	45
Karasburg	25	83	1	3	26	87	2	7	2	7	0	0	0	0	30	97	31
Keetmanshoop	40	60	9	13	49	73	7	10	7	10	4	6	0	0	67	97	69
Lüderitz	17	77	4	18	21	95	1	5	0	0	0	0	0	0	22	100	22
Andara	7	50	1	7	8	57	4	29	2	14	0	0	0	0	14	93	15
Nankudu	7	50	3	21	10	71	3	21	1	7	0	0	0	0	14	88	16
Nyangana	1	10	3	30	4	40	2	20	3	30	1	10	0	0	10	100	10
Rundu	12	50	4	17	16	67	0	0	7	29	1	4	0	0	24	114	21
Windhoek	136	54	55	22	191	75	15	6	9	4	37	15	1	0	253	117	216
Khorixas	0	0	1	17	1	17	2	33	2	33	1	17	0	0	6	120	5
Opuwo	5	45	1	9	6	55	0	0	2	18	3	27	0	0	11	92	12
Outjo	6	35	2	12	8	47	4	24	2	12	3	18	0	0	17	100	17
Eenhana	16	67	1	4	17	71	4	17	2	8	1	4	0	0	24	100	24
Engela	72	56	16	12	88	68	14	11	16	12	11	9	0	0	129	100	129
Okongo	15	75	0	0	15	75	1	5	3	15	1	5	0	0	20	133	15
Gobabis	101	89	1	1	102	90	7	6	4	4	0	0	0	0	113	102	111
Okahao	12	92	0	0	12	92	0	0	0	0	1	8	0	0	13	100	13
Oshikuku	13	76	3	18	16	94	0	0	1	6	0	0	0	0	17	85	20
Outapi	20	69	6	21	26	90	1	3	2	7	0	0	0	0	29	100	29
Tsandi	3	60	2	40	5	100	0	0	0	0	0	0	0	0	5	71	7
Oshakati	57	72	5	6	62	78	8	10	5	6	4	5	0	0	79	99	80
Onandjokwe	38	61	15	24	53	85	4	6	4	6	1	2	0	0	62	100	62
Tsumeb	11	24	23	51	34	76	7	16	3	7	1	2	0	0	45	136	33
Grootfontein	7	18	21	53	28	70	1	3	5	13	6	15	0	0	40	103	39
Okahandja	16	67	4	17	20	83	1	4	1	4	2	8	0	0	24	104	23

Okakara	4	50	4	50	8	100	0	0	0	0	0	0	0	0	8	100	8
Otjiwarongo	7	58	2	17	9	75	0	0	1	8	2	17	0	0	12	109	11
Katima Mulilo	20	67	4	13	24	80	3	10	2	7	1	3	0	0	30	111	27
Namibia	878	62	227	16	1105	78	106	7	108	8	95	7	3	0	1417	104	1361

Annex 9: Treatment outcomes for smear negative case by region, 2014 cohort

District	Treatment Completed		TSR		Died		Failed		LTFU		Transferred Out		Total Evaluated evaluated		Notified_2014
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Omaruru	12	86	12	86	2	14	0	0	0	0	0	0	14	140	10
Swakopmund	61	100	61	100	0	0	0	0	0	0	0	0	61	85	72
Usakos	8	80	8	80	1	10	0	0	1	10	0	0	10	111	9
Walvis Bay	87	85	87	85	10	10	0	0	5	5	0	0	102	96	106
Aranos	8	100	8	100	0	0	0	0	0	0	0	0	8	80	10
Mariental	27	87	27	87	3	10	0	0	1	3	0	0	31	72	43
Rehoboth	55	86	55	86	9	14	0	0	0	0	0	0	64	102	63
Karasburg	9	100	9	100	0	0	0	0	0	0	0	0	9	75	12
Keetmanshoop	32	71	32	71	11	24	0	0	2	4	0	0	45	96	47
Lüderitz	15	83	15	83	2	11	0	0	1	6	0	0	18	106	17
Andara	19	86	19	86	3	14	0	0	0	0	0	0	22	147	15
Nankudu	21	72	21	72	5	17	0	0	3	10	0	0	29	121	24
Nyangana	3	75	3	75	1	25	0	0	0	0	0	0	4	67	6
Rundu	126	91	126	91	12	9	1	1	0	0	0	0	139	148	94
Windhoek	146	88	146	88	12	7	0	0	6	4	2	1	166	128	130
Khorixas	5	83	5	83	1	17	0	0	0	0	0	0	6	86	7
Opuwo	26	72	26	72	6	17	0	0	4	11	0	0	36	100	36
Outjo	22	85	22	85	1	4	1	4	2	8	0	0	26	118	22
Eenhana	21	72	21	72	8	28	0	0	0	0	0	0	29	104	28
Engela	70	85	70	85	3	4	3	4	6	7	0	0	82	104	79
Okongo	6	100	6	100	0	0	0	0	0	0	0	0	6	100	6
Gobabis	75	95	75	95	4	5	0	0	0	0	0	0	79	92	86
Okahao	7	88	7	88	0	0	0	0	1	13	0	0	8	100	8
Oshikuku	33	89	33	89	2	5	1	3	1	3	0	0	37	123	30
Outapi	22	81	22	81	2	7	0	0	3	11	0	0	27	117	23
Tsandi	11	100	11	100	0	0	0	0	0	0	0	0	11	110	10
Oshakati	46	77	46	77	10	17	1	2	3	5	0	0	60	98	61

Onandjokwe	74	80	74	80	14	15	0	0	4	4	0	0	92	108	85
Tsumeb	13	72	13	72	2	11	0	0	0	0	3	17	18	100	18
Grootfontein	26	72	26	72	3	8	1	3	6	17	0	0	36	78	46
Okahandja	18	100	18	100	0	0	0	0	0	0	0	0	18	120	15
Okakara	7	64	7	64	3	27	0	0	1	9	0	0	11	122	9
Otjiwarongo	65	88	65	88	9	12	0	0	0	0	0	0	74	100	74
Katima Mulilo	152	94	152	94	9	6	0	0	0	0	0	0	161	105	154
Namibia	1328	86	1328	86	148	10	8	1	50	3	5	0	1539	106	1455

Annex 10: Treatment outcomes for EPTB case by region, 2014 cohort

District	Treatment Completed		TSR		Died		Failed		LTFU		Transferred Out		Total Evaluated		Notified_2014
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Omaruru	8	89	8	89	1	11	0	0	0	0	0	0	9	90	10
Swakopmund	61	100	61	100	0	0	0	0	0	0	0	0	61	210	29
Usakos	8	80	8	80	1	10	0	0	1	10	0	0	10	111	9
Walvis Bay	87	85	87	85	10	10	0	0	5	5	0	0	102	131	78
Aranos	8	100	8	100	0	0	0	0	0	0	0	0	8	160	5
Mariental	27	87	27	87	3	10	0	0	1	3	0	0	31	103	30
Rehoboth	55	86	55	86	9	14	0	0	0	0	0	0	64	320	20
Karasburg	9	100	9	100	0	0	0	0	0	0	0	0	9	41	22
Keetmanshoop	32	71	32	71	11	24	0	0	2	4	0	0	45	82	55
Lüderitz	15	83	15	83	2	11	0	0	1	6	0	0	18	106	17
Andara	19	86	19	86	3	14	0	0	0	0	0	0	22	138	16
Nankudu	21	72	21	72	5	17	0	0	3	10	0	0	29	132	22
Nyangana	3	75	3	75	1	25	0	0	0	0	0	0	4	133	3
Rundu	126	91	126	91	12	9	1	1	0	0	0	0	139	132	105
Windhoek	146	88	146	88	12	7	0	0	6	4	2	1	166	65	255
Khorixas	5	83	5	83	1	17	0	0	0	0	0	0	6	120	5
Opuwo	26	72	26	72	6	17	0	0	4	11	0	0	36	129	28
Outjo	22	85	22	85	1	4	1	4	2	8	0	0	26	173	15
Eenhana	21	72	21	72	8	28	0	0	0	0	0	0	29	91	32
Engela	70	85	70	85	3	4	3	4	6	7	0	0	82	106	77
Okongo	6	100	6	100	0	0	0	0	0	0	0	0	6	100	6
Gobabis	75	95	75	95	4	5	0	0	0	0	0	0	79	120	66
Okahao	7	88	7	88	0	0	0	0	1	13	0	0	8	57	14
Oshikuku	33	89	33	89	2	5	1	3	1	3	0	0	37	60	62
Outapi	22	81	22	81	2	7	0	0	3	11	0	0	27	41	66
Tsandi	11	100	11	100	0	0	0	0	0	0	0	0	11	110	10
Oshakati	46	77	46	77	10	17	1	2	3	5	0	0	60	49	123
Onandjokwe	74	80	74	80	14	15	0	0	4	4	0	0	92	115	80
Tsumeb	13	72	13	72	2	11	0	0	0	0	3	17	18	33	54
Grootfontein	26	72	26	72	3	8	1	3	6	17	0	0	36	129	28
Okahandja	18	100	18	100	0	0	0	0	0	0	0	0	18	120	15
Okakara	7	64	7	64	3	27	0	0	1	9	0	0	11	122	9
Otjiwarongo	65	88	65	88	9	12	0	0	0	0	0	0	74	370	20
Katima Mulilo	152	94	152	94	9	6	0	0	0	0	0	0	161	194	83

Namibia	1328	86	1328	86	148	10	8	1	50	3	5	0	1539	105	1469

Annex 11: Treatment outcomes Smear not done adults, 2014 cohort

District	Treatment Completed		TSR		Died		Failed		LTFU		Transferred Out		Total Evaluated		Notified_2014
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Omaruru	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Swakopmund	5	100	5	100	0	0	0	0	0	0	0	0	5	50	10
Usakos	1	100	1	100	0	0	0	0	0	0	0	0	1	100	1
Walvis Bay	8	89	8	89	0	0	0	0	1	11	0	0	9	50	18
Aranos	1	100	1	100	0	0	0	0	0	0	0	0	1	50	2
Mariental	1	33	1	33	1	33	0	0	1	33	0	0	3	150	2
Rehoboth	2	33	2	33	4	67	0	0	0	0	0	0	6	67	9
Karasburg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Keetmanshoop	1	50	1	50	1	50	0	0	0	0	0	0	2	200	1
Lüderitz	5	100	5	100	0	0	0	0	0	0	0	0	5	167	3
Andara	4	100	4	100	0	0	0	0	0	0	0	0	4	33	12
Nankudu	11	58	11	58	7	37	0	0	1	5	0	0	19	70	27
Nyangana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rundu	43	90	43	90	5	10	0	0	0	0	0	0	48	70	69
Windhoek	36	82	36	82	4	9	0	0	3	7	1	2	44	110	40
Khorixas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Opuwo	2	29	2	29	3	43	0	0	2	29	0	0	7	100	7
Outjo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eenhana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Engela	16	94	16	94	1	6	0	0	0	0	0	0	17	81	21
Okongo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gobabis	1	100	1	100	0	0	0	0	0	0	0	0	1	17	6
Okahao	3	75	3	75	1	25	0	0	0	0	0	0	4	200	2
Oshikuku	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Outapi	6	100	6	100	0	0	0	0	0	0	0	0	6	600	1
Tsandi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oshakati	6	67	6	67	1	11	0	0	2	22	0	0	9	90	10
Onandjokwe	2	100	2	100	0	0	0	0	0	0	0	0	2	100	2
Tsumeb	2	33	2	33	3	50	1	17	0	0	0	0	6	120	5
Grootfontein	4	100	4	100	0	0	0	0	0	0	0	0	4	80	5
Okahandja	1	100	1	100	0	0	0	0	0	0	0	0	1	100	1

Okakara	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Otjiwarongo	4	50	4	50	4	50	0	0	0	0	0	0	8	100	8
Katima Mulilo	26	93	26	93	2	7	0	0	0	0	0	0	28	122	23
Namibia	191	80	191	80	37	15	1	0	10	4	1	0	240	79	304

Annex 12: Treatment outcomes smear not done children, 2014 cohort

District	**Treatment completed**		**TSR**		**Died**		**Failed**		**LTFU**		**Transferred Out**		**Total Evaluated**		**Notified_2014**
	n		n		n		n		n		n		n		n
Omaruru	1	100	1	100	0	0	0	0	0	0	0	0	1	33	3
Swakopmund	9	100	9	100	0	0	0	0	0	0	0	0	9	90	10
Usakos	1	100	1	100	0	0	0	0	0	0	0	0	1	100	1
Walvis Bay	7	88	7	88	1	12.5	0	0	0	0	0	0	8	89	9
Aranos	2	100	2	100	0	0	0	0	0	0	0	0	2	100	2
Mariental	3	100	3	100	0	0	0	0	0	0	0	0	3	50	6
Rehoboth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Karasburg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Keetmanshoop	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lüderitz	1	100	1	100	0	0	0	0	0	0	0	0	1	100	1
Andara	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Nankudu	20	95	20	95	1	5	0	0	0	0	0	0	21	105	20
Nyangana	3	100	3	100	0	0	0	0	0	0	0	0	3	100	3
Rundu	19	100	19	100	0	0	0	0	0	0	0	0	19	90	21
Windhoek	37	95	37	95	1	3	0	0	1	3	0	0	39	78	50
Khorixas	1	100	1	100	0	0	0	0	0	0	0	0	1	100	1
Opuwo	4	80	4	80	1	20	0	0	0	0	0	0	5	100	5
Outjo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eenhana	0	0	0	0	4	100	0	0	0	0	0	0	4	400	1
Engela	24	96	24	96	0	0	0	0	1	4	0	0	25	68	37
Okongo	1	100	1	100	0	0	0	0	0	0	0	0	1	100	1
Gobabis	23	100	23	100	0	0	0	0	0	0	0	0	23	72	32
Okahao	3	100	3	100	0	0	0	0	0	0	0	0	3	43	7
Oshikuku	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Outapi	5	50	5	50	2	20	0	0	3	30	0	0	10	63	16
Tsandi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oshakati	6	75	6	75	2	25	0	0	0	0	0	0	8	100	8
Onandjokwe	4	100	4	100	0	0	0	0	0	0	0	0	4	100	4
Tsumeb	6	75	6	75	2	25	0	0	0	0	0	0	8	80	10
Grootfontein	8	80	8	80	2	20	0	0	0	0	0	0	10	100	10

Okahandja	3	100	3	100	0	0	0	0	0	0	0	0	3	100	3
Okakara	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Otjiwarongo	6	85.714	6	85.714	1	14	0	0	0	0	0	0	7	100	7
Katima Mulilo	2	100	2	100	0	0	0	0	0	0	0	0	2	33	6
Namibia	199	90	199	90	17	8	0	0	5	2	0	0	221	80	276

Annex 13: Treatment outcomes for other forms of TB cases, 2014 cohort

District	Treatment Completed		TSR		Died		Failed		LTFU		Transferred Out		Total Evaluated		Notified_2014
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Omaruru	0	0	0	0	1	100	0	0	0	0	0	0	1	100	1
Swakopmund	17	74	17	74	5	22	0	0	1	4	0	0	23	85	27
Usakos	13	59	13	59	8	36	0	0	1	5	0	0	22	157	14
Walvis Bay	61	81	61	81	9	12	3	4	1	1	1	1	75	100	75
Aranos	8	80	8	80	0	0	0	0	2	20	0	0	10	111	9
Mariental	10	59	10	59	4	24	0	0	3	18	0	0	17	100	17
Rehoboth	13	72	13	72	5	28	0	0	0	0	0	0	18	95	19
Karasburg	8	89	8	89	1	11	0	0	0	0	0	0	9	150	6
Keetmanshoop	27	87	27	87	2	6	0	0	2	6	0	0	31	97	32
Lüderitz	5	63	5	63	3	38	0	0	0	0	0	0	8	73	11
Andara	2	67	2	67	1	33	0	0	0	0	0	0	3	100	3
Nankudu	17	81	17	81	4	19	0	0	0	0	0	0	21	124	17
Nyangana	0	0	0	0	2	100	0	0	0	0	0	0	2	100	2
Rundu	20	87	20	87	3	13	0	0	0	0	0	0	23	92	25
Windhoek	68	75	68	75	7	8	1	1	15	16	0	0	91	108	84
Khorixas	1	100	1	100	0	0	0	0	0	0	0	0	1	50	2
Opuwo	7	54	7	54	2	15	0	0	4	31	0	0	13	100	13
Outjo	2	50	2	50	2	50	0	0	0	0	0	0	4	100	4
Eenhana	5	71	5	71	2	29	0	0	0	0	0	0	7	70	10
Engela	31	91	31	91	2	6	1	3	0	0	0	0	34	89	38
Okongo	2	67	2	67	1	33	0	0	0	0	0	0	3	100	3
Gobabis	15	88	15	88	2	12	0	0	0	0	0	0	17	89	19
Okahao	2	100	2	100	0	0	0	0	0	0	0	0	2	100	2
Oshikuku	13	76	13	76	1	6	3	18	0	0	0	0	17	100	17
Outapi	13	59	13	59	2	9	0	0	7	32	0	0	22	110	20
Tsandi	5	63	5	63	2	25	0	0	1	13	0	0	8	89	9
Oshakati	34	74	34	74	5	11	3	7	4	9	0	0	46	100	46
Onandjokwe	28	93	28	93	2	7	0	0	0	0	0	0	30	97	31

Tsumeb	2	29	2	29	2	29	2	29	1	14	0	0	7	29	24
Grootfontein	6	75	6	75	1	13	0	0	1	13	0	0	8	89	9
Okahandja	8	80	8	80	2	20	0	0	0	0	0	0	10	200	5
Okakara	1	100	1	100	0	0	0	0	0	0	0	0	1	33	3
Otjiwarongo	19	83	19	83	2	9	0	0	2	9	0	0	23	96	24
Katima Mulilo	38	84	38	84	2	4	1	2	4	9	0	0	45	74	61
Namibia	501	77	501	77	87	13	14	2	49	8	1	0	652	96	682

Annex 14: Treatment outcomes for TB/HIV all forms by district/region, 2014 cohort

Regions/Districts	Cured		Treatment-Completed		Died		Failure		LTFU		Not evaluated		Total evaluated		Total notified 2014
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n
Omaruru	13	46	8	29	5	18	1	4	1	4	0	0	28	97	29
Swakopmund	40	36	57	51	10	9	2	2	3	3	0	0	112	106	106
Usakos	12	35	15	44	6	18	0	0	1	3	0	0	34	106	32
Walvisbay	91	39	115	49	21	9	3	1	6	3	0	0	236	103	229
Erongo	156	38	195	48	42	10	6	1	11	3	0	0	410	104	396
Aranos	16	36	20	45	3	7	4	9	1	2	0	0	44	169	26
Mariental	38	38	35	35	9	9	2	2	12	12	3	3	99	105	94
Rehoboth	36	29	61	50	21	17	2	2	3	2	0	0	123	113	109
Hardap	90	34	116	44	33	12	8	3	16	6	3	1	266	116	229
Karasburg	40	56	22	31	6	8	3	4	0	0	0	0	71	127	56
Keetmanshoop	39	34	46	40	19	16	4	3	8	7	0	0	116	83	140
Lüderitz	26	50	22	42	4	8	0	0	0	0	0	0	52	93	56
//Kharas	105	44	90	38	29	12	7	3	8	3	0	0	239	95	252
Andara	24	35	30	43	14	20	1	1	0	0	0	0	69	99	70
Nankudu	11	22	26	51	8	16	1	2	5	10	0	0	51	109	47
Nyangana	11	41	8	30	3	11	5	19	0	0	0	0	27	93	29
Rundu	42	20	145	69	13	6	10	5	1	0	0	0	211	81	261
Kavango	88	25	209	58	38	11	17	5	6	2	0	0	358	88	407
Windhoek	293	39	309	41	57	8	16	2	71	9	11	1	757	124	611
Khomas	293	39	309	41	57	8	16	2	71	9	11	1	757	124	611
Khorixas	2	13	8	50	5	31	1	6	0	0	0	0	16	94	17
Opuwo	8	16	24	47	10	20	1	2	7	14	1	2	51	100	51
Outjo	7	18	20	50	4	10	3	8	5	13	1	3	40	114	35
Kunene	17	16	52	49	19	18	5	5	12	11	2	2	107	104	103
Eenhana	38	43	25	28	21	24	2	2	2	2	1	1	89	99	90
Engela	154	52	79	27	20	7	13	4	24	8	4	1	294	96	307
Okongo	10	59	4	24	2	12	1	6	0	0	0	0	17	81	21
Ohangwena	202	51	108	27	43	11	16	4	26	7	5	1	400	96	418
Gobabis	64	50	50	39	13	10	2	2	0	0	0	0	129	100	129
Omaheke	64	50	50	39	13	10	2	2	0	0	0	0	129	100	129
Okahao	18	42	16	37	3	7	4	9	2	5	0	0	43	100	43
Oshikuku	34	37	52	56	3	3	3	3	1	1	0	0	93	95	98
Outapi	35	38	39	42	9	10	0	0	8	9	2	2	93	99	94

Tsandi	16	52	9	29	5	16	0	0	1	3	0	0	31	97	32
Omusati	103	40	116	45	20	8	7	3	12	5	2	1	260	97	267
Oshakati	91	39	99	42	25	11	6	3	15	6	0	0	236	91	260
Oshana	91	39	99	42	25	11	6	3	15	6	0	0	236	91	260
Onandjokwe	76	35	108	49	22	10	4	2	9	4	0	0	219	94	232
Tsumeb	41	28	59	40	37	25	4	3	8	5	0	0	149	155	96
Oshikoto	117	32	167	45	59	16	8	2	17	5	0	0	368	112	328
Grootfontein	8	11	45	61	6	8	1	1	14	19	0	0	74	104	71
Okahandja	37	58	18	28	8	13	1	2	0	0	0	0	64	102	63
Okakarara	13	65	5	25	2	10	0	0	0	0	0	0	20	95	21
Otjiwarongo	26	22	73	61	17	14	0	0	3	3	0	0	119	100	119
Otjozondjupa	84	30	141	51	33	12	2	1	17	6	0	0	277	101	274
Katima Mulilo	88	32	156	57	24	9	3	1	3	1	0	0	274	86	320
Zambezi	88	32	156	57	24	9	3	1	3	1	0	0	274	86	320
Namibia	1498	37	1808	44	435	11	103	3	214	5	23	1	4081	102	3994

Annex 15: Summary of DR TB Statistics January - December 2015

District	XDR	PDR	MDR	Rif Mono	Rif Xpert	Suspected / other
Erongo	1	0	28	0	9	0
Swakopmund	0	0	9	0	1	0
Usakos	0	0	1	0	0	0
Walvis Bay	1	0	18	0	8	0
Hardap	0	1	6	2	7	1
Mariental	0	1	5	2	7	0
Rehoboth	0	0	1	0	0	1
Karasburg	0	0	2	0	0	0
Keetmanshoop	0	1	3	0	1	0
Lüderitz	0	0	1	0	0	0
Kavango	0	0	31	1	25	1
Andara	0	0	5	0	4	0
Nankudu	0	0	3	0	0	0
Nyangana	0	0	3	0	3	0
Rundu	0	0	20	1	18	1
Khomas	2	1	29	2	19	1
Windhoek	2	1	29	2	19	1
Kunene	0	0	2	1	2	0

Khorixas	0	0	2	0	1	0
Outjo	0	0	0	1	1	0
Ohangwena	0	2	15	4	18	1
Eenhana	0	0	4	1	1	0
Engela	0	1	10	2	17	1
Okongo	0	1	1	1	0	0
Omaheke	0	1	4	0	0	0
Gobabis	0	1	4	0	0	0
Omusati	0	0	10	3	5	0
Okahao	0	0	4	1	0	0
Oshikuku	0	0	4	2	3	0
Outapi	0	0	2	0	2	0
Oshana	0	1	26	2	13	0
Oshakati	0	1	26	2	13	0
Oshikoto	0	1	7	0	8	0
Onadjokwe	0	1	4	0	7	0
Tsumeb	0	0	3	0	1	0
Otjozondjupa	0	2	15	2	9	0
Grootfontein	0	0	9	2	9	0
Okahandja	0	2	2	0	0	0
Okakarara	0	0	2	0	0	0
Otjiwarongo	0	0	2	0	0	0
Zambezi	0	0	11	0	1	0
Katima Mulilo	0	0	11	0	1	0
Namibia	3	10	190	17	117	4

Annex 16: DR TB Treatment Outcomes, 2013 cohort

District/Region	Cured	Treatment completed	TSR	Defaulted	Died	Failed	Not evaluated	Total
Walvis Bay	7	3	67%	1	4	0	0	15
Erongo	7	3	67%	1	4	0	0	15
Mariental	4	1	63%	2	1	0	0	8
Hardap	4	1	63%	2	1	0	0	8
Keetmanshoop	7	0	70%	1	2	0	0	10
Karas	7	0	70%	1	2	0	0	10
Nankudu	0	0	0%	0	1	0	0	1
Nyangana	0	1	100%	0	0	0	0	1
Rundu	0	30	73%	1	8	0	2	41
Kavango	0	31	72%	1	9	0	2	43
Windhoek	24	10	68%	8	6	0	2	50
Khomas	24	10	68%	8	6	0	2	50
Opuwo	0	0	0%	0	1	0	0	1
Outjo	1	0	100%	0	0	0	0	1
Kunene	1	0	50%	0	1	0	0	2
Eenhana	2	1	43%	2	2	0	0	7
Engela	5	14	56%	5	7	0	3	34
Okongo	1	0	100%	0	0	0	0	1
Ohangwena	8	15	55%	7	9	0	3	42
Gobabis	9	0	90%	0	0	0	1	10
Omaheke	9	0	90%	0	0	0	1	10
Okahao	0	0	0%	2	0	0	1	3
Oshikuku	6	0	67%	0	3	0	0	9
Outapi	3	0	43%	0	4	0	0	7
Omusati	9	0	47%	2	7	0	1	19
Oshakati	17	7	63%	5	9	0	0	38
Oshana	17	7	63%	5	9	0	0	38
Onandjokwe	7	3	63%	2	4	0	0	16
Oshikoto	7	3	63%	2	4	0	0	16
Grootfontein	3	11	54%	3	5	4	0	26
Otjiwarongo	1	0	50%	0	0	1	0	2
Otjozondjupa	4	11	54%	3	5	5	0	28
Katima Mulilo	1	0	14%	3	2	0	1	7
Zambezi	1	0	14%	3	2	0	1	7

NAMIBIA	98	81	62%	35	59	5	10	288

Annex 17: MDR-TB Treatment Outcomes, 2013 cohort

Region	Cured	Treatment completed	TSR	LTFU	Died	Failed	On treatment	Total
Erongo	5	2	64%	1	3	0	0	11
Hardap	3	0	75%	1	0	0	0	4
Karas	4	0	80%	1	0	0	0	5
Kavango	0	21	72%	0	6	0	2	29
Khomas	15	7	76%	3	3	0	1	29
Kunene	1	0	50%	0	1	0	0	2
Ohangwena	5	10	54%	6	6	0	1	28
Omaheke	5	0	100%	0	0	0	0	5
Omusati	7	0	58%	1	3	0	1	12
Oshana	11	7	69%	1	7	0	0	26
Oshikoto	5	1	67%	0	3	0	0	9
Otjozondjupa	2	5	50%	2	2	3	0	14
Zambezi	1	0	17%	3	1	0	1	6
Namibia	64	53	65%	19	35	3	6	180

Annex 18: Treatment outcomes for PDR-TB cases, 2013 cohort

Region	Cured	Treatment completed	TSR	LTFU	Died	Failed	Not evaluated	Total
Erongo	1	1	100%	0	0	0	0	2
Karas	1	0	100%	0	0	0	0	1
Kavango	0	0	0%	0	1	0	0	1
Khomas	2	0	67%	1	0	0	0	3
Ohangwena	0	1	50%	0	0	0	1	2
Oshana	0	0	0%	0	1	0	0	1
Oshikoto	0	0	0%	1	0	0	0	1
Otjozondjupa	1	1	67%	0	0	1	0	3
Namibia	5	3	57%	2	2	1	1	14

Annex 19: Treatment outcomes for XDR-TB cases, 2013 cohort

Region	TSR	LTFU	Died	Failed	Total
Khomas	0%	1	0	0	1
Ohangwena	0%	0	1	0	1
Otjozondjupa	0%	1	1	1	3
Namibia	0%	2	2	1	5

Annex 20: Treatment Outcomes for rifampicin resistant on gene Xpert DR-TB cases, 2013 cohort

Region	Cured	Treatment completed	TSR	LTFU	Died	Not evaluated	Total
Erongo	0	0	0%	0	1	0	1
Hardap	1	1	50%	1	1	0	4
Karas	2	0	50%	0	2		4
Kavango	0	9	82%	1	1	0	11
Khomas	2	1	43%	2	2	0	7
Ohangwena	3	4	70%	1	1	1	10
Omaheke	1	0	100%	0	0	0	1
Omusati	2	0	40%	0	3	0	5
Oshana	6	0	67%	2	1	0	9
Oshikoto	1	2	60%	1	1	0	5
Otjozondjupa	1	5	86%	0	1	0	7
Namibia	19	22	64%	8	14	1	64

Annex 21: Treatment outcomes rifampicin mono resistant DR-TB cases, 2013 cohort

Region	Cured	Treatment completed	TSR	LTFU	Died	On treatment	Total
Erongo	1	0	100%	0	0	0	1
Kavango	0	0	0%	0	1	0	1
Khomas	3	1	67%	1	1	0	6
Ohangwena	0	0	0%	0	1	0	1
Omaheke	2	0	67%	0	0	1	3
Omusati	0	0	0%	1	0	0	1
Oshana	0	0	0%	2	0	0	2
Oshikoto	1	0	100%	0	0	0	1
Otjozondjupa	0	0	0%	0	1	0	1
Zambezi	0	0	0%	0	1	0	1
Namibia	7	1	44%	4	5	1	18

Annex 22: TB infection control, contact investigation and other programmatic indicators, 2015

District	#Contacts Investigated_Male	#Contacts Investigated_Fem	#Contacts TBDxMale	#Contacts TBDxFem	HCWDiagnosedTB_Male	HCWDiagnosedTB_Fem	HCW_Trained_Lep_Male	HCW_Trained_Lep_Fem	Presumptive Cases_Sp	Presumptive Cases_Sp	PresumptiveTB_B+Male	PresumptiveTB_B+Fem
Omaruru	81	109	2	4	0	0	0	4	0	0	0	0
Swakopmund	281	281	4	5	0	2	1	12	0	0	0	0
Usakos	120	182	3	0	0	1	1	4	0	0	0	0
Walvis Bay	238	237	17	21	0	0	2	10	0	0	0	0
Aranos	170	152	5	3	0	1	0	3	285	261	27	25
Mariental	185	201	23	21	1	0	0	0	613	391	137	81
Rehoboth	204	280	13	23	0	1	0	0	758	595	143	61
Karasburg	205	279	2	3	0	0	0	0	486	468	45	37
Keetmanshoop	394	394	18	11	1	0	28	20	1026	811	130	62
Lüderitz	111	149	0	0	3	0	0	0	251	187	44	29
KavAndara	286	338	4	4	2	2	0	0	0	0	0	0
Nankudu	338	459	0	0	0	1	3	0	123	69	15	8
Nyangana	57	104	0	0	1	0	0	1	50	47	20	12
Rundu	960	1194	114	127	1	2	6	1	1271	2019	156	120
Windhoek	136	232	13	5	2	1	4	41	600	352	28	14
Khorixas	39	122	2	3	0	0	1	11	54	69	23	21
Opuwo	75	99	5	4	0	0	5	4	310	403	45	29
Outjo	190	226	4	4	0	0	4	5	256	166	29	18
Eenhana	67	71	6	4	1	0	0	0	121	154	22	14
Engela	400	463	53	32	1	12	44	60	333	777	260	388
Okongo	263	286	9	9	0	0	0	0	140	135	9	9
Gobabis	962	686	8	9	0	0	5	29	276	236	89	64
Okahao	37	45	1	0	1	0	0	0	0	0	0	0
Oshikuku	47	102	4	9	0	0	0	0	827	931	105	73
Outapi	66	58	5	6	0	0	0	0	0	0	18	31
Tsandi	73	132	0	1	0	2	0	4	90	188	25	20
Oshakati	643	1006	12	16	2	7	0	0	457	467	112	71
Onandjokwe	254	409	18	8	0	3	3	14	0	0	0	0
Tsumeb	104	107	2	2	0	0	1	3	7	10	2	2
Grootfontein	91	104	9	7	1	1	1	6	0	0	0	0
Okahandja	72	98	4	3	0	0	0	2	105	152	12	9
Okakara	14	50	1	1	0	0	0	2	0	0	0	0
Otjiwarongo	193	121	0	1	0	0	2	0	0	0	0	0

Katima Mulilo	422	630	0	0	1	1	2	6	1303	943	144	93
Namibia	7778	9406	361	346	18	37	113	242	9742	9831	1640	1291

Annex 23: NCS Statistics as at 01st February 2016

NCS Facility	Number of NCS Staff	Size of correctional facility	Design capacity	Number of adults (18 yrs. and older)	Number of sentenced offenders	Number of unsentenced offenders	Number of inmates diagnosed with TB
Windhoek	464	783	912	805	624	101	13
Hardap	188	415	941	520	414	1	7
Oluno	206	646	557	531	591	68	9
Walvisbay	121	265	300	103	250	0	0
Omaruru	53	81	59	92	81	0	0
Grootfontein	61	143	70	94	143	0	2
Swakopmund	53	62	88	98	62	0	3
Keetmanshoop	52	67	110	68	65	3	1
Lüderitz	63	63	290	149	61	0	6
Gobabis	52	143	220	124	138	68	4
Elizabeth	159	220	320	285	220	0	6
Divundu	118	267	480	231	267	0	3
Evaristus Shikongo	117	223	128	298	223	0	5
Lucius S Mahoto/ Training College	32						0
Namibia	1,739	3,378	4475	3,398	3,139	241	59

Annex 24: NTLP Expenditure 2015

	Actual expenditure(USD)	Received funding(USD)		
Laboratory infrastructure, equipment and supplies	4134175	4134175		

National TB Programme staff (central unit staff and sub national TB staff)	2060000	2060001		
Drug-susceptible TB: drugs	294916	294916		
Drug-susceptible TB: programme costs	10910912	10910912		
Drug-resistant TB: drugs	656712	656712		
Drug-resistant TB: programme costs	300000	30000		
Collaborative TB/HIV activities	4500000	6330000		
Patient support	1250000	1250000		
Operational research and surveys	1313285	133285		
All other budget lines for TB				
Total	25420000	27250000		
Source	Received funding			
Domestic (including loans)	18100000			
Global Fund	6800000			
USAID	1150000			
Other sources	1200000			
Total received funding	27250000			

Line item	Budget required (2016); USD	Expected funding (2016); USD	Gap (2016); USD
Laboratory infrastructure, equipment and supplies	6161952	3958797	2203155
National TB Programme staff (central unit staff and subnational TB staff)	2535927	1123600	1412327
Drug-susceptible TB: drugs	750050	750050	0
Drug-susceptible TB: programme	13942206	12500000	1442206
Drug-resistant TB: drugs [l]	820000	820000	0
Drug-resistant TB: programme costs [m]	471693	100000	371693
Collaborative TB/HIV activities [n]	6711168	6711168	0
Patient support [o]	5575065	2800000	2775065

Operational research and surveys [p]	1500000	850000	650000
All other budget lines [q]			0
Total	38468061	29613615	8854446
Funding source	Expected funding		
Domestic (including loans)	19501055		
Global Fund	7250240		
USAID	1399301		
Other sources	1463019		
Total expected funding	29613615		

Annex 25: TB and leprosy related trainings conducted in 2015

TB training for medical officers and pharmacists		
Region	Number trained	Training venue
Training for MoSS staff on TB	24	Omaruru (Luscious S Mahoto)
Training for MoSS staff on TB	26	Ondangwa (Ruben Danger Ashipala)
Training for CBTBC Implementers on the national TB Guidelines	54	regions
Training on electronic TB reporting and recording systems	26	Out of Africa lodge
Training on electronic TB reporting and recording systems	24	C`esti Bon Hotel
Training on Programmatic Management of Drug Resistant TB		9 regions
Training for health care workers on TB/HIV	60	(Engela, Oshakati, Katima Mulilo and Windhoek)
Training for laboratory personnel on laboratory biosafety	20	Engela, Oshakati, Katima Mulilo and Windhoek
Training for Life Style Ambassadors on TB	154	Oshana, Omusati
Training for nurses on the national TB guidelines	21	

Annex 26: List of major partners in TB Control in the Namibia and service provided

Organisation	Service provided
USAID	Technical and Financial support
KNCV Tuberculosis Foundation	Technical and Financial Community based TB care Programme Management PMDT, including Infection Control TB/HIV Collaborative Activities Public Private Mix
CDC Namibia	Technical and Financial support Laboratory strengthening (indirect) Human resources
Global Fund	Financial support Human resources Facility renovations Community based DOT Programme management
NGOs (Penduka TB, Project HOPE, CoHeNa, Namibia Red Cross Society, Health Poverty Action, Johanitter Hilfswerk, Health Works)	Community Based TB care Providers (CBTBC)
NIP	Laboratory services
World Health Organisation	Technical support to all programme activities
International Training and Education Centre on Health (I-TECH)	Health worker training
Management Sciences for Health	Pharmaceutical technical support

[i] SS- data reflected in the regional reports included SND adults and SND children in previous reports and therefore cases in "others category" may differ in this report. Data on SND adults and SND children are not available from 2004-2007, hence the zero may not necessarily mean there were no cases for these categories.